Identifying, Annotating, and Filtering Arguments and Opinions in Open Collaboration Systems

Jodi Schneider

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SUPERVISORS:

Dr. Alexandre Passant, Dr. John Breslin, and Prof. Dr. Stefan Decker

INTERNAL EXAMINER: EXTERNAL EXAMINER:

Prof. Dr. Siegfried Handschuh   **Prof. Dr. Simon Buckingham Shum**

Digital Enterprise Research Institute (DERI),

National University of Ireland, Galway

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Abstract

The World Wide Web enables large-scale collaboration, even between groups of individuals previously unknown to one another. These collaborations produce tangible outputs, such as encyclopedias (Wikipedia), electronic books (Distributed Proofreaders), maps (OpenStreetMap) and open source software packages (Firefox). In such open collaborations systems, decisions are made through open online discussions, based on the written arguments and opinions that individuals contribute, sometimes in large volumes.

Sense-making and coordination is an important component of collaboration, but it is particularly challenging when individuals disagree. When large volumes of opinions and arguments are expressed, coarse approaches such as sampling, sentiment, or voting can help reveal the most popular or emotive choices. But these approaches do not identify the reasons for disagreement, which may be needed in order to reach decisions. For example, about 500 discussions each week in Wikipedia concern whether a particular topic should be covered in the encyclopedia. These discussions may involve comments from 2–200 people, and some topics are contentious.

This thesis addresses the problem of analyzing, integrating, and reconciling arguments and opinions in goal-oriented online discussions. The thesis addresses the following three research questions:

1. What are the opportunities and requirements for providing argumentation support?

2. Which arguments are used in open collaboration systems?

3. How can we structure and display arguments and opinions to support filtering?

In the thesis, we provide a novel procedure for supporting human reasoning over argumentative discussions. Our procedure has four phases: Selection & Requirements Analysis, Categorization, Structuring & Prototyping, and Evaluation.

- *Selection & Requirements Analysis* consists of selecting a community of interest, characterizing the argumentation support needs, and choosing a sample corpus.

- *Categorization* means categorizing the sample iteratively based on argumentation theories, validating the coding, and choosing which categorization scheme best matches the requirements.

- *Structuring & Prototyping* consists of devising an ontology (based on the requirements and categories from the previous two phases), structuring the data according to the ontology, then deploying a new ontology-based interface for task-based support of human reasoning.

- *Evaluation* demonstrates the utility of the prototype and generates ideas for improving it.

Our procedure combines ethnography, iterative annotation, ontology development, and user-based evaluation to develop and test a task-based argumentation support system. The novelty of our procedure is its combination of Semantic Web application development with human-centered interaction design methodologies.

We apply our procedure to information quality assurance discussions on Wikipedia, the world's sixth most popular website. Information quality assurance is collective, crowd-work in Wikipedia, undertaken by groups of self-nominated individuals: anyone can contribute arguments to ongoing discussions that determine what content is deemed inappropriate and deleted from the collaboratively-written encyclopedia. We show how generic features of open collaboration systems (e.g. policies and frequent newcomers) impact the content deletion process; thus our work has implications for understanding content management procedures and collective discussions on other open collaboration systems.

We develop a community-validated description of the workflow of Wikipedia's content deletion discussions, which helps us characterize the argumentation support needs of our case study. By reading and interpreting documents and discussions, contributing to discussions as a participant-observer, and interviewing participants, we identify the three key argumentative tasks to be supported. These argumentative tasks for making collective decisions—determining one's own opinion, commenting according to community standards, and finding the consensus of a discussion—are applicable in any open collaboration system.

For structuring arguments from the Social Web, we contribute a concrete use case of argumentation. We determine the most common arguments given in Wikipedia's information quality assurance discussions. Existing generic patterns used for the emerging World Wide Argument Web have shortcomings for task-based argumentation work. Consequently, we develop community-specific decision factors using grounded theory. The arguments are well-represented by just four decision factors: Notability, Sources, Maintenance, and Bias. Together, these four factors completely describe 70% of discussions and over 90% of comments. We find that these decision factors are appropriate for two of our three argumentative tasks: determining one's own opinion and finding the consensus of a discussion. Our work contributes a novel corpus structured with Walton's argumentation schemes and may be the first application of the argumentation theory of factors outside the legal domain.

We also develop an ontology for informal argumentation in Wikipedia deletion discussions, and use it to create a task-based interface that supports consensus-finding for deletion discussions in the English-language Wikipedia. In a user-based evaluation, our interface provides statistically significant improvements over the native Wikipedia discussion interface in terms of perceived usefulness, perceived ease of use, and information completeness. In our pilot study, 16 of 19 participants (84%) preferred our argumentation support interface over the native Wikipedia discussion interface.

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Introduction & Background

Chapter 1.

Introduction

1.1. Overview

The World Wide Web enables large-scale collaboration, even between groups of individuals previously unknown to one another. These collaborations produce tangible outputs, such as encyclopedias (Wikipedia[1]), electronic books (Project Gutenberg's Distributed Proofreaders[2]), and maps (OpenStreetMap[3]) as well as numerous open source software packages (including Mozilla Firefox[4] and the Apache HTTP Server[5]). In such open collaboration systems, decisions are made through open online discussions in which anyone can participate, and those decisions are based on the written arguments and opinions that individuals contribute, sometimes in large volumes.

Sense-making and coordination is an important component of large-scale collaboration, but it is particularly challenging when individuals disagree. When large volumes of opinions and arguments are expressed, coarse approaches such as sampling, sentiment, or voting can help reveal the most popular or emotive choices. But these approaches do not identify the reasons for disagreement, which may be needed in order to reach decisions or make compromise agreements. For example, about 500 discussions each week in Wikipedia concern whether a particular topic should be covered in the encyclopedia. Discussions may involve comments from 2–200 people, and some topics are contentious.[6]

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[1]http://www.wikipedia.org/
[2]http://www.pgdp.net/
[3]http://www.openstreetmap.org/
[4]http://www.mozilla.org/firefox/
[5]http://httpd.apache.org/
[6]Topics that generate the longest discussions tend to be repeatedly discussed, twenty-two times in one case (Taraborelli and Ciampaglia 2010).

This thesis addresses the problem of analyzing, integrating, and reconciling arguments and opinions in goal-oriented online discussions. We emphasize the structure of arguments by providing a new, reconfigurable Web interface. Our interface improves the perceived usefulness, perceived ease of use, and information completeness, thus providing meaningful support for the discussion.

1.2. Background

1.2.1. Arguments

An argument is a communication presenting reasons for accepting a conclusion. Unlike proofs that lead step-by-step from premises with logical justifications for a conclusion, arguments are non-monotonic and can be disproven. Arguments may use various approaches including generalization, analogy, inference, and prediction. We further introduce argumentation in Chapter 2, where we provide examples of arguments in online discussions and show that online discussions vary significantly, for instance based on their purpose. That will lead us to narrow our investigation to arguments within a particular type of online environment: open collaboration systems.

1.2.2. Open collaboration systems

In open collaboration systems, "people form ties with others and create things together" (Forte and Lampe 2013). We have mentioned several examples of online collaboration system, including Wikipedia, OpenStreetMap, and Distributed Proofreaders and many open source software packages. Arguments are important in open collaboration systems: decisions are made through open online discussions in which anyone can participate, and those decisions are based on the written arguments and opinions that individuals contribute.

To formalize this conception of open collaboration systems, we follow leading Social Computing researchers Forte and Lampe, and define an open collaboration system as

an online environment that

(1) supports the collective production of an artifact

(2) through a technologically mediated collaboration platform

(3) that presents a low barrier to entry and exit, and

(4) supports the emergence of persistent but malleable social structures. (Forte and Lampe 2013)

We revisit this definition in Chapter 5 where we introduce a use case: information quality management discussions in Wikipedia. Like many open collaboration systems, Wikipedia relies on the World Wide Web.

1.2.3. The World Wide Web

The World Wide Web was intended as "a universal medium for sharing information" (Berners-Lee and Fischetti 2000, p. 84). The first Web server went online in 1990,[7] and about a year later, Tim Berners-Lee and Robert Cailliau demonstrated it to the Hypertext 1991 conference.

Web-enabled communication transcends the inherent limitations of physical manifestations. Ramifications include simultaneous access based on a single digital original; nearly-instantaneous publishing to a global audience; and distribution costs that scale well, growing slowly after the first copy. Multiple forms of media (text, audio, still images, animation, video footage, etc.) and interactive elements are increasingly integrated into documents, enabling routine multimedia and hypertext communication. The Social Web brings interactivity, such as easy Web authoring,[8] to the Web. The Semantic Web allows information to be structured. We will further discuss structuring technologies, especially argument structuring technologies, in Chapter 3.

The goal of this thesis is to use Web technology to make a reconfigurable interface for filtering arguments in open collaboration systems.

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[7]As documented by inventor Tim Berners-Lee, "The WorldWideWeb browser/editor was working on my machine and Robert's, communicating over the Internet with the info.cern.ch server by Christmas Day 1990" (Berners-Lee and Fischetti 2000, p. 30).

[8]Authoring as well as editing hypertext Web documents was possible in the early Web browser Amaya (1996) http://www.w3.org/Amaya/. But many Web browsers omitted editing functionality.

1.3. Envisioning symbolic and machine support for argumentation

Arguments are important in human reasoning. We make arguments in science, to establish knowledge based on evidence, and in everyday life, to justify a course of action or persuade others. Yet on the Web, there is no special means of displaying arguments, for instance to distinguish claims and evidence, show opposing claims. Ideas for argumentation support, often focusing around finding 'the right answer' based on arguments, predate the Web.

1.3.1. Before the Web

Vannevar Bush and Gottfried Wilhelm Leibniz

In 1945, Vannevar Bush wrote, "We may some day click off arguments on a machine with the same assurance that we now enter sales on a cash register" (Bush 1945). This was but one vision amongst many that the engineer and science administrator—then Director of the U.S. Office of Scientific Research and Development—described in his essay, "As We May Think", written at the end of World War II. The essay, aimed at the general public, and published in a literary magazine, envisioned the future of information processing. It is better remembered for the device—the Memex—Bush envisioned, a desk and information storage device which allowed associative trails of information to be tied together, not unlike modern hypertext. In fact, Emanuel Goldberg had invented and patented such a 'statistical machine' for document selection and retrieval in microfilm (see the chapters 'Statistical Machine' and 'The Microfilm Rapid Selector' in Buckland 2006).

Bush's notion of a 'cash register' for arguments recalls earlier notions, especially that of Leibniz, who envisioned disagreements becoming unnecessary, resolved immediately by use of symbolic calculations:

> ...there would be no more need of disputation between two philosophers than between two accountants. For it would suffice to take their pencils in their hands, to sit down to their slates (abacos), and to say to each other...: Let us calculate. (from *The Combinatorial Art*, 1666 Leibniz 1890, p. 200)

But calculation is just one notion of argumentation support envisioned before the Web.

Douglas Engelbart

Douglas Engelbart analyzed Bush's vision and amplified it. His 1962 report to the U. S. Air Force Office of Scientific Intelligence described the human as a composite system—"Human using Language, Artifacts, Methodology, in which he is Trained" (H-LAM/T). According to (Engelbart 1962), slow and evolutionary changes could increase a person's overall effectiveness, and ultimately augment human intellect.

For instance, small changes in symbol structuring can have a large impact on human understanding and information processing:[9]

> A given structure of concepts can be represented by any of an infinite number of different symbol structures, some of which would be much better than others for enabling the human perceptual and cognitive apparatus to search out and comprehend the conceptual matter of significance and/or interest to the human. For instance, a concept structure involving many numerical data would generally be much better represented with Arabic rather than Roman numerals and quite likely a graphic structure would be better than a tabular structure. (Engelbart 1962, p. 44)

To this end, Engelbart suggests using symbolic representations for arguments. Making argument structures easier to grasp was intended to improve human capacity to work with arguments.

Engelbart suggests three key questions—'What's this?', 'How come?', and 'So what?'—that may help in both presenting and understanding any argument. He used 'argument' broadly: he considered the outcome of any reasoning process or any "period of work towards a given objective" (Engelbart 1962, p. 90) as an argument.

Engelbart suggests that questions like 'How come?' improve comprehension and construction of arguments. Structures that "establish arbitrary linkages between different substructures" (Engelbart 1962, p. 86) make the relationships between statements more evident. Focusing particularly on the 'support' relationship, Engelbart envisioned organizing the statements with comprehension in mind, by putting the most important argument first. Then the most important supporting statement, which Engelbart calls the *primary antecedent*, links back to the statement it supports. Hence to summarize the whole argument, the selected supporting statements could be reported by tracing the 'support' links backwards. Diagramming arguments or by highlighting important

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[9]For more on the effects of representations, see (Zhang and Norman 1994).

supporting statements might make the conclusions of an argument, and its supporting statements, more clear.

Engelbart elaborates on how his envisioned augmentations might work, by having a future expert user, named Joe, demonstrate this hypothetical system. 'Joe' explains:

> "When you look at a statement and ask, 'How come?', you are used to scanning back over a serial array of previously made statements in search of an understanding of the basis upon which this statement was made. But some of these previous statements are much more significant than others to this search for understanding. Let us use what we call 'antecedent links' to point to these, and I'll give you a basic idea of how we structure an argument so that we can quickly track down the essential basis upon which a given statement rests." (Engelbart 1962, p. 86)

Engelbart argues that symbolic information structures could enable thoughts to be transmitted and stored. By successive links to the most significant reason for each statement, we could audit others' arguments. His narrator, 'Joe' explains that these links can be traced further and further backwards:

> "Each primary antecedent can similarly be linked to its primary antecedents, and so on, until you arrive at the statements representing the premises, the accepted facts, and the objectives upon which this argument had been established. When we had established the antecedent links for all the statements in the argument, the question 'So what?' that you might ask when looking at a given statement would be answered by looking for the statements for which the given statement was an antecedent. We already have links to these consequents—just turn around the arrows on the antecedent links and we have consequent links. So we can easily call forth an uncluttered display of consequent statements to help us see why we needed this given statement in the argument." (Engelbart 1962, p. 87)

Using such links, summaries and "a schematic or graphical display" could then be generated. The linking process—adding a symbolic structure indicating the rhetorical relationships between statements—is the fundamental enabling technology. In demonstrating the hypothetical system, his fictional Joe points out the usefulness of the 'How come' links, even when the concept structures containing them are in rough form.

As 'Joe' says:

> "when you ever get handy at roaming over the type of symbol structure which we have been showing here, and you turn for this purpose to another person's work that is structured in this way, you will find a terrific difference there in the ease of gaining comprehension as to what he has done and why he has done it, and of isolating what you want to use and making sure of the conditions under which you can use it. This is true even if you find his structure left in the condition in which he has been working on it—that is, with no special provisions for helping an outsider find his way around." (Engelbart 1962)

Engelbart suggests, in effect, that the rhetorical linking structure 'How come' itself eases understanding of others' ideas.

We now turn from pre-Web visions for supporting argumentation with machines to Web inventor Tim Berners-Lee's visions for Web-based support for argumentation.

1.3.2. On the Web: Tim Berners-Lee's visions for supporting argumentation

Among its other virtues, the Web can be used as a cognitive ergonomic tool, and in his 2000 book *Weaving the Web*, Tim Berners-Lee suggests using the Web both for group management of collective knowledge (including decision rationale) and for exploring contested information.

Tim Berners-Lee envisions how groups could manage decision rationale over time, by keeping "a snapshot of their shared understanding" in hypertext. Then:

> When new people joined a group they would have the legacy of decisions and reasons available for inspection. When people left the group their work would already have been captured and integrated. As an exciting bonus, machine analysis of the web of knowledge could perhaps allow the participants to draw conclusions about management and organisation of their collective activity that they would not otherwise have elucidated. (Berners-Lee and Fischetti 2000, p. 174).

Recording the rationale for a decision may help audit it, to revisit it later, or to make similar decisions in the future. A rationale may also serve as a reminder of the

reasons a controversial decision was taken (Van Gelder 2003). In many cases, arguments can be reused not only by the creators whose conversation constructed it, but also by bystanders not participating. In an archived conversation, even non-participants may gain information, whether about (purported) facts, propositional attitudes (e.g. individual beliefs), or how participants interact (procedurally and interpersonally). Making arguments explicit can be beneficial. During a dispute, making assumptions and chains of reasoning clear can help prevent mistakes, while afterwards, a record of this reasoning can be reused. Besides the rationale for a decision taken, archived conversations may provide insight into procedural knowledge such as which arguments are acceptable in a given situation.

Furthermore, for contested information, Tim Berners-Lee suggests using the expressivity of hypertext and its ability to keep information in context. He envisions

> a hypertext exposition that can be justified and challenged—one that will allow us to look up and compare, side by side, what politicians, or defendants and accusers, actually say, (Berners-Lee and Fischetti 2000, p. 188)

To enact his vision of "a reasoned, Socratic debate, in which individual ideas, accusations and pieces of evidence can be questioned or supported" (Berners-Lee and Fischetti 2000, p. 188), Tim Berners-Lee once worked with Ari Luotonen on a Web tool called Discussion:[10]

> It allowed people to post questions on a given subject, read and respond. A person couldn't just type 'reply'. He had to say whether he was agreeing, disagreeing or asking for clarification of a point. The idea was that the state of the discussion would be visible to everyone involved. (Berners-Lee and Fischetti 2000, p. 187)

Marking agreement and disagreement is the beginning of the Argument Web, as we next describe.

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[10]A program called 'WIT - WWW Interactive Talk' authored by Ari Luotonen intended 'to allow discussions on W3 technical matters to be stored in a more structured fashion' is referenced at http://www.w3.org/WIT/.

1.3.3. A Web for arguments: The World Wide Argument Web

When agreement and disagreement are marked on the Web, the context and progression of a discussion can be made more clear. Berners-Lee elaborates on the impact hypertext makes by having the context immediately available:

> Each point and rebuttal is linked, so everyone can see at a glance the direct agreements and contradictions and the supporting evidence for each view, such that anything could be contested by the people involved. If there was some sort of judicial, democratic process for resolving issues, the discussion could be done in a very clear and open fashion, with a computer keeping track of the arguments. Again, the theme is human beings doing the thinking and machines helping it work on a larger scale, but nothing replacing wisdom in the end. (Berners-Lee and Fischetti 2000, pp. 187–8)

To make it clear what is contested, and what has been resolved, would be a great time-saver and aide-mémoire. Yet outside of software bug trackers, which provide a means of segmenting and determining outcomes for individual issues, there are few mainstream tools for online critical discussion. Rather than expressing agreement and disagreement, on mainstream Social Web platforms, we reply to or upvote comments.

One movement towards this vision of structured agreement and disagreement has come from a 2007 paper "Laying the foundations for a World Wide Argument Web" (Rahwan, Zablith, and Reed 2007), in which Iyad Rahwan, Fouad Zablith, and Chris Reed propose "a large-scale Web of interconnected arguments posted by individuals to express their opinions in a structured manner" (Rahwan, Zablith, and Reed 2007). They envision being able to sort and query arguments:

> You query the Web (e.g. through an appropriate form that generates a formal query) by asking a question like 'List all arguments that support the War on Iraq on the basis of expert assessment that Iraq has Weapons of Mass Destruction (WMDs).' You are presented with various arguments ordered by strength (calculated using the number and quality of its supporting and attacking arguments). One of these arguments is a blog entry, with a semantic link to a CIA report claiming the presence of WMDs. You inspect the counterarguments to the CIA reports and find an argument that attacks them by stating that 'CIA experts are biased.' You inspect this attacking argument and you find

a link to a BBC article discussing various historical examples of the CIA's alignment with government policies, and so on.

The WWAW can capture weak arguments as well as strong arguments: it focuses on representing arguments using a wide range of argument schemes, rather than just logical arguments.

These are compelling examples, but much work is needed to make the suggested technologies appropriate for the Social Web, as we shall discuss in Chapter 3. The vision of the World Wide Argument Web rests on the foundation of the Semantic Web, which we introduce next.

1.3.4. A Web of Data: The Semantic Web

The goal of the Semantic Web is to create a Web of Data, turning the Web into a vast distributed database that could be queried. The Semantic Web is "an extension of the current [Web], in which information is given well-defined meaning, better enabling computers and people to work in cooperation" (Berners-Lee, Hendler, and Lassila 2001). The Semantic Web is an approach to structuring data so that computers can retrieve data, not just documents.

For example, within a single website, we may be able to sort items by price, or search for events happening between certain dates. The Semantic Web envisions carrying out such data-oriented queries on the Web as a whole, and semantic technologies enable sophisticated querying as well as question answering.

We further discuss the Semantic Web and structured search in Chapter 3. We now further elaborate on our goals for argumentation support interfaces by providing examples of future argumentation support on the Web.

1.4. Examples of future argumentation support

We now focus on situations where argumentation support is needed and present examples of future argumentation support on the Web.

1.4.1. Example 1: Determine one's point of view on an issue, based on a filtered summary of contradictory or opinionated information

Contested information is commonplace. While computers generally cannot make decisions based on contested information, they can store and display points and counterpoints, which would enable a human decision-maker to quickly consider various aspects of a problem.

Consider Bob, who is deciding whether to have his daughter vaccinated. He queries an argument and opinion search engine to find a synthesis of the latest evidence about the reputed connection between autism and vaccines. The search takes just seconds, and presents an organized list of points and counterpoints to consider, with further descriptions and authorship information for each. After twenty minutes reading opinion pieces and summaries of the scientific evidence, Bob is satisfied. He calls the pediatrician's office, convinced that he has made the right decision for his daughter's health.
Total time: 20 minutes.[11] ***Technology need:*** *Filter + summarize contradictory or opinionated information.* ***Focus:*** *Find one cluster of information to believe.*

1.4.2. Example 2: Express a position in writing, using arguments & argument styles with example arguments

Effective participation in online discussions requires understanding the group norms, including commonly held assumptions and rhetorical preferences such as patterns of argumentation. To present a convincing argument, it helps to know what patterns of argumentation the group generally accepts. Anticipating and defusing counterarguments is especially useful and can help shorten discussions.

To help develop a technical standard, Alice has joined a new Web-based task force. To best present her argument to the task force, she queries the argument-acceptance statistics for the taskforce listserv. Seeing that the community prefers two patterns for argumentative reasoning—Arguments from Precedent and Arguments from Evidence to a Hypothesis—Alice calls up the structure of these argumentation schemes[12] and two

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[11]These times are estimated based on our own experience.
[12]An argumentation scheme is a template that expresses an abstract reasoning pattern. Such patterns indicate variables that need to be instantiated, as well as assumptions (or premises) and conclusions.

examples for each. She spends a few minutes considering whether there is precedent for the decision she is advocating, but decides that it is a better fit to structure the known information to support her hypothesis by using the argumentation scheme Arguments from Evidence to a Hypothesis.

Alice spends a few minutes reading the examples more carefully, then looks at the template. It has a fully elaborated argumentation scheme with variables for the evidence E and hypothesis H, along with critical questions indicating counterexamples, such as 'Could there be some reason why E is true, other than its being because of H being true?'

Basing her position on the evidence she has and the hypothesis she wants to support, Alice writes a draft email presenting her company's position in ten minutes. She then thinks about how the discussion could proceed; she goes back to the critical questions to anticipate counterexamples and spends another ten minutes clarifying the position to make it clear how compelling the evidence is. She thinks she can grab the attention of the standards group, knowing that clarity will help make a fast (and she argues, correct) decision.

Altogether the analysis and writing process takes sixty minutes; she sends the email presenting her company's position, expecting a favorable response.

Total time: 60 minutes. ***Technology need:*** *Search for arguments + argument styles. Check that arguments are written according to given argument styles.*

1.4.3. Example 3: Summarize contradictory or opinionated information for decision support

Summaries of contradictory or opinionated information may be helpful for taking decisions. Examples include:

- Determining the consensus of a discussion

- Grouping related opinions to find the opinion clusters

- Identifying the factors along which people agree, and those along which they disagree.

A common application area of complex summaries is in social media analytics. Businesses want to understand their customers, and the volume of response in online social media

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They also include *critical questions* that help expose possible flaws in the argument, making it easier to form counterarguments. Example argumentation schemes are presented later in Section 6.3.1.

can make it difficult to find the signal in the noise. Segmenting the customer market based on opinions can be particularly valuable; even customers who hold the same opinions may give different justifications for those opinions, making argumentation analysis a particular valuable tool for social media marketing executives.

Collum has been asked to summarize the consumer reaction to Zednext's latest product. He retrieves filtered data from his company's social media datastore; although that takes only a few minutes, and enables him to quickly spot product references and sentiment terms, the filtering is insufficient for market analysis. He spends three hours categorizing the opinion groups by hand, understanding what opinions they hold. He finds three different reasons that older women give for loving their product, and notices that younger men are very critical about it. Preparing the data takes another hour and a half: he describes the categories and reclassifies a subset, careful to balance the size of his classification groups, then sets a computer agent to apply the categorization over his lunch break, to find the relative sizes of the groups. After lunch he spends half an hour looking at examples to validate the classification; satisfied, he grabs the overall statistics. For the five key categories—three positive and two negative—he queries for high sentiment examples and pulls a few from each category directly into a presentation for his boss; after an hour on the presentation, he's satisfied.

Total time: 6 hours. ***Technology need:*** *Filter + summarize contradictory or opinionated information.* ***Focus:*** *Find opinion clusters.*

1.4.4. Summary of examples

Table 1.1.: A summary of our examples

Example	Task	Time	Subtasks
1	Determine one's point of view on an issue, based on a filtered summary of contradictory or opinionated information.	20 min	Querying, reading and reviewing structured information
2	Express a position in writing, using arguments & argument styles.	30 min	Querying, using argumentation schemes, looking for relevant precedent, writing arguments, testing against counterexamples
3	Summarize large volumes of contradictory or opinionated information for decision support.	6 hours	Querying, categorizing, machine learning, validating results, finding salient samples, structuring communication as a presentation

All three examples highlight possibilities for on argument support, focusing on three separate actions, and we summarize this vision in Table 1.1. Examples 1 and 3 consider summarization and filtering of Web information containing arguments and opinions: they differ mainly whose opinion is being found. In Example 1, the reader uses information

to find his own opinion whereas in Example 3, the reader seeks to cluster the views of one or more groups. Meanwhile, Example 2 focuses on expressing an opinion in a persuasive way, and considers the argumentative norms of existing conversations in a particular Web forum. We will revisit these examples in the context of our use case in Chapter 5. Drawing from this vision and the above motivation, we now restate and clarify the problem motivating our work.

1.5. Goals, scope, & research questions

1.5.1. Goals

We would like to augment people's ability to make use of arguments and opinions. Argumentation support might involve: offering information about the existing arguments and opinions; identifying disagreements, such as sets of mutually inconsistent arguments; flagging errors in argumentation, such as inconsistencies within single argument; and providing tools for presenting arguments and opinions effectively to a given audience. **To these ends, it is desirable to identify and explicitly represent arguments, and in particular successful arguments that are persuasive to a given audience.**

Our goal is to bring the Web to its fullest potential as a technology and medium for managing information. Argumentative conversations can indicate inconsistencies and disagreements in what is currently known, thus indicating which information must be reconciled and integrated in order to come to knowledge. We take current online conversations—arguments as they currently exist on the Web—as a starting point for this study, and focus first on how arguments are used in open collaboration, in order to justify collective action.

1.5.2. Scope

The thesis describes a procedure for supporting the reuse of argumentative conversations, using netnography[13] to understand what needs support, content analysis and annotation to categorize conversations, along with ontology development and an ontology-based Semantic Web application interface to store and display conversation data.

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[13]Netnography adapts ethnographic methods to the Internet, as we will describe further in Section 5.1.

We apply our procedure in Wikipedia, a collaboratively developed encyclopedia and the world's sixth most popular website.[14] Information quality assurance is collective work, undertaken by groups of self-nominated individuals. Anyone can contribute to open discussions about potentially problematic articles in the English-language encyclopedia, and inappropriate articles are deleted based on the arguments given in these discussions.

Deletion discussions offer an excellent opportunity to study opinions and arguments *in situ*. These discussions, which impact the content of the encyclopedia, are important for Wikipedia's operation and readership. Arguments (rather than votes) are specifically called for in Wikipedia's policies, guidelines and essays governing their usage.

1.5.3. Research questions

The overriding concern of our thesis is ***How do we support arguments and opinions on the World Wide Web?*** We divide this main problem into three research questions.

RQ1: What are the opportunities and requirements for providing argumentation support?

RQ2: Which arguments are used in open collaboration systems?

RQ3: How can we structure and display arguments and opinions to support filtering?

There is a gap between existing argumentation theories, which provide structure appropriate for detailed analysis, and the structures appropriate for supporting argumentation in Social Web discussion interfaces. In order to structure argumentation on the Social Web, new models are needed. This requires investigation of the arguments actually used in the Social Web (RQ2) as well as of how arguments are used (RQ1) at present. This enables us to structure and display arguments and opinions (RQ3) in order to provide a new, reconfigurable Web interface for filtering arguments.

We next outline our contributions, addressing these research questions.

1.6. Contributions

1.6.1. Contributions summary

Our contributions in the thesis include:

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[14]Popularity based on Alexa statistics,[15] August 21, 2013.

- A procedure for providing argumentation support in open collaboration systems.

- A demonstration of this procedure on a use case, which has the following outcomes:

  – A requirements analysis for providing argumentation support.

  – A categorization of the most common arguments used according to two theories: Walton's argumentation schemes and the factors-dimensions theory of argumentation.

  – An ontology for argumentation in Wikipedia deletion discussions.

  – A user interface that provides support for argumentative discussions by filtering arguments based on decision factors.

In the thesis we use argumentation theory as the basis for a practical user interface for online argumentation support. The work described in the body of this thesis:

- Develops a case study of argumentation in an open collaboration system, identifying its argumentative tasks and the requirements for argumentation support.

- Analyzes and classifies the arguments used for consensus-based decision-making in the case study.

- Makes a tool-based Linked Data intervention that improves the graspability and usability of arguments.

We cover the entire process of providing support for online arguments from requirements analysis, to argumentation analysis, to task support and its evaluation. Overall, our work provides argumentation support for information quality discussions in an open collaboration system.

1.6.2. Contributions to the research questions

For convenience, we here summarize and give an overview of the main contributions of the thesis, according to which research questions they address. In addition to the direct

contributions on the research questions, we also explored similar topics and contributed to standardization work in related areas (Appendix F).

How do we support arguments and opinions on the World Wide Web? Within the World Wide Web, we focus on open collaboration systems. Arguments appear throughout the Web, and vary depending on the technical platform and social structures, as we demonstrate through examples in Section 2.2. This motivates us to develop a case study of argumentation within an open collaboration system.

In open collaboration systems, outcomes and decisions are based on the arguments given in online discussions to which anyone can contribute. The massive scale of these systems makes argumentation support necessary while the existence of group strategies for decision-making (whether or not fully articulated) makes argumentation support feasible.

The open collaboration system studied, Wikipedia, is the world's sixth most popular website. Information quality assurance is a collective, discussion-based activity in the crowdsourced encyclopedia. Arguments that anyone can contribute, in open, community discussions, are used to determine what content is deemed inappropriate and deleted; these discussions are taken as our use case for supporting argumentation.

Addressing RQ1: *What are the opportunities and requirements for providing argumentation support?*

To introduce our use case and identify the possibilities for argumentation support of 'deletion discussions' in English-language Wikipedia, we use netnography, a qualitative research method that modifies ethnography for use with Internet-based communities. To make evident the challenges and problems in deletion, which we uncovered by using semi-structured interviews and participatory netnography, we quote from a sample corpus of discussions. We show how generic features of open collaboration systems (e.g. policies and frequent newcomers) impact the content deletion process; thus our work has implications for understanding content management procedures and collective discussions on other open collaboration systems.

Based on our analysis, we develop a community-validated description of the workflow used in Wikipedia's content deletion discussions. We detail how Wikipedia's content deletion discussions are created and we determine the opportunities and requirements for supporting argumentation. We identify the three argumentative

tasks—determining one's own opinion, commenting, and finding the consensus outcome of a discussion—used in deletion discussions, along with the key information needed to reuse discussion contents. This leads to a closer examination of the arguments used.

Addressing RQ2: *Which arguments are used in open collaboration systems?*

To understand which arguments are used in open collaboration systems, we analyze a sample of conversations in our case study. We characterize the arguments used for consensus-based decision-making, determining the most common arguments given in Wikipedia's information quality assurance discussions. We annotate discussions based on two approaches to argumentation: generic argumentation patterns used in the argumentation community (Schneider, Samp, Passant, and Decker 2013) and our own community-specific decision factors (Schneider, Passant, and Decker 2012), inspired by the factors/dimensions approach to argumentation. Our work contributes a novel corpus annotated with Walton's argumentation schemes and may be the first application of the argumentation theory of factors outside the legal domain.

The key outcome of our work is a concrete use case for structuring arguments in open collaboration systems; our use case demands new approaches to the World Wide Argument Web. Standard argumentation schemes are not suitable for two of the three tasks described as outcomes to RQ1: determining one's own opinion and finding the consensus of a discussion. For these tasks, decision factors are appropriate.

Addressing RQ3: *How can we structure and display arguments and opinions to support filtering?*

We present a user interface that organizes and represents argumentative elements of a multi-party discussion, to help a reader synthesize and contrast arguments from different discussion participants. We envisioned (Schneider and Samp 2012), enacted, and tested a task-based filtering interface to support consensus-finding in Wikipedia deletion discussions.

The user interface requires annotated data as well as task-specific queries. Annotations are structured according to the Wikipedia Deletion Discussion ontology[16]. We developed this ontology for informal argumentation in Wikipedia deletion discus-

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[16]http://purl.org/wd/ and see Appendix A

sions, based on both the requirements found in RQ1 and the argumentation analysis found in RQ2.

Using this ontology, first, we semantically annotated data from a Wikipedia corpus by hand. The content for the semantic annotations is drawn from the results of a robust linguistic annotation process (RQ2). Each message is annotated with the types of arguments it contains (in terms of the decision factors resulting from RQ2). Then, to filter messages based on the semantic annotations, we draw on the requirements resulting from RQ1 to determine task-specific queries.

After we implement the argumentation filtering tool, we test its design in a pilot study. In a user-based evaluation, our interface provides statistically significant improvements over the native Wikipedia discussion interface in terms of perceived usefulness, perceived ease of use, and information completeness. 16 of 19 (84%) participants[17] in the evaluation prefer our argumentation support interface over the native Wikipedia discussion interface.

1.7. Thesis outline

The remainder of this thesis is divided into background, core, and conclusions & backmatter. Following this introduction, we provide further background about the challenges in bringing arguments on the Web—both from the argumentation side and from the perspective of the Web; we draw especially from the Social Semantic Web and draw particular attention to the previously proposed World-Wide Argument Web and its current limitations. After thus setting our problem against previous research and existing understandings, we dive into the core of our work, using Web technology to make reconfigurable interfaces that emphasize the structure of arguments.

The core consists of four chapters, starting with a brief introductory chapter, Chapter 4, that describes the overall process used in this case study. Then we motivate and establish our case study, identifying the argumentative tasks and environment which we seek to support as deletion discussions in Wikipedia (Chapter 5). Next we identify and analyze the arguments in these contentious discussions (Chapter 6); and finally we use a task-based filtering visualization as an experimental interface for using and reusing arguments in the context of this open collaboration system (Chapter 7).

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[17]Omitting one participant who did not take the final survey.

We end the core of the thesis with conclusions emphasizing our contributions, considering the limitations of our work, and suggesting future work. Appendices are provided, with both technical details supplementing the thesis and context about our work on other research and standardization projects.

Chapter 2.

Arguing on the Social Web

In this chapter, we define the term 'argument' and give examples of argumentative messages. By comparing these examples, we show that argumentative messages on the Social Web vary, particularly in terms of purpose, conversation style, and argument complexity. This motivates narrowing the scope of the thesis: for providing argumentation support, we cannot view the Social Web as a single entity.

2.1. What is an argument?

An argument is a communication presenting reasons for accepting a conclusion. Unlike proofs that lead step-by-step from premises with logical justifications for a conclusion, arguments are non-monotonic and can be disproven. Arguments may use various approaches including generalization, analogy, inference, and prediction.

Argumentation is a vast and highly interdisciplinary field of study, tracing its roots to Aristotle's logic, with modern branches in philosophy, mathematical logic, communication studies, linguistics (including natural language processing and pragma-dialectics), education (including applications to e-learning) and computing (including tool development) and artificial intelligence (including reasoning and multi-agent models). Figure 2.1 shows some of the connections between these areas; it is based on our literature review that determined the topics with established relationships to argumentation. In the diagram, 'Argumentation' is in a central blue box, radiating outward to goals of using argumentation, such as 'Understand People and Communities' and 'Provide Computer Tools for People'. These goals, in turn, are connected to fields and subfields, such as Linguistics, Rhetoric, and Computer Supported Cooperative Work. Computer argumentation, in

particular, is recognized as an interdisciplinary field; a 2010 editorial (Grasso, Rahwan, Reed, and Simari) introducing the new journal *Argument & Computation* describes the emergence of that field.

This chapter grounds our work in definitions and examples. Next we briefly outline our terminology and assumptions before providing several examples of messages and conversations from the Social Web.

2.1.1. Terminology and assumptions

Previously we said that "An argument is a communication presenting reasons for accepting a conclusion." We now sharpen our terminology and assumptions, drawing from our review of the argumentation literature (Schneider 2012), and shaping it to our purposes.

- By *argumentative message*, we mean a message that presents reasons for accepting a conclusion: we call the conclusion a *claim* and the reasons a *rationale*.

- By *argumentative discussion*, we mean a discussion eliciting the rationale for a claim, or containing one or more argumentative messages.

Examples of argumentative messages and discussions are given in the subsequent sections of this chapter. We first discuss some further definitions.

Our use of the words 'message' and 'discussion' carries further assumptions. We now describe those assumptions by introducing the following terminology, based on a review of textually-oriented Social Media as of 2013[1]:

- A *platform* refers to technical infrastructure, such as software, Web interfaces, etc.

- A *message* is a written text that is publicly-viewable on a platform.

- A *discussion* or *conversation* is a group of related messages on the same platform.

- A *forum* is a part of a platform on which discussions are held. A platform may have different forums.

- An *author* is the entity responsible for a message.

- A *social structure* refers to social infrastructure, such as policies, norms, and authors.

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[1]The Social Web is introduced in further detail in Section 3.1.1
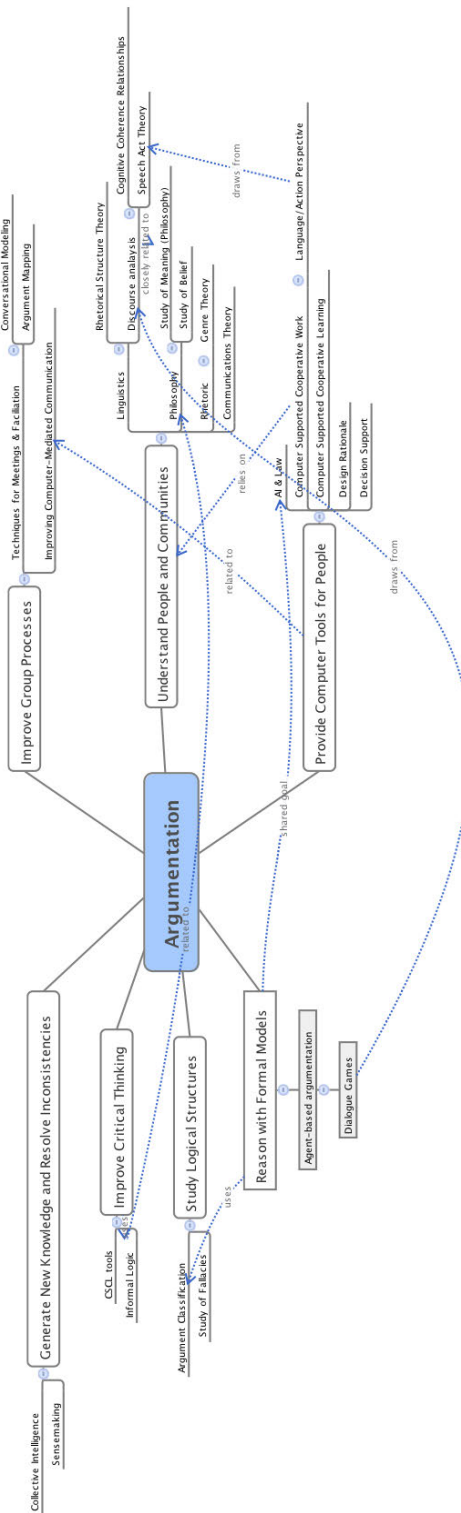
Figure 2.1.: Argumentation is a massively interdisciplinary and multidisciplinary field. [Image from our unpublished First Year Report].

- We use the verb *'to post'* to refer to the act of publicly sharing a message on a platform.

- A message carries with it certain *platform-determined display values* that are supplied by the platform. These vary, but typically include a date (such as the date the message was posted) and an author identifier (such as an author's name or username).

- A message has certain *user-determined display values*. At a minimum, this includes the user-supplied text field supplying the main *content*, such as textual information, in the message. Additional user-determined fields might include a title or rating.

- There may be technical constraints on the user-determined values. These might include minimum or maximum lengths for content, what information must be supplied, and whether or not an author is permitted to post a message at all.

- There may also be social constraints on the user-determined values. These might include appropriate topics or lengths for content, what information should be supplied, and whether replies are encouraged. Authors may be subject to different social constraints, for instance based on their length of previous participation, perceived motives, etc.

- Additional *platform-determined affordances* may be available, such as what actions the platform allows, and how replies to messages are handled.

In the remainder of this chapter, we use these terms and assumptions to analyze a variety of argumentative messages and discussions: we compare examples including a microblog post, blog post, bug report, product review, and Wikipedia discussion. This leads us to observe that certain classes of messages are more apt for reuse. We draw on social and linguistic theories to explain this phenomenon, and as a result, we scope our work to enabling the reuse of arguments and opinions in open collaboration systems.

2.2. Argumentative and opinionated messages and conversations from the Social Web

2.2.1. Microblog example

Here is an argument made on the microblog network Twitter, where messages are limited to 140 characters.[2] Despite the brevity, the message makes three statements: When stale, cakes go hard, biscuits go soft; Jaffa Cakes are cakes; and this (i.e. 'Jaffa Cakes are cakes') was an official EU ruling.[3] The word 'hence' suggests that this message is intended as an argument giving reasons for the claim: 'Jaffa Cakes are cakes'.

But to conclude 'Jaffa Cakes are cakes', in a syllogism, we would need one additional piece of information: [Jaffa Cakes go hard when stale]. We then make a syllogism with two premises and one conclusion:

When stale, cakes go hard, biscuits go soft

[Jaffa Cakes go hard when stale] (implied)

THEREFORE Jaffa Cakes are cakes
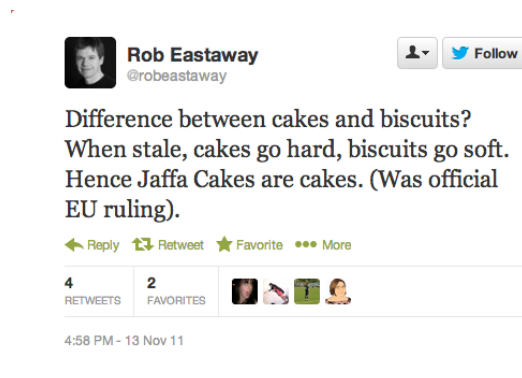
Figure 2.2.: An argument[a] in fewer than 140 characters from the microblog network Twitter.

[a]http://twitter.com/robeastaway/status/135838892694839296

This Twitter message is an example of an **enthymeme**, an incomplete argument that does not supply all its premises. This demonstrates one important aspect of argumentation that makes computer argumentation challenging: as humans, we infer missing parts of arguments.

[2]First noted on my blog http://jodischneider.com/blog/2011/11/19/argumentation-on-twitter/
[3]A fourth statement, [Cakes and biscuits are different], while not stated, could be implied from 'Difference between cakes and biscuits?'

2.2.2. Blog post example

The blog post excerpted in Figure 2.3 argues that insults should be elegant. Inspired by Shakespeare's *As You Like It*, it provides some ideas for making more sophisticated insults. This blog post can be read as an argumentative message: The claim of this blog post is that insults can and should be elegant. The rationale is that the modern approach is "dull" and that we should "recover more sophisticated practices" known "in Shakespeare's time". The blog post also connects to a larger conversation. It has 12 comments in reply, and the post also refers back to earlier messages, including two blog posts by another writer. Argumentative aspects of blog posts were have been previously studied in (Moor and Efimova 2004).

Figure 2.3.: An excerpt from a blog post[a] that argues that insults should be elegant. Its departure point is two previous blog posts from another writer. Twelve comments respond. The sidebar provides contextual information, including a short biography of the author, recent blog posts, related pages such as the 'about me' page, and the tags used to navigate the blog by topic.

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[a]http://scientistscitizens.wordpress.com/2011/08/14/how-to-insult/

2.2.3. Bug report example
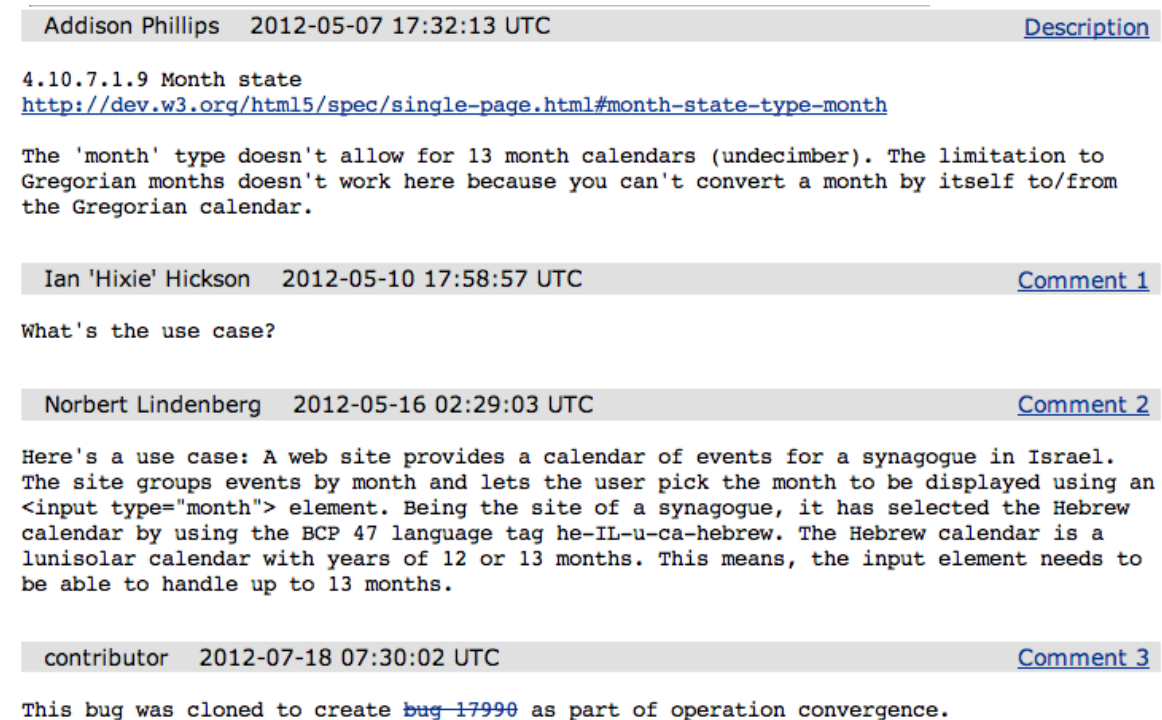
Figure 2.4.: A bug report to the W3C HTML working group. Discussion on the bug elicits a use case. The bug title clarifies the purpose and context of the discussion: 'Bug 16966 - i18n-ISSUE-98: 13 month calendar support'[a] It implies the claim (there ought to be) 13 month calendar support.

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[a]http://www.w3.org/Bugs/Public/show_bug.cgi?id=16966

A bug report discussion, excerpted in Figure 2.4, was posted to the W3C HTML working group under the title 'Bug 16966 - i18n-ISSUE-98: 13 month calendar support'. Reporting a problem, the first message ('Description') links to a particular part of the standard specification and asserts it needs improvement. The second message asks for a use case, which the third message supplies. The fourth message is a technical update, providing a new location for the bug, where the discussion continues and a decision has been made.

As this discussion shows, **claims may be implicit**. The first message expresses a limitation in the 'month' type; the implicit claim is that HTML5 should allow 13 month calendars. Understanding this message as a claim, and viewing a bug report as an argumentative message, in general, requires the contextual knowledge that bug report conversations are about establishing problems in a technical standard or system, so that

problems can be prioritized and potentially fixed. The rhetoric of bug reports has been studied in (Ko and Chilana 2011).

The second message ('Comment 1') asks 'What's the use case?'. This can, at first sight, be read as a request for information. Yet the implication is also that, without a specific example, the problem pointed out in the first message may not be worth solving. In other words, Comment 1 can be read as a counterargument to the claim that HTML5 should allow 13 month calendars.

One implication is that **background knowledge** and **context** impact how a message is read: two people reading the same message may interpret it in different ways depending on their experiences and expectations. Shared experiences and expectations may build over time in a group; for instance, different levels of indirectness might be customary, and acronyms or particular figures of speech might be common.

Returning to Figure 2.4, this bug report discussion also shows that that the arguments made by one participant may be strengthened by the reasons proffered by other participants. Claims and rationales may be split across messages. For example, the third message ('Comment 2') provides a use case. This strengthens the first commenter's claim that HTML5 should allow 13 month calendars by showing a practical need. In other words, **the argument is elicited iteratively in an interaction between multiple participants.**

2.2.4. Product review example

Figure 2.5.: A comment responds to a review, presenting a counterargument.[a] Arguments are commonly found in reviews.

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[a]http://www.amazon.com/review/R2C32CRHWUFA1U/

Figure 2.5 shows a book review taken from the popular e-commerce site Amazon. One comment has been left in response to the review. The reviewer presents the argument: this book is incomprehensible, therefore it is not as important as it is made out to be. The commenter makes a counterargument: "just because something is difficult doesn't mean that it lacks value". Making deeper sense of such arguments and counterarguments could prove valuable.

2.2.5. Wikipedia discussion example

Figure 2.6 shows a conversation from a Wikipedia discussion. Commentators are discussing whether an article merits inclusion in the encyclopedia. The first message proposes that the article, about baseball player Heath Totten, should be deleted, asserting in the nomination that he has a mediocre record and hasn't played in several years. Subsequent messages present evidence contradicting the nomination. Conversations of this sort form the core use case of the thesis and we will return to this example in Chapter 5.

Figure 2.6.: An extract from a Wikipedia discussion about deleting an article. The article topic is baseball player Heath Totten.[a] Community discussion follows the nomination; participants can reply to the nomination or to each other. A typical message consists of a 'vote' followed by a rationale, signed with the poster's username and a timestamp.

[a]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Heath_Totten

2.3. Comparing the examples

We can compare these examples along multiple different lines.

Since we are interested in how conversations can be used and reused, and in the arguments they contain, we highlight three argumentative aspects of messages: purpose, conversation style, and argument complexity. After discussing each of these in the context of our examples, in a subsequent section we describe them as theoretical considerations.

2.3.1. Purpose

First of all, the way conversations are **used and reused** is different. In a microblog or blog, there is little expectation (*a priori*) of what sorts of topics may be discussed, or what sort of claims and arguments may be advanced. Messages on microblogs and blogs are author-determined, and largely without constraints. Yet some conversations are used to conduct business in a given community, supporting decisions about an artifact collectively being constructed.

In the cases of the bug report, the product review, and the Wikipedia deletion discussion, the topic of conversation is constrained, which also **constrains the relevant claims** to be made. For example, in a bug report, the stereotypical claim is: there is a problem with this technology. Similarly, in a product review, it is generally appropriate to advance a claim about a product. In Wikipedia deletion discussions, the topic is constrained to whether or not to delete an article, based on policies.

In other words, the **purpose** of a conversation is one determinant of how conversations can be used and reused. Some conversations are most easily seen as information-sharing or commentary (e.g. the microblog, blog post, and product review), but could be reused for other purposes. For instance a product review could be used by companies who want ideas for the next model or marketers who want to understand consumer response, as well as for the original purpose of informing consumers who want to determine whether to buy a given product.

2.3.2. Conversation style

Various platforms treat **replies** differently. On some platforms, replies are be seen as subsidiary to the 'real' message. For instance, in blogs, the post and comments are distinguished, making replies subsidiary. By contrast, in a listserv dialogue replies have roughly the same standing as the original message. This impacts the extent to which the **monologue** is forefronted over the **dialogue**.

A related issue is how (or whether) a platform distributes replies. De Moor and Efimova note that blog conversations tend to accumulate replies more slowly than listserv messages (Moor and Efimova 2004). This may be due in part to the fact that replies to listserv messages are likely to be routed to an email inbox, while reply distribution or notifications for blog posts[4] are less uniformly used. This in turn affects the mechanisms for intertextuality.

Messages use **intertextuality**, or reference to other messages, to varying extents. Various methods can be used to preserve intertextuality, including **the interface used** as well as **adjacency**, **repetition**, **quoting**, and **linking**. When the system tracks replies, a commenter does not need to indicate the message being replied to. For instance, comments on a blog post or product review appear to be replies to the main message based on the interface. Adjacency can also serve this purpose. For instance, in the bug report, Comment 1, 'What's the use case?' does not quote or refer to the bug description: its context is carried by the adjacency automatically produced by the interface, and by the fact that there is only one previous message. But Comment 2 in the bug report takes a slightly different approach in that it repeats words from Comment 1, i.e. 'Here's a use case:' to make its context clear. Quoting could be used similarly. Links may also be used to preserve intertextuality, for instance the blog post links to previous messages on another author's blog. The extent to which explicit reference is needed depends on the context. And commenters may explicitly indicate which message is being replied to, if it might be unclear.

2.3.3. Argument complexity

Besides purpose and conversational style, another important aspect (adding complication to interpreting messages) is that arguments may frequently be **implicit**. *Premises* can

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[4]such as Rich Site Summary (RSS) and pingback

be implicit: the Twitter message was an **enthymeme**, with the implicit premise that Jaffa Cakes go hard when stale. Such enthymemes, which do not fully state an argument, are common in informal conversation. Also, *claims* can be implicit: for instance, the blog post could be read as making a claim that insults should be elegant. Alternately, claims may need to be inferred from context and adjacency. For instance, the bug report 'description' made the implicit claim that HTML5 should allow 13 month calendars; understanding this as a claim relied on the title of the bug report ("... 13 month calendar support"), the group to which it was reported (the W3C HTML working group) and considerations of what is appropriate and expected in a bug report (i.e. bugs that need to be fixed, enhancements that should be added).

Message **length** varies and depends in part on the message type. For instance, microblog messages are quite short. Yet while Twitter messages cannot exceed 140 characters, the same length of 140 characters would be comparatively short for a blog post, which might fill more than one printed page. Length impacts the maximum possible **argument complexity**: Complex arguments tend to require larger amounts of space. We discuss measures of argument complexity shortly.

These examples provide a concrete basis for understanding the next section, in which we discuss argumentative messages and conversations from a more theoretical perspective.

2.4. Key theories

Turing to theoretical considerations, we next review key theories regarding the purpose, conversational style, and argument complexity.

2.4.1. Purpose

We focus on participant goals and genre as two ways to consider the purpose of a conversation.

Participant Goals

We have mentioned purpose, or the goals of participants, several times, and for good reason. Linguists have argued that "the social goals and intentions of dialogue participants is

crucial for understanding discourse taking place on social media" (Bracewell, Tomlinson, Brunson, Plymale, Bracewell, and Boerger 2012). Similarly, in the field of informal argumentation, the goals of participants determine the type of dialogue, and can be used to classify conversations. We now introduce the discussion types, first developed by Walton and Krabbe (1995), which have been influential in informal argumentation.[5]

Table 2.1.: Walton's seven types of dialogue (2010) can be organized by the participant's goal.

Initial situation	Participant's goal	Goal of dialogue	Type of dialogue
Conflict of opinions	Persuade other party	Resolve or clarify issue	Persuasion
Conflict of interests	Get what you most want	Reasonable settlement both can live with	Negotiation
Dilemma or practical choice	Coordinate goals and actions	Decide best available course of action	Deliberation
Need information	Acquire or give information	Exchange information	Information-seeking
Find and verify evidence	Prove/disprove hypothesis	Need to have proof	Inquiry
Need to find an explanation of facts	Find and defend a suitable hypothesis	Choose best hypothesis for testing	Discovery
Personal conflict	Verbally hit out at opponent	Reveal deeper basis of conflict	Eristic

Seven types of dialogue are shown in Table 2.1. These types are Persuasion, Negotiation, Deliberation, Information-Seeking, Inquiry, Discovery, and Eristic. They are distinguished by the initial situation, the individual goals of the participants, and the overall goal of the dialogue. Persuasion and Deliberation, for example, are distinguished by whose preferences are used: in a Persuasion dialogue, the outcome depends on the preferences of the individual to be persuaded, while in a Deliberation, the group preferences are used. An Information-seeking dialogue and an Inquiry have similar goals, but differ in the initial situation: one person is believed to have the answer in an Information-seeking dialogue, while in an Inquiry, no one has the answer.

Understanding the goal of a conversation is important for determining the outcome, and for determining what conversational moves are relevant. We can evaluate a conversation between two parties A and B by asking questions such as: What was A trying to achieve? What was B trying to achieve? Did they achieve it?

Related definitions are given of a group with shared goals; for instance, Swale defines a *discourse community* as a group with shared goals, a mechanism for communication, certain patterns of discussion, and enough members who have relevant expertise in the topic and how to argue about it (1990). A good overview is provided by Borg (2003). These groups are studied in genre theory, and the notions of purpose and genre are closely related.

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[5]Walton has revised this taxonomy several times. 'Discovery' was not in several earlier formulations, such as (Walton 2005, p. 183); it is motivated by choosing the best hypothesis for testing. Debate and Pedagogical appeared in an earlier formulation (Walton 1997) which provides descriptions of the goals of each dialogue. Other scholars have also suggested extensions and modifications, for instance Dunne et al. have proposed adding examination dialogues (Dunne, Doutre, and Bench-Capon 2005).

Genre

One way of classifying discourse is by genre. Genres relate "purposes, participants, and themes" and are a "response to recurring rhetorical situation" (Devitt 1993). Fully describing genre is beyond our scope; entire books have been written on the topic (e.g. Bawarshi and Reiff 2010; Swales 1990).

Examples of well-known genres would include: a letter, a scientific article, or a eulogy. These forms are constrained and fit to the situation. We could also describe as genres the bug report, product review, and Wikipedia deletion discussion shown above.

These forms are indeed a response to a recurring rhetorical situation, and they relate certain themes (bugs, products, Wikipedia articles) to certain purposes (reporting an error to be fixed, recommending or lambasting a product, determining whether or not to delete an article).

Genres provide useful constraints for interpreting the meaning of messages, as they determine, or at least scope the possibilities for, the goals and purposes of participants. For instance, in a well-formed bug report, messages relate to a given technology (the subject of the bug repository), and report a specific, reproducible bug. It is worth noting that no one expects a bug report to issue praise; this limits a bug report's potential topic and purpose.

Similarly, in a product review, it is generally appropriate to advance a claim about a product, such as about its qualities and whether one should purchase it; but reader expectations may be violated (and complaints may ensue) when a 1-star review reports a fantastic product with terrible shipping (since the flaw was in the provider, rather than the product).

In Wikipedia deletion discussions, the topic is constrained to whether or not to delete an article, based on policies. This makes, for example, discussions about changing the policies out of the proper scope of the discussion.

2.4.2. Conversation style

O'Keefe distinguishes two meanings of the word 'argument': *making an argument* versus *having an argument* (1977). The first sense, $argument_1$, refers to "a kind of utterance or a sort of communicative act" that makes a case for a proposition (O'Keefe 1977).

The second sense, $argument_2$, refers to an interaction between people ("they had an argument"); this might be a spat, or might be an interactive construction of a claims and rationales making up an argument.

A lecture or a book fits into the monological, $argument_1$ style. Similarly, a long blog post could be considered an $argument_1$: it stands by itself as a communicative act, though it may make reference and respond to earlier blog posts.

By contrast, an interactive conversation better fits into the dialogical, $argument_2$ style, as might the bug report and Wikipedia deletion discussion examples we presented earlier.

We might be able to view some dialogues as having characteristics of both styles, when one participant makes an argument to which another participant replies: online conversation has attributes of both speech (which is dialogical) and writing (which is monological) (Herring 2007). For instance, the product review contains two messages: the review alone makes an $argument_1$, understandable by itself. Yet the comment to the review is harder to understand without reference to the original message (for instance relying on the intertextual 'which you seem to miss'). Taken together these make an $argument_2$. One useful way of thinking about this is given by Wyner et al.'s three senses of argument, as we next describe.

2.4.3. Argument complexity

One challenge about the word 'argument' is that we can join multiple arguments together to create a larger and more complex argument. To bring more clarity, Wyner et al. use the term 'argument' to refer to the simplest kind: non-decomposable arguments. They distinguish 'cases' which support a single claim from 'debates' which argue for and against a single claim:

> Arguments, comprised of rules, facts, and a claim, are the basic units; they instantiate argument schemes;[6] they have no sub-arguments. Cases are sets of arguments supporting a claim. Debates are sets of arguments in an attack relation; they include cases for and against a particular claim. (Wyner, Bench-Capon, and Atkinson 2008)

---

[6]We can think of 'argument schemes' (which we shall discuss further below and in Section 6.3) as the most basic patterns for making an argument.

An example of a debate drawn from our earlier product review example is shown in Figure 2.7. In this debate, the book review under the heading 'Skip it!' presents a case supporting the claim that the book under review is not worth reading, or in other words we should skip [reading] it. A comment on the review gives an opposing case.

Figure 2.7.: Viewing the Amazon discussion from Figure 2.5 as a debate with two case, for and against 'skipping' the book. The case 'Skip it!' comes from the product review while the opposing case comes from a comment.

We see, in Wyner et al.'s terminology, sometimes arguments (as in the microblog post), sometimes cases (as in the product review), and sometimes debates (as in the wiki debate). Further, adjacent materials can change the status of an argument: the customer review by itself is a case; with the addition of a comment giving a counterargument, it is a debate.
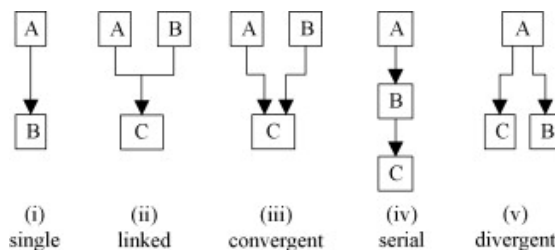
Figure 2.8.: Five argument structures: four cases and a single argument. Arrows indicate the argument patterns, which are known as 'argumentation schemes'.
Reprinted from Web Semantics: Science, Services and Agents on the World Wide Web, Volume 6 Issue 1, Iyad Rahwan, Mass argumentation and the semantic web, Page 30, Copyright 2008, with permission from Elsevier. (Rahwan 2008)

Table 2.2.: Comparison of argument structures from Wyner and Rahwan

Wyner	Rahwan	decomposable?	includes counterarguments?
argument	single argument	no	no
case	linked, convergent, serial, or divergent argument	yes	no
debate	-	yes	yes

Rahwan gives another approach to argument complexity. Rahwan 2008 distinguishes five argument structures, the argument and four cases shown in Figure 2.8. Rahwan uses 'single argument' as shown in part (i) of Figure 2.8, to refer to the simplest kind of non-decomposable argument (that Wyner's calls 'argument'). Two types of cases, 'linked' (ii) and 'convergent' (iii) arguments, use multiple independent premises to get to the same conclusion. 'Serial' (iv) cases use the conclusion of one argument as the premise to the next argument. 'Divergent' (v) cases draw two conclusions from a single premise.

As shown in Table 2.2, Wyner and Rahwan describe different levels of granularity. Wyner focuses on the overall structure, emphasizing whether it contains any counterarguments, and if not, whether the structure is decomposable. By contrast, Rahwan illustrates the possible decompositions: his diagram of the internal structure of arguments, Figure 2.8 (ii)-(v), shows the different ways in which one or two premises can be used to draw one or two conclusions, when the argument structure does not contain any counterarguments.

Argumentation schemes

Arguments are *defeasible*: an argument provides reasons for believing the conclusion (i.e. justifying the conclusion as a claim); but these might be invalidated with new information. Such new information can take the form of attacks, or counterarguments.

There are three ways to attack an argument: to attack a premise, a conclusion, or an inference step. These attacks are known as undermining, rebutting, and undercutting, respectively (Walton 2007).

Inference steps thus become a matter of study, in their own right. Defeasible rules are known as *argumentation schemes*, and these patterns or structures are studied in argumentation theory. Various theories of argumentation have described argumentation schemes. In Rahwan's diagram, Figure 2.8, the argumentation schemes are indicated by the arrows.

2.5. Summary

Argumentation occurs throughout the World Wide Web, particularly in the Social Web, almost anywhere where people have conversations. We cannot look at the Social Web as a single entity, for rhetorical and argumentative analysis. Our goal is to augment people's ability to make use of arguments and opinions: to provide people with cognitive support for understanding arguments and deciding the outcomes. Supporting argumentation on such a large variety of different conversations would prove challenging without individual analysis of the genres involved. In other words, the variety of different conversations means that for deeper analysis, we need to focus our efforts.

In this chapter we have given examples of a variety of social media messages and conversations in order to have concrete examples of arguments, and in order to demonstrate their inherent variety. In particular, we have seen significant variation in aspects such as the potential for use and reuse, the amount of implicit information, characteristics of messages, and the topics of claims. This led us to theoretical considerations regarding the purpose, conversational style, and argument complexity. Considering this variation motivates the need to choose a single genre, out of the Social Web, on which to focus research, and in this thesis we focus on the Wikipedia deletion discussion examples introduced in Section 2.2.5. Before further consideration of that use case, we next discuss the existing approaches to structuring arguments on the Web.

Chapter 3.

Structuring arguments on the Web[1]

In this chapter, we describe the existing data models that can be used to structure argumentative messages on the Web. We cover two main topics. First we describe the structuring technology itself, known as the Semantic Web, which can be used to add structure today's Social Web. Second we discuss data structures used for structuring argumentation on the Web. We focus on argumentation ontologies that either derive from an argumentation theory or are custom-built to address argumentation on the Web.

This chapter shows the shortcomings of both the ontologies and the tools. Existing ontologies for structuring argumentation on the Web focus either on the social aspects or the argumentation aspects, without fully accounting for both. Meanwhile existing tools for enacting the World Wide Argument Web do not sufficiently encourage use: there is little incentive for individuals to use the tools, which require applying complex argumentation-based classifications to Social Web conversations. Our work later in this thesis helps address these shortcomings: we aim to help people understand and make decisions based on argumentative and opinionated Social Web messages by providing argumentation support that is usable and meaningful within a given environment.

3.1. The Social Semantic Web

The Social Semantic Web builds on the Social Web, which we next describe.

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[1]Several sections are based on our larger literature review: Jodi Schneider, Tudor Groza, Alexandre Passant, "A Review of Argumentation for the Social Semantic Web". *Semantic Web Journal—Interoperability, Usability, Applicability.* 4(2), 159-218. doi:10.3233/SW-2012-0073. IOS Press. Some portions are based on our unpublished First Year Report.

3.1.1. The Social Web

The Social Web (boyd and Ellison 2007) is one name for the current generation of websites, which promote collaboration, discussion, and sharing of personal information. Various names are used to refer to the Social Web, including Web2.0[23] and read-write web,[4] social media (Kaplan and Haenlein 2009), social software,[5] social networks (boyd and Ellison 2007), and social platforms.[6]

Until the past decade, easy Web authoring was not widespread: still in 2004, Lawrence Lessig called for 21st century media to be "both read and write" (Lessig 2005). Yet the original vision of the Web was read-write—Tim Berners-Lee expected authoring and editing webpages to be as easy as viewing them, and this was possible in early Web browsers, like Amaya (1996),[7] which allowed authoring as well as editing hypertext.[8] But tools for browsing the Web, without editing webpages, were simpler to implement and gained popularity.

The Social Web has many antecedents on the pre-Web Internet, as well as in the early Web, including email and listservs (Ducheneaut and Bellotti 2001; Whittaker and Sidner 1996), Usenet (Whittaker, Terveen, Hill, and Cherny 1998), and Bulletin Boards (Rafaeli and LaRose 1993). The Social Web also builds on groupware (Richman 1987) and collaborative software (Jacovi, Soroka, Gilboa-Freedman, Ur, Shahar, and Marmasse 2006).

Today the Social Web includes blogs (Bruns and Jacobs 2006; Rosenberg 2010) on platforms and networks such as BlogSpot[9] and WordPress,[10] wikis (Leuf and Cunningham 2001) such as Wikipedia,[11] media sharing (Marlow, Naaman, boyd, and Davis 2006) such as Imgur,[12] and Flickr[13] for images, SoundCloud for music[14] and YouTube,[15] for

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[2]http://oreilly.com/web2/archive/what-is-web-20.html

[3]http://www.paulgraham.com/web20.html

[4]http://www.readwriteweb.com/archives/the_readwrite_w.php

[5]http://www.lifewithalacrity.com/2004/10/tracing_the_evo.html

[6]http://www.socialtimes.com/2008/01/defining-social-platforms/

[7]http://www.w3.org/Amaya/

[8]See e.g. the 1997 W3C introduction (Quint and Vatton 1997), a screenshot from the 2001 WWW conference report (Dumbill 2001), or the open source code.

[9]http://blogspot.com

[10]Open source blogging software http://wordpress.org and hosted blogs at http://wordpress.com/

[11]http://wikipedia.org, using the open source MediaWiki software http://www.mediawiki.org/

[12]http://imgur.com

[13]www.flickr.com

[14]http://soundcloud.com

[15]http://www.youtube.com

video, tagging and social bookmarking (Marlow, Naaman, boyd, and Davis 2006) such as Delicious,[16] microblogging (Naaman, Boase, and Lai 2010; boyd, Golder, and Lotan 2010; Java, Song, Finin, and Tseng 2007) such as Twitter and Weibo,[17] social networking (boyd and Ellison 2007; Dijck 2013; Wilson, Gosling, and Graham 2012) such as Facebook[18] and LinkedIn[19] and location-based social networking (Ludford, Priedhorsky, Reily, and Terveen 2007; Crowley 2005) such as Foursquare,[20] among others. Centralized hosted services, typically owned and operated by commercial entities, and may enable other services to use their network; decentralized approaches to social networking (Appelquist, Brickley, Carvahlo, Iannella, Passant, Perey, and Story 2010)—forming a federated Social Web[21]—are meanwhile in grassroots and development phases. In the "vision of a federated Social Web... people own their data and can openly share it without the constraints of a third-party provider" (Passant, Anaya, Sacco, and Kapanipathi 2011). The Social Web, whether federated or brokered by third-parties, offers new ways to communicate and disseminate information on the Web.

3.1.2. The Social Semantic Web, or adding structure to Social Web data

With a growing volume of data online, it has become more difficult to understand, make sense of, and get a comprehensive view of what we know. Furthermore, due to the ease of informal publication and communication mean that traditional quality controls are changing, making filtering of the vast volume of data necessary.

Unstructured data is inherently limited: for instance it may not be immediately clear whether a date is specified as month/day/year or day/month/year, and keywords can have several meanings: a 'crown' means different things to a royalist, a plant biologist, and a dentist, and Paris, Texas is not Paris, France. However, context can help reduce ambiguity, allowing us to infer meanings and add structure.

The idea of the Social Semantic Web is that we can organize the world's knowledge while using social media, by leveraging Semantic Web technologies to create synergy

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[16] http://delicious.com/

[17] Weibo is the generic name for microblogging in China; one such site is Sina Weibo: http://www.weibo.com/

[18] http://facebook.com

[19] http://linkedin.com

[20] http://foursquare.com/

[21] http://www.w3.org/community/fedsocweb/
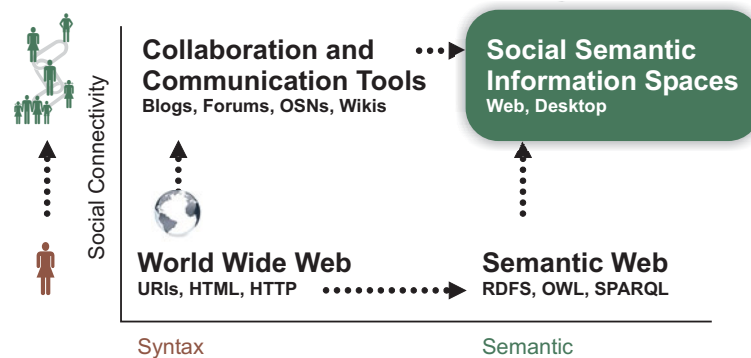
Figure 3.1.: Social Semantic Information Spaces, including the Social Semantic Web, can bring the Web to its full potential. Image source: John Breslin, from (Breslin and Decker 2006).

between human-readable and machine-understandable data. As shown in Figure 3.1, the Social Semantic Web leverages the syntax of the World Wide Web, the added semantic structure of the Semantic Web, and the social connectivity of the Social Web, to bring the Web to its full potential. Tom Gruber expresses the vision of the Social Semantic Web as a move from the *collected* intelligence of the Social Web to a *collective intelligence* (2008). As Gruber explains, Semantic Web technologies can

> enable data sharing and computation across independent, heterogeneous Social Web applications. By combining structured and unstructured data, drawn from many sites across the Internet, Semantic Web technology could provide a substrate for the discovery of new knowledge that is not contained in any one source, and the solution of problems that were not anticipated by the creators of individual web sites. (Gruber 2008)

By combining the Social Web and the Semantic Web, new knowledge could emerge as a side-effect of existing social conversations, without additional effort from end-users.

Semantic technologies are already in widespread use. Search engines such as Bing, Google, Yahoo! and Yandex recognize the semantic markup of schema.org[22] while Facebook[23] and mixi[24] use the Open Graph Protocol[25] markup. Enhanced search engine listings, for instance, may incentivize publishing with these metadata schemes.

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[22]http://schema.org/

[23]http://developers.facebook.com/docs/opengraph/

[24]http://developer.mixi.co.jp/en/connect/mixi_plugin/mixi_check/spec_mixi_check/

[25]http://ogp.me/
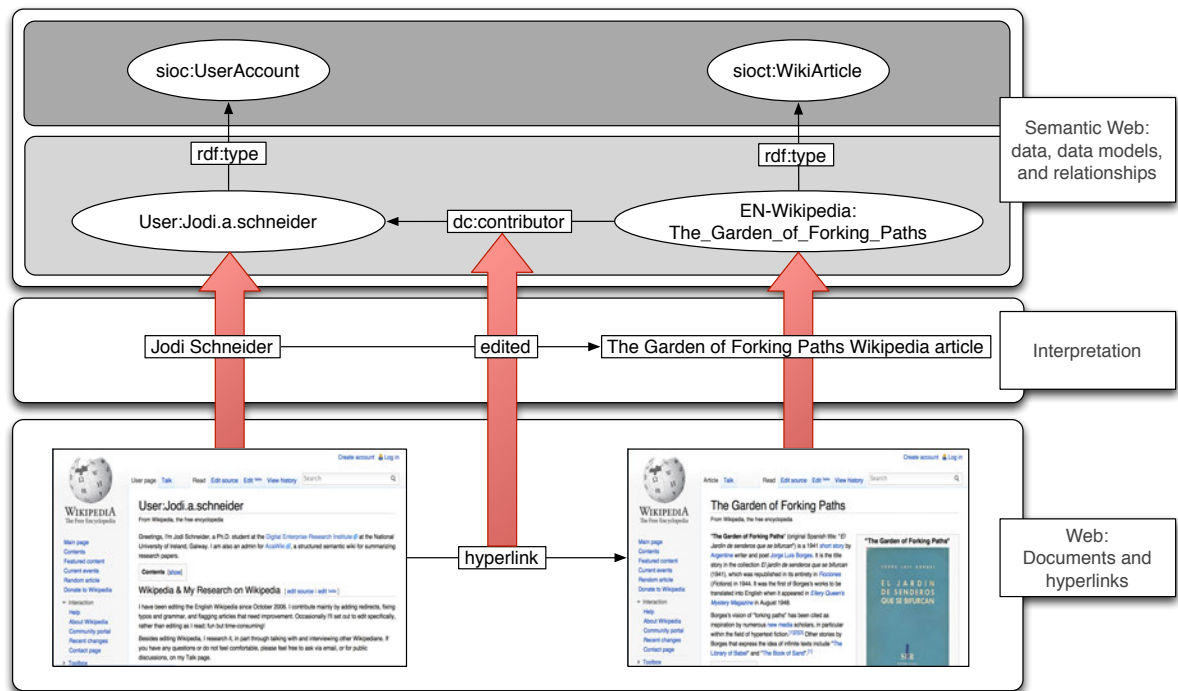
Figure 3.2.: An example of moving from a Web of documents to a Web of Data. We formalize statements such as "Jodi Schneider edited The Garden of Forking Paths Wikipedia article".

The goal of the Semantic Web is to move from a Web of documents, to a Web of Data. Towards this end, the Semantic Web (Berners-Lee, Hendler, and Lassila 2001) adds structure and formalisms to support machine processing of data. We can formalize statements such as "Jodi Schneider edited The Garden of Forking Paths Wikipedia article" or "that is a WikiArticle" as shown in Figure 3.2. Such formalizations can enable more sophisticated information retrieval than simple keyword search. We now discuss the key enabling *semantic* technologies for the Web of Data: data structures called ontologies, a data interchange format called RDF, and a query language called SPARQL.

3.2. Ontologies

An ontology is a formal structure used to enable knowledge sharing and reuse. An ontology "describes a conceptualization, a view of the world from a particular perspective" (Gruber 1995).

Ontologies are appropriate for representing information on the Web, where combining information from different sources is important. A website owner can declare a new

ontology, reusing and importing terms from existing ontologies where appropriate. This reuse then enables users and software agents to combine information based on the existing terms. Furthermore, knowledge engineers can compare different ontologies, describing *crosswalks* that express the equivalence of terms from two ontologies in two different domains.

Ontologies define the data model, indicating the important concepts (Classes) and relationships (Properties) as well as indicating when literal values such as strings or numbers are expected (Literals). Data using an ontology can be stored in a knowledge base.

3.2.1. Example ontology

One example would be an ontology concerning published articles. Besides the authors of an article, we might want to record the article title, the publisher, and the publication date.

For such an ontology, we might start with two Classes: `PublishedArticle` and `Author`, which would express the most important concepts. These Classes could be connected by the Relationships `isAuthorOf` and `hasAuthor`. Each Class might have several Properties: for `Author`, we might indicate their `birthYear`, which we could connect to the Author with the Relationship `hasBirthYear`. And for the Class `PublishedArticle` we might use Properties such as `title`, `publisher`, and `publicationDate`, and make Relationships, `hasPublisher`, `hasPublicationDate`, and `hasTitle`. We might also make Relationships between a Class and itself, for instance if an `Author` has a student who is also an `Author`, we could record that with the relationship `hasStudent`.

A diagram of this example ontology is shown in Figure 3.3. With such an ontology, we could then model Individuals (or Instances) in those Classes, such as the Article: "As We May Think", as shown in Figure 3.4.

Other ontologies of the same domain could be (and have been) developed. For instance, a course model of this domain could be used: the widely accepted ontology, Dublin Core.[26] Dublin Core originated in 1995 as a list of 15 metadata terms, such as title, creator, and date; and evolved into an international standard accepted by ISO, ANSI/NISO, and IETF (*Dublin Core Metadata Element Set, Version 1.1* 2012).

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[26]http://purl.org/dc/elements/1.1
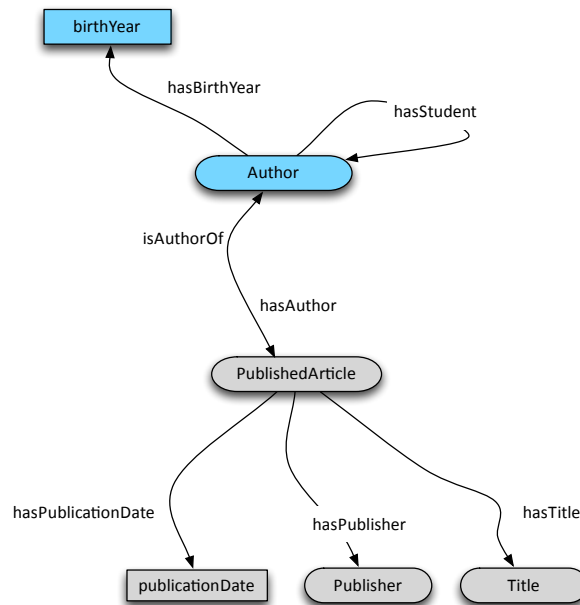
Figure 3.3.: An example ontology with two Classes: `PublishedArticle` and `Author` and several Properties and Relationships.
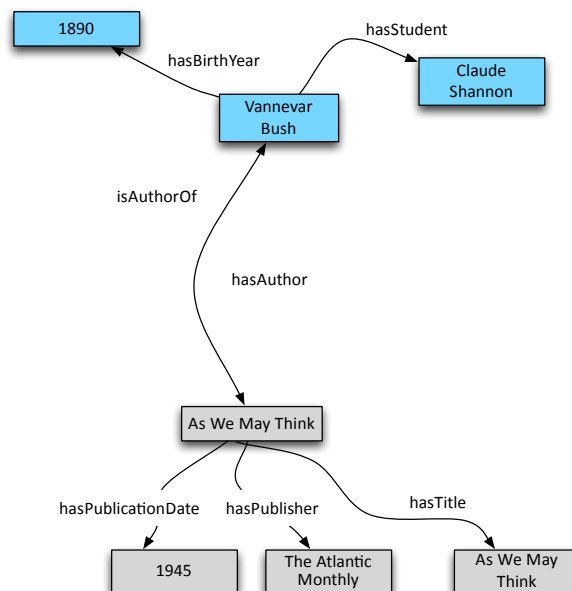
Figure 3.4.: "As We May Think" as an instance of the ontology from Figure 3.3.

Lightweight ontologies such as Dublin Core have found wide application due to the minimal constraints on their application. For instance, computer files often use Dublin Core terms as metadata. Example file formats include PDF, image file formats including PNG and JPEG, and audio file formats such as WAV and MP3; these draw from the Extensible Metadata Platform (XMP), an ISO standard that describes metadata for

files (ISO 2012). Dublin Core is used in digital libraries and as basic metadata for interchange, for instance in the Open Archives Initiative standards (Lagoze, Van de Sompel, Nelson, and Warner 2002; Lagoze, Van de Sompel, Johnston, Nelson, Sanderson, and Warner 2008) and some website descriptions.[27]

3.2.2. Influential Social Web ontologies

We now describe the two most influential ontologies for the Social Web, FOAF and SIOC. These allow us to consistently represent aspects such as who wrote a message, when it was published, and what forum it is part of. It may be relevant to represent such information, in order to use and reuse arguments and opinions expressed in the Social Web.

FOAF

FOAF[28]—Friend Of A Friend—is an ontology to identify people, relationships between people, and online accounts. To model the Social Web, describing people and accounts is useful, and consequently FOAF is an important and widely used ontology. Currently, FOAF is among the most widely deployed vocabularies.[29] Prominent websites using FOAF include the BBC,[30] DBPedia,[31] LiveJournal,[32] and Nature Publishing Group.[33]

Yet people and accounts are not the only important concepts in the Social Web, which motivated the creation of our next ontology, SIOC.

SIOC

SIOC—Semantically-Interlinked Online Communities (Breslin, Harth, Bojārs, and Decker 2005)—focuses on representing Social Web spaces, interactions, and content. For instance,

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[27]For example, guidelines of some websites specify that they should provide Dublin Core metadata. See for instance LawAccess NSW Australia, http://info.lawaccess.nsw.gov.au/lawaccess/lawaccess.nsf/pages/jsms_elements and the U.S. National Library of Medicine http://www.nlm.nih.gov/psd/pcm/devpermanence.html

[28]http://www.foaf-project.org/

[29]http://lod-cloud.net/state/#terms

[30]http://www.bbc.co.uk/ontologies/

[31]http://wiki.dbpedia.org/Datasets/Properties

[32]http://www.livejournal.com/bots/

[33]http://www.nature.com/developers/documentation/linked-data-platform/releases/release-notes-2012-07-16/

wikis, messages, and replies between messages can all be represented in SIOC. It is a lightweight ontology, emphasizing data interchange more than automated reasoning.

SIOC has been widely adopted, and recognizing this, the paper introducing it (Breslin, Harth, Bojārs, and Decker 2005) won the 2012 Seven-Year Influential Paper Award from the Extended Semantic Web Conference. In addition to a number of exporters for SIOC data,[34] some systems have adopted SIOC directly, exposing even more semantic data from their systems; one example is the popular Content Management System Drupal.[35]

In the next section we show the technologies that allow us to apply ontologies to the Web, and to query Web data based on these ontologies.

3.3. Technologies for applying ontologies to the Web

To use ontologies on the Web, indicating relationships as in Figure 3.4, we need to know how to markup Web data.

3.3.1. Two ontology standards: RDFS and OWL

Semantic Web technologies provide us with two ontology standards: RDFS and OWL. With RDF Schema, commonly known as RDFS (RDF Core Working Group 2004b), the focus is on modeling Classes, Properties, and the relationships between them. One common relationship is the subclass relationship, `rdfs:subClassOf`. In RDFS, restrictions such as domain and range can also be declared. For example, in Listing 1, we show part of an RDFS lightweight ontology for our example from Figure 3.3; we define the `PublishedArticle` and `Author` Classes, and indicate that `hasAuthor` is a Property relationship from instances of `PublishedArticle` to instances of `Author`.

The Web Ontology Language, called OWL (W3C OWL Core Working Group 2012), is far more expressive than RDFS: in addition to the features of RDFS, OWL can be used to express cardinality and inverses, for example, along with other concepts such as equality (`owl:sameAs`), symmetry, disjointness, unions, and complements. In Listing 2 we show part of an OWL ontology for our example from Figure 3.3. We define `PublishedArticle` and `Author` as OWL Classes, rather than RDFS Classes as in the previous listing, and

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[34]http://sioc-project.org/applications
[35]http://drupal.org

we define `hasAuthor` as an OWL ObjectProperty rather than an RDFS Property as
in the previous listing. For the property `hasAuthor`, we can state the inverse property
`isAuthorOf`, and we can also state that for any instance of `PublishedArticle`, the
`hasAuthor` relationship holds for at least one `Author`.

Listing 1: RDFS fragment in Turtle

```
ex:PublishedArticle a rdfs:Class;
  rdfs:label "published article" .

ex:Author a rdfs:Class;
  rdfs:label "author" .

ex:hasAuthor a rdf:Property;
  rdfs:label "hasAuthor" ;
  rdfs:domain ex:PublishedArticle ;
  rdfs:range ex:Author .
```

Listing 2: Added constraints with an OWL fragment in Turtle

```
ex:PublishedArticle a owl:Class ;
  rdfs:label "published article" .
  rdfs:subClassOf [
    owl:minQualifiedCardinality "1"^^xsd:nonNegativeInteger ;
    owl:onProperty ex:hasAuthor ;
    owl:onClass ex:Author .
  ]

ex:Author a owl:Class;
  rdfs:label "author" .

ex:hasAuthor a owl:ObjectProperty ;
  rdfs:label "has author" ;
  rdfs:domain ex:PublishedArticle ;
  rdfs:range ex:Author ;
  owl:inverseOf :isAuthorOf .
```

3.3.2. Resource Description Format, a data model

Both OWL and RDFS use the same underlying data model: Resource Description
Format, or RDF (RDF Core Working Group 2004a). RDF can be serialized several ways
and is used for data interchange and data integration. We show examples of the same
information serialized three different ways, in Turtle (Listing 3), RDFa embedded in
HTML (Listing 4), and RDF/XML (Listing 5). These are not the only serializations: for
instance, JSON-LD became a W3C recommendation in 2014 (Sporny, Longley, Kellogg,
Lanthaler, and Lindström 2014).

Listing 3: Sample RDF in Turtle

```
@prefix dcterms: <http://purl.org/dc/elements/1.1/> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .


<http://jodischneider.com/> dcterms:title "Jodi Schneider's homepage"@en ;
                            dcterms:creator "Jodi Schneider"@en .
<http://www.jodischneider.com/#me> a foaf:Person ;
                                   foaf:name "Jodi Schneider"@en ;
                                   foaf:mbox <mailto:jschneider@pobox.com> .
```

Listing 4: The same example, presented in XHTML+RDFa 1.0

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.0//EN"
"http://www.w3.org/MarkUp/DTD/xhtml-rdfa-1.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xmlns:dcterms="http://purl.org/dc/elements/1.1/"
xmlns:foaf="http://xmlns.com/foaf/0.1/"
version="XHTML+RDFa 1.0" xml:lang="en">
  <head>
    <title>Jodi Schneider's Home Page</title>
      <base href="http://jodischneider.com/"/>
        <meta property="dcterms:title" content="Jodi Schneider's homepage"/>
        <meta property="dcterms:creator" content="Jodi Schneider"/>
  </head>
  <body about="http://www.jodischneider.com/#me">
    <div typeof="foaf:Person">
      <h1 property="foaf:name">Jodi Schneider</h1>
      <p> Email: <a rel="foaf:mbox" href="mailto:jschneider@pobox.com">
jschneider@pobox.com</a></p>
    </div>
  </body>
</html>
```

Listing 5: The same example, presented in RDF/XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<rdf:RDF
xmlns:dcterms="http://purl.org/dc/elements/1.1/"
xmlns:foaf="http://xmlns.com/foaf/0.1/"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <rdf:Description rdf:about="http://jodischneider.com/">
    <dcterms:title xml:lang="en">Jodi Schneider's homepage</dcterms:title>
    <dcterms:creator xml:lang="en">Jodi Schneider</dcterms:creator>
  </rdf:Description>
  <foaf:Person rdf:about="http://www.jodischneider.com/#me">
    <foaf:name xml:lang="en">Jodi Schneider</foaf:name>
    <foaf:mbox rdf:resource="mailto:jschneider@pobox.com"/>
  </foaf:Person>
</rdf:RDF>
```

3.3.3. SPARQL, a query language

SPARQL (W3C RDF Data Access Working Group 2008), short for SPARQL Protocol and RDF Query Language, allows querying on the Semantic Web. SPARQL is a W3C standard (W3C RDF Data Access Working Group 2008) and the standard query language for RDF. An example query, to retrieve all email addresses associated with any `foaf:Person`, is shown in Listing 6.

Listing 6: Using SPARQL to retrieve all email addresses associated with any foaf:Person

```
PREFIX foaf: <http://xmlns.com/foaf/0.1/>

SELECT ?email
WHERE{
    ?person a foaf:Person .
    ?person foaf:mbox ?email .
}
```

3.3.4. Linked Data

The vision of Linked Data is to make it possible to "follow your nose" to data, in the same way that a hypertext-based Web allows us to click on links to navigate to other documents. With Linked Data, humans and machines can get information from the same sources, because relationships between different datasets are indicated with typed links (Bizer, Heath, and Berners-Lee 2009).

Various domains have adopted Linked Data, with prominent projects in open government data, cultural heritage, publishing, and bioinformatics, among others. The Linked Data Cloud measures the uptake of Linked Data in periodic snapshots, showing growth in adoption of Linked Data across the globe (3.1 Bootstrapping the Web of Data Heath and Bizer 2011).[36]

In technical terms, Linked Data is based on four principles. These Linked Data principles (Berners-Lee 2006-2009) are:

1. Use URIs as names for things.

2. Use HTTP URIs so that people can look up those names.

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[36]http://lod-cloud.net/asofVersion0.3,2011-09-19

3. When someone looks up a URI, provide useful information, using the
   standards (RDF, SPARQL).

4. Include links to other URIs, so that they can discover more things.

In effect, this means to use Web pages as identifiers, put information on those pages including both human-readable and machine-readable (e.g. RDF) data, and to link to other related representations and data.

3.4. Argumentation ontologies

Next we turn from the overall structuring technology to the particular ontologies used to represent arguments. For structuring arguments into ontologies, there are several approaches. We emphasize models for informal (rather than formal) argumentation, since we focus on representing Social Web information for human understanding, rather than for computational reasoning. We choose from the simplest and most foundational models, since our purpose in this section is to emphasize the potential for structuring different aspects of arguments and argumentation. We provide examples of these structural models.

This section covers four key argumentation ontologies. The first two ontologies, which model Toulmin's argumentation scheme and Issue-Based Information System (IBIS), respectively, are direct interpretations of informal argumentation models. The other two ontologies, SIOC Argumentation and the Argument Interchange Format (AIF), were designed to be used for representation and interchange of particular data. SIOC Argumentation was designed for Social Web data while AIF was designed for computer argumentation tool data. As such, these latter ontologies *draw on* argumentation schemes rather than functioning to *model* a single argumentation scheme.

Toulmin and IBIS, the first two models we highlight, are the oldest schemes in regular use, and among the best known.[37] So far, to our knowledge, they are the only informal argumentation schemes expressed as ontologies.

SIOC Argumentation and AIF originated as ontologies. SIOC Argumentation, as the name suggests, extends the popular social web ontology SIOC we discussed earlier in Section 3.2.2; it draws inspiration for its argumentation model from IBIS. Meanwhile,

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[37]For instance, in 1998, urban planner (Tweed)argued that the Toulmin and IBIS schemes were the most prevalent, in the context of his work on reducing cognitive overhead by using these schemes with computer-based tools.

AIF began in the argumentation community as an ontology designed to support the interchange of data between argumentation tools.

3.4.1. Toulmin

Toulmin's theory distinguishes and gives names to parts of arguments. Figure 3.6 shows Toulmin's now-famous argument, presented according to this structure. Consider the example "Harry was born in Bermuda. So, presumably, Harry is a British subject." shown in Figure 3.6. This moves from data ("Harry was born in Bermuda.") to a conclusion or claim ("Harry is a British subject."). The words "So, presumably," indicate a *defeasible inference*. 'Defeasible' indicates that with new information, the conclusion might be invalidated.

Toulmin's theory represents the *internal* structure of the argument. Subparts of an argument have different functions. This theory labels the parts of the argument as shown in Figure 3.5. Then, instance data can be modeled using this argument structure, as shown in Figure 3.6. We can describe arguments abstractly—as in the words *Claim* and *Data* in Figure 3.5—or concretely as the sentence fragments such as "Harry is a British subject" and "Harry was born in Bermuda", as shown in Figure 3.6.

In addition to a *Claim* and *Data*, there are various other parts of the argument with different functions. In particular, *Data* is supported by *Warrants* which have *Backings*, showing that a *Claim* holds with *Qualifiers* regarding the situation, unless there is a *Rebuttal*.
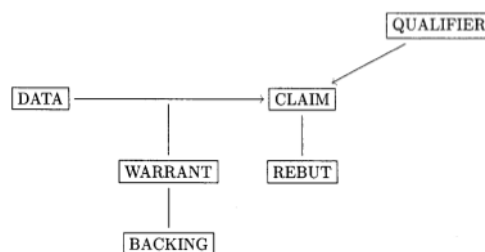
Figure 3.5.: An interpretation of Toulmin's argument pattern, from (Carbogim, Robertson, and Lee 2000).

An ontology representing this model has recently been created.
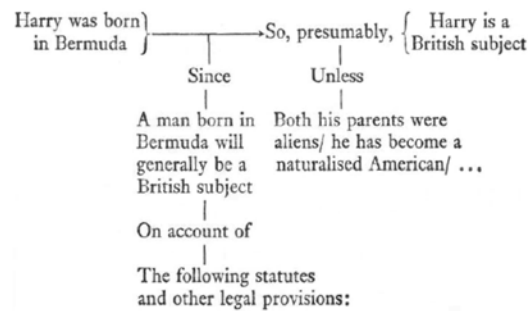
Figure 3.6.: Toulmin's example argument, from (Toulmin 1958, p. 105).

Toulmin ontology

The Argument Model Ontology (AMO), from Fabio Vitali and Silvio Peroni, translates the Toulmin model into a formal OWL ontology.[38] In this model, an Argument can be dissected into its parts: in particular, Figure 3.7 describes that an `Argument` in the Toulmin ontology must have at least three parts. It must have exactly one `Claim`, at least one statement of `Evidence`, and at least one `Warrant`. A `Qualifier` expresses the degree of certainty (e.g. 'certainly' or 'probably') while a `Rebuttal` is defined as a "restriction that may be applied to the claim".[39] An `Argument` in Toulmin's model may also have a `Backing`; a `Backing` certifies the `Warrant`, for instance with a citation to a document or rule. The relationships between the parts of the `Argument` are shown in Figure 3.8.

A careful comparison of Toulmin's model Figure 3.5 with the Argument Model Ontology Figure 3.8 shows one important discrepancy. Where Toulmin himself uses Data, the ontology uses Evidence. In Toulmin's view, data becomes evidence through a particular process. We should move from Data to Claim through the use of the Warrant. Data *supports* a Claim through use of the Warrant (which indicates the relevance of the data) and the Backing (which explains and supports the Warrant).

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[38]http://www.essepuntato.it/lode/http://www.essepuntato.it/2011/02/argumentmodel
[39]http://www.essepuntato.it/lode/http://www.essepuntato.it/2011/02/argumentmodel
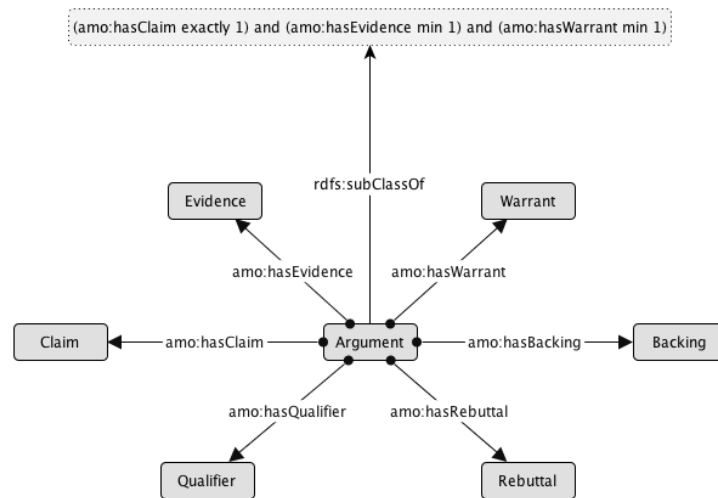
Figure 3.7.: An argument-centered view of the Toulmin argumentation model.[a]

[a]http://www.essepuntato.it/lode/http://www.essepuntato.it/2011/02/argumentmodel
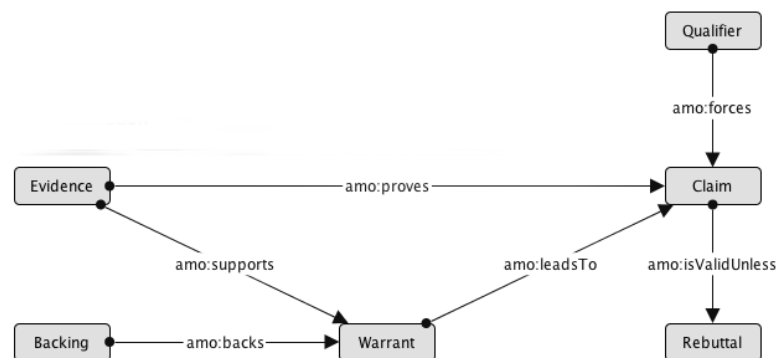
Figure 3.8.: A relation-centered view of the Toulmin argumentation model.[a]

[a]http://www.essepuntato.it/lode/http://www.essepuntato.it/2011/02/argumentmodel

While Toulmin's schemes are the most influential for dissecting arguments, IBIS is probably the most influential scheme for recording the relationships between arguments in informal argumentation.

3.4.2. IBIS

IBIS, Issue-Based Information System, is a problem-solving structure that focuses on classifying individual arguments and their relation to a whole. First published in 1970 in the management community Kunz and Rittel, it was later taken up by the design

rationale and human-computer interaction communities.[40] Originally implemented as a paper-based system, IBIS had a significant impact on computational argumentation systems, especially gIBIS (Conklin and Begeman 1988), and on facilitated approaches to argumentation visualization such as dialogue mapping (Conklin 2005). One caveat is that, although many tools are described as 'using the IBIS model' or 'IBIS-like', there is significant variation in the underlying structure of these models (Jarczyk, Löffler, and Shipman III 1992). 'IBIS-like' systems focus first on identifying issues, and then on identifying pros and cons for a particular issue.

As the name suggests, IBIS centers around controversial *issues* which take the form of questions. Specialists from different fields may use the same words with different assumptions and intentions,[41] hampering communication. IBIS is especially intended to support community and political decision-making. In this scenario, there may be three separate groups—the participants in the discussion, the relevant experts, and the decision makers—each of whom need to communicate with each other and who must also get information from existing records and documentation.

IBIS, as originally designed, is a documentation system, meant to organize discussion and allow subsequent understanding of the decision taken; this explains the use of 'Information System' in its acronym. The discussion is a considered to be a *discourse* about a *topic*. Issues may bring up *questions of fact* and be discussed in *arguments*. Here, "*Arguments* are constructed in defense of or against the different positions until the issue is settled by convincing the opponents or decided by a formal decision procedure," (Kunz and Rittel 1970). IBIS also recognizes *model problems*, such as cost-benefit models, that deal with whole classes of problems.

IBIS ontology

Two RDF ontologies have been made based on IBIS. In the first IBIS ontology, created by Danny Ayers,[42] there are three Properties: `pro`, `con`, and `refersTo`, and five Classes: `Idea`, `Argument`, `Question`, `Decision`, `Reference`, and `Map`. One suggestion was to use this in email, for instance specifying ibis:con in response to an email indicating it was an

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[40]For a comprehensive history of computer supported argumentation, see (Buckingham Shum 2003), in the very useful book *Visualizing Argumentation* (Kirschner, Buckingham-Shum, and Carr 2003).

[41]"Many central terms used are proper names for long stories specific of the particular situation, with their meaning depending very sensitively on the context in which they are used." (Kunz and Rittel 1970)

[42]Previously at http://purl.org/ibis and the site is now archived e.g. at http://web.archive.org/web/20120606063823/http://hyperdata.org/xmlns/ibis/ .

ibis:Position; this recalls the system Zest (Yee 2002) which used + or - to indicate agreement and disagreement in email.

A more recent IBIS ontology, created by Dorian Taylor, is shown in Figure 3.9.[43] This distinguishes three Classes: Argument, Position, and Issue,[44] and specifies the foaf:Agent who ibis:endorses any of those. Additional relations include terms like supporting and responding (which relate an Argument to a Position), and mereological[45] relations such as ibis:specializes, among others. This IBIS ontology, unlike the previous one, uses OWL; this is in order to define disjoint Classes and inverse Properties.
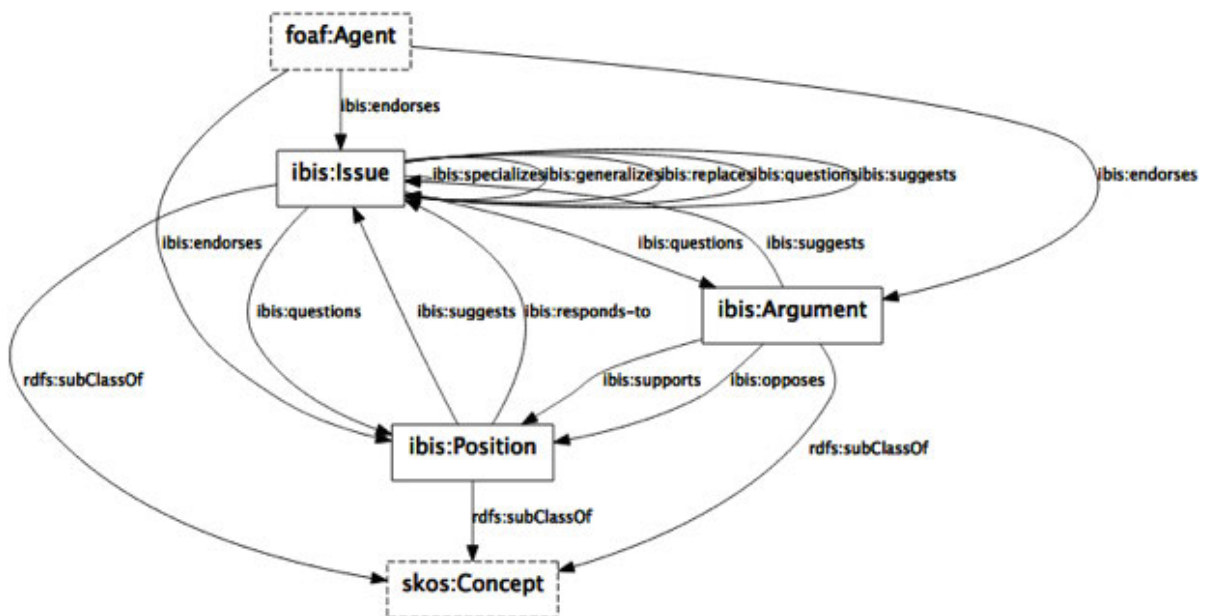
Figure 3.9.: The IBIS ontology from Dorian Taylor.[a]

[a]http://privatealpha.com/ontology/ibis/1#

IBIS has appeared in various forms and as the difference between these two ontologies show, there is some variation in how IBIS is conceived of and used.

3.4.3. SIOC Argumentation ontology

The SIOC Argumentation ontology[46] was designed to capture and externalize implicit knowledge from argumentation in the Social Web (Lange, Bojārs, Groza, Breslin, and

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[43]http://privatealpha.com/ontology/ibis/1#
[44]All of these Classes are modeled as subclasses of the popular Class skos:Concept
[45]Pertaining to wholes and parts.
[46]http://rdfs.org/sioc/argument

Handschuh 2008; Groza, Handschuh, Breslin, and Decker 2009; Groza, Handschuh, and Breslin 2008). It is intended to provide finer-grained representation of discussions and argumentation in online communities than that given in SIOC (see Section 3.2.2), on which it is based. This argumentative extension to SIOC is based on the IBIS model discussed above, as extended by the DILIGENT (Tempich, Pinto, Sure, and Staab 2005) a process and ontology for managing inconsistencies in ontology engineering discussions. For instance, the IBIS terms `Argument`, `Issue` and `Position` are reused in SIOC Argumentation.

The SIOC Argumentation model has not been widely adopted, perhaps because, whereas the items modeled by the core of SIOC are already collected and stored by many Social Web systems, SIOC Argumentation handles additional information, such as the issues and positions, that is typically not readily available.
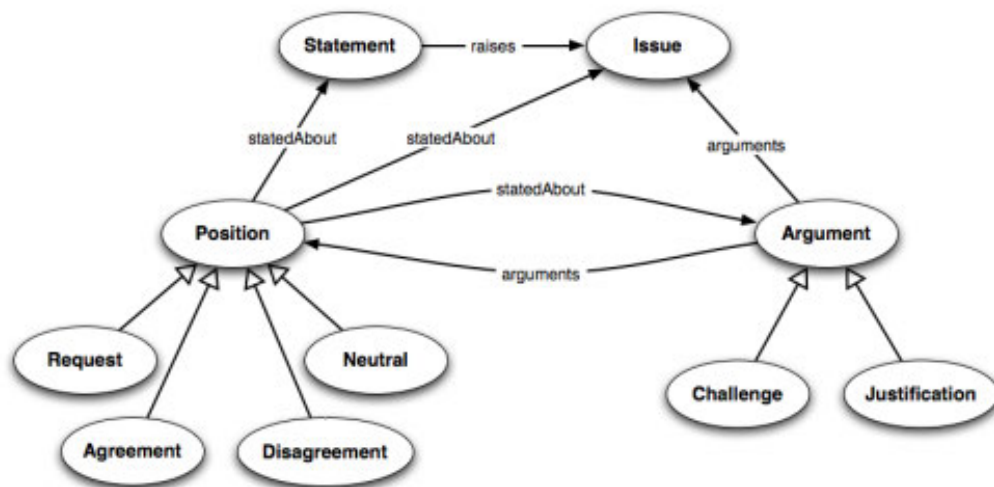
Figure 3.10.: A detailed view of the SIOC argumentation model from (Groza, Handschuh, and Breslin 2008).

3.4.4. Argument Interchange Format ontology

The Argument Interchange Format (AIF) (Chesñevar, McGinnis, Modgil, Rahwan, Reed, Simari, South, Vreeswijk, and Willmott 2006) is a powerful, dedicated ontology for argumentation, originally designed to allow interchange between different tools for argument visualization and evaluation. It was also proposed as the base layer enabling

the World Wide Argument Web, whose vision we introduced in Section 1.3.3, and which we will discuss further in Chapter 3.
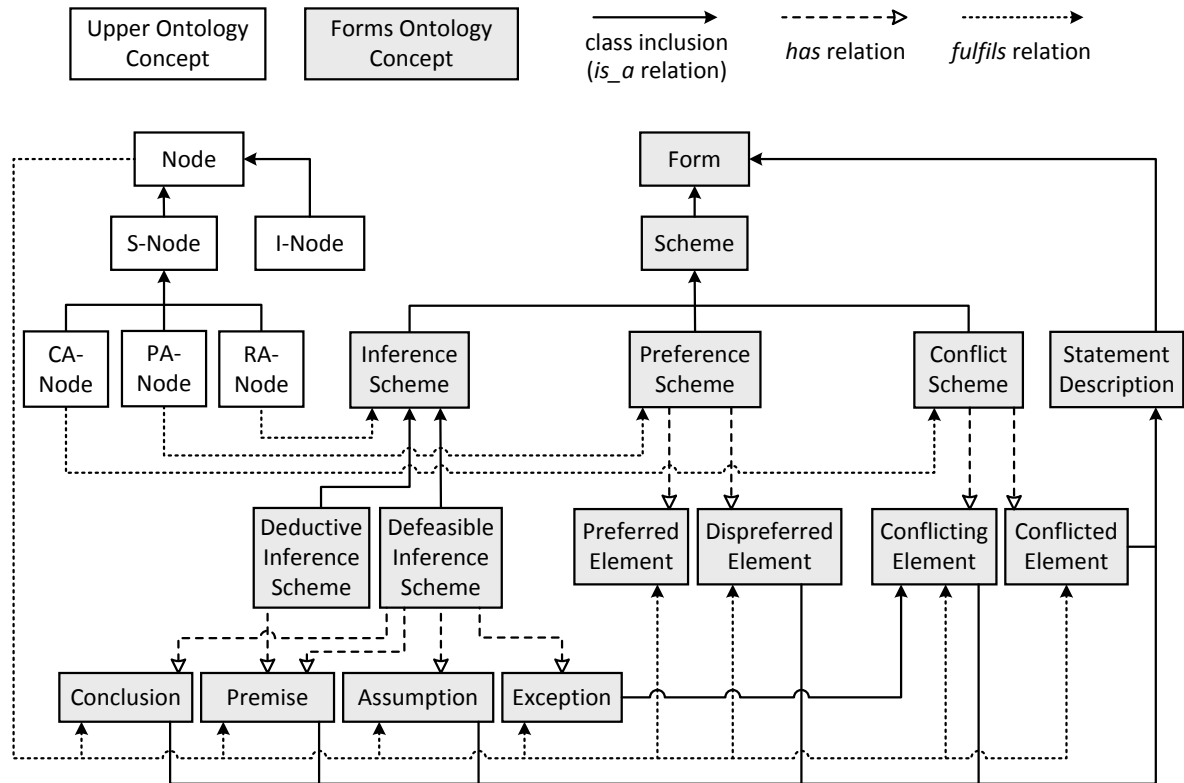
Figure 3.11.: Concepts and relations of the Argument Interchange Format, from AIF1 (*The Argument Interchange Format (AIF) Specification* 2011).

The AIF specification,[47] shown from version 1 in Figure 3.11, is based around `Forms` (that give argumentation patterns) and `Nodes`. These `Forms` include `Schemes`, such as to indicate inferences, preferences, and conflicts. Mainly we are interested in `Inference Schemes`, which may have `Premises`, `Assumptions`, `Conclusions`, and `Exceptions`. Nodes are of two types: `S-Nodes` denote the use of `Schemes` while `I-Nodes` contain information.

An example in AIF Core is shown in Figure 3.12. The example argument uses a Defeasible Inference Scheme known as 'Expert Opinion', in other words using expert opinion to justify a conclusion.[48] The Inference Scheme on the right describes the argumentation pattern: it has two `Premises` and one `Conclusion`. This `Scheme` is used as a pattern in the instance shown on the left of the diagram. Fulfilling the `Scheme`, means matching a statement from the instance (stored in an `I-Node`) to each `Premise`

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[47]http://www.arg.dundee.ac.uk/aif

[48]We will discuss Expert Opinion as an example of Walton's argumentation schemes in Chapter 6.

and `Conclusion` of the scheme. In the instance, an `RA-Node` labeled 'argEO' indicates the `Scheme` instantiated, in this case Expert Opinion.
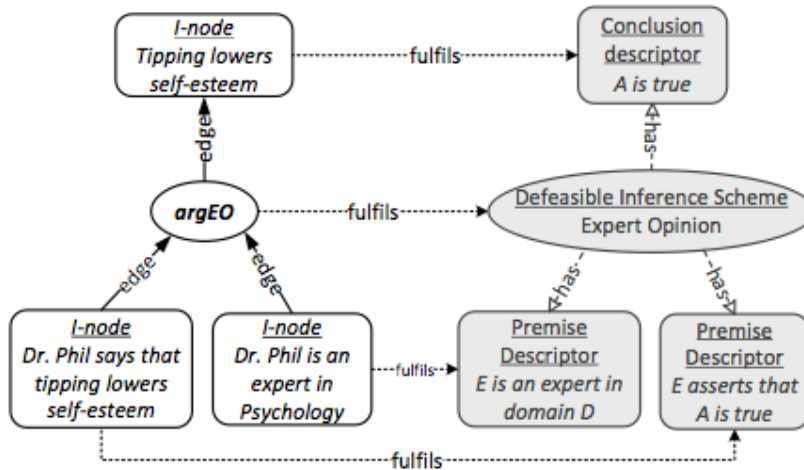
Figure 3.12.: An example argument in AIF Core from AIF1 (*The Argument Interchange Format (AIF) Specification* 2011).

Numerous extensions and revisions to AIF have been proposed, and a second version was released in 2012. Using AIF for the Social Web requires either specifying schemes while making statements, or extracting schemes out of texts after the fact. Shortly we will describe how the AIF ontology has been used for some Social Web tools; before turning to tools, we next compare AIF and the other argumentation ontologies we have described.

3.4.5. Comparison

We have described four argumentation ontologies: Toulmin, IBIS, SIOC Argumentation, and AIF. Each takes a different view of argumentation. We compare these ontologies in Table 3.1. For each ontology we indicate the ontology language it uses, what it models, the main classes of the ontology, and the original application domain.

One further difference between the ontologies is whether they interconnect to or reuse other ontologies. Argument Model Ontology, the Toulmin ontology, does not handle provenance or reuse other ontologies; rather it focuses narrowly on its core purpose: analyzing and decomposing a single (simple) argument. The IBIS ontology links to and reuses two existing ontologies, FOAF (see Section 3.2.2) and SKOS (Isaac and Summers 2009), describing participants by using `foaf:Agent` and describing topics by using

Table 3.1.: Comparison of the argumentation ontologies covered in this section, showing the name and typical prefix, the ontology language, what is modeled, the main classes of the ontology, and the original application domain.

Name (prefix)	Ontology Language	Models	Main Classes	Original Application Domain
Toulmin[a] (amo)	OWL 2 DL	A Single Practical Argument	Argument, Claim, Evidence	Practical Reasoning and Informal Argumentation
IBIS (ibis)	OWL 2 QL	A Problem Space with Issues and Alternatives	Issue, Position, Argument	Problem-Solving and Design for "Wicked Problem" Spaces
SIOC argumentation (sioc_arg)	OWL 1	An Argumentative Conversation	Position, Statement, Issue, Argument	Modeling Disagreement in Social Web
AIF (aif)	OWL 1	Argumentation	I-Node, S-Node, Scheme (especially Inference Scheme)	Software Interchange for Computational Argumentation Tools

[a]Also called the Argument Model Ontology

`skos:Concept`. By comparison, SIOC Argumentation is intended as a module integrated into the widely adopted SIOC core ontology (see Section 3.2.2). And the AIF ontology does not link to other ontologies, for instance when defining the `authorName:` and `creationDate:` of a Scheme.

Another difference is the adoption rate. The Toulmin and IBIS models have been influential, and have been adopted in various computer support tools (Schneider 2012). The ontologies have seen less adoption than the original models, in part because they are new: the Toulmin ontology was only published in 2011 and Taylor's IBIS ontology was published in 2012. SIOC Argumentation is a bit older, as publications on the ontology date to 2008, and also draws from IBIS; yet it is not heavily used and has not been publicized as part of the SIOC ontology. AIF has seen numerous publications in the argumentation community since 2007 and has seen wide application as an interchange format for computer tools; according to (Bex, Lawrence, Snaith, and Reed 2013) about 10 research labs in the US and Europe are now using AIF.

3.4.6. Different concepts of argument

Next, to further describe the differences between the these ontologies, we compare how each ontology conceptualizes 'argument'. We draw on Wyner et al.'s terminology, which we now recall from Section 2.4.3: a (simple) argument has no sub-arguments and is comprised of rules, facts, and a claim; a case is a set of arguments that support a claim; a debate is a set of arguments that both support and attack a claim.

The Toulmin ontology models a single (simple) argument by decomposing it into parts. For Toulmin, the argument itself is the focus as Figure 3.7 on page 61 suggests. The central term, `Argument`, supports a `Claim`, with `Evidence` and `Backing`, at minimum. The purpose of this ontology is to model a single argument.

By contrast, the IBIS ontology describes a debate. There is no single central concept: rather, `Issue`, `Position`, and `Argument` are important interconnected concepts in IBIS. The `Argument` in IBIS states a `Position` (that it either `supports` or `opposes`) on an `Issue`. The closest point of contact between the IBIS and Toulmin models is that a `Position` that `supports` an (IBIS)-`Argument` could be modeled as a `Claim` that supports a (Toulmin)-`Argument`. Yet these models of argument are quite different: Toulmin models the interior of an argument whereas IBIS models the relationship of an argument to a larger debate.

SIOC Argumentation has a certain amount of overlap with IBIS, for instance in having the Classes `Position`, `Issue`, and `Argument`. Here an Argument can be either a `Challenge` or `Justification` (SIOC Argumentation uses Class names rather than the Relationships `supports` and `opposes` used in IBIS). One unique element of SIOC is its inclusion of the term Statement; since we often have people's utterances, rather than the propositions asserted by them, `Statement` is a particularly important concept for argumentation on the Social Web.[49]

AIF provides a framework for describing both *schemes* and *instance data*. Schemes are patterns for argumentation (such as the Toulmin's schemes described above or Walton's argumentation schemes, which we will introduce in Section 6.3). Instance data refers to arguments using the schemes. This separation allows generic reasoning about schemes as well as application of the schemes to instance data, as Figure 3.12 suggests. AIF's notion of `Argument` is exceedingly broad: anything that can be patterned as an inference scheme could be used as the pattern for an argument.

The concept of argument is different in each ontology. There is some overlap: the SIOC Argumentation ontology is an elaboration on the IBIS model, and Toulmin could be readily used as a scheme within the AIF ontology. Overall, for detailed analysis of a simple argument or case, Toulmin and AIF are best, whereas for specifying a debate,

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[49]As Alston notes, the same utterance can have various functions (Alston 2000); some researchers have sought to automatically determine the most likely function (Twitchell, Adkins, Nunamaker Jr, and Burgoon 2004) while work such as (Reed 2011) has considered the function of an utterance (such as the applicable speech acts) in order to understand its role in an argument.

IBIS and SIOC Argumentation are more suitable. Only AIF models detailed analysis of a debate.

3.5. Creating the World Wide Argument Web: Tools Using the Argument Interchange Format

Researchers have created user interfaces that make it easier to structure arguments and opinions so they can be browsed, sorted and queried. Many of these interfaces use the Argument Interchange Format, previously introduced in Section 3.4.4, towards constructing a World Wide Argument Web (Bex, Lawrence, Snaith, and Reed 2013) (Section 1.3.3).

Argument blogging

(a)	(b)
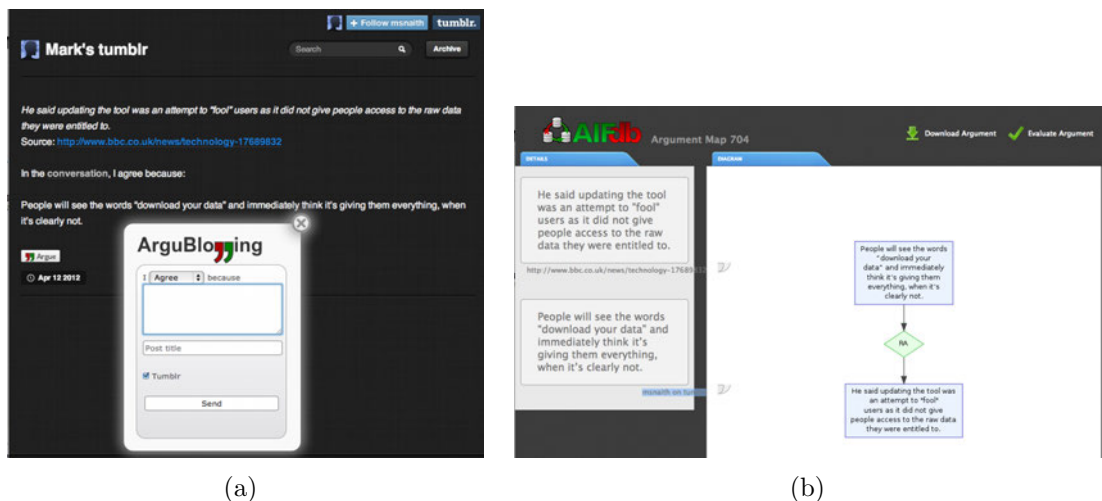
Figure 3.13.: In ArguBlogging, (a) A blog post;[a] clicking the "Argue" button brings up the reply box; and (b) the corresponding conversation in the AIFdb.[b]

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[a]http://msnaith.tumblr.com/post/20976675042/he-said-updating-the-tool-was-an-attempt-to-fool
[b]http://www.arg.dundee.ac.uk/AIFdb/argview/704

Argument blogging was first proposed by Wells, Gourlay and Reed (2009) as a way to bring blogs into the WWAW, based on layering new argument-specific technologies on

top of standard Web technologies.[50] Argument blogging uses text from the current Web as a departure point for the World Wide Argument Web. When browsing the Web, users select text and click a JavaScript bookmarklet, to indicate whether they will support or refute the selected text or attack an inference. The bookmarklet generates a fragment of embeddable JavaScript the user can paste onto his/her blog. Once a blogger opts in to the WWAW by adding JavaScript to a webpage, the page displays a badge which links back to the argument blogging server, where the distributed dialog can be visualized or exported as text.

In 2012, a new ArguBlogging[51] prototype (Snaith, Bex, Lawrence, and Reed 2012) was introduced. Using the OAuth 2.0 protocol (Hardt 2012), this version, called ArguBlogging, connects to Blogger and Tumblr, allowing AIF to be input directly from a blog. Clicking on an "Argue" button on a social web site yields a text box as shown in Figure 3.13(a).

In addition to AIF, ArguBlogging relies on a database and a rules language. The database used is AIFdb (Lawrence, Bex, Reed, and Snaith 2012), a MySQL database for storing AIF documents which can be serialized as RDF and accessed via a RESTful Web service. Rules languages have varied: previous versions reported using Dialog Game Description Language (Ravenscroft, Wells, Sagar, and Reed 2009; Wells and Reed 2012), a grammar for describing the rules of dialogue games. The newest version, ArguBlogging (Bex, Snaith, Lawrence, and Reed in press), supports agreeing or disagreeing, and suggests that more dialogue models could be swapped in.

In ArguBlogging, conversation is stored as AIF in the AIFdb as shown in Figure 3.13(b). Note that the `Scheme`, listed as `RA`, is a generic `Inference Scheme`. This points out one limitation: generic argumentation schemes are used, presumably because for laymen it is difficult to determine which one of the more specific argumentation schemes to select.

Arvina

Arvina (Lawrence, Bex, and Reed 2012) is Web-based software for mixed initiative arguments, extending a previous Google Wave implementation (Snaith, Lawrence, and Reed 2010) and using AIFdb (Lawrence, Bex, Reed, and Snaith 2012). In mixed initiative arguments, argument maps can be both used and built. While using an argument map,

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[50]Earlier work on semantic blogging predating the WWAW focused on the visualization of reply graphs of messages from multiple blogs (Karger and Quan 2004) or the possibilities for inference (Cayzer 2004).

[51]http://argublogging.com/
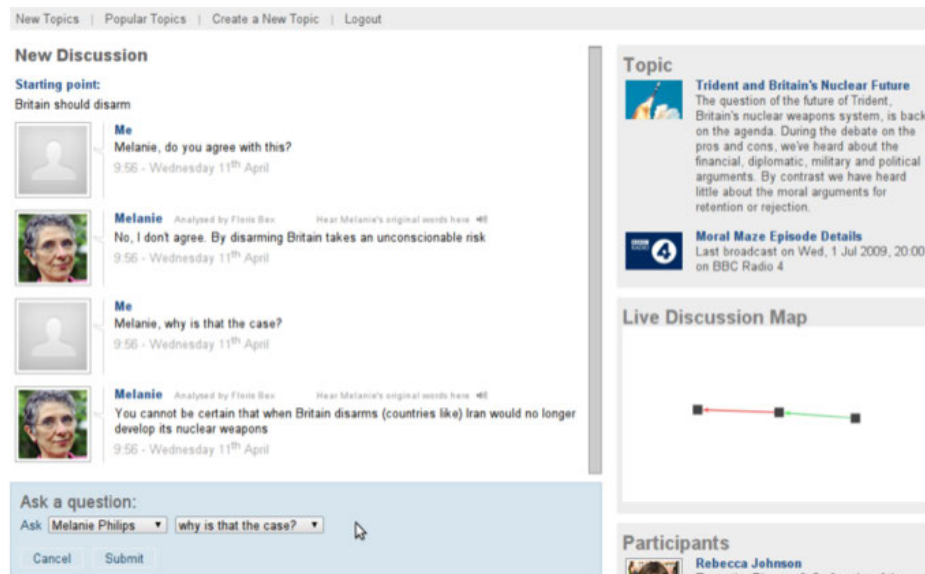
Figure 3.14.: An example of Arvina from (Lawrence, Bex, and Reed 2012).

a machine can represent a position (for instance of a politician or a community FAQ), arguing in place of a human. Meanwhile, any new contributions made in a conversation can be added to the argument map.

Avicenna

Avicenna is a Web argumentation system demonstrated by Rahwan and Banihashemi (Rahwan and Banihashemi 2008; Rahwan, Banihashemi, Reed, Walton, and Abdallah 2011). It extends the ArgDF system, developed as a Semantic Web-based argumentation system as Zablith's Master's project with Rahwan and Reed (Zablith 2007). Avicenna uses AIF and its schemes are drawn from Walton's critical questions and argumentation schemes, as shown in Figure 3.15. We will discuss Walton's argumentation schemes further in Section 6.3.

Avicenna is built on Jena (Carroll, Dickinson, Dollin, Reynolds, Seaborne, and Wilkinson 2004), ARQ,[52] and Pellet (Sirin, Parsia, Cuenca Grau, Kalyanpur, and Katz 2007). Since OWL supports inference over transitive properties, Avicenna can support argument chaining, such as retrieving all arguments that directly or indirectly support a given conclusion. Avicenna is also used to infer the classification hierarchy of argumentation

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[52]http://jena.sourceforge.net/ARQ/
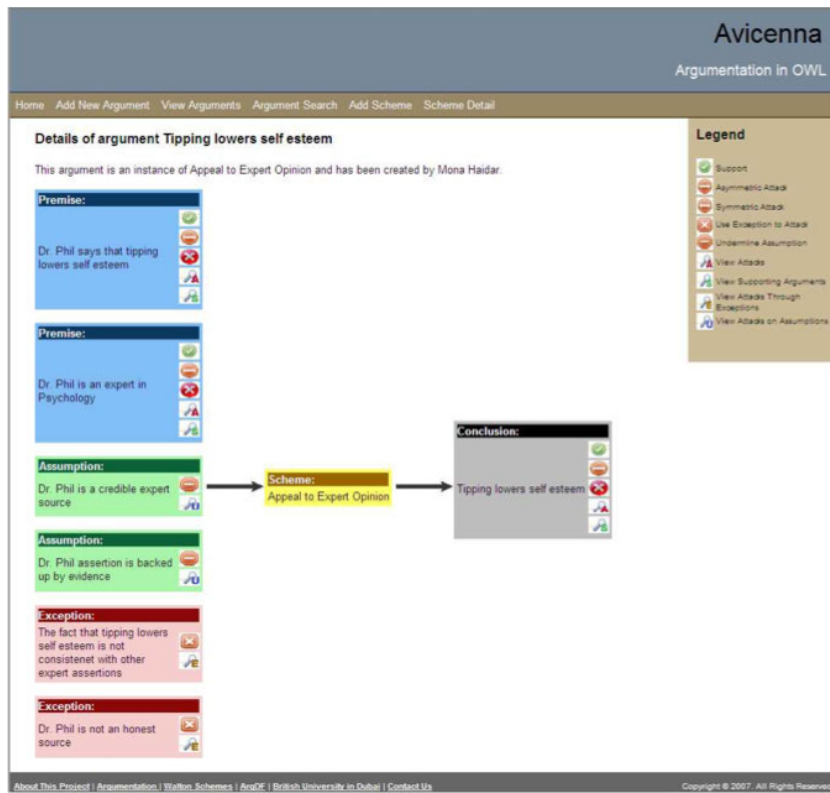
Figure 3.15.: Avicenna uses Walton's critical questions and argumentation schemes (Rahwan, Banihashemi, Reed, Walton, and Abdallah 2011).

schemes: for example, the 'Expert Opinion' scheme specializes the 'Position to Know' scheme.

3.5.1. Limitations of existing AIF-based tools

The tools we discussed have three shortcomings: there is little incentive for individuals to use the tools; arguments must be classified by humans; and the argument classification is typically shallow.

One main obstacle to enacting the World-Wide Argument Web is that most individuals do not analyze arguments carefully. While contributing to cataloging the world's arguments might appeal to some individuals (including many argumentation theorists!), for broader uptake, more direct impacts and benefits to individuals using the tools should be demonstrated. This generation of WWAW tools offers some end-user-friendly prototypes, but can show little uptake so far. One guiding principle in the Social Web is that "personal value precedes network value";[53] that is, to ensure uptake, there must be benefit for an individual contributing, before the system is built.

Another obstacle is that these tools rely on human input to classify arguments. Human classification is laborious, requiring perhaps 8-10 people for real-time argument analysis.[54] In Social Web tools, the argument classification tends to be shallow. Relying on lay human classification brings with it some challenges: the decision to use non-informative default schemes (as in argument blogging) is a sensible response to the challenge of classifying arguments, especially by non-argumentation theorists.

In a subsequent chapter, Chapter 6, we will consider two approaches for classifying arguments, to shed more light on the tradeoff between rich argumentation classifications versus the ease for human classification. Later, in Section 8.3.3, we will also discuss the possibilities of automatic annotation.

3.6. Conclusions

This chapter examined how arguments can be structured on the Web today, with Semantic Web technologies. First we introduced the Semantic Web and the Social Semantic Web. Then we examined the constituent technologies of the Semantic Web: data structures (ontologies), a data interchange format (RDF), ontology languages (RDFS, OWL), and a query language (SPARQL). We also considered the concept of Linked Data, which

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[53]http://bokardo.com/archives/the-delicious-lesson/
[54]http://www.arg.dundee.ac.uk/?page_id=645

integrates the Semantic Web into the current Web in order to move from a Web of documents to a Web of Data.

We then considered four existing ontologies for argumentation: Toulmin and IBIS originated as theories and later became ontologies. Meanwhile SIOC Argumentation and AIF were designed as ontologies to address particular situations, Social Web argumentation and interchange between computer argumentation tools, respectively. These ontologies are the current state of the art for representing arguments on the Web.

This led us to consider how argumentation ontologies are used. We focused on AIF, which has had significant tool development for enacting the World Wide Argument Web. We described three AIF-based tools: Argument blogging, Arvina, and Avicenna. The shortcoming of these tools is that there is little incentive for individuals to use the tools; that (so far) they do not take advantage of automation of annotation, meaning that arguments must be classified by humans; and that this argument classification is typically shallow.

Our work in this thesis addresses these shortcomings: our goal is to make argumentation support that is usable and meaningful within a given environment. This creates significant incentive to use argumentation support tools. Further, to address the difficulty of classifying messages (which humans first must do themselves), we compare two approaches to argument classification in order to choose the simpler and more reliable approach. Next we introduce our reusable analysis procedure for providing argumentation support in a given environment.

Part II.

Core

Chapter 4.

A reusable procedure for supporting argumentative conversations

In this chapter we discuss the structure of the rest of the thesis, and introduce the first contribution of the thesis: a reusable procedure for supporting argumentative conversations. The remainder of the thesis applies our procedure (which we describe in this chapter) to a use case (which we will detail in the subsequent chapter).

Our procedure combines Semantic Web application development with interaction design in a novel way. Since we have previously described Semantic Web technologies in Chapter 3, we briefly introduce interaction design in this chapter.

This chapter consists of three sections. First, we describe interaction design, on which the procedure is based. Second, we present our argumentation support procedure and its steps. Finally, we give an overview of the three core chapters that use this procedure.

4.1. Interaction design

Interaction design is an iterative design process for developing technology that is fit for use by attending to user experience. Related fields include human factors, human-computer interaction, and information architecture, among others, as shown in Figure 4.1 from Saffer's 2010 textbook.[1]

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[1] Now it its second edition, the book has been translated into Italian and Korean, making it a prominent source in the field.
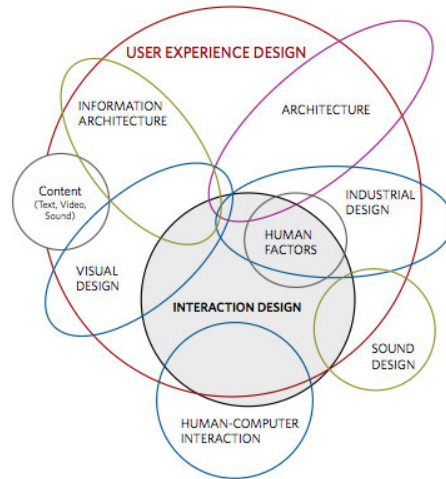
Figure 4.1.: The disciplines surrounding interaction design from (Saffer 2010).

Interaction design has become a prominent subfield of human-computer interaction (HCI); the term was first coined by industrial designers in the mid-1980's (Cooper, Reimann, and Cronin 2012). An active professional association, the interaction design association[2] was founded in 2003, and the Association for Computing Machinery professional magazine, *interactions*, was first published in 1994.[3] Today, interaction design is taught in a number of undergraduate and graduate programs worldwide and is covered in HCI and special-purpose textbooks.[4]

In the third edition of their textbook, *Interaction Design: Beyond human-computer interaction*, Rogers, Sharp, and Preece define interaction design as a four-part process:

> The process of interaction design involves four basic activities
>
> 1. establishing requirements
>
> 2. designing alternatives
>
> 3. prototyping
>
> 4. evaluating
>
> These activities are intended to inform one another and to be repeated. (Rogers, Sharp, and Preece 2011, p. 15)

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[2]http://www.ixda.org/

[3]http://interactions.acm.org/archive

[4]http://en.wikipedia.org/wiki/List_of_interaction_design_programs

We adapt this method to our purposes with a four-part procedure focusing on establishing requirements, designing alternatives for expressing argumentative structure of messages, followed by prototyping an argumentative support system, and finally evaluating the system. We next describe our procedure.

4.2. A reusable procedure for supporting argumentative conversations

In this section, we present a reusable procedure for supporting argumentative conversations. This procedure integrates Semantic Web application development into the interaction design process. We describe the overall procedure, explain the skills required in each phase, and detail the steps involved.

4.2.1. Procedure

Our procedure has four phases: Selection & Requirements Analysis, Categorization, Structuring & Prototyping, and Evaluation. In the Selection & Requirements Analysis phase, an ethnographic approach called netnography is used to establish requirements and to select a representative corpus of argumentative messages. The Categorization phase seeks to determine the most appropriate categorization of arguments based on the requirements; to achieve this, messages are categorized according to their argumentative structure, using the computational linguistics technique of annotation. The Structuring & Prototyping phase applies Semantic Web application development to the results of the previous phases; in particular, we develop a new data model and a system using it. The data model is an ontology based on both the requirements and categories that result from the previous two phases. Finally, in the Evaluation phase, we run a pilot test of the system created; the goal is to evaluate our prototype and to generate ideas for future improvements.

4.2.2. Phases

Each phase has three steps, which are summarized in Table 4.1. In this section, we outline the steps and highlight the skills required for each phase. In the following section we will provide further details about each step.

Selection & Requirements Analysis phase

The *Selection & Requirements Analysis phase* has three steps:

1. Select a community of interest.

2. Characterize the opportunities for argumentation support.

3. Choose a sample corpus.

For this phase the skills required include awareness of relevant communities, ability to immerse oneself in a new community,[5] and interviewing skills.[6] Choosing an appropriate sample corpus requires sufficient knowledge of the community to articulate clear, relevant research questions as well as a qualitative sense of what data is representative; this should be substantiated with descriptive statistics in a quantitative analysis.

Categorization phase

The *Categorization phase* has three steps:

1. Categorize the sample iteratively according to one or more argumentation theories.

2. Validate the category analysis.

3. Choose which categorization scheme best matches the requirements from the previous phase.

Before starting this phase key readings on annotation procedures must be consulted; we used (Hovy 2010) for instance. The initial skills required are awareness of possible categorization approaches (such as relevant domain theories or grounded theory) and the ability to carefully read, reread, and categorize the corpus. Further, documentation

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[5]See (Kozinets 2010, pp. 75–80) for some telling examples of 'netnographic entrée' gone wrong.
[6]See for instance (Weiss 2008).

skills and patience are needed to develop an annotation manual and to iteratively refine the categories. Eventually, the ability to recruit and train additional annotators (at minimum 2-3 others) is essential. Likewise, validating results requires the ability to calculate statistics for inter-annotator agreement. While annotation could be completed by a different person than the previous phase, choosing between categorization schemes requires substantial reasoning about the requirements of the use case, so this choice is best made by the person who completed the Selection & Requirements Analysis phase.

Structuring & Prototyping phase

The *Structuring & Prototyping phase* has three steps:

1. Devise an ontology based on the requirements and categories from the previous two phases.

2. Structure the data according to the ontology.

3. Make a prototype that uses the resulting structured data.

In this phase, additional technical skills are needed. Ontology development is a specialized skill that requires conceptualization of a domain; this formalizes the requirements analysis into a data model. Structuring data requires comfort with HTML and RDF, along with a good understanding of the ontology. Using the structured data requires interface design and development skills. Ideally this starts with the ability to mockup a paper prototype based on domain knowledge gained from the selection & requirements analysis phase. Implementation as a Web application requires the ability to write SPARQL queries and to use RDF libraries (for instance in JavaScript) (Heath and Bizer 2011). In this phase, drawing on skills from multiple individuals is straightforward, as long as the end goal is kept in mind.

Evaluation phase

The *Evaluation phase* has three steps:

1. Design an evaluation and recruit participants.

2. Run the evaluation.

3. Analyze the results.

Table 4.1.: Steps of our reusable procedure for supporting argumentative conversations

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PHASE 1: Selection & Requirements Analysis

1. Select a community of interest.
2. Characterize the opportunities for argumentation support.
3. Choose a sample corpus.

PHASE 2: Categorization

1. Categorize the sample iteratively according to one or more argumentation theories.
2. Validate the categorization.
3. Choose which categorization scheme best matches the requirements from the previous phase.

PHASE 3: Structuring & Prototyping

1. Devise an ontology based on the requirements and categories from the previous two phases.
2. Structure the data according to the ontology.
3. Make a prototype that uses the resulting structured data.

PHASE 4: Evaluation

1. Design an evaluation and recruit participants.
2. Run the evaluation.
3. Analyze the results, using both quantitative and qualitative data.

For this phase the skills required include the ability to run a user-based evaluation. This includes survey development, recruiting participants, gathering qualitative and quantitative impressions, and substantial data analysis (for the last, see e.g.De Vaus 2002). Statistical consulting on the experimental design is particularly desirable, as is having a practice session before running the user-based evaluation.

4.2.3. Steps

Next we provide some further details about the steps in each phase.

Phase 1: Selection & Requirements Analysis

The Selection and Requirements Analysis phase has three steps: selecting a community of interest; characterizing the tasks and questions to be addressed with argumentation support; and choosing a corpus as a test sample.

1. Select a community of interest: First select a community of interest that could benefit from argumentation support. Identify a group of stakeholders and an archive of textual discussions. Meaningful reuse requires a group of stakeholders, such as the discussion participants, other members of the same community, or a different group. Further, the variety of the examples shown in Chapter 2 make it clear that more meaningful reuse of arguments can be determined for messages with the same or similar purpose, conversational style, and argument complexity.

2. Characterize the opportunities for argumentation support: Second, characterize the opportunities for argumentation support. Identify argumentative tasks and information currently used in accomplishing these tasks. Suggested methods include interviewing stakeholders, participating in argumentative discussions, and checking conclusions with stakeholders, for instance that the tasks and information identified are relevant. Finding relevant tasks, of interest to either the original participants or a different community, is essential for enabling meaningful reuse.

3. Choose a sample corpus: Third, choose a corpus of textual discussions as a test sample. Ensure that the sample is representative using a mixed methods, both quantitative and qualitative. Suggested methods include statistical analysis of any measurable quantities along with impressions of stakeholders. The sample selected will determine which messages are analyzed; an imbalanced choice could invalidate results, forcing time-consuming reanalysis.

Phase 2: Categorization

The Categorization phase has three steps: categorizing the sample iteratively according to one or more argumentation theories, validating the categorization, and choosing which categorization scheme best matches the requirements from the previous phase.

1. Categorize the sample iteratively according to one or more argumentation theories: In this phase, first analyze the sample iteratively. Each discussion should be annotated according to at least one argumentation theory. Devise an annotation manual

and train additional human annotators. Check inter-annotator agreement and repeat as necessary, refining the annotation manual and having annotators re-annotate the corpus.

2. Validate the categorization: Second, validate the analysis. In addition to inter-annotator agreement, consider which aspects are adequately covered in the analysis and which are abstracted away. Solicit feedback from stakeholders. If multiple argumentation theories were used, compare them in order to determine which is more appropriate for the tasks and questions. Depending on the application, multiple argumentation theories could continue to be used in the Structuring & Prototyping phase, or a single best choice could be made.

3. Choose which categorization scheme best matches the requirements from the previous phase: Third, compare against the requirements from the selection phase (Phase 1) to choose a categorization scheme. This categorization scheme will be used for structuring discussions.

Phase 3: Structuring & Prototyping

The Structuring & Prototyping phase has three steps: devising an ontology based on the tasks, questions, and analysis; structuring the data according to the ontology; and using the resulting structured data.

1. Devise an ontology based on the requirements and categories from the previous two phases: In this phase, first, devise an ontology based on the requirements and categories from the previous two phases. The ontology should model and represent the results of the previous steps, taking into account the requirements in Phase 1, such as the tasks, questions, and analysis to be addressed, as well as the argumentation categorization chosen in Phase 2. Check and refine the quality of the ontology using ontology engineering measures. Ensure that it is fit for purpose by checking the ontology or its applications with stakeholders.

2. Structure the data according to the ontology: Second, structure the sample data according to the ontology. For HTML input, RDFa (Section 3.3.2) is an appropriate output format. Seek scalable approaches to structure future data (e.g. results from active and ongoing conversations).

3. Make a prototype that uses the resulting structured data: Finally, make a prototype that uses the resulting structured data. For instance, SPARQL (Section 3.3.3)

queries can extract the data according to meaningful patterns. Use these queries in a task-based argumentation support tool.

Phase 4: Evaluation

The Evaluation phase has three steps: designing an evaluation and recruiting participants; using the evaluation; and analyzing the results.

1. Design an evaluation and recruit participants: In this phase, first identify the goals of the evaluation and the variables or constructs to be studied. To ensure appropriate design and the most useful results, consult with HCI and statistics experts regarding the design of experiments. Attend especially to ethical guidelines for human subject research. Also be aware of constraints include the number of participants who can be gathered, the amount of time each participant is willing to spend, and any resources for rewarding or thanking participants. Collect as much data as it is possible to analyze, including at least some qualitative and some quantitative feedback.

2. Run the evaluation: Second, run the evaluation. Use a single run of the evaluation with one person as a test case to find any critical bugs in the prototype or any glaring problems with the experimental design. If possible, test the data analysis before running the full evaluation. Then run the evaluation with the participants recruited.

3. Analyze the results, using both quantitative and qualitative data: Finally, seek actionable information in the results, particularly ideas for iteration. Goals of the data analysis are to highlight any significant differences between the prototype and a baseline. Qualitative and quantitative information should be cross-checked for consistency. Consult experts in statistics and data analysis as necessary.

4.2.4. Overview of the core

In the previous section we described the reusable procedure used in this thesis. Now we provide an overview of the three following chapters, in which we apply this procedure to our case study in Wikipedia deletion discussions. Figure 4.2 shows a schematic, applying the procedure described above to our chapters.
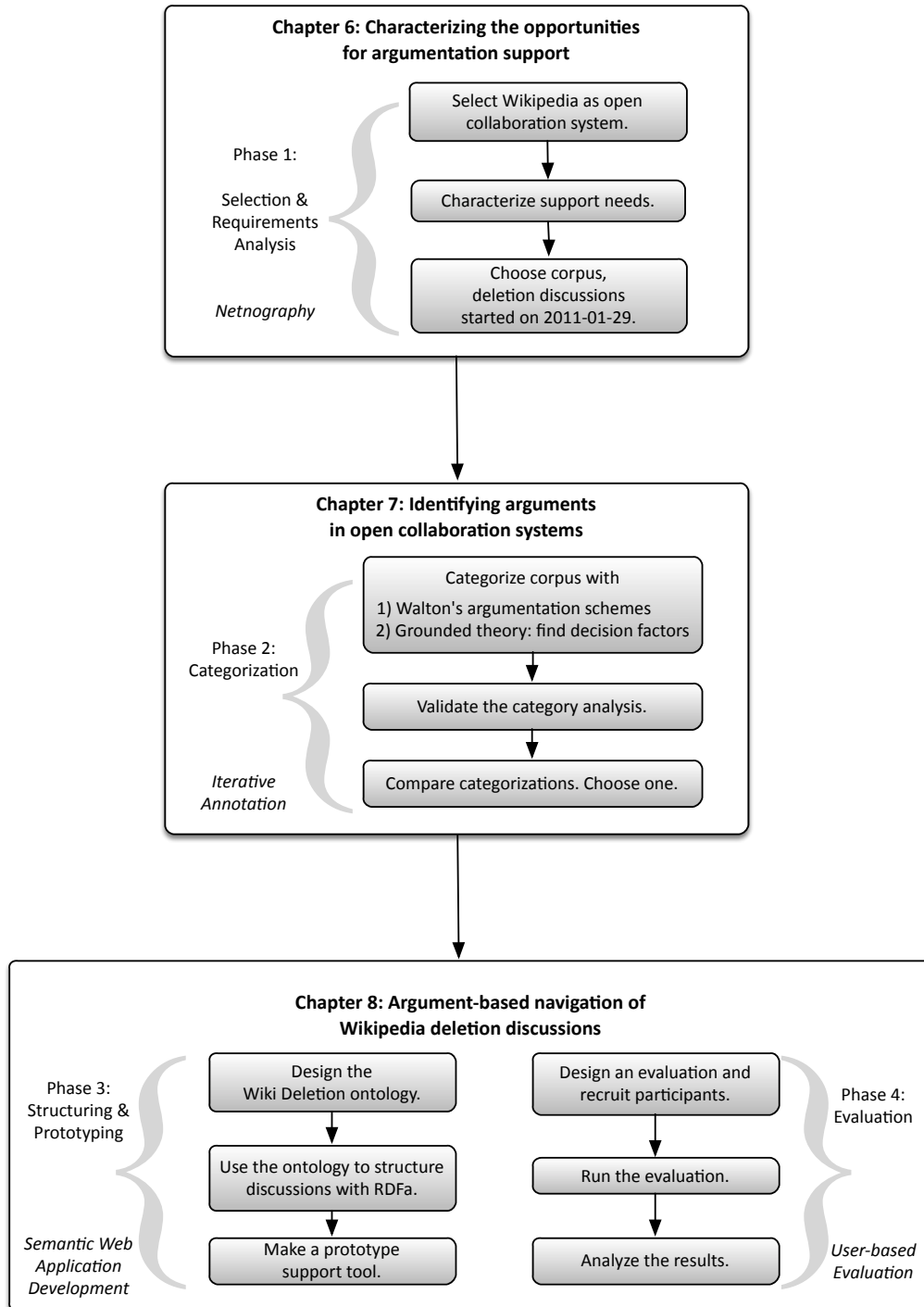
Figure 4.2.: Chapter outlines, drawing on our reusable procedure for supporting argumentative conversations.

First in Chapter 5 we introduce our case study for argumentation support: Wikipedia deletion discussions. To describe the argumentative tasks and environment, we use online ethnography—netnography (Kozinets 2010).

Second in Chapter 6, we identify and analyze the arguments in these contentious discussions. We use two approaches to coding data, resulting in two category schemes. For one scheme, we winnow Walton's 60 argumentation schemes into a 17-category list; for the other we construct a 5-category list of decision factors. We compare these two categorizations based on the requirements from Chapter 5, ultimately choosing decision factors as more suitable for argumentation support in this open collaboration system.

Third and finally, in Chapter 7 we build and test an argumentation support interface. This is a task-based experimental interface for filtering Wikipedia deletion discussions based on the decision factor. We build the interface using semantic technology. First we construct an ontology, and use it to structure our data as RDFa, and then we extract information with SPARQL queries. We test the interface in a pilot user-based evaluation, showing that our filtering system does provide meaningful support.

Chapter 5.

Characterizing the opportunities and requirements for argumentation support[1]

This chapter addresses RQ1, namely, *What are the opportunities and requirements for providing argumentation support?*

As we have argued in Chapter 2, argumentative messages vary depending on the technical platform and social structures. This motivates us to focus the remainder of the thesis on argumentation support for a specific use case. This chapter introduces our use case: the open collaboration system Wikipedia and its information quality assurance discussions which we call 'deletion discussions'.

This chapter instantiates the Selection & Requirements Analysis phase of the procedure described in Chapter 4. Namely, we select a community of interest, characterize the opportunities for argumentation support, and choose a sample corpus.

We first introduce the method—netnography—used in this chapter. Then we describe Wikipedia as an open collaboration system. We focus on a particular type of argumentative discussions within Wikipedia, called 'deletion discussions,' and describe the community's workflow for information quality assurance using these discussions. This leads us to identify specific questions that can be answered by the discussions, which point to information needed for reusing the discussions. We identify the three key argumentative tasks: determining one's opinion, commenting in the discussion, and finding the consensus

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[1]This chapter draws from the published paper, Jodi Schneider, Alexandre Passant, Stefan Decker, "Deletion Discussions in Wikipedia: Decision Factors and Outcomes". In *International Symposium on Wikis and Open Collaboration (WikiSym 2012)*.

of a discussion. We conclude by choosing a corpus of discussions to more deeply analyze in the subsequent chapter.

5.1. Netnography

This chapter uses a qualitative research method known as netnography. We next describe the method and how we use it.

5.1.1. Introducing the method

First described in 1996 by Robert Kozinets as a technique for consumer marketing research, netnography applies qualitative research methods to study groups on the 'Net' or World Wide Web. A chapter in the 2013 *The SAGE Handbook of Qualitative Data Analysis* (Kozinets, Dolbec, and Earley) points to the relevance of this methodology, as does the 2010 book on the topic, *Netnography: Doing Ethnographic Research Online* (Kozinets), which is widely cited and has already been published in Swedish translation. The methodology has been successfully applied in a number of fields, including educational technology, gerontology, health and wellness, psychology, food science, political communication, and many areas of business and information systems. Published research using netnography is varied, describing, for instance, online discussions of *topics* such as alternative sports, food culture, harm reduction, and consumer brands; *groups* such as seniors, patients, migrants, and tourists; and *media* such as websites, discussion forums, videos, and virtual worlds. Studies have diverse purposes, including describing social information behavior and human-computer interaction, understanding brand loyalty or tourist behavior, uncovering cross-cultural differences, and describing innovation (including in open source software).[2]

Kozinets defines netnography as follows:

> Netnography is participant-observational research used in online fieldwork. It uses computer-mediated communications as a source of data to arrive at the ethnographic understanding and representation of a cultural or communal phenomenon (Kozinets 2010).

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[2]Based on a citation search in Web of Knowledge for author=kozinets r*; topic = netnograph*, listing publications that cite one of Kozinets' six papers with netnography or netnographic in the title or abstract.

Kozinets (2010) lists five steps in conducting netnography as shown in Figure 5.1. Steps 1 and 2 involve planning the study and selecting the appropriate community. Step 3 is participant observation and data collection; he also highlights the importance of adhering to ethical standards. Step 4 is data analysis and iterative interpretation of findings. Finally Step 5 is presenting results.
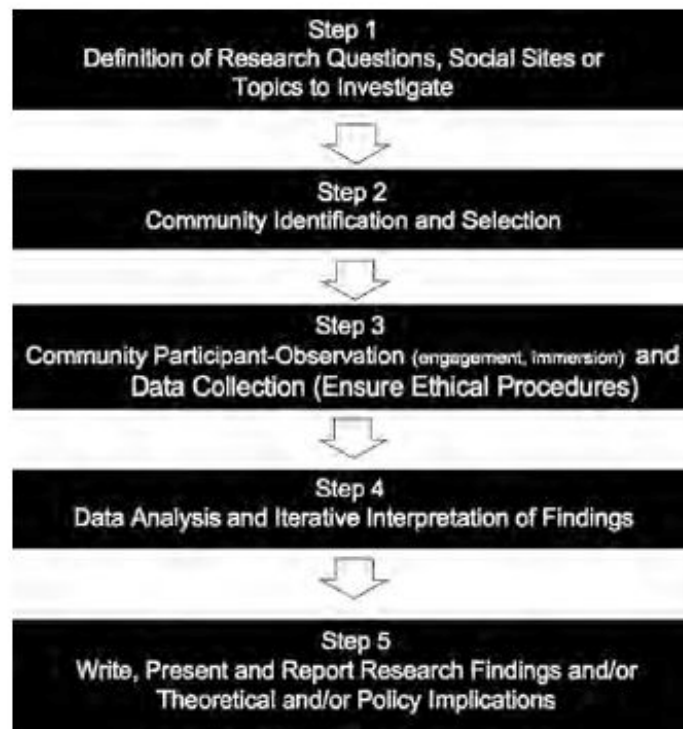
Figure 5.1.: Kozinets' process of conducting a netnography from (Kozinets 2010).

Ethical conduct is important in ethnography. With an increasing amount of online research conducted, "intrusions and interruptions of online researchers" (Kozinets 2010, p. 78) can cause resentment and research fatigue. In some cases, unethically conducted research leaves "members feeling like their activities were disrupted and their privacy violated" (Bruckman 2002). Such disruptive experiences can have consequences not only for the community but also for future researchers (Bruckman 2002).

5.1.2. Steps of netnography

We now describe each of the steps involved in netnography in further detail.

Planning and community selection

The first steps in a netnography, planning and community selection, include identifying one or more communities relevant to the phenomena of interest, developing research questions, and becoming sufficiently familiar with community norms in order to engage with the community. Kozinets describes online communities as cultures. This emphasizes the importance of understanding the community and articulating its relevance to one's research before engaging. It also underscores the ethical obligation of the researcher:

> Before you take action, enter that online culture, and begin your participation, there are just a few important things you need to get straight. You need to decide exactly what it is that you are going to be studying. How you are going to study it. How you are going to represent yourself. How you are going to handle this project ethically. And just how much of a disruption you are going to create in the communities or cultures you are studying. (Kozinets 2010, p. 75)

Engaging with an online culture calls for humility and open-mindedness. Before engaging, researchers need to become familiar with the practices, members, and concerns of an online community.

Participant observation and data collection

Once a community has been chosen, the next step is participant observation and data collection. Three types of data are used in netnography: archival data, elicited data, and fieldnote data. Archival data may be copied from the community's existing computer-mediated communications, such as message threads that the researcher did not prompt or participate in. Elicited data result from the researcher's participation in the community, for instance through interviews or computer-mediated communication: "the researcher co-creates [elicited data] with culture members through personal and communal interaction" (Kozinets 2010, p. 98). Fieldnote data consist of the researcher's (unshared) reflections; these may record observations about the community, interpretations of its culture, and reactions to the online experience. The volume of data depends on the analysis methods, but should be small enough to allow a focus on the cultural experience. Visual, and multimedia or interaction aspects can also be important. Hence screenshots and full-motion screen capture software may be used, in addition to capture of computer-readable files.

Data analysis and iterative interpretation

The data collected then has to be interpreted; to stress its iterative nature, this step of the netnography is called data analysis and iterative interpretation. A variety of methods can be used, for instance coding-based methods and hermeneutic[3] methods explaining or interpreting the text as a whole. In either case, the goal is an understanding of the social acts in an online culture. "Netnography studies the world of phenomena for opportunities to build theoretical propositions or rich, thick, descriptions, comparisons, and classifications" (Kozinets 2010, p. 134). The goal of data analysis and interpretation in netnography is to generate new theories or rich descriptions.

Presenting results

Once developed, these interpretations of the data must then be presented. In discussing this final step of a netnography, Kozinets suggests criteria for ensuring quality (2010, p. 162). The ten netnographic criteria shown in Figure 5.2 are coherence, rigor, literacy, groundedness, innovation, resonance, versimiltude, reflexivity, praxis, and intermix. These

TABLE 9.1   NETNOGRAPHIC CRITERIA

Criterion Name	Definition ('the extent to which …')
Coherence	Each recognizably different interpretation is free from internal contradictions and presents a unified pattern
Rigour	The text recognizes and adheres to the procedural standards of netnographic research
Literacy	The text recognizes and is knowledgeable of relevant literature and research approaches
Groundedness	The theoretical representation is supported by data, and the links between data and theory are clear and convincing
Innovation	The constructs, ideas, frameworks and narrative form provide new and creative ways of understanding systems, structures, experience or actions
Resonance	A personalized and sensitizing connection with the cultural phenomenon is gained
Verisimilitude	A believable and lifelike sense of cultural and communal contact is achieved
Reflexivity	The text acknowledges the role of the researcher and is open to alternative interpretations
Praxis	The text inspires and empowers social action
Intermix	The representation takes account of the interconnection of the various modes of social interaction – online and off – in the culture member's daily lived experiences, as well as in its own representation

Figure 5.2.: Ten netnographic criteria for quality results (Kozinets 2010, p. 162).

criteria concern, for instance, the validity and representativeness of a netnography, as

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[3]'interpreting', from the Greek nominal verb.

well as the extent to which it uses appropriate procedures and accounts for relevant literature.

Now that we have introduced netnography we describe how we applied it in our work.

5.1.3. Our use of netnography

Netnography is the overarching process we followed for the Selection & Requirements Analysis phase[4] of our work. We now detail our work according to the four steps of netnography: planning and community selection, participant observation and data collection, data analysis and iterative interpretation, and presenting results.

Planning and community selection

In the planning and community selection steps we drew on our existing experience of editing Wikipedia since 2006 and our previous experience researching Wikipedia's article discussions. That research had brought us into closer contact with Wikipedians at events such as WikiMania 2010, where we had presented some of our work on Wikipedia Talk pages and interviewed editors about related topics. In February 2011, we finished the planning steps by articulating goals for our research and described the relevance of deletion arguments within Wikipedia (Schneider and Passant 2011).

Participant observation and data collection

We moved into the participant observation and data collection steps starting in February 2011. We collected data in several ways: we read and interpreted documents about deletion, selected a corpus for analysis, and as a participant-observer we also contributed our own comments and arguments to deletion discussions.[5]

Data analysis and iterative interpretation

The data analysis and iterative interpretation steps continued for some time. Data analysis was interleaved with presenting results. For instance, our netnographic observations

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[4]See Chapter 4.

[5]We added comments to 5 discussions—2 in February 2011, 1 each in May 2011, June 2011, and June 2013—and silently observed numerous other ongoing and archived discussions.

contributed to our WikiSym 2012 paper (Schneider, Passant, and Decker 2012). Additional analysis of data came from the annotation study we describe in Chapter 6 and data collection continued as necessary: for instance we collected each users' contribution history as trace data (Geiger and Ribes 2011) to inform our publications on newcomers (Schneider, Passant, and Decker 2012; Schneider, Samp, Passant, and Decker 2013). Other observations, though still unpublished, greatly contributed to our idea formation. Our interview study is a particular example: we solicited and interviewed 6 Wikipedia administrators and 7 non-administrators who edit Wikipedia to get a better idea of how deletion discussions are used. Interviewees were recruited in May 2011 primarily through Wikipedia community channels (Village Pump discussions[6] and mailing list posts[7] crossposted to the WikiEN, Wikimedia, Wiki-research-l and Gendergap mailing lists), with additional interviewees suggested directly by participants.

Throughout this time, we worked to meet ethical standards. We advertised our researcher status on our user Talkpage and disclosed it when soliciting volunteers. We also went through community review by the WikiMedia Research Board, which functions as an Institutional Review Board for Wikipedia.

Presenting results

For writing and presentation, we have also consulted theories of computer mediated communication and of group communication and collaboration structures. We next describe one useful theory, that of the open collaboration system. To introduce our use case, we first describe how Wikipedia meets the definition of an open collaboration system, then present the requirements analysis with results of our netnography.

5.2. English-language Wikipedia as an open collaboration system

Before detailing our use case within Wikipedia, we next situate Wikipedia as an open collaboration system. In an open collaboration system, "people form ties with others and create things together" (Forte and Lampe 2013).

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[6]http://en.wikipedia.org/w/index.php?title=Wikipedia:Village_pump_(miscellaneous)&diff=prev&oldid=428756306

[7]e.g. http://lists.wikimedia.org/pipermail/wiki-research-l/2011-May/001503.html

Leading Social Computing researchers Forte and Lampe define a "prototypical open collaboration system" as

> an online environment that
> (1) supports the collective production of an artifact
> (2) through a technologically mediated collaboration platform
> (3) that presents a low barrier to entry and exit, and
> (4) supports the emergence of persistent but malleable social structures. (Forte and Lampe 2013)

We now apply this definition to show that Wikipedia is an open collaboration system.

5.2.1. Goals and artifact produced

Wikipedia, "a collaboratively edited, multilingual, free Internet encyclopedia supported by the non-profit Wikimedia Foundation",[8] started with an English-language encyclopedia project in 2001. Beyond the English-language encyclopedia, there are currently 287 languages[9] and a non-profit umbrella organization, the WikiMedia Foundation, with legal and technical responsibility for Wikipedia and numerous other related free knowledge projects. WikiMedia projects include collaboratively constructing dictionaries, compendia of quotes, news, and books, among others, and for storing public domain and freely-licensed multimedia files and data.[10]

An 'about' page on the encyclopedia website explains:

> Wikipedia is written collaboratively by largely anonymous Internet volunteers who write without pay. Anyone with Internet access can write and make changes to Wikipedia articles, except in limited cases where editing is restricted to prevent disruption or vandalism.[11]

Thus the goals of the Wikipedia community are to create a free and open encyclopedia. We next describe the media used for this artifact and the process of creating it.

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[8] http://en.wikipedia.org/w/index.php?title=Wikipedia&oldid=551628607
[9] http://meta.wikimedia.org/w/index.php?title=List_of_Wikipedias&oldid=7077156
[10] http://meta.wikimedia.org/wiki/Complete_list_of_Wikimedia_projects
[11] http://en.wikipedia.org/w/index.php?title=Wikipedia:About&oldid=546589577

5.2.2. Technologically mediated collaboration platform

Wikipedia's primary platform is MediaWiki.[12] Collaboration on Wikipedia takes place primarily online. Various coordination and discussion spaces are used within Wikipedia (Pentzold and Seidenglanz 2006). Additional online communication spaces such as mailing lists and IRC, outside the MediaWiki platform, are also used.

5.2.3. Low barrier to entry and exit

Wikipedia's intention is to have a low barrier to entry. Anyone can read the encyclopedia, with no registration needed. No account is needed for most actions on the site, including editing existing articles.

Editing Wikipedia is as simple as opening a Web browser, because Wikipedia uses a wiki. As Ward Cunningham, the wiki inventor describes, "Wiki is a piece of server software that allows users to freely create and edit Web page content using any Web browser. Wiki supports hyperlinks and has a simple text syntax for creating new pages and crosslinks between internal pages on the fly."[13] A popular kind of Social Web software, the wiki makes Web authoring easy.

Similarly, there is also a low barrier to exit: Editors don't receive financial compensation for editing Wikipedia, for instance. There is no obligation to continue editing.

Further, free licensing and open software help make it possible to start one's own version of the encyclopedia. Rights to reuse content are ensured by Wikipedia's liberal licensing: "Most of Wikipedia's text and many of its images are co-licensed under the Creative Commons Attribution-Sharealike 3.0 Unported License (CC-BY-SA) and the GNU Free Documentation License (GFDL)."[14]

5.2.4. Persistent but malleable social structures

We describe two kinds of social structures within Wikipedia: the coordination spaces and the policies.

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[12]http://mediawiki.org/
[13]http://www.wiki.org/wiki.cgi?WhatIsWiki
[14]http://en.wikipedia.org/w/index.php?title=Wikipedia:Copyrights&oldid=550965741

Coordination spaces

Various coordination and discussion spaces are used within the wiki (Pentzold and Seidenglanz 2006): behind each article, there is a discussion page. Groups also gather around particular interests or to complete particular tasks or projects, facilitated by discussion areas (Choi, Alexander, Kraut, and Levine 2010).

The community has additional communication media, including a variety of listservs,[15] an active IRC channel[16] and an annual conference.[17] It is closely entwined with an open source programming community for the underlying software. MediaWiki[18] Volunteer community members generate data such as pageview statistics, WikiData[19] and tools for the community, such as bots (Geiger 2011) to complete particular tasks. A non-profit entity is associated with the larger project; as of 2013, the Wikimedia Foundation has 160 paid staff,[20] and some local chapters associated with countries, cities, and regions also employ staff.

Policies

Community consensus underlies all collective action in Wikipedia. Yet to govern its mundane daily affairs, Wikipedia has developed a large body of documents, including policies, guidelines, and essays. Policies and guidelines are only loosely distinguished by the community.

Polices tend to persist over time, but their malleability is impressive. One of the Five Pillars (fundamental principles roughly equivalent to an operationalized mission statement) states that "Wikipedia has policies and guidelines, but they are not carved in stone; their content and interpretation can evolve over time."[21] In fact, the pages documenting policies and guidelines, like most other pages, can be edited, with few restrictions.

Two examples of policies are 'neutral point of view' and the quixotic 'ignore all rules' (Joyce, Pike, and Butler 2013a; Joyce, Pike, and Butler 2013b). For example, a

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[15]http://lists.wikimedia.org/mailman/listinfo
[16]http://en.wikipedia.org/wiki/Wikipedia:IRC
[17]http://meta.wikimedia.org/wiki/Wikimania
[18]http://www.mediawiki.org/
[19]http://www.wikidata.org/
[20]http://wikimediafoundation.org/w/index.php?title=FAQ/en&oldid=91717
[21]http://en.wikipedia.org/wiki/Wikipedia:Five_pillars

'neutral point of view' is meant to suggest that all viewpoints on an issue should be represented, in proportion to their prevalence in the literature. The policy starts, "Editing from a neutral point of view (NPOV) means representing fairly, proportionately, and, as far as possible, without bias, all of the significant views that have been published by reliable sources on a topic."[22] The community has increasingly documented this policy over time.

'Ignore all rules' today reads in its entirety: "If a rule prevents you from improving or maintaining Wikipedia, ignore it."[23] The brevity of this rule is unusual: it is the only policy that has not increased in Wikipedia's eleven-year history (Butler, Joyce, and Pike 2008). Butler et al. documented that the complexity of policies has increased over time, with significant growth in the length of policy descriptions—typically 10-15 times as large (as of 2008) as their first versions (Butler, Joyce, and Pike 2008).

This growth may be in part for clarity, as ambiguity can cause problems whereas policy can facilitate collaboration (Kriplean, Beschastnikh, McDonald, and Golder 2007) and support decentralized governance (Forte, Larco, and Bruckman 2009). In particular, the wiki environment seems to help stabilize the commitment to and interpretation of policies (Nagar 2012).

But such increases in the volume of documentation also make it harder for newcomers to find the most relevant guidance. Policy mentions in discussions may be the first time that newcomers learn of policies. Beschastnikh, Kriplean, and McDonald (2008) classify policy citations in discussions as relating to attribution, consensus, bias, disposition, writing style, genre, inclusion, or legal.

5.3. Relevance of our use case

Wikipedia provides a good example of an open collaboration system, hence is a relevant place to investigate RQ1, *Which arguments are used in open collaboration systems?* Further, this community has larger relevance outside itself: The multilingual encyclopedia, Wikipedia.org, is now the sixth most popular website by viewers according to Alexa.com traffic rankings, with 58.11% of viewers going to the English Wikipedia.[24] As of May 2010, 53% of American adult Internet users looked for information on Wikipedia (Zickuhr

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[22]http://en.wikipedia.org/w/index.php?title=Wikipedia:Neutral_point_of_view&oldid=567308124

[23]http://en.wikipedia.org/w/index.php?title=Wikipedia:Ignore_all_rules&oldid=565854448

[24]http://www.alexa.com/siteinfo/wikipedia.org,accessed2013-04-23

and Rainie 2011). English Wikipedia currently has 4.2 million articles,[25] and every day users spend roughly 14,000 hours editing (Geiger and Halfaker 2013), adding a median of 127,000 edits per day.[26]

As we have seen, Wikipedia is a large artifact with complex procedures structuring the community. Its discussion spaces are themselves the subject of a large body of related research,[27] for instance determining the authority claims and alignment moves in these discussions (Bender, Morgan, Oxley, Zachry, Hutchinson, Marin, Zhang, and Ostendorf 2011) and showing how the arguments in article-level discussions contribute to article improvement (Fréard, Denis, Détienne, Baker, Quignard, and Barcellini 2010); and some of our own earlier work (e.g. Schneider, Passant, and Breslin 2011) not reported in this thesis. This vastness and heterogeneity of the discussion spaces (Pentzold and Seidenglanz 2006) meant that we would need to narrow our study to a smaller area of relevance. To justify our choice we first investigate some of the issues important to the community.

5.3.1. Information quality and sustainability are important to Wikipedia

Twin issues within the community are of information quality and sustainability, as we next describe.

Information quality is an active area of research about the volunteer-run encyclopedia. Since Wikipedia is produced not by nominated experts but by 'anyone' who shows up to write it, the resulting quality is remarkable. In 2005, a study conducted by Science magazine found that articles on scientific topics were comparable in accuracy to those in Encyclopedia Brittanica (Giles 2005). A longitudinal study investigates differences in Wikipedia and Encyclopedia Brittanica based on articles about nine Fortune 500 companies studied on three separate occasions in 2006, 2008, and 2010; it takes quality as a given, but finds differences in length, framing or tone, and topics: while both encyclopedias were "predominantly neutral" in tone, Wikipedia articles were longer, "included much more positive and negative content in every year of the data collection," and gave more coverage of legal, ethical, and corporate social responsibility topics (Messner and DiStaso 2013).

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[25]Based on the article counter at http://www.wikipedia.org/ as of May 7, 2013
[26]http://lists.wikimedia.org/pipermail/wiki-research-l/2013-May/002906.html
[27]http://www.citeulike.org/group/13905

Subsequent researchers have contended that the quality of a Wikipedia article increases as it is edited an increasing number of times by a larger number of different contributors (Wilkinson and Huberman 2007), finding that social capital speeds the necessary collaboration (Nemoto, Gloor, and Laubacher 2011). Researchers have investigated the norms and procedures promoting quality (Stvilia, Twidale, Smith, and Gasser 2008) and have sought to predict quality flaws algorithmically (e.g. Anderka, Stein, and Lipka 2012). Since quality in Wikipedia arises in part from the organizing procedures followed, Wikipedia's policies and procedures have been well-studied, with attention in particular to policies such as those regarding acceptable content (Butler, Joyce, and Pike 2008).

Sustainability is an ongoing concern for this volunteer community; as current participants leave they are not being replaced fast enough (Halfaker, Geiger, Morgan, and Riedl 2013), leading to an overall slowing in contributions to the encyclopedia (Suh, Convertino, Chi, and Pirolli 2009). As an open community with low barriers to participation, newcomers may join at any moment, or leave at any time. This complicates quality maintenance, since the existing community must continually review content, spending time and energy to ensure its appropriateness (especially that of new contributors), and to maintain the desired level of information quality. In particular, a newcomer's first contributions may be rejected (Halfaker, Kittur, and Riedl 2011). Whereas previously, content quality was valued at the expense of integrating newcomers into the community, forming a more welcoming environment for newcomers is increasingly a concern, particularly for the non-profit with stewardship for Wikipedia (Morgan, Bouterse, Walls, and Stierch 2013). The increased complexity of the policy infrastructure, along with the importance of sustaining participation in the encyclopedia, means that socialization to the community's norms is increasingly necessary (Musicant, Ren, Johnson, and Riedl 2011).

5.3.2. Content deletion impacts both information quality and sustainability

One important area at the intersection of information quality and sustainability is content deletion. Content added is not always appropriate for the encyclopedia, and where simple editing of an article cannot fix it, the article may be proposed for deletion. Deletion is necessary for maintaining quality in an encyclopedia to which anyone can contribute; yet it has a negative impact, as well, particularly on newcomers to the community (Halfaker, Kittur, and Riedl 2011). Many readers are shocked to learn that Wikipedia deletes articles, and some new editors first learn about Wikipedia's quality standards and the

deletion process when an article they wrote is removed. Retaining these editors is more challenging, particularly for the large percentage (~33%) of novice editors who begin editing by creating new articles. This motivates us to investigate Wikipedia's content deletion, and to focus, in particular, on the arguments made in deletion discussion.

Deletion discussions are a particular type of argumentative discussion. Since they are used to determine whether borderline articles are appropriate for Wikipedia, deletion discussions bring issues such as information quality and sustainability to the fore. Thus, they form the basis for a use case within English-language Wikipedia, where we could provide meaningful support to the community, based on argumentative analysis of a single type of discussion. We next provide an overview of deletion in Wikipedia.

5.4. Deletion in Wikipedia

Anyone can suggest that a Wikipedia article be deleted, by editing it and adding a special flag, and the choice of which deletion procedure is followed depends on how controversial deletion is expected to be and the impact of deleting material.
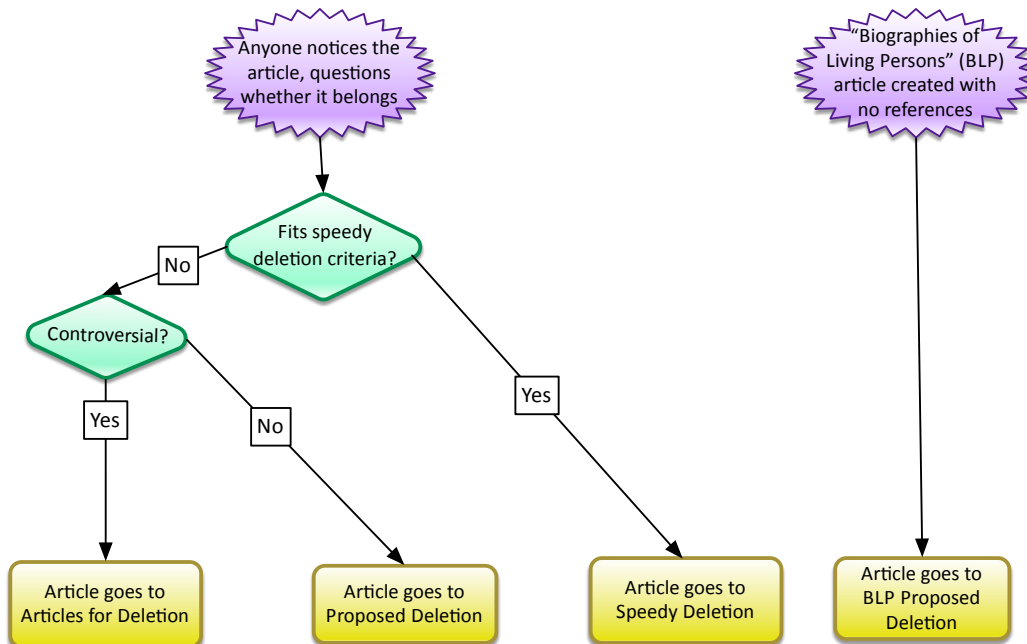
Figure 5.3.: The four types of article deletion in Wikipedia.(Schneider, Passant, and Decker 2012)

The four paths to article deletion are shown in Figure 5.3.

- Under *speedy deletion*, no waiting period is required before an administrator deletes clearly inappropriate content (e.g. vandalism and spam).

- *Proposed deletion* is meant for uncontroversial cases; the deletion notice must remain uncontested for a seven-day waiting period.

- Recognizing the importance of swift handling of potentially libelous articles, the community has created a fast track to *proposed deletion for biographies of living persons* that do not contain references; since mid-2010 these have been proposed for deletion due to a new policy.

- The fourth path, *Articles for Deletion*,[28] handles controversial cases through community discussions, and these 'deletion discussions' are the focus of our work.

Our work focuses on deletion discussions: they have the longest and most elaborate argumentative discussions, in which we can best study and support argumentation. In particular, they are decided by consensus, assessing the arguments made. Consensus outcomes are said to be based on whether one side "substantively defeated the other's key arguments".[29] This makes arguments important in these discussions. We next describe an example deletion discussion.

5.4.1. Example deletion discussion

A sample deletion discussion is shown in Figure 5.4.[30] In each deletion discussion, a nominator gives a justification for deleting an article; the community discusses the merits of the article and topic, providing arguments for or against deleting the article; and a discussion closer—generally an administrator—reviews the discussion after seven days, with the intention of finding a consensus decision.

Deletion discussions are argumentative spaces in which the nominators, discussants, and closers are self-selected. Deletion discussions are open to anyone to read and to comment on. They are sophisticated wiki spaces with their own conventions: messages start with a bolded indication of their 'vote'[31] (*Keep*, *Delete*, *Merge*, etc.), they are signed with the poster's username or IP address.

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[28]http://en.wikipedia.org/wiki/WP:Articles_for_deletion/

[29]http://en.wikipedia.org/WP:Articles_for_deletion/List_of_common_misconceptions_(3rd_nomination)

[30]This is the same example previously shown in Figure 2.6, with annotations added.

[31]Colloquially referred to as *!vote*, to emphasize that they are *not* votes.

While these 'votes' may be helpful, majority vote does not in fact determine the outcome. Rather, in the English-language Wikipedia, decisions are intended to be made by consensus, based on whether one side "substantively defeated the other's key arguments".[32] Yet these actual arguments made in deletion discussions have not been researched.

Figure 5.4.: An extract from the deletion discussion for baseball player Heath Totten, with areas of interest highlighted. Community discussion follows the nomination; participants can reply to the nomination or to each other. A typical message consists of a 'vote' followed by a rationale, signed with the poster's username and a timestamp.

In the example shown in Figure 5.4, the nomination message proposes deleting an article about minor league baseball player Heath Totten, with the justification that the baseball player hasn't played since 2008 and doesn't have a good record. The first message replying to the nomination, with a bolded 'Keep' 'vote', argues that the article should not be deleted; it provides a source indicating that the player has pitched recently in Venezuela and references a Wikipedia guideline that applies. In a reply, the same

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[32]Policy from http://en.wikipedia.org/wiki/Wikipedia:Deletion_process#Consensus, well-summarized by an administrator's closing remarks at http://en.wikipedia.org/WP:Articles_for_deletion/List_of_common_misconceptions_(3rd_nomination)

commenter, going by the handle 'Kinston eagle', adds further evidence and an additional rule. This reply attracts a discussion between the nominator and Kinston eagle about the applicability of the rule. In the final message, another commenter endorses Kinston eagle's view. Only a fragment is shown and the discussion continues.

5.5. Challenges Wikipedia faces around deletion

Some challenges Wikipedia faces emerge from the characteristics of open collaboration systems. In particular, since users frequently enter and exit, it becomes important to socialize newcomers. For instance, in English Wikipedia, there are over 5,500 new users each month.[33] Further, since there are persistent but malleable social structures, terminology and policy knowledge become an obstacle. In this section, we consider these issues.

5.5.1. Socializing newcomers

Many readers are shocked to learn that Wikipedia deletes articles, and some new editors first learn about Wikipedia's quality standards and the deletion process when an article they wrote is removed. This impacts retention: about a third of new editors first create new articles, before editing existing ones. They are 7 times more likely to leave if the articles are deleted.[34]

The challenges Wikipedia faces around deletion are not unique: One of the common findings in open collaboration systems that there are special requirements for socializing new users (Forte and Lampe 2013). Recent research on Wikipedia has sought to increase mentoring (Morgan, Bouterse, Walls, and Stierch 2013) and has investigated the impact that semi-automated templated (i.e. form letter) messages have on newcomers (Geiger, Halfaker, Pinchuk, and Walling 2012), especially when these messages are aimed at socialization (Choi, Alexander, Kraut, and Levine 2010). This suggests paying more attention to the participants in deletion discussions, and seeking to identify newcomers who might benefit from mentoring.

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[33]http://reportcard.wmflabs.org/graphs/new_editors

[34]"almost a third of new users who edited (about 21,000 accounts at the time of the data snapshot) choose to create new pages immediately rather than edit existing ones, and only 0.6 percent of those whose articles are met with deletion stayed editing, compared to 4.4 percent of the users whose articles remained." per http://en.wikipedia.org/wiki/Wikipedia:Wikipedia_Signpost/2011-04-04/Editor_retention

5.5.2. Terminology and policy knowledge become an obstacle

Terminology issues make it difficult to instruct newcomers as to why their articles are being deleted. For instance, a statement that there are 'no reliable sources' must be taken in context. For an experienced Wikipedia, that encapsulates an entire policy, as well as an argumentative dialogue about whether, in this context, a source is appropriate for a particular purpose.

What is a reliable source: Consider the exchange Figure 5.5 from a sample deletion discussion[35]. A neophyte attempts a rebuttal to the experienced Wikipedia user's argument that sources are needed to show notability ("notability not demonstrated in a reliable secondary source"), saying that "this page will have refs from other sources once it is live". The rebuttal fails to convincingly establish that these "refs" meet Wikipedia's notion of a reliable source.

> • **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 02:59, 31 January 2011 (UTC)
>
> If you looked at the page it clearly states that its in Beta Testing. I know wikipedia has a dislike for all things airsoft but this page will have refs from other sources once it is live and the have it nominated for deletion is just plain stupid. -- Paul Firmin 08:58, 31 January 2011 (UTC)

Figure 5.5.: An experienced user advocates deletion ("notability not demonstrated in a reliable secondary source") while a neophyte attempts a rebuttal.

The first comment, from the experienced user, invokes and connects two policies with the phrases 'notability' and 'reliable secondary source'. Understanding these policies is key for effective dialogue in deletion discussions, and while the subtleties may be debated, experienced Wikipedians agree on the general outlines. Despite the link from 'reliable secondary source' to Wikipedia's page titled 'Identifying reliable sources',[36] the respondent appears to not understand the policy, which begins "Articles should be based on reliable, third-party, published sources with a reputation for fact-checking and accuracy."

This lack of understanding is evident from the justification given. The respondent contends that the topic of the article—a website for collecting information about Airsoft—will have references once it is out of beta testing: "this page will have refs from other sources once it is live". This appears to be a counterargument attacking the issue

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[35]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/UK_Airsoft_Wiki
[36]http://en.wikipedia.org/wiki/Wikipedia:RS

of reliable secondary sources; but it fails to address important points. In particular, it does not indicate what the other sources are, for instance to indicate the publishers.

This argument—"this page will have refs from other sources once it is live"—fails in part because it relies on personal knowledge that cannot be objectively verified; worse, by not indicating how this knowledge was come by, the statement implies that the sources are not independent, and are, at best, based on press releases or personal connections (considered 'primary' rather than 'secondary').

This shows that what is important to Wikipedia may not be obvious to newcomers. In particular, policy names such as 'reliable secondary sources' encapsulate more information (such as 'published', 'reputation for fact-checking and accuracy') and these criteria are not well-understood by newcomers. It cannot be known, from the information presented by the new user, whether the sources expected were significant and independent; therefore heuristically they are assumed not.

Notability is also not directly addressed by the novice's counterargument. To address that, the commenter would have had to find the policy on notability and then the guideline on Notability for webpages,[37] which lists two criteria, either of which could be met: "The content itself has been the subject of multiple non-trivial published works whose source is independent of the site itself..." or "The website or content has won a well-known and independent award from either a publication or organization." The first criterion explicitly excludes "media re-prints of press releases" and "trivial coverage". In fact, the argument circles back to the need for 'reliable secondary sources' which would be needed to show notability by Wikipedia standards.

This shows that tracing policy information from multiple places in the site may be needed in order to effectively counter Wikipedians' concerns.

5.5.3. Workflow

Starting a deletion discussion

There are detailed procedures for starting discussions are outlined and discussions appear in a standard format. Deletion is proposed with a **nomination message**; Figure 5.6 shows the nomination of the Heath Totten article; a longer, annotated excerpt from this

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[37]http://en.wikipedia.org/w/index.php?title=Wikipedia:Notability_(web)&oldid=544053754

discussion was shown previously (Figure 5.4).[38] Relevant information in the nomination message includes the **name of the article**, the **nominator's username**, and the **date and time of nomination**. The **nomination message** itself also provides valuable information regarding why the article has been nominated for deletion.

Figure 5.6.: A deletion discussion begins with a **nomination message** stating why the article should be deleted. Other relevant information includes the **name of the article**, the **nominator's username**, and the **date and time of nomination**. Example extracted from[a]

[a]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Heath_Totten

The nominator also adds a templated notice, shown in Figure 5.7, to the article. This notice remains on the article while the deletion discussion is in progress. The notice invites participation in the deletion discussion. It mentions the **deletion policy** and its **procedural guide**; and above all, it provides a **link to the deletion discussion**.
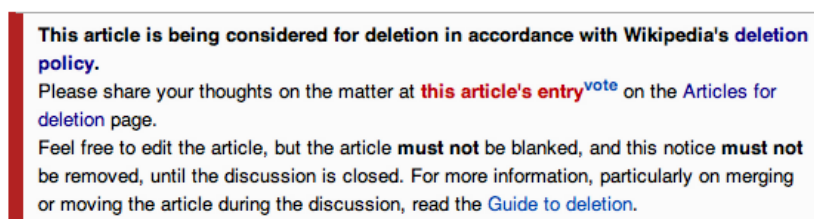
Figure 5.7.: When a deletion discussion is in progress, the article shows a notice[a] linking to the deletion discussion and deletion policy.

[a]https://en.wikipedia.org/wiki/Wikipedia:Template_messages/Deletion#Deletion_tools

According to the deletion policy, **creators** and **editors** should be notified when an article is nominated for deletion. Creators' and editors' usernames can be found in the article history; Talk page notices (Figure 5.8) can be left by humans or bots.

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[38]The blue background of the message is added when the discussion is closed and archived; in-progress deletion discussions appear on a white background.

Figure 5.8.: Two notifications about a deletion discussion, left for an article creator on their user Talk page.[a] The second was left by a bot. According to Wikipedia policy, article creators and editors should be notified when a page is nominated for deletion.

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[a]http://en.wikipedia.org/w/index.php?title=User:John_J._Bulten/Invites&action=edit

Finding ongoing discussions

Talk page notices and the notice left on each article are only two of the ways participants can find a deletion discussion. Deletion logs also make discussions easier to find. Other Wikipedia collaboration forums, such as listservs, can also point to deletion discussions. Next we give examples of deletion logs (both daily and topical logs) along with a listserv post about a deletion discussion.

The daily deletion log is a chronological list of discussions from a particular day, based on the time-date stamp the discussion was either opened or relisted for further comment. Following a table of contents, the day's deletion discussions appear, in their entirety. Three examples of ongoing deletion discussions from a recent deletion log are shown in Figure 5.9.

Topical deletion logs arise from Wikipedians' manual categorization of each discussion. Open, in-progress discussions for a topic appear in full on a single page and allow discussions on a particular topic to be viewed in a single place. After discussions are closed they are listed in brief on an archived deletion sorting page for the category, which shows the **article title** and **outcome** (i.e. 'Keep').

Such lists can also be used in other contexts. As shown in Figure 5.10, these categorized lists may also appear on group coordination spaces known as WikiProjects (Forte, Kittur, Larco, Zhu, Bruckman, and Kraut 2012), which promote and coordinate editing on a particular topic.

Figure 5.9.: Part of an ongoing daily deletion log for 2013-06-20^a, showing three deletion discussions in progress: first a relisted discussion, on Magisterium Series, second a discussion on Luvsandandar Khangai with only the nomination so far, and third, the beginning of a discussion on Natalie Holt where a reply to the nomination has also received a response. Ongoing deletion discussions have white backgrounds, in contrast to the blue backgrounds of archived deletion discussions.

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^{a}http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Log/2013_June_20

Deletion discussions can also be mentioned in other collaboration spaces for the encyclopedia, and in outside projects. Figure 5.11 shows a post from a WikiMedia email listserv alerting readers to a deletion discussion. External websites may also publicize a deletion case; this is discouraged in Wikipedia as it tends to bring many commenters who don't understand the deletion policies or article standards, which can increase the volume of messages in a discussion without necessarily contributing usable feedback. Publicity for a deletion discussion may result in notices like the notice in Figure 5.12 which starts "If you came here because someone asked you to,...". To address balance in participation, Wikipedia policy prohibits recruiting people to address a particular issue, calling it 'canvassing'. It is problematic for the encyclopedia to handle an influx of 'voters' who may not understand the polices; yet on the other hand, canvassing notices such as Figure 5.12 may be off-putting to potential contributors who may see that their opinions are not valued.

Figure 5.10.: Topical Deletion Sorting lists are used by groups coordinating editing on a topic. The date an article was listed for deletion discussion, article title, deletion proposer, and number of participants are listed, along with whether the article has been relisted for further discussion. Source[a]

[a]http://en.wikipedia.org/wiki/Wikipedia:WikiProject_Computing

Figure 5.11.: External collaboration spaces such as listservs may also mention deletion discussions.[a]

[a]http://lists.wikimedia.org/pipermail/gendergap/2012-October/003175.html
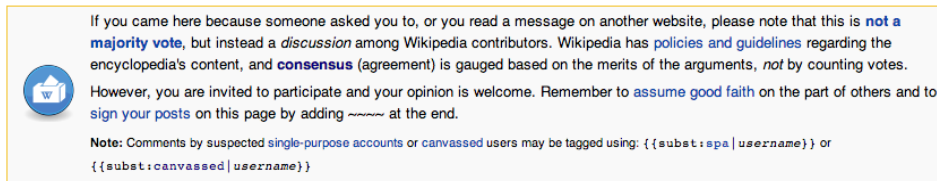
Figure 5.12.: Wikipedia policy prohibits recruiting people to address a particular issue, calling it 'canvassing'. A templated message is used to alert other participants that canvassing is a problem.[a]

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[a]http://en.wikipedia.org/wiki/Template:Not_a_ballot

Currently, discussions from other collaboration spaces are not interlinked; rather, to participate in a discussion, people must add a comment on the same platform. Semantically enhanced systems could more easily link arguments across platforms; yet the social functions of forums, for instance for context-setting, and the technical functions, for instance of filtering to the most on-topic discussions, would still need to be fulfilled.

Commenting on a deletion discussion

To comment on a deletion discussion, the user edits the page. As shown in Figure 5.13, wiki syntax is used. A note at the top of the page links to the **guidelines** and suggests that "valid arguments citing relevant guidelines will be given more weight than unsupported statements." The deletion discussion being edited was shown earlier as part of Figure 5.9.

Determining the outcome of a deletion discussion

There are several ways the outcome of a deletion discussion can be determined; this process is known as 'closing' a discussion. Discussions may close early if another policy, such as speedy deletion, can be used to delete an article; if there are procedural problems; or if it becomes obvious that the article should be kept (for instance the nominator may withdraw the nomination). Listings of ongoing discussions that have been open longer than 7 days can be used to find discussions that might be ready to be closed.

To close a discussion, the consensus of the comments should be used. Finding consensus can be difficult, and may be impossible. When the consensus is to delete an article, or if the consensus is not completely clear, only a Wikipedia administrator can close the discussion. It matters who closes a deletion discussion: Researchers have concluded
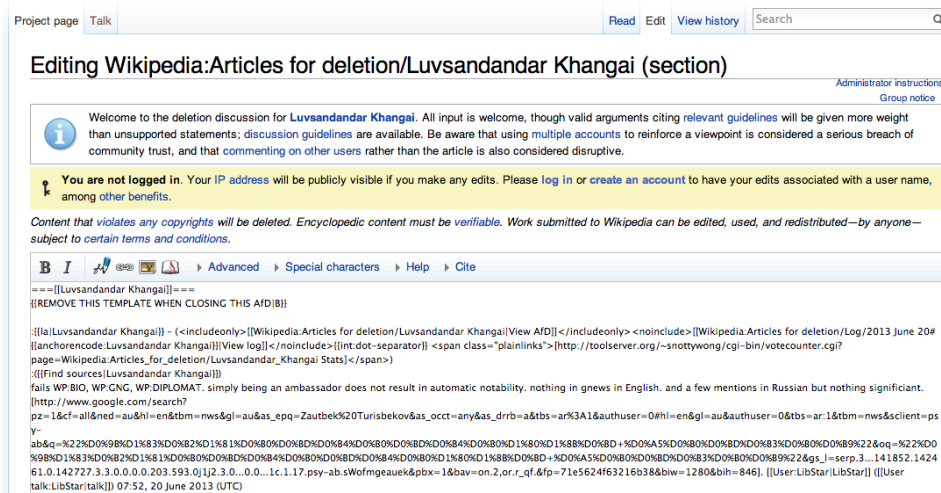
Figure 5.13.: Leave a comment on a deletion discussion by editing the page.[a]

[a]http://en.wikipedia.org/w/index.php?title=Wikipedia:Articles_for_deletion/Luvsandandar_Khangai&action=edit&section=T-1

that better decisions arise when administrators close discussions contrary to their own personal 'keep' or 'delete' bias (Lam, Karim, and Riedl 2010).

If the consensus is to delete, a Wikipedia administrator deletes the article. Deleting an article records information in the deletion log. Some of this information is displayed to the public, as a landing page for the now-missing article. When an article does not exist because it has previously been deleted, some information about the deletion is shown. For instance, Figure 5.14 shows the landing page for a deleted article. This article was deleted twice, and for each deletion, the information shown includes the **date and time of deletion**, the **administrator's username** recording who deleted the page after closing the discussion, and the entry from the deletion log with a short explanation, which in this case consists of a **link to the deletion discussion**.
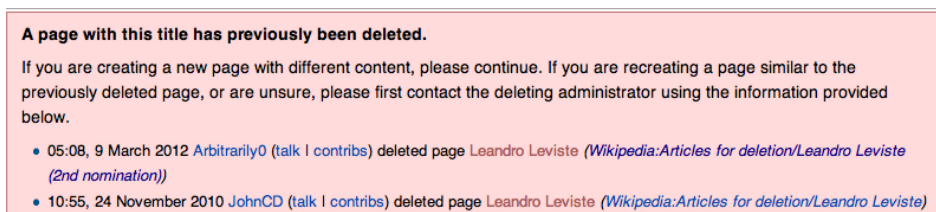
Figure 5.14.: When a page does not exist because it has previously been deleted, the date of deletion, administrator who deleted the page, and the entry from the deletion log are shown. In this case, the article was deleted twice, following two separate deletion discussions.[a]

[a]https://en.wikipedia.org/wiki/Leandro_Leviste

A number of outcomes are possible; besides 'keep' or 'delete', the discussions may end with 'no consensus', or may be 'merge'd into another article with some content retained, 'redirect'ed to an article on a related or broader topic, or 'transwiki'ed (terminology for 'moved') into a more specific wiki.

Unless there is consensus to delete the article, it stays. Then the article's Talk page is updated to add a notice about the deletion discussion and its outcome; as indicated by Figure 5.15, the **date of the nomination** and its **outcome** are given.

Figure 5.15.: If the article is not deleted, the article's Talk page is updated by hand to add a notice about the deletion discussion and its outcome.

The complexity of debates is often due to the presence of 'discussions within discussions', which may be tangential to the overall purpose. For instance they may propose policy changes, make personal attacks, or provide instructional and procedural advice.

5.6. Selecting a corpus

In addition to reading and participating in deletion discussions over a long period of time, we studied a particular corpus in more depth. This section describes the corpus we selected and uses it to elucidate some challenges Wikipedia faces around deletion. This helps define the opportunities for argumentation support in deletion discussions. We will also reuse this corpus in Chapter 6 to identify the particular arguments that both novices and experts give in discussions.

For our core corpus, we select a number of deletion discussions ('debates' for short) in the English-language Wikipedia—all the Articles for Deletion debates begun or relisted on January 29, 2011;[39] with 72 debates, this is a day with a typical volume of debates.

When selecting the corpus in May 2011, we observed the number of debates started each day from January 1, 2007 to April 30, 2011. We excluded debates from 2006 and

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[39]http://en.wikipedia.org/wiki/WP:Articles_for_deletion/Log/2011_January_29

Table 5.1.: The mean and median numbers of deletion discussions over several periods.

Period	Mean	Median
2007	112.8	114
2008	100.1	99
2009	85.21	84
2010	73.82	72
2011 (Jan-April)	70.04	68
Corpus (Jan 29 2011)	72	72
Jan 1 2007-Apr 30 2011	91.28	89
Jan 1 2009-April 30 2011	78.2	77
Jan 1 2010-April 30 2011	72.89	71

earlier because changes in the HTML format made those pages harder to scrape; further, the process for deletion discussion had changed multiple times from Wikipedia's inception, with policies evolving over time. Over our observation period, each day anywhere from 8 to 218 debates were started, with a median of 89 and a mean of 91.28 debates. The median number of debates trended downwards over time, from a high of 114 in 2007 to a low of 68 in the 2011 sample. Table 5.1 shows the mean and median number of discussions over various periods.

When selecting the corpus, we also relied on a qualitative understanding of the typical contents of debates, drawing on our netnography, which included extensive reading of surrounding materials and study of select debates since November 2010. Among other materials, we examined the Notabilia corpus of the 200 longest discussions (Taraborelli and Ciampaglia 2010); many of those contentious debates are reopened repeatedly. We also looked at daily deletion logs. We checked our understanding of deletion discussions during interviews with experienced Wikipedians and administrators in May 2011. This enabled us to use the deletion discussions from January 29, 2011 as a representative sample (typical in volume and contents). It became our core corpus for analysis.

Figure 5.4 shows a nomination and responses from a deletion discussion in our corpus. Deletion discussion in our corpus have from 3 to 33 messages (average 10.31, standard deviation 5.90) and 2 to 15 participants (average 7.28, standard deviation 2.54).[40]

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[40]These statistics are estimates since they rely on counting the message signatures that typically end discussion-based messages. This causes errors for a small fraction of messages, in our sample perhaps .5-1%, estimated based on subsequent hand-examination for annotation. Commenters familiar with Wikipedia syntax and social norms generally remember to add the symbols '~~~~' which become a signature such as 'Jodi.a.schneider (talk) 11:56, 30 July 2013 (UTC)'. Messages that are not signed by their author may be signed by bots, such as SineBot (Halfaker and Riedl 2012).

This core corpus consists of 741 messages contributed by 244 users between the first nomination[41] on January 14, 2011 and the last close of discussion on February 8, 2011. Text of the messages in our core corpus ranges from about a dozen to over 2,000 characters (i.e. about 3 words to over 350 words, about half a printed page).

5.7. Argumentative tasks

Drawing mainly from semi-structured interviews and participatory netnography, supplemented by consideration of our corpus, we identify the argumentative tasks and participants in these argumentative discussions, in order to identify opportunities and requirements for providing support.

5.7.1. Essential argumentation support tasks within Wikipedia deletion discussions

Our use case, first described in Section 5.4, consists of the deletion discussions used in Wikipedia for information quality assessment to determine which content is appropriate. In these discussions, important argumentation tasks are to:

(T1) Determine one's personal position on a deletion discussion.

(T2) Express one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation.

(T3) Determine the consensus of a deletion discussion.

The three tasks above naturally arise in Wikipedia deletion discussions. They are the key argumentative situations that arise in using and participating in deletion discussions, based on our participation in discussions, our observation of the process as well as our interviews with Wikipedians. We now describe each task and its relevance more explicitly.

Task 1: Determine one's personal position on a deletion discussion

In Wikipedia deletion discussions, finding a personal position is a common happenstance, relevant both for current discussions in progress and for archived past discussions.

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[41]While deletion discussions typically last 7 days, they can be relisted for additional time periods.

Discussions rely on opinions/positions and their justifications, freely contributed by willing participants, before a definitive outcome can be reached. Deletion discussions cannot reach an outcome without participation, and may be continued ('relisted') if an insufficient number of opinions have been contributed.

Participants weighing in on a deletion discussion may indicate their position, and the manner for determining this position is not proscribed. Based on interviews and observations, as well as our own personal experience participating in discussions, the process of determining one's position may include reading the existing discussion, reviewing the article, reviewing previous discussions on the article, and so forth. In some cases, participants comment in the discussion without providing a 'vote' indicating the outcome they suggest.

Similarly, reviewing discussions to come to a personal position may be important for archive readers who would like to know if they should recreate a deleted article or renominate an article for deletion.

In fact, discussions are often re-opened: in some cases the deletion of an article has been proposed repeatedly (twenty-two times in one case).[42]

Task 2: Express one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation

Once a person has established what position they hold, the next step is to express it in a community forum. When a community frequently takes collective action, a body of norms and policies build up about how decisions are made. This determines how discussions are expected to proceed. Various aspects of a message determine whether it is received positively and acted upon, and whether or not people agree with the opinion expressed. Messages may be disregarded if they do not show an understanding of shared values, for instance by using language appropriate to the community. Similarly, a community may consider certain types of reasoning valid while deprecating other information. For maximum impact, expressing an argument must consider norms, polices, and shared values.

Skillfully contributing opinions depends on understanding the argument patterns that influence group members' positions. For newcomers and for groups with large bodies of

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[42]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Gay_Nigger_Association_of_America_(22nd_nomination)

norms and policies, this is a particular challenge. In Wikipedia, newcomers argue differently, and sometimes less successfully, than established community members (Schneider, Passant, and Decker 2012). This motivates support in order to express one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation.

Task 3: Determine the consensus of a deletion discussion

The core function of Wikipedia deletion discussions is to provide a community basis for taking action on the discussions. Action is taken by a discussion closer. Based on interviews with community members, closing discussions can be a difficult task, especially when there is significant disagreement or there have been repeated discussions about deleting an article.

Argumentation support tasks in the general case

The three tasks above are also analogous to the three envisioned argumentation support tasks we previously described in Section 1.4. To show this, we revisit our vision and show the parallels to the above-described tasks.

Example 1: Determine one's point of view on an issue, based on a filtered summary of contradictory or opinionated information

Contested information is commonplace, and while computers generally cannot make decisions based on contested information, or automatically identify what is contested, they can help keep track of it. For instance, in some systems, messages are marked as having opposing viewpoints. Using that information, displays can be customized, for example to show some pro and some con viewpoints on an issue.[43] Pulling information from multiple perspectives to present the issues can enable a human decision-maker to quickly consider various aspects of a problem.

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[43]e.g. ConsiderIt (Kriplean, Morgan, Freelon, Borning, and Bennett 2011) or DiscourseDB kriplean_considerit:_2011; see (Schneider 2012) for screenshots and further examples.

Table 5.2.: Wikipedia deletion discussions tasks mirror our vision of argumentation support tasks.[a]

Example	Argumentation Task (Ch.1)	Argumentation Task (Wikipedia)	Common Description
1	Determine one's point of view on an issue.	Determine one's personal position on a deletion discussion.	Reading, deciding
2	Express a position in writing for a particular audience.	Express one's personal position on a deletion discussion.	Writing, invoking precedent, anticipating counterexamples
3	Summarize contradictory or opinionated information for decision support.	Determine the consensus of a deletion discussion.	Summarizing and synthesizing contradictory positions expressed by others

[a]Section 1.4

Example 2: Express a position in writing, using arguments & argument styles

To be effective in online discussions, participants need to understanding the group norms. For instance, it helps to know commonly held assumptions and rhetorical preferences such as patterns of argumentation. To present a convincing argument, it helps to know what patterns of argumentation the group generally accepts. Anticipating and defusing counterarguments is especially useful and can help shorten discussions.

Example 3: Summarize large volumes of contradictory or opinionated information

The volume of response in online social media can make it difficult to find the signal in the noise. Segmenting messages based on opinions can be particularly valuable; even authors who hold the same opinions may give different justifications for those opinions, making argumentation analysis a particular valuable tool. Social media marketing executives, for instance, might analyze the customer market.

In the next section we now distill those examples to the essential argumentative tasks in Wikipedia as follows:

In our first envisioned task, an individual sifts through arguments in order to determine their own position on a controversial issue. This can be generalized as determining one's personal position, based on existing information. The associated task in the context of Wikipedia deletion discussions is to determine one's personal position on a deletion discussion.

In our second envisioned task, an individual draws on a particular group's discussion history of successful argumentation patterns in order to contribute their own argument. This can be generalized as expressing one's position in accordance with community standards. The associated task in the context of Wikipedia deletion discussions is to express one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation.

In our third envisioned task, an individual sifts through arguments in order to summarize contradictory or opinionated information and thus inform group decision-making. This can be generalized as informing group decision-making based on summaries of arguments. The associated task in the context of Wikipedia deletion discussions is to determine the consensus of a deletion discussion.

Identifying these tasks helps us structure the work of the next chapter, which addresses the Categorization phase of our procedure from Chapter 4. Before concluding this chapter, we consider what information is relevant for the use and reuse of deletion discussions.

5.8. Information for use and reuse of deletion discussions

In this section, we determine what information is relevant for the use and reuse of deletion discussions, based on our netnographic work. We draw from interviews with Wikipedia editors and administrators, our own participation in deletion discussions, and our consideration of Wikipedia documentation to list a number of questions related to the use and reuse of discussions. We list some questions multiple times, since they may have bearing on multiple topics.

We identify three categories of information, based on whether the questions listed relate to the normal use of deletion discussions, the typical reuse of discussions, or analysis and community reflection. Normal use of deletion discussions includes the tasks mentioned above in Section 5.7 and notifications to creators, editors, and groups following the discussion; we also envision identifying participants who might be new to deletion discussions, for potential mentoring.

We distinguish typical reuse from aggregate statistics that might support community reflection. Reuse of deletion discussions primarily involves determining whether a

discussion should be reopened or an article recreated; this may include understanding the policies and guidelines invoked, the volume of participation, and how frequently this article has been discussed for deletion. An additional kind of reuse is to support analysis and community reflection about deletion; this might include aggregate statistics about participants or groups interested in a collection of articles and debates,[44] such as all debates in a month or year.

1. *To support normal use*

   - *To support the tasks*

     – (For T1) What article is the debate associated with?

     – (For T2 and T3) Is the debate open or closed?

     – (For T1 and T3) What positions are stated? What justifications are given?

   - *To enable notifications to creators and editors*

     – Who created the article in question?

     – Who edited the article in question?

   - *To enable notifications to groups following the discussion*

     – Who proposed the article for deletion?

     – When was the article proposed for deletion?

     – How many people are participating in the debate?

     – Was the debate relisted for further discussion?

     – Is the debate open or closed? If closed, what was the outcome?

   - *To identify participants who might be new to debates*

     – How many IP users participated in the debate?

     – Are any participants listed as having made few or no edits outside this topic?

     – Do any participants identify themselves as creators of the article?

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[44]We use 'debate' as an abbreviated version of 'deletion discussion'.

– Do any participants identify themselves as having edited the article before the debate started?

– Do any users have few edits overall? Few edits in the Wikipedia namespace?

– Were any particular forums where the participant heard about a debate mentioned?

2. *To support reuse*

- *To better understand under what circumstances a discussion should be reopened or an article recreated.*

  – What closing rationale is given for the decision made?

  – What issues were raised in the debate?

- *To understand the relevant policies and guidelines discussed.*

  – Which policies were mentioned in the debate?

  – Which guidelines were mentioned in the debate?

  – Were previous debates or related articles mentioned in the debate?

- *To assess the volume of participation*

  – How many messages were contributed to the debate?

  – How many distinct users contributed messages to the debate?

  – Was the debate relisted for further discussion? How many times?

  – Were any edits to the article mentioned? Which ones?

- *To determine how frequently deletion is discussed for this article*

  – Was the debate relisted for further discussion? How many times?

  – What were the outcomes of any previous deletion debates about this article?

  – How many times was the article nominated for deletion?

3. *To support analysis and community reflection about procedures*

- *To identify the participants*

  – Who nominated the article for deletion?

- Who commented in the debate?

- Who closed the debate?

- *To audit overall participation*

  - How many deletion debates has the closer of this debate commented in? closed?

  - How many debates had author participating?

  - How many debates had a creator participating?

- *To identify groups interested in an article or debate*

  - Is the debate included in any topical lists?

  - Is the article in question flagged for review by the Article Rescue Squadron?

  - Did any bots leave comments in the debate? What comments? How many?

  - Were particular sources for hearing about a deletion discussion mentioned?

5.9. Conclusions

In this chapter we established our use case of Wikipedia deletion discussions. We selected this open collaboration system as a community of interest, characterized the opportunities for argumentation support, and chose a corpus as a test sample for further study, following the three steps of the Selection & Requirements Analysis phase described in in Chapter 4.

Wikipedia is a highly used, online encyclopedia written by volunteers and has been celebrated for its high quality and collaborative processes. Deletion is one of the mechanisms used to maintain the high quality of Wikipedia's content but deletion also threatens volunteer retention. Anyone can contribute to discussions about deleting content, and arguments in these deletion discussions are used to determine which articles are (in)appropriate. Argumentation support is relevant and important in deletion discussions: it could impact both information quality and volunteer retention in Wikipedia.

To study the opportunities for argumentation support, we used netnographic methods such as participant interviews and participatory ethnography, along with a review of a documents about deletion and sample discussions. In particular, we investigated the

workflow used for deletion discussions, including starting, finding, commenting on, and determining the outcome of deletion discussions. We also identified a corpus for in-depth study, ensuring that it was representative by both quantitative and qualitative analysis.

This led us to distinguish three key tasks: determining one's personal position (T1), expressing one's personal position according to community norms (T2), and determining the consensus of a deletion discussion (T3). We identified information needed to support these tasks, as well as the reuse or analysis of deletion discussions. Along the way we also uncovered some challenges faced, for instance, terminology and policy knowledge can be an obstacle in deletion discussions, especially for socializing new users.

In subsequent chapters we use the requirements found in this chapter in order to develop argumentation support for Wikipedia deletion discussions. The tasks, required information, and challenges identified indicate the opportunities and requirements for argumentation support. In particular, in the next chapter, we use the corpus we have identified for argumentation analysis, and we compare two different analysis approaches with these argumentative tasks in mind.

Chapter 6.

Identifying arguments in open collaboration systems[1]

6.1. Problem statement

In this chapter we address RQ 2, namely *Which arguments are used in open collaboration systems?* Our goals are to identify the arguments used in Wikipedia deletion discussions, based on a representative sample.

This chapter instantiates the 'Categorization' phase of the procedure described in Chapter 4. To do this, we categorize the sample iteratively according to one or more argumentation theories, validate the categorization, and choose which categorization scheme best matches the requirements from Chapter 5.

We build on the results of the 'Selection' phase, described in the previous chapter. In particular, for our sample, we use the corpus previously selected in Section 5.6 and which we showed was representative according to both qualitative and quantitative considerations. In this chapter, we use iterative annotation to determine the arguments used in this corpus, based on two existing approaches to argumentation. We next describe the categorization and annotation procedures we used.

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[1]Drawing from two previously published papers, Jodi Schneider, Alexandre Passant, Stefan Decker, "Deletion Discussions in Wikipedia: Decision Factors and Outcomes". In *8th International Symposium on Wikis and Open Collaboration (WikiSym 2012)*. Linz, Austria, August 2012. and Jodi Schneider, Krystian Samp, Alexandre Passant, Stefan Decker, "Arguments about Deletion: Guiding New Wikipedians in Making Good Arguments". *16th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2013)*, San Antonio, TX, February 2013.

6.2. Categorization and annotation procedures

We used iterative categorization with manual annotation to study RQ2, *Which arguments are used in open collaboration systems?* In this section we describe the processes that we used for annotation.

Annotation is a well-known process, and we drew our procedures in part from Hovy (2010). Hovy focuses on seven steps of corpus annotation:

1. Instantiating the theory

2. Selecting the corpus

3. Designing the annotation interface

4. Selecting and training annotators

5. Specifying the annotation procedure

6. Evaluation and validation

7. Distribution and maintenance.

Some of these steps are repeated: The training of annotators, specification of annotation procedures and manuals, and validation form a loop, which is iterated as needed.

6.2.1. Overview of our application of iterative annotation

Next we describe how we used Hovy's iterative annotation process. Our annotation process is summarized in Table 6.1 on page 129. We used four rounds of annotation, two rounds by the primary investigator followed by two rounds with trained student annotators.

Instantiating the theory

Our goal was to study which arguments occur. We chose two different approaches for representing arguments. We discuss these theories and the annotations further following this overview. First, we used Walton's argumentation schemes, as we discuss in Section 6.3. Second, we developed decision factors, as we discuss in Section 6.4. Thus we used the

corpus annotation process twice, categorizing and annotating our corpus according to two different argumentation theories.

Selecting the corpus

The corpus selected was one of the outcomes of Chapter 5. We selected a corpus of 72 deletion discussions started on January 29, 2011.[2] As described in Section 5.6, this is a representative corpus of deletion discussions.

Designing the annotation interface

We prepared materials for annotation by stripping out HTML code and segmenting individual messages. Appendix B gives further details about our methods for preparing materials for annotation, and discusses the tools used for annotation.

Selecting and training annotators

We recruited annotators by sending an advertisement to the university student email list in April 2012, and received a number of replies. We interviewed promising candidates and hired three students, two undergraduates and a postgraduate student.

Training covered the software to be used and sample annotation tasks. Two annotators completed the decision factors annotation described in Section 6.4, and and subsequently worked on the argumentation schemes annotation described in Section 6.3. A third annotator participated only in one round of annotation: the third round of the decision factors annotation.

Specifying the annotation procedure

Both our annotation procedures used four rounds, as shown in Table 6.1. The annotation procedures were specified in an annotation manual. Further details are given in Section 6.3 for argumentation schemes and Section 6.4 for decision factors. As described in Table 6.1, we repeatedly refined the annotation procedure and validated agreement. Final annotation manuals are given in Appendix B.

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[2]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Log/2011_January_29

Evaluation and validation

To validate the annotation, we measured inter-annotator agreement. Inter-annotator agreement attempts to corrects for the effects of chance; for instance, based on probability theory, given n categories, each randomly selected $1/n$ of the time, there is an n^2 chance that 2 randomly-selecting annotators will 'agree' on the choice. This can have a dramatic effect especially when the number of categories is small. For instance, if there are 5 categories, then a random choice of categories, each chosen randomly 20% with a chance for each, would result in $.2 \times .2 = 4\%$ agreement. Comparatively, with 2 categories, random selection would be expected to agree $.5 \times .5 = 25\%$ of the time.

We used Cohen's kappa (1960), which is a standard approach to calculating inter-annotator agreement in the 2-annotator case. Cohen's kappa subtracts the probability due to chance from both the numerator and the denominator as follows:

$$kappa = \frac{Pr(a) - Pr(e)}{1 - Pr(e)} \tag{6.1}$$

Distribution and maintenance

Following our annotation procedures resulted in two separate categorizations, both iteratively developed. Later, we use annotation results in Chapter 7 as the basis for an argumentation support interface. Later in this chapter we determine which categorization scheme best matches the requirements from Chapter 5 in order to choose the appropriate categories and annotations to use for an argumentation support interface.

In the following sections, we give further details describing each of our two annotation procedures, for categorizing Walton's argumentation schemes and for categorizing decision factors.

6.3. Annotation methodology using Walton's argumentation schemes

For our first annotation, we followed philosopher Douglas Walton's 2008 classification of argumentation schemes (Walton, Reed, and Macagno 2008). With 60 argumentation schemes collected from other scholars and from his own work, Walton's collection is the

Table 6.1.: An overview of our methodology for categorizing conversations with manual annotation.

Methodology for categorizing conversations with manual annotation
Round 1
Review corpus.
Select a relevant framing theory.
Draw initial categories, if any, from the framing theory.
Coarsely annotate the corpus.
Review the annotation results.
Round 2
Make an initial annotation manual.
Reannotate the corpus based on the initial annotation manual.
Review the annotation results.
Round 3
Refine the annotation manual.
Recruit and train annotators.
Annotators reannotate the corpus based on the refined annotation manual.
Calculate inter-annotator agreement and compare annotations.
Collect feedback from annotators to gather borderline and challenging cases.
Round 4
Refine the annotation manual.
Test the final annotation manual on a sample outside the corpus.
Annotators reannotate the corpus based on the final annotation manual.
Calculate final inter-annotator agreement and note disagreements in annotations.

most comprehensive. Refined over more than a decade, Walton's schemes are widely used in computational argumentation since they "have provided exactly the right balance between theoretical consistency…and practical utility" (Reed 2010). Walton traces the modern use of argumentation schemes to 1953 and his own first collection of 25 argumentation schemes was published in 1995 (Walton 1995), which originated in studying under what conditions traditional logical fallacies were in fact "appropriate, acceptable, and persuasive" (Walton, Reed, and Macagno 2008, p. 11).

6.3.1. Example argumentation scheme

Argumentation schemes classify the patterns used in making arguments. Walton's schemes each begin with a title and a description. For example, here is the argumentation scheme **Argument from Rules – From Established Rule** (Walton, Reed, and Macagno 2008):

> *Major Premise:* If carrying out types of actions including A is the established rule for x, then (unless the case is an exception), a must carry out A.
>
> *Minor Premise:* Carrying out types of actions including A is the established rule for a.
>
> *Conclusion:* Therefore, a must carry out A.

To indicate possible flaws in reasoning, associated with each scheme, there are critical questions pointing to the possible counterarguments. For example, three *critical questions* accompany the Argument from Rules:

> 1. Does the rule require carrying out this type of action?
> 2. Are there other established rules that might conflict with or override this one?
> 3. Are there extenuating circumstances or an excuse for noncompliance?

Such critical questions can be used to guide a debate, and to ensure that all possible objections have been addressed.

6.3.2. Instantiating an argumentation scheme

Argumentation schemes are *patterns* for arguing: to use them, they must be instantiated with details. We now provide a concrete example instantiating the above example argumentation scheme Argument from Rules. We draw a (hopefully familiar) example from the rules of the road: the rule that vehicles must stop at red lights.

> *If stopping at a red light is the established rule for driving a vehicle, then (unless the case is an exception), drivers must stop at a red light.*
>
> *Stopping at a red light is the established rule for drivers.*
>
> *Therefore, drivers must stop at a red light.*

Using this example, we also provide some instantiations of the critical questions above:

> *1. Were you driving a vehicle?*
>
> *2. Did a police officer direct you to continue without stopping?*
>
> *3. Were you driving an ambulance with its siren on?*

We used these argumentation schemes as the basis for annotating our corpus.

6.3.3. Procedures for annotating with Walton's argumentation schemes as categories

To address RQ2—*Which arguments are used in open collaboration systems?*—we used Walton's 60 argumentation schemes to categorize arguments appearing in the representative sample of deletion discussions described above. Iteratively we simplified the categories, as we will describe.

Choosing the level at which to annotate arguments was particularly challenging, since messages can contain any number of arguments, or no argument at all. In this instance, we annotated arguments at two different levels: first, to determine which arguments were most commonly used, we used all arguments, constituted of a clause, several sentences, or the entire message. Later, to refine our categorization, we coded one main argument per message; while judging which was the main argument was difficult, inter-annotator

agreement is far more difficult to achieve on arbitrary segments without established section boundaries.

Example category analysis

Figure 6.1, shows the beginning of a deletion discussion about baseball player Heath Totten. Six messages are shown:

- the nomination (Message #1)

- a bolded 'Keep' vote (Message #2), with three replies indented below it (Messages #3, #4, #5)

- and a second bolded 'Keep' vote (Message #6).

We use this as an example for analysis below.

Figure 6.1.: An extract from the deletion discussion for baseball player Heath Totten, with messages numbered 1-6.[a]

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[a]This is the same example previously shown, taken from http://en.wikipedia.org/wiki/Wikipedia: Articles_for_deletion/Heath_Totten

Message #2 gives a fully articulated argument for keeping the article. It is principally an application of the Argument from Rules described above, as a policy interpretation about which guideline should be applied (baseball notability[3]). It combines this with an Argument from Evidence (see Table 6.3 page 136)—a sourced, factual correction (*the official Minor League Baseball website states that his status is "Active". It also states that he has pitched as recently as December 29, 2010.*). Additional comments (e.g. *Some of his teammates this past year are major league players*) are given. Unusually, in this case, the connection between the rule and the evidence is made explicit: *Having played in the top professional league in Venezuela, I feel he qualifies.*

A second follow-up response, from the same person, given in Message #3, is more typical, in that it is less explicit. It again uses the same two argumentation schemes—a Rule (baseball notability) and Evidence (played in the Caribbean series)—yet without spelling out the further claim that this evidence shows that the player meets the baseball notability guideline. As typical in conversations, this is an enthymeme: the arguer does not explicate the argument fully, and the reader must infer the implied claim that the player meets the sports guideline. While unstated and missing information would add challenges for machine processing, as evidenced by the nominator's response in Message #4, for a human, there is no ambiguity here. Thus, the nominator replies, contesting that the Caribbean series qualifies under the baseball notability guideline.

In general, multiple arguments may be given in a message, and arguments can be used in various combinations, drawn from Walton's schemes (Table 6.3). This adds complexity to interpreting messages and to identifying or classifying a message's arguments.

Iterations and annotation guides

We annotated arguments in four rounds, following an iterative annotation strategy (Hovy 2010), with the first two rounds of coarse annotation by the principal investigator, and two subsequent rounds of annotation by trained student annotators.

Our annotation guide evolved through this process. For the first round of annotation, "A User's Compendium of Schemes" (Walton, Reed, and Macagno 2008, Chapter 9) and notes on Walton's 60 schemes were used to annotate a small sample in CorpusTool.[4]

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[3]http://en.wikipedia.org/wiki/Wikipedia:Notability_(sports)#Baseball
[4]http://www.wagsoft.com/CorpusTool/ as shown in Figure 6.2
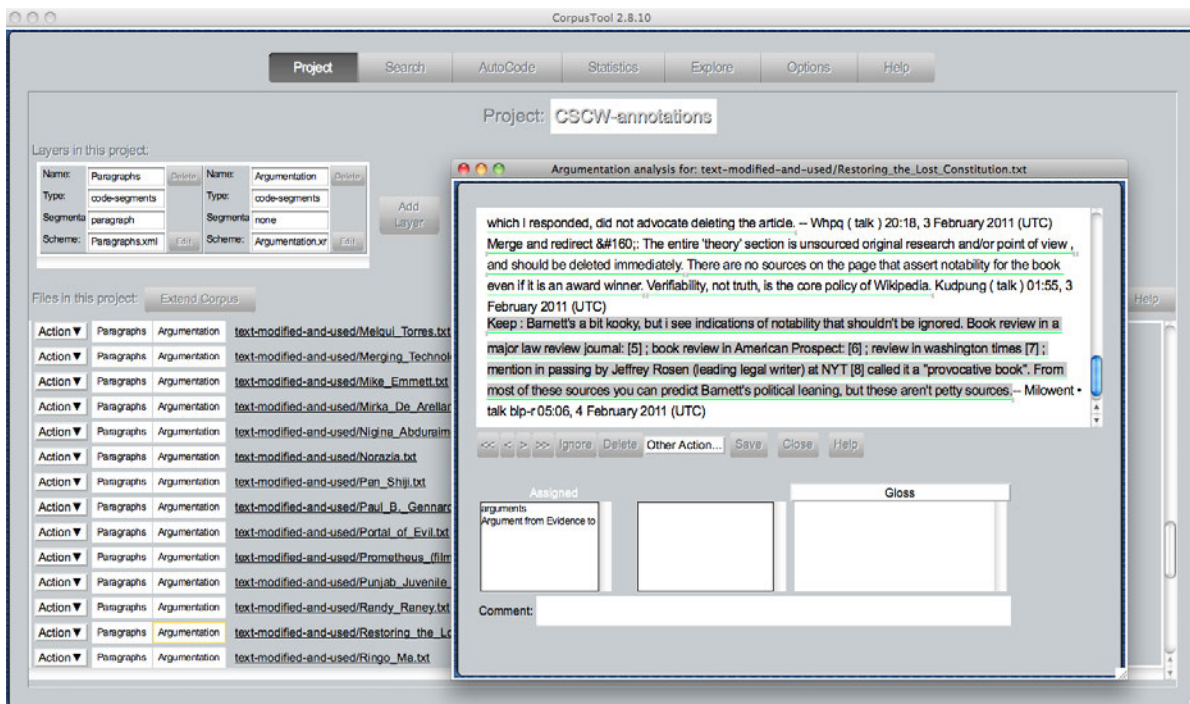
Figure 6.2.: We used UAM CorpusTool for annotation of Walton's argumentation schemes.

Initially, we focused on identifying the most prevalent arguments. In the first and second rounds of annotation, to determine the most prevalent argumentation schemes, the principal investigator coded each message in the corpus as a sequence of contiguous arguments selected from Walton's 60 argumentation schemes. Table 6.2 shows an example of this first round of annotation.

In the second round of annotation, the primarily investigator prepared an annotation guide with Wikipedia-based examples for Walton's argumentation schemes. Two additional categories were added in this second round—*Note* and *No reason given*—to better categorize some outliers from the first round. The primary investigator recoded the sample with these more clearly defined categories, aiming to annotate all arguments that appeared in a message. We estimated the overall argument prevalence based on the results of the second round of annotation.

Our final two rounds of annotation were based on a smaller category list, using our results on the most prevalent arguments. Our newly revised annotation guide then comprised 17 categories as shown in Table 6.3. First, we selected the subset of 14 argumentation schemes that appeared more than 2% of the time. Besides these argumentation schemes, we had three additional categories: *Note* was used for standardized, templated notes used for routine notices. *No reason given* was used for messages that indicate a

Table 6.2.: A sequence of contiguous arguments from the first round of coding with argumentation schemes.

Here is an example of coding a sequence of contiguous arguments in our first round of coding.

For example, we code 4 segments in the comment

"*Fails WP:RS and I don't think there are other dates that have an article. I'm sure the number sequence is aesthetically pleasing, but what about 11/11/10? No article for that, and if it did, most the events listed in this article would happen (or did) would appear there, but be redundant if brought to a newer date?*" as follows:

1. *Fails WP:RS*
   Argument from Rules

2. *I don't think there are other dates that have an article.*
   Practical Reasoning from Analogy

3. *I'm sure the number sequence is aesthetically pleasing, but what about 11/11/10? No article for that*
   Practical Reasoning from Analogy

4. *and if it did, most the events listed in this article would happen (or did) would appear there, but be redundant if brought to a newer date?*
   Argument from Consequences

position without stating an argument. *No argument* was used for messages that do not state an obvious argument. Examples of all 17 classifications are given in Table 6.3, which also shows selections from the final annotation manual.

Two student annotators completed both the the third and fourth rounds of annotation. Annotators were an upper-level undergraduate and a graduate student familiar with the corpus; the same two students had previously completed previous annotation tasks with a different categorization on the same corpus (Schneider, Passant, and Decker 2012).[5] Annotators were asked to determine the main argument in each message, and to characterize the message's argument strategy by assigning one of the 17 classifications. Specifying only the main argument helped simplify annotation, since inter-annotator agreement is particularly sensitive to boundary variation. This aided the crispness of the categorization for the third and fourth rounds.

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[5]Multiannotator work on the simpler annotation of decision factors was completed before the multiannotator work on argumentation schemes, while the coarse work by the primary investigator started with argumentation schemes before devising decision factors.

Table 6.3.: The 17 categories annotated in round 4 of the argumentation scheme annotation, with examples taken from our annotation manual.

Argumention Scheme	Definition	Rough example from Wikipedia	Example from 2012-03-01 corpus
Argument from Analogy	Based on a similar case.	Articles like X are not notable enough for their own standalone articles.	The test is not for just the combination of those two items, but for the notability of it as a topic. For example, if there are articles on "cars", and "trailers" that doesn't necessarily mean that there should be an article on "cars with trailers" even if that combination of words is common in a google search. That's the question here. I don't know the answer.
Argument from Bias	Bias suspected.	Reads like an advertisement.	Delete as nothing more than promotional guff by a clearly problematic editor who seems hell-bent on spamming his business and products across Wikipedia.
Argument from Cause to Effect	Using cause and effect.	Given what's here, it's reasonable to assume that other sources mention X.	Given the vast amount of coverage Apple gets for its product launches I'm sure they will be covered in business courses in the years to come as a good way to do business and get large amounts of attention towards your products.
Argument from Composition	From the parts to the whole.	Mostly about already discussed at X.	The article is largely surplus to requirements given the information already contained in Battle of Stalingrad and the associated Axis order of battle at the Battle of Stalingrad and Red Army order of battle at the Battle of Stalingrad .
Argument from Evidence to Hypothesis	Providing evidence.	Source X isn't good enough because... - or - Here are the sources, which tell us...	Weak keep. Here is some coverage in Publishers Weekly that backs up the "500,000 copies in print" assertion[35]. A writeup in School Library Journal[36]. And some newspaper reviews[37][38][39][40]: the reviewers aren't Michiko Kakutani, but taken together I'd be inclined to keep--preferably as one consolidated article for all the books.
Argument from Ignorance	Assumption when no supporting evidence can be found.	No search results.	A seemingly unnotable website and blog. It has no references that would support any sort of notability. Searching around only gives results of personal pages (facebook, twitter, etc), thus it fails WP:RS .
Argument from Need for Help	Help should be provided when possible.	If the article can be fixed through normal editing, then it is not a good candidate for AfD.	Keep - this article needs extensive development and lots of citations, but it is unquestionably notable. It does need some expert attention to select and paraphrase good review articles (i.e. secondary sources) from the thousands of papers on immunity and inflammatory diseases.
Argument from Position to Know	Personal knowledge.	I grew up in that area & had never heard of her.	Keep: Like Clarityfiend, I know zilch about modern art. But I've actually heard of this guy.
Argument from Precedent	Based on past decisions.	We've had this same debate for numerous articles, and decided...	Comment by previous closing admin: The deletion requests for this article reminds me of Wikipedia:Articles for deletion/Corn soup. LED-embedded glass is, like corn soup but obviously to a much lesser extent, something almost inherent to any modern metropolitan resident's daily life, hence there is likely to be lots of Google hits but not many of them useful as encyclopedic citations. That said, Google Books did yield some useful results: Popular science magazine, 1986 Structural glass textbook, 2011 Building materials textbook, 2010 and Gizmodo how-to guide As the closing admin of last month's AfD, I don't think it's appropriate for me to !vote here, but as an engineer myself I just want to flag up a few things that may be relevant to this discussion that aren't discussed on the article or the previous AfD.
Argument from Rules	Rule-based argument.	Fails <guideline>.	Delete . Fails WP:FOOTYN and WP:GNG .
Argumentation from Values	Evaluate with value judgments.	It's a useful search term, so make it a redirect.	Delete per nom. A list of tallest buildings for a place without any especially tall buildings is pointless and even kind of insulting.
Argument from Verbal Classification	Definitional arguments.	The current title is misleading.	The concept of immune-mediated inflammatory diseases is not widely recognised within the medical community. Despite what the article says, it is very difficult to group together the widely divergent diseases listed. The fact that they're all treated with immunosuppression is about the only thing. Searching the term as a text word on Pubmed yields 45 references, none of which address the concept in itself. I think deletion is the best step here.
Argument from Waste	Avoid wasted work.	Merge to save the work. - or - Delete to save time.	This article has been created and then deleted at least three times in the last 12 months. On each occasion it has appeared in a similar format and without much difficulty established that it was self-promotional. On this occasion the author has admitted working for the subject corporation from the get-go. At least they're being honest but this the reliable, independent, standard we aspire too. The article needs to go.
Practical Reasoning	Actions towards a goal.		Merge with Ledglass, noting that the latter article says "may also be described as LED Glass or LED embedded Glass", and also that the single reference given for this (LED-embedded glass) article doesn't seem to use that phrase but only "Light-emitting diode (LED) illuminated glass".
No reason given	Vote without explanation.	Per nominator.	Delete per above.
Note	Non-argumentative note; only templated messages	Note: This debate has been included in the list...	Note: This debate has been included in the list of Arts-related deletion discussions.
No argument	Non-templated; meta-arguments	Officially withdrawing nomination. I didn't know if the above statement brought notice as far as withdrawing the nomination went, but I'm posting this just in case.	Comment. The same article appears to have been discussed a month and a half ago under a different title: Wikipedia:Articles for deletion/Transparent LED-embedded glass. That discussion resulted in 'keep'.

Table 6.4.: Inter-annotator agreement for Round 4 of the argumentation scheme annotation

Cohen's kappa	.48
Kappa maximum	.75
Kappa std err	.01
Weighted kappa	.50
Percent agreement	54%
Chance agreement	12%

Before the third round of coding, annotators had an initial training meeting with the principal investigator to discuss the annotation guide and tools; during the meeting we independently coded a test sample from a different sample corpus and then compared codings. Following discussion and collaborative coding, in the third round, we tested the clarity of the guide by having the two assistants spend 2-3 hours independently coding sample debates from a second, sample corpus,[6] in order to surface problems with the annotation guidelines and particularly to gather examples of hard-to-categorize messages. Subsequently, we met as a group to discuss the annotation scheme and suggest refinements. The principal investigator reviewed the annotated test corpus, examining the argumentation schemes within each category, and listing the messages with discrepancies between the two annotators to provide them with further feedback.

For the fourth round of annotation, the primary investigator prepared an updated manual. This provided further guidance about the categories, based on feedback on the annotation and discriminating examples. Then the same two assistants annotated the original corpus based on the final annotation manual; they were asked to spend about 10 hours on this task. Examples from the manual are shown in Table 6.3.[7] Inter-annotator agreement was strong, considering the extreme difficulty inherent in the task, due to the number of categories (17) and the complex analysis involved in determining and categorizing the main argument. Overall inter-annotator agreement statistics are shown in Table 6.4.

Next we discuss the annotation using decision factors.

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[6]Drawn from debates discussed on March 1, 2012
http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Log/2012_March_1
[7]The final manual and discriminating examples are shown in Appendix B.3; these supplemented Chapter 9 of (Walton, Reed, and Macagno 2008) which had been given to annotators in the previous (third) round of annotation.

6.4. Annotation methodology using decision factors

In the second annotation addressing RQ2 (*Which arguments are used in open collaboration systems?*), our goal was to identify the most salient criteria used in deletion discussions, which we call decision factors. This is based on the argumentative approach of factors analysis, which we next describe.

6.4.1. Basis in factor analysis

To our knowledge, annotation based on factors analysis is a new application area. Factor analysis (Bench-Capon and Rissland 2001) has most commonly been used in case-based reasoning. A single factors-based knowledge base classifies and indexes legal cases about trade secrets; this knowledge-based is shared by the early legal argumentation system HYPO (Ashley 1991) and the subsequent legal educational tool CATO (Aleven and Ashley 1997). Factor analysis can be helpful in supporting community decision-making or in summarizing information. Factors are simplifications that are either present or absent; when present, a factor "always strengthens the case for the same disputant" (Bench-Capon and Rissland 2001).
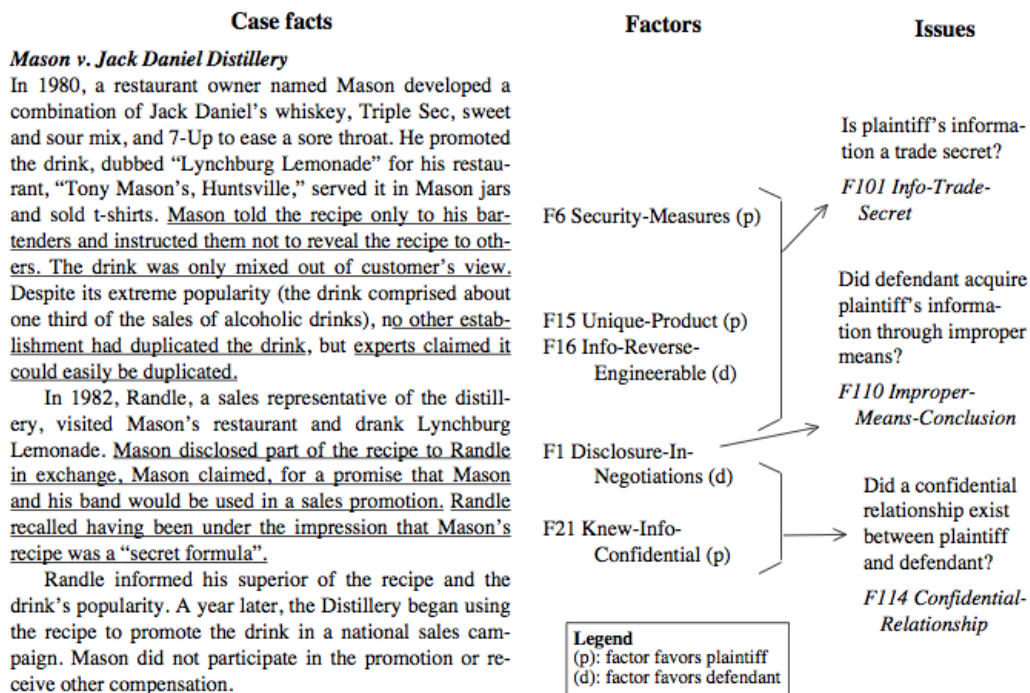
Figure 6.3.: An example of factors analysis from Aleven (1997).

An example factors analysis, drawing from a trade secrets lawsuit, is shown in Figure 6.3 from (Aleven 1997). HYPO—the system described—draws from the factors analysis and factors hierarchy used in CATO and is used to teach case law arguing skills. In the example, sections of the text are underlined to indicate the factors corresponding to certain case facts. For example, the case fact 'experts claimed it could easily be duplicated' yields the factor Info-Reverse-Engineerable. Factors are also marked as to whether they favor the plaintiff or the defendant, and associated with particular issues (such as 'Is plaintiff's information a trade secret?') that need to be decided in order to determine the outcome of the case.

6.4.2. Procedures for annotating with decision factors

We first began by applying an open coding procedure. We had already started qualitative research on Wikipedia deletion discussions, as described in Chapter 5. Thus we were influenced by essays about policies and guidelines, the research literature, and our interviewees, as well as by the (first two rounds of the) argumentation schemes annotation.

For our first round of the decision factors annotation we categorized at the discussion level, to get a coarse overview of what was important in discussions. At first we did not have fixed categories; rather important topics and issues emerged from analyzing the discussion. When specialized Wikipedia terminology was the most prominent way of mentioning a topic, we used those terms as names: WP:COI (conflict of interest),[8] WP:AUTO (autobiography),[9] WP:OR (no original research),[10] Content fork (separate articles on the same subject),[11] and POV fork (highlighting disagreements on the same subject, a kind of content fork).[12] Otherwise we grouped similar issues, naming them: Encyclopedic, Lacks sources, Rumor & speculation, Promotional, Vague inclusion criterion, Could never be completed, Length, Copyright violation, Could be improved/could use a good edit. We categorized at the discussion level, to get a coarse overview of what was important in discussions. After this initial categorization, we then consulted other models.

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[8]http://en.wikipedia.org/wiki/Wikipedia:Conflictofinterest
[9]http://en.wikipedia.org/wiki/Wikipedia:Autobiography
[10]http://en.wikipedia.org/wiki/Wikipedia:Nooriginalresearch
[11]http://en.wikipedia.org/wiki/Wikipedia:Content_forking
[12]http://en.wikipedia.org/wiki/Wikipedia:Content_forking#Point_of_view_.28POV.29_forks
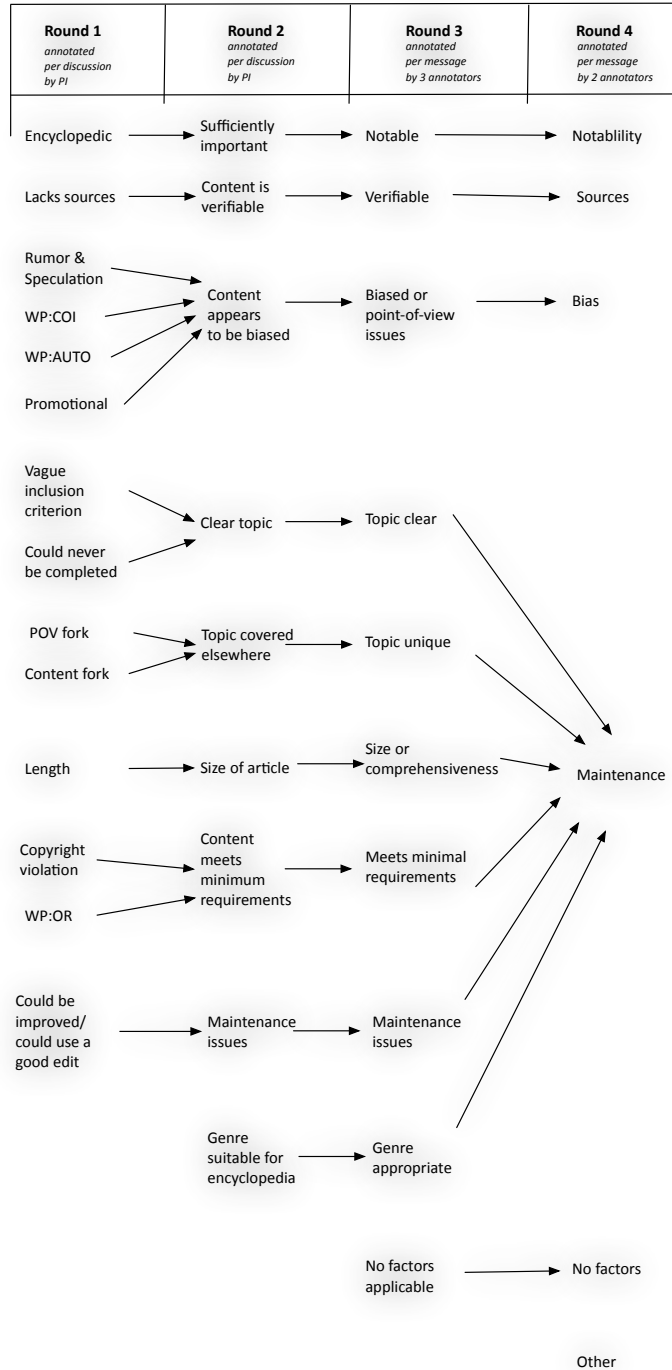
Figure 6.4.: Our decision factors evolved from iterative annotation. Several Round 1 categories were collapsed and renamed in order to make categories for Round 2, and an additional category, 'Genre suitable for encyclopedia', was added. Round 3 renamed some categories and added the category 'No factors applicable'. In Round 4, the 'Maintenance' category collapses a number of categories from Round 3, the category names are simplified, and an 'Other' category is added.

Refinement in accordance with other models

To determine categories for the second round of annotation, we clustered categories from Round 1 and compared them to existing models for information quality, drawing primarily from Stvilia's information quality assessment model. Stvilia developed this normative model in the context of article promotion and demotion on Wikipedia. His model maps between three sets of evaluation criteria for encyclopedia articles: Stvilia's own model (Stvilia, Twidale, Smith, and Gasser 2008), Wikipedia's model, and Crawford's model for encyclopedia evaluation in traditional media (Crawford 2001). Stvilia's comparison diagram, Figure 6.5, shows all three models.
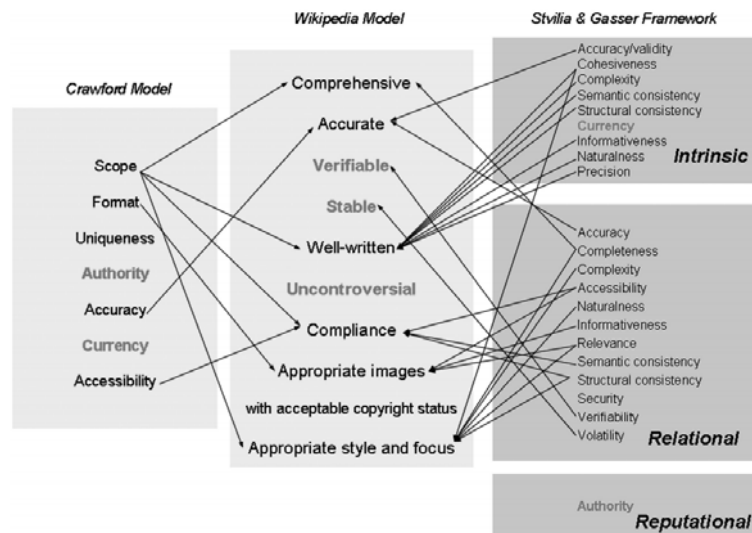
Figure 6.5.: Stvilia compares models for evaluating information quality in encyclopedias in this diagram from (Stvilia, Twidale, Smith, and Gasser 2008).
Reprinted from Journal of the American Society for Information Science and Technology, Besiki Stvilia, Michael B. Twidale, Linda C. Smith, and Les Gasser, Information quality work organization in Wikipedia, page 993, Copyrint 2008, with permission from Wiley.

This clustering led us to collapse several categories. As shown in Figure 6.4, 'Content appears to be biased', 'Clear topic', 'Topic covered elsewhere', and 'Content meets minimum requirements' were new categories in Round 2, drawing from multiple topics from Round 1. We also added one category: 'Genre suitable for encyclopedia', which arose from considering the information quality models shown in Figure 6.5. Some topics could have fit into multiple categories; for instance a Content fork tends to show bias, or, besides showing bias, autobiographies may conflict with the genre norms for an encyclopedia.

Altogether, we devised ten factor codes for Round 2. Then a single coder (the primary investigator) used this classification to recode our sample, counting each factor no more than once per debate. In descending order of prevalence, these factor codes were as follows: Sufficiently important, content is verifiable, maintenance issues, genre suitable, size of article, topic covered elsewhere, meets minimum requirements, clear topic, and aids comprehensiveness. These Round 2 categories were a starting point for the third round of annotation and were eventually further refined.

Refinement after iteration

Next, the same ten factors were used in Round 3 to recode the sample at the individual comment level (multiple factors were allowed per comment). The main difference was that round three had multiple annotators and annotated at the comment level, rather than the discussion level; as shown in Figure 6.4, we also made slight adjustments to the category names when making a shared annotation manual. As an annotating interface, we used GATE, as shown in Figure 6.6.
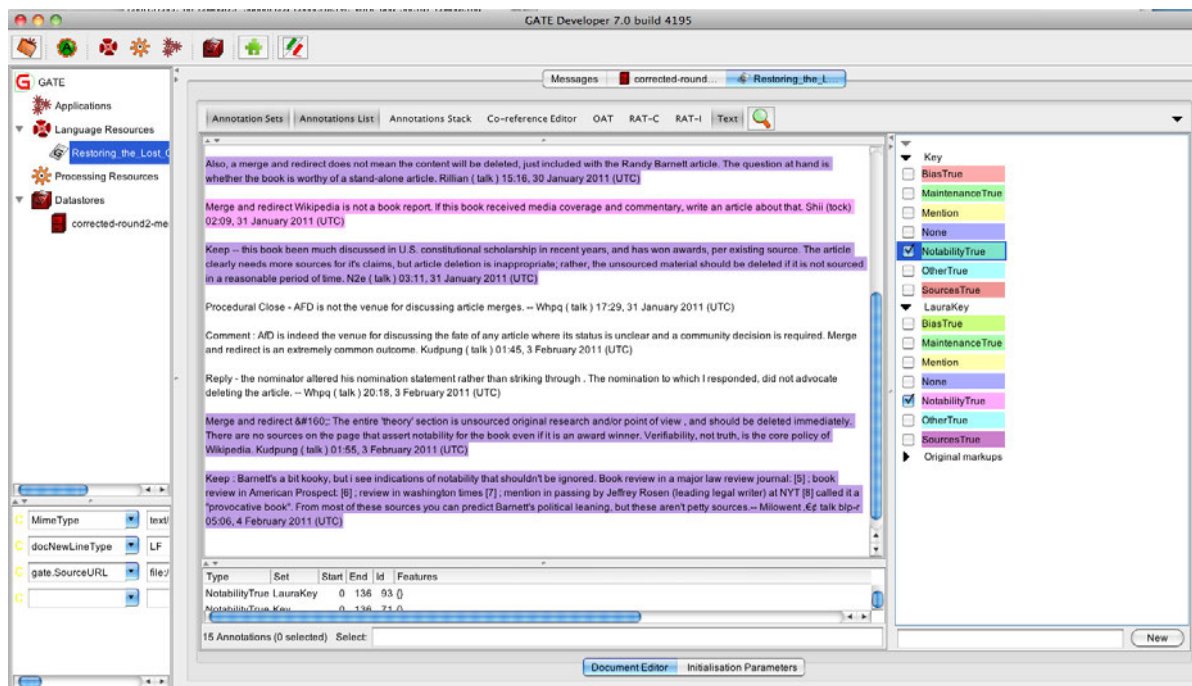
Figure 6.6.: We used GATE for annotation of decision factors.

In Round 3, inter-annotator agreement between the three annotators was weak, so we refined and truncated the factor manual in discussions with annotators. An appendix,

Table 6.5.: In Round 4, the final round of the decision factor annotation, inter-annotator agreement between the two annotators was good.

	Bias	Maintenance	Notability	Sources	Other
observed agreement	.95	.87	.88	.92	.83
Cohen's kappa	.66	.64	.75	.82	.34

Appendix B.4, shows the final annotation manual along with annotator guidance from the Round 3 and Round 4 on distinguishing categories.

In particular, for the final Round 4 annotation, we used the four most common categories, which covered 91% of comments. In doing so, the earlier 'Maintenance issues' was expanded to include issues of topic and information loss. Further, non-arguments (such as 'agree with [USER]','per nominator') along with non-sequiturs and relisting notices were categorized as not expressing an argument. And finally, a catchall 'Other' category was created. In this fourth and final round, two annotators[13] then reclassified the argumentative comments as shown in Table 6.7 into one or more of five categories—Notability, Sources, Maintenance, Bias, Other, resulting in good inter-annotator agreement as shown in Table 6.5.

Our classification was based on what Wikipedians wrote. Votes left with no rationale were excluded as having no applicable factors. Our five categories are distinct but not independent. We distinguished interlinked factors, such Sources and Notability. Thus, even though Sources are frequently used as supporting evidence for Notability, we separated the discussion as much as possible. So for instance 'no reliable sources' was coded as Sources; 'not notable' was coded as Notability; 'no reliable sources to indicate notability' was coded as both.

6.5. Results

We next discuss the results of our annotations, focusing first on the argumentation schemes used in our corpus of Wikipedia deletion discussions, and then on the decision factors used.

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[13]Two of the three annotators from the third round continued to the fourth round; the third annotator was no longer available.

Table 6.6.: The most common argumentation schemes, sorted by prevalence in our full corpus. Three additional categories, not corresponding to argumentation schemes, are also shown in Table 6.6; these were for non-argumentative notes (common templated messages), votes with no reason given, and other messages with no argument. For definitions and examples, see Table 6.3 page 136.

Argument Pattern	Prevalence
Argument from Evidence to Hypothesis	19.29%
Argument from Rules	16.90%
Note	13.69%
Argumentation from Values	4.20%
Argument from Need for Help	4.12%
Argument from Bias	3.87%
No reason given	3.22%
Argument from Position to Know	3.05%
Argument from Precedent	3.05%
Argument from Ignorance	2.97%
Argument from Composition	2.56%
Argument from Cause to Effect	2.31%
Argument from Analogy	2.23%
Argument from Waste	2.23%
Practical Reasoning	2.23%
Arg. from Verbal Classification	2.06%

6.5.1. Argumentation schemes used in discussions

In our corpus of English Wikipedia deletion discussions, 14 argumentation schemes were found as the main argument for more than 2% of argumentative messages as shown in Table 6.6. The two most prevalent patterns are the *Rules* and *Evidence* schemes from Walton's catalog of argumentation schemes (Walton, Reed, and Macagno 2008), which together comprise 36% of arguments. Three additional categories, not corresponding to argumentation schemes, are also shown in Table 6.6; these were for non-argumentative notes (common templated messages), votes with no reason given, and other messages with no argument.

Our core corpus of 72 debates yielded 1213 arguments in 741 messages.[14] The most common argumentation schemes are shown in Table 6.6 on page 144; each of these 14 schemes is used in at least 2% of arguments. Two non-argumentative categories, Note, and No Reason Given, also each comprise more than 2% of messages, as shown in Table 6.6.

Certain schemes are more prevalent compared to a general argument corpus: five of Wikipedia's top third most common deletion arguments—Arguments from Rules, Values,

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[14]Descriptive statistics for the number of participants and number of messages per debate were given in Section 5.6 where the corpus was introduced.

Bias, Precedent, and Waste—are not in the top two-thirds of the most commonly used arguments (pers. communication, Snaith) in the only widely-available informal argument corpus, the Araucaria corpus (Katzav, Reed, and Rowe 2004). This shows Wikipedia's focus on precedent and rules, and the tendency to discuss articles in terms of both values or community norms and article contributors or supporters. Certain common schemes have no relevance to debates: for instance Fear Appeal and Distress were not observed, and Popularity was rare.

6.5.2. Decision factors used in discussions

In our final annotation, we used five decision factors—Notability, Sources, Maintenance, Bias, and Other—shown in descending order of prevalence in Table 6.7. These factors were determined iteratively as discussed above in Section 6.4.2. Five factors resulted after refining earlier categorizations, collapsing comparable categories until good inter-annotator agreement resulted.

Table 6.7.: Decision factors (in descending order of prevalence) can be used to argue for either keeping or deleting an article. Examples are taken from our Wikipedia corpus.

Factor	Example (used to justify 'keep')	Example (used to justify 'delete')
Notability	Anyone covered by another encyclopedic reference is considered notable enough for inclusion in Wikipedia.	There is simply no coverage in reliable sources to establish notability.
Sources	Basic information about this album at a minimum is certainly verifiable, it's a major label release, and a highly notable band.	There are no independent secondary sources (books, magazine articles, documentaries, etc.) about her.
Maintenance	this article is savable but at its current state, needs a lot of improvement.	Too soon for a page likely to be littered with rumour and speculation.
Bias	It is by no means spam (it does not promote the products).	The article seems to have been created by her or her agent as a promotional device.
Other	I'm advocating a blanket "hangon" for all articles on newly-drafted players	it appears to be original research by synthesis

Each discussion mentioned from one to all five of these decision factors, Notability, Sources, Maintenance, Bias, and Other. The overall frequency of factors based on debate outcomes is shown in Figure 6.7 on page 146.

The same factor can be used to argue both for keeping and for deleting an article, as shown in Table 6.7. One particular similarity between the HYPO/CATO factors (Section 6.4.1) and our work is that it is possible to use factors to argue either for or against an issue. Further, they can be discussed as factual matters related to issues that need to be decided in order to determine the outcome of a debate.
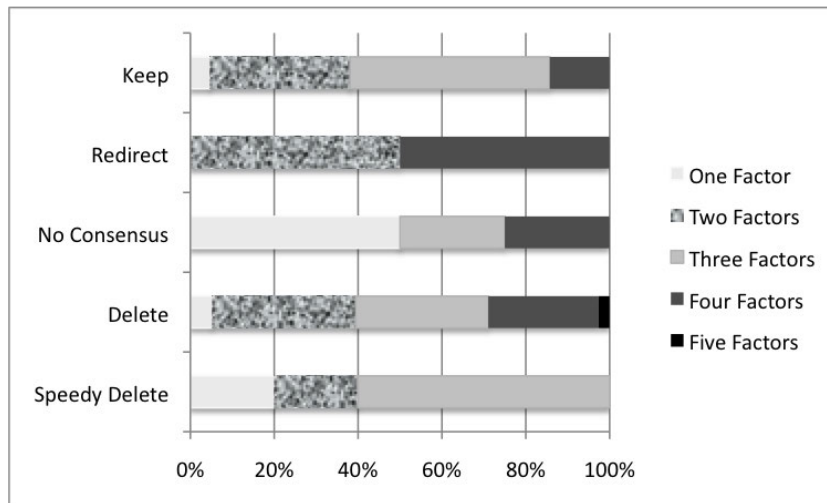
(a)
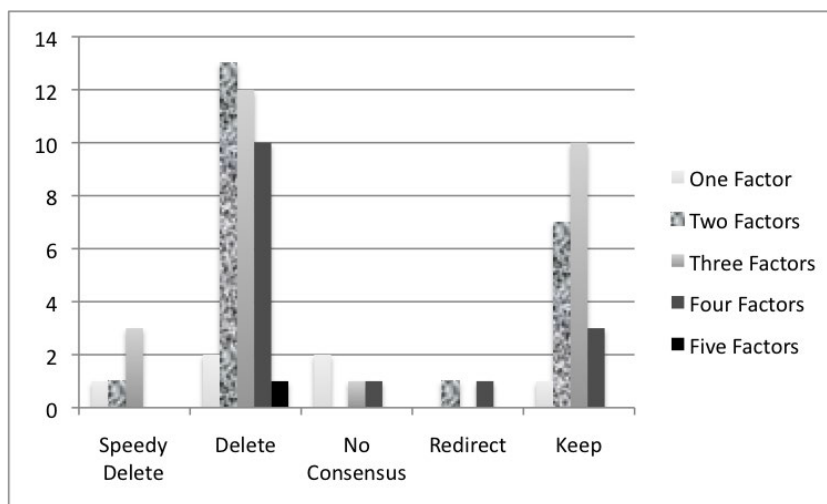
(b)

Figure 6.7.: The number of factors, from Notability, Sources, Maintenance, Bias, and Other, found in deletion discussion decisions (speedy delete, delete, no consensus, redirect, keep), by (a) percentage (b) and number of debates. autociteWikiSym2012

Often a factor is mentioned as a concession to agree with the evidence but disagree with conclusions. In the following example, despite maintenance and bias concerns, a notability guideline (*WP:POLITICIAN*[15]) is used to argue for keeping an article about a politician: *Article should definitely be rewritten (sounds promotional) but I think he passes WP:POLITICIAN.* As this demonstrates, factors can offset one another. Even though numerous policies and guidelines are cited (and especially the subject-specific notability guidelines for determining the notability of organizations, professors, songs, etc.), the

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[15]http://en.wikipedia.org/wiki/Wikipedia:Politician

arguments made in 69.5% of discussions and 91% of comments are well-represented by just four factors: Notability, Sources, Maintenance, and Bias.

Number of factors

The number of factors might be expected to correlate with the level of controversy of a debate and its length. Indeed, unanimous decisions[16] were shorter and indicated fewer factors. Fully one-third of the sample—24 articles—was deleted unanimously, with no opposition to deletion. These debates had two to ten comments (median 6.5, mean 6.17) and mentioned one to four factors (median 2, mean 2.33). By contrast, non-unanimous discussions (*contested deletions*, *kept*, or *redirected*) were typically far more voluminous, with five to thirty-three comments (median 11, mean 12.35), and most (93.75%) non-unanimous discussions mentioned multiple factors.

Yet *contested deletion* debates mentioned more factors than *keep* debates. This is surprising since, in the main, *keep* decisions and *contested deletion* decisions are of similar length, with at least six comments (means 12.05 keep, 11.44 contested deletion; medians 10 kept, 10.5 contested deletion). In the extreme, the longest keep discussions in our sample received thirty-three comments, compared to twenty-one comments for a contested deletion. In both cases, controversy is a given, but the nature of the discussions varies somewhat.

Discussions for *contested deletions*[17] were fairly similar to keep discussions in their broad outlines but on average, *contested deletions* mentioned more factors (mean 3.39 for non-unanimous deletions, compared to 2.71 for keep), and this difference is stable when the lowest and highest-factor debates in each category are truncated.

We have annotated two different ways. We first used argumentation schemes indicating the structures of argumentation, based on Walton's argumentation theory. Second we used decision factors indicating the factors argued about, inspired by the factors/dimension approach. Next we consider which approach to use for structuring arguments from Wikipedia deletion discussions for use and reuse.

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[16]Note that kept articles are never unanimous: kept articles have disagreement at least with the nomination.

[17]Including one *speedy delete* that was contested by its author and subject.

Table 6.8.: An extract from a deletion discussion tagged with decision factors. Statements in bold are related to the codes from our from our Final (left) and Round 3 (right) Codebooks; each comment is in a separate row. Ultimately the article was kept.[a]

Final Codebook	Comment	Round 3 Codebook
Sources, Notability	Read likes an **WP:OR** book report, only two citations, **no content about why book is notable**	Verifiability, Importance
Bias	Agreed... Also somewhat **biased in tone**. Merge and Redirect	Bias
Other [Size], Maintenance	Keep. This article has been in existence since 2004. It is **not some little stub article**, either. **If you don't like the way the article is written, then fix it.**...	Length, Maintenance
-	Also, a merge and redirect does not mean the content will be deleted, just included with the Randy Barnett article....	-
Other [Genre]	Merge and redirect **Wikipedia is not a book report**. If this book received media coverage and commentary, write an article about that.Shii (tock) 02:09, 31 January 2011 (UTC)	Genre suitable
Notability, Sources	Keep – **this book been much discussed in U.S. constitutional scholarship in recent years, and has won awards**, per existing source. The article clearly **needs more sources for it's claims**, but article deletion is inappropriate...	Importance, Verifiability
Sources, Bias, Notability	Merge and redirect : The entire 'theory' section is **unsourced original research** and/or **point of view**, and should be deleted immediately. **There are no sources on the page that assert notability for the book even if it is an award winner.** Verifiability, not truth, is the core policy of Wikipedia. Kudpung (talk) 01:55, 3 February 2011 (UTC)	Verifiability, Bias, Importance
Notability	Keep: Barnett's a bit kooky, but **i see indications of notability** that shouldn't be ignored. **Book review in a major law review journal: [7]; book review in American Prospect: [8]; review in washington times [9]; mention in passing by Jeffrey Rosen (leading legal writer) at NYT[10] called it a "provocative book"**. From most of these sources you can predict Barnett's political leaning, but these aren't petty sources.–Milowent talkblp-r 05:06, 4 February 2011 (UTC)	Importance

[a]Comments found on the Wikipedia source page: Restoring the Lost Constitution AfD http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Restoring_the_Lost_Constitution

6.6. Choosing an argumentation theory

To choose an argumentation theory to enable argumentation support appropriate for structuring arguments from Wikipedia deletion discussions, we return to the opportunities and requirements found in Chapter 5. We next compare Walton's argumentation schemes to decision factors with tasks from Section 5.7 in mind.

6.6.1. Task comparison

Which argumentation theory is task-appropriate: Now we compare Walton's argumentation schemes (Section 6.3) against decision factors (Section 6.4) for relevance to the three argumentation tasks we introduced in Chapter 5.

For determining one's personal position (T1), decision factors provide a simpler overview of what others think. For instance, grouping discussions about the same decision factor could identify whether people arguing against deleting an article have addressed Notability issues.

For expressing one's personal position according to community norms (T2), argumentation schemes provide more specific advice for structuring an argument; this could be helpful for learning *how* to argue. Comparatively, decision factors provide advice on *what* to argue about. Support for T2 could be provided by either or both. Novices make the mistake of using inappropriate argumentation schemes, that are not persuasive according to community norms. Novices also make the mistake of arguing about inappropriate topics; and even when they argue about appropriate topics they may display inadequate understanding of community norms (as we previously discussed in Section 5.5.2). Support for both how to argue, using argumentation schemes, for what to argue about, using deletion factors could both be helpful.

For determining the consensus of a deletion discussion (T3), decision factors provide a simpler overview. For instance, grouping discussions about the same decision factor could help ensure that key topics are considered when determining whether the article is deleted. Grouping messages on the same theme together could help spot arguments and counterarguments.

Different emphasis of the two argumentation theories: We contend that decision factors emphasize the important topics of the discussion while argumentation schemes

emphasize the way in which positions on these topics are justified. For instance, an argument supporting the decision factor Notability might use the Argument from Evidence to Hypothesis and an Argument from Rules, as in the example category analysis given in Table 6.2 in Section 6.3.3 above.

Argumentation schemes are relevant for determining whether a particular rhetorical move is acceptable, according to the community standards of argumentation. For example, an Argument from Popular Opinion is not compelling in Wikipedia deletion discussions, especially compared to an Argument from Evidence. On the other hand, decision factors are relevant for grouping the thematic arguments for and against the issues, such as whether the community standards for Notability are met.

Above we compared the two annotation styles against the tasks. We now discuss ease of use and technical considerations.

6.6.2. Ease of use

Two aspects, scheme size and relation to community standards, both impact on the ease of use.

- **Scheme size** For ease of understanding, a small scheme size might be preferred.

  There are 4 decision factors (plus a catch-all 'Other' category); these express aspects of a topic or article that most commonly need to be addressed.

  There are 14 argumentation schemes (plus three other categories for 'Note' and 'No reason given' and 'No argument'); these express the manner in which the argument is justified.

- **Relation to community standards** Decision factors are more closely connected to the standards articulated by the community: the themes are broader and more commonly discussed than the structures for argumentation. This suggests that learning decision factors might be useful for learning community standards.

6.6.3. Technical considerations

We also consider two technical considerations: coverage and ease of manual annotation.

- **Coverage** For argumentation schemes classification, needed 17 categories (14 argumentation schemes and three non-argumentative categories) in order to reach 85.75% coverage of our corpus. (See Table 6.6). Yet the arguments made in 91% of comments are well-represented by just four decision factors: Notability, Sources, Maintenance, Bias. These decision factors completely cover 69.5% of discussions. By contrast, the top two argumentation schemes, Argument from Evidence to Hypothesis and Argument from Rule, cover only 36% of the corpus, and the top four categories (adding Note and Argumentation from Values) cover only 54.08% of the corpus.

- **Ease of manual annotation** Decision factors are easier to map to: based on four rounds of annotation, we reached stronger inter-annotator agreement with decision factors. While for argumentation schemes, we reached a Cohen's kappa of .48, this measure of inter-annotator agreement was much stronger for the four decision factors, which had Cohen's kappa ranging from .64 to .82.[18]

6.6.4. Choosing decision factors rather than argumentation schemes

Thus decision factors have several advantages over argumentation schemes. From the community perspective, this includes a closer relation to community standards and an emphasis on the thematic arguments for and against the main issues. From the annotation perspective, this includes a smaller scheme size for fuller coverage of the discussions and simpler annotation that more quickly converges to agreement.

Argumentation schemes record and display the structure of arguments such as the basis by which inferences are used. This allows their logic to be audited and enables clarity about how to attack, undercut, or undermine an argument. However, the reasoning used in deletion discussions is very domain-specific and, as we saw in our original example Figure 2.6, arguments are rarely fully specified. Decision factors record and display the domain-specific issues that participants debate in deletion discussions.

For supporting the use and reuse of arguments in deletion discussions, these domain-specific issues function as the main criteria for making decisions, and this is important tacit information that should be made explicit, towards supporting and socializing newcomers.

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[18]The 'Other' classification of decision factors still showed significant disagreement, with a Cohen's kappa of .48

This implies that decision factors are more crucial for our representation. This suggests using the four decision factors (Notability, Sources, Maintenance, and Bias without the 'Other' catchall category) in our representation. Decision factors identify the particular issues of importance, and can be used to organize these issues. While decision factors could be made into their own schemes, where given certain premises we come to a particular conclusion, we have not proceeded along these lines.

For the remainder of the thesis, we choose to use decision factors. Consequently, we cover two of these three tasks, focusing on determining one's personal position (T1), and determining the consensus of a deletion discussion (T3). The advantage is we can use one representation for two tasks; further, we note that expressing one's personal position according to community norms (T2), would be difficult to simulate or test without the full participation of the community since it involves writing in context. In Section 8.3.4 we suggest future work on (T2) using semi-automatic checking to scaffold argumentative writing tasks for new Wikipedians.

Future directions for (T2) support using deletion factors would involve summarizing the most relevant policies and displaying them in context. For support using argumentation scheme, future directions might include partially instantiating argumentation schemes and adding more specific critical questions. For instance, to summarize the Sources decision factor, we could indicate the aspects of sources that are important to check (such as 'published', 'reputation for fact-checking and accuracy'). The same information could alternately be used in a site-specific argumentation scheme for Sources derived from Argument from Rules, to generate more specific critical questions for the rule that 'An article must have reliable secondary sources'.

We next discuss the novelty and contributions of our work, followed by the limitations.

6.7. Novelty and contributions

To characterize our contributions it is useful to restate the nature of the work described in this chapter. It sits at the intersection of several fields: annotation, argumentation theory, open collaboration systems, and Wikipedia studies. The first of these, annotation, is well-understood and commonly used; for us it is exclusively a method used to ground our work. The second, argumentation theory, is both a method and an application area. The latter two, open collaboration systems and Wikipedia studies, are domain areas.

Thus we discuss our contributions in this chapter as contributions primarily to open collaboration systems and Wikipedia studies, with a smaller contribution as an application of argumentation theory. Further, we can anticipate to the place of this chapter in the thesis, namely, to classify and describe the phenomena we would like to structure, towards the larger goal of providing suitable argumentative support. From this perspective, we will later see that this work also falls into human-computer interaction and cognitive ergonomics, so we also mention that perspective here.

6.7.1. Open collaboration systems

Within the realm of open collaboration systems, our work on RQ2, *Which arguments are used in open collaboration systems?*, introduces argumentation theory as a viable approach for analyzing online collaboration. What is novel is recognizing the opportunity of structuring conversations in online collaborations. While techniques such as reflective listening have been adapted to the online environment (Billings and Watts 2010; Kriplean, Toomim, Morgan, Borning, and Ko 2012), we are not aware of existing work using argumentation theory to analyze online conversations.

Our work also adds to a growing body of existing work on contentious discussions in open collaboration systems. For example, Barcellini et al. (2008) have studied how design decisions in the Python community are mediated by boundary-spanning between user- and developer-oriented mailing lists while Ko and Chilana (2011) have studied contentiousness in bug reports in several open source software communities. Within Wikipedia, we have studied article discussion pages (Schneider, Passant, and Breslin 2011) and identified additional work in this area.[19]

6.7.2. Wikipedia studies

Within the area of Wikipedia studies, our work has contributed to new methods for studying deletion. We were perhaps the first researchers to write about qualitative analysis of deletion discussions, in (Schneider and Passant 2011). Our first published results (Schneider, Passant, and Decker 2012) were bracketed by contemporaneous work by Xiao and Askin (; 2012) and swiftly followed by a paper by Famiglietti (2012). We had been in touch with these authors: In 2011 we had shared an early preprint of

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[19]http://www.citeulike.org/group/13905

the paper that become (Schneider, Samp, Passant, and Decker 2013) with Famiglietti and in February 2012 we met Xiao at CSCW in a workshop on Collective Intelligence as Community Discourse and Action. Despite a large body of work on discussions in Wikipedia, we are not aware of any manual investigation of deletion prior to these papers, and subsequent papers cite our work (Joyce, Pike, and Butler 2013b; Xiao and Askin 2014) while our second results (Schneider, Samp, Passant, and Decker 2013) appeared in the same CSCW2013 session as (Joyce, Pike, and Butler 2013a).

The above-mentioned studies share the same methods we pioneered—content analysis of a focused sample. Famiglietti applies rhetorician Burke's concepts of pentad, screen, and scope to deletion discussions in order to build a descriptive taxonomy with terms such as 'cruft', 'illegal', 'conflict of interest', 'point of view fork', and 'canvassing'. Joyce et al. find that the outcome or decision taken in a deletion deliberation is influenced both by the number of 'votes' (messages proposing an outcome such as 'Keep', 'Delete', etc.) and by the number of 'comments' (messages not proposing an outcome) (Joyce, Pike, and Butler 2013b). Their qualitative analysis of deletion discussions also investigates the relationship between mentions of the 'ignore all rules' policy and the decision taken (Joyce, Pike, and Butler 2013a), finding that

> citation of IAR is not equally influential in all situations, but instead is most influential when the there is sufficient complexity in rule application and some agreement about the category of rules that might be relevant (and hence might be ignored) (Joyce, Pike, and Butler 2013a).

Xiao and Askin examine the rationales in deletion discussions, seeking to evaluate the quality of online deliberation, by coding each rationale with one or more of the following 10 categories: references to Wikipedia's internal polices, procedural points, notability, credibility, precedent, richness (validity and usefulness of content), utility or function within Wikipedia (e.g. gazetteer, pick list), agree with rationales provided by other voters, disagree with rationales provided by other voters, no rationale provided (Xiao and Askin n.d.; Xiao and Askin 2012; Xiao and Askin 2014). Xiao and Askin find little use of precedent and no rationale provided, while the most common rationale, notability, appeared about four times as often as the second most common rationale, credibility (2012). This agrees with our work on decision factors, which found Notability as the most common decision factor, and Sources (roughly corresponding to Xiao and Askin's credibility category) as the second most common decision factor.

The methods used in these studies is in contrast to prior research on deletion, which was limited to quantitative analysis of large batches of data based on log files. Prior studies focused on shallow analysis of large datasets, e.g. of redacted content (West and Lee 2011), vote sequencing (Taraborelli and Ciampaglia 2010), and decision quality (Lam, Karim, and Riedl 2010). By contrast, the qualitative studies allow deeper insight into representative samples.

Our work provides insight into an important area of Wikipedia: The discussions we consider are used to determine whether articles are appropriate for inclusion in the encyclopedia, or should be deleted. The arguments used in these discussions are of primary importance, and according to community policy, decisions should be made by consensus, based on which arguments prevail. By investigating the decision rationales Wikipedians articulate, this study contributes to understanding Wikipedia's policies and values, an area of significant interest within Wikipedia research. The community's interest in our work is shown by their engagement with our research.[20]

6.7.3. Wikipedia application

Wikipedia has been spending more effort lately on welcoming and socializing newcomers (e.g. Halfaker, Keyes, and Taraborelli 2013; Morgan, Bouterse, Walls, and Stierch 2013). Exposing the four decision factors—Notability, Sources, Maintenance, Bias, and Other—as simple decision criteria could make more the policies more learnable and socialize newcomers more quickly to the work of deletion.

6.7.4. Argumentation theory

To argumentation theory, we add a use case, a corpus, and an analysis process. First, the argumentative aspects of our use case make it relevant for further study by argumentation scholars interested in topics such as online deliberation, decision-making in open collaboration systems, and the role of argumentation in promoting information quality.

Second, the corpus itself is a contribution, as we are aware of only two existing corpora for argumentation: One focuses strictly on legal argumentation, drawing cases from the European Court of Human Rights (Mochales and Ieven 2009) while the other contains

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[20]For instance, we were invited to present at the community conference Wikimania 2010 and for instance three of our papers have been summarized in the Wikipedia research newsletter, starting with its inaugural issue in July 2011.

texts from 20 general sources in several categories, including newspapers and magazines, legal, parlimentary, and governmental information, science sources, activist websites, and online discussion fora (Katzav, Reed, and Rowe 2004). Our Wikipedia deletion discussion corpus is, to our knowledge, the first argumentation corpus mapping a quantity of online discussions from the same genre and source against Walton's argumentation schemes, and the first corpus describing factors analysis outside legal argumentation. Corpus development is becoming of increasing importance: recently argumentation corpora have been used as training data for supervised machine learning to automatically identify arguments (Mochales and Moens 2011), as we will discuss further in Section 8.3.3.

Third, the process itself is a contribution, addressing the need for corpus development methods. The process for argumentative analysis we describe in this chapter is intensive and adds detail in comparison to previous approaches, and in the future it could be applied to any epistemic or artifact-oriented community. Unlike previous work, we provide annotation manuals making our process explicit (Appendix B); such materials are essential for ensuring consistent approaches to annotation. We provide further detail for using Walton's schemes, which are of wide applicability as general purpose schemes understanding and preventing fallacies. We also provide new methods for developing factors and dimensions, which have not previously been applied outside the legal realm, to our knowledge. This makes our analysis process reusable.

We have described three contributions to argumentation: Our use case is relevant for further study by argumentation scholars, our corpus could be used as a training corpus for argumentation identification, and our process could be used on other corpora, for instance in reviews and e-government.

6.8. Limitations

One overall limitation of our work is that we cannot claim to provide a full record. Rather, our work provides a rich view of the argumentative content of deletion discussions, based on our hand analysis of sizeable, representative sample. Our sample used represents just one day's worth of data out of 10 years worth of arguments. This sample is typical of current deletion debates, in size and duration and we take it to be representative.

One particular issue is that the sociotechnical system described may change over time, as the rules, participants, and participation norms change—for instance as different people or different numbers of people participate. Wikipedia started in 2002; and the

systems for content management, including deletion, have changed with it. Wikipedia's deletion discussion system has been in roughly its current form since 2005.

Finally, while we remain interested in the Social Web and open collaboration systems at large, and while Wikipedia is a representative open collaboration system, certain aspects of the situation analyzed are specific to this community.

A limitation specific to annotation is that we had to choose the level at which to annotate arguments: messages can contain any number of arguments, or no argument at all. For argumentation schemes, we annotated the main argument, since arguments were complex to identify as well as to annotate. For decision factors, we annotated all the factors found.

There were also some issues with message segmentation, for instance some messages were conjoined with the preceding or succeeding message, generally when a message was missing the timestamp due to being unsigned. We attempted to correct message segmentation manually in these cases.

6.9. Conclusions

In this chapter, we considered RQ2, namely *Which arguments are used in open collaboration systems?* We addressed this question in a corpus of Wikipedia deletion discussions through an annotation-based study using two approaches to classify argumentation. First, we used Walton's argumentation schemes, finding that Arguments from Evidence to Hypothesis and Arguments from Rules were the most popular patterns; this shows Wikipedia's focus on precedent and rules. Second, we used decision factors, finding that 4 factors—Notability, Sources, Maintenance, and Bias—were sufficient to cover the arguments made in 70% of discussions and over 90% of comments.

We also used the results of our annotation to consider how to best structure arguments from deletion discussions. Comparing argumentation schemes and decision factors, we determined that ease of use and technical considerations favored decision factors; further decision factors were better matched to two of the three tasks established in Chapter 5.

Next we most consider how decision factors can in fact be used to structure and and display opinions. In particular, we would like to support the use and reuse of argumentative messages from deletion discussions. We consider this topic in the next chapter.

Chapter 7.

Argument-based filtering of Wikipedia deletion discussions[1]

In this chapter we discuss RQ3, namely *How can we structure and display arguments and opinions to support filtering?* We continue with the same use case of Wikipedia deletion discussions described previously; we focus in particular on the task of determining the outcome of discussions. To support this task, we design a new, reconfigurable Web interface that structures and displays argumentative messages from Wikipedia deletion discussions. In a pilot evaluation, we then show the benefits of this interface, in a 20-participant user-based evaluation.

In this chapter, we first provide an overview of our methods and goals, focusing on Semantic Web application development. Then we design an ontology using the decision factors from Chapter 6 and show how it follows from the community requirements from Chapter 5.

Using the ontology, we develop a new, reconfigurable Web interface for Wikipedia deletion discussions using Semantic Web application development. We semantically annotate HTML data from deletion discussions. Then we query for data to create a new, reconfigurable Web interface for Wikipedia deletion discussions.

To evaluate our new filtering interface as a task-based support system, we conduct a user-based evaluation with twenty participants; we describe the methodology of evaluation as well as its results. Before concluding the chapter, we make suggestions for future work.
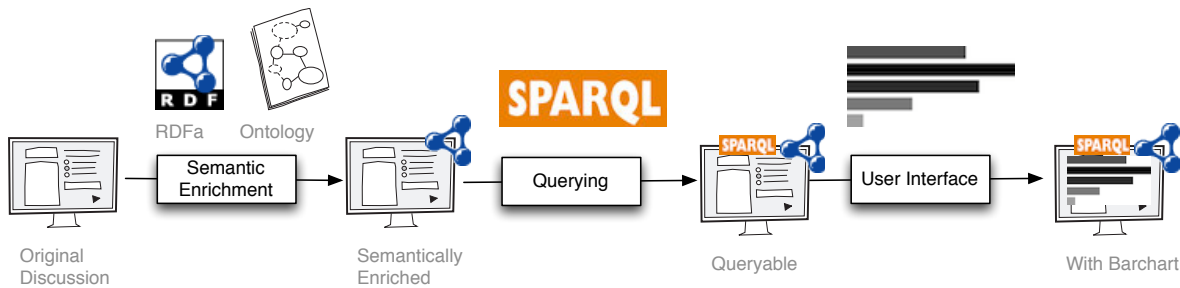
Figure 7.1.: The process of creating our Web application.

7.1. Methods and Goals

7.1.1. Semantic Web application development

We use Semantic Web interface development to make our argumentation-support interface. The process of creating our Web application is shown in Figure 7.1. We create an ontology to use as a data model. Then we express data in this ontology, semantically annotating HTML with RDFa (Section 3.3.2). Then querying with SPARQL (Section 3.3.3) yields data that can be configured as desired in a user interface. Reconfiguring the interface is a matter of either restyling the data resulting from the queries or choosing different queries.

Very little needs to be changed in HTML code in order to enable querying with RDFa. Integrating semantic annotations into webpages with RDFa is useful since we can keep the existing structure and visual display of the page while just adding lightweight code.

7.1.2. Task to support: consensus-finding in Wikipedia deletion discussions

Our use case of Wikipedia deletion discussions, previously introduced in Section 5.3 and used in the previous two chapters, is a concrete example of consensus-based discussions, which are commonly encountered in open collaboration systems (Haythornthwaite 2009). Outcomes of these discussions are important, since they determine whether a particular topic will continue to be covered in the encyclopedia. Discussions occur frequently: Wikipedia has about 500 deletion discussions a week. They can also be long (with comments from 2–200 people) and sometimes contentious.
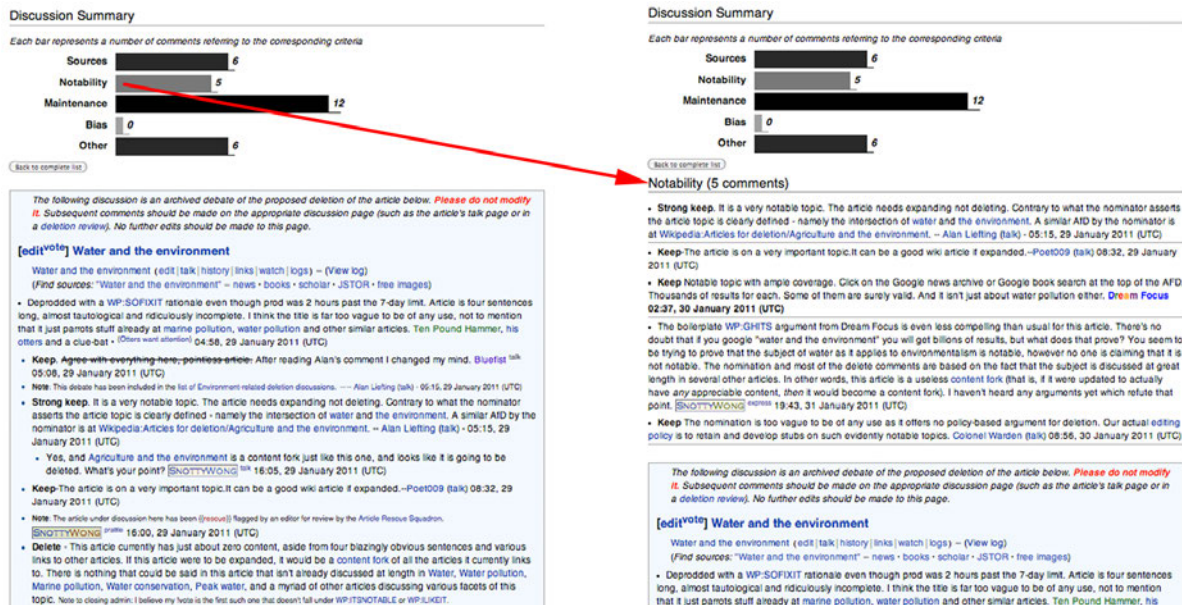
Figure 7.2.: The interaction design for our argumentation support interface. The bar chart lists the number of comments with a given decision factor. Clicking on the Notability bar shows the five comments discussing Notability.[a]

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[a]Image from our implementation, content from the Wikipedia deletion discussion on Water and the environment, http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Water_and_the_environment

Previously in Section 5.5 we identified several challenges around deletion discussions. In particular, terminology and policy knowledge become an obstacle, especially for socializing newcomers, who may join discussions at any time. Next we design an ontology to make community terminology and policies more evident.

Our ontology is intended to support two key tasks: *Determining one's personal position on a deletion discussion* (referred to as (T1) in Chapter 5) and *Determining the consensus of a deletion discussion* (referred to as (T3) in Chapter 5). This chapter focuses on supporting the latter task (T3), determining the consensus of a discussion based on the arguments presented.

To aid participants in determining the consensus outcome of a discussion, We envision a Semantic Web application that organizes a discussion based on the decision factors. We next discuss the interaction design envisioned.

7.1.3. Interaction design

We mockup the application with two parts: a bar chart displaying the number of messages that mention each decision factor and a listing of those messages (Schneider and Samp 2012). The bar chart can be used to navigate to the list of comments. Clicking the bar for a decision factor yields a list of the corresponding comments that address this decision factor. For example, clicking on the Notability bar on the bar chart yields the right-hand image in Figure 7.2. We next describe the interaction design for our argumentation support interface.

Previously in Chapter 6, we determined that 90% of messages in deletion discussions involved one or more of four main topics: Notability, Sources, Maintenance, and Bias. These decision factors can be seen as the issues argued about in messages, and the criteria used to determine the outcome of a deletion discussion. This makes them particularly beneficial for (T3), determining the consensus of a discussion based on the arguments presented.

7.1.4. Overview of the implementation process

Next we review the overall implementation process. We use Semantic Web application development to build a Web application. We follow the process shown in Figure 7.1. First, we develop an ontology using the decision factors. Second, we semantically enrich a local copy of Wikipedia HTML. Third, we query the enriched HTML: we use SPARQL queries to select information pertaining to each decision factor. In this case we will query for the number of comments with a given decision factor, and the list of comments with that decision factor. We use the query results in an argumentation support interface as shown in Figure 7.2.

7.2. An ontology for argumentation support of Wikipedia deletion discussions

Next we present the Wikipedia Deletion Discussion Ontology which we use for task-based support.

7.2.1. Ontology design considerations

We drew from various design principles to design our ontology. For instance, good ontology design practice reuses terms (Suárez-Figueroa, Gómez-Pérez, Motta, and Gangemi 2012, pp. 4-5). This led us to reuse SIOC, SIOCTerms (Bojārs and Breslin 2009), DCTerms, and FOAF to the extent possible. Since sites using the same vocabularies can be interlinked easily, reusing well-known ontologies would support integrating information from other Social Web sites.

From our requirements analysis in Chapter 5 we found various kinds of information that should be represented. In particular, certain elements of messages were important, as shown earlier in Figure 2.6, and certain roles in discussions were important. Particularly, we needed to represent messages, their contributors, their positions (i.e. votes), and the dates on which they were contributed. We listed questions that the ontology should help answer in Section 5.8.

From our categorization and its analysis in Chapter 6 we had established a preference for decision factors over argumentation schemes (see Section 6.6). We thus focused on supporting two tasks—(T1) and (T3)—which we had determined decision factors could provide relevant support for. Future work towards (T2) will be discussed in Section 8.3.4.

7.2.2. The Wikipedia Deletion Discussion Ontology

The Wikipedia Deletion Discussion Ontology[2] is an OWL ontology[3] designed to represent argumentation on the Social Semantic Web, focusing on the use case of deletion discussions. It reuses terms from SIOC and FOAF which model important Social Web concepts and for instance many of its classes are specializations of SIOC classes.

We present the Wikipedia Deletion Discussion Ontology in multiple ways. We show its Classes in Table 7.1 and its Properties in Table 7.2. We also present our ontology visually. Our illustrations use Visual Notation for OWL Ontologies[4] (VOWL) (Negru and Lohmann 2013) to represent these Classes and Properties, along with indications of disjointness, minimum cardinality, and Instances. A key to the VOWL visual notation is given in Figure 7.3 on page 165. We show three key perspectives on the Wikipedia

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[2]http://github.com/jodischneider/ontologies/blob/master/wd/wd.owl
[3]OWL2QL
[4]http://vowl.visualdataweb.org/v1/

Table 7.1.: Important Classes of the Wikipedia Deletion Discussion Ontology.

Class	is a subClassOf	Description
`wd:DeletionCase`	`sioc:Forum`	A deletion discussion
`wd:Message`	`sioc:Post`	A message in a deletion discussion
`wd:DecisionFactor`	-	Our 4 decision factors (Notability, Sources, Maintenance, Bias) and 'Other'
`wd:Vote`	`wd:Message`	A message that 'votes for' a given outcome (e.g. 'Keep', 'Delete', 'Merge', …)
`wd:ArgumentativeMessage`	`wd:Message`	A message that uses one or more of the decision factors
`wd:Outcome`	-	The consensus outcome of the discussion (e.g. 'Keep', 'Delete', 'Merge', …)
`wd:IPAddressUserAccount`	`sioc:UserAccount`	a user identified by IP address
`wd:AuthenticatedUserAccount`	`sioc:UserAccount`	A logged-in user
`wd:Relist`	`wd:Message`	A message indicating the DeletionCase is relisted for continued discussion

Table 7.2.: Important Properties of the Wikipedia Deletion Discussion Ontology.

Property	Domain	Range	Description
`wd:has_decision_factor`	`wd:Message`	`wd:DecisionFactor`	For linking to our decisions factors
`wd:has_vote`	`wd:Message`	`wd:Outcome`	A vote (i.e. the outcome suggested) such as 'Delete' or 'Merge'
`wd:is_discussion_of`	-	`sioc:Item`	For linking to the article under discussion (inverse for `sioc:has_discussion`)
`wd:has_decided_outcome`	-	`wd:Outcome`	The consensus outcome decided on
`wd:has_possible_outcome`	-	`wd:Outcome`	A possible outcome (e.g. suggested by a message)

Deletion Discussion Ontology: the Case perspective (Figure 7.4, page 165), the Message perspective (Figure 7.5, page 166), and the User perspective (Figure 7.6, page 167).

We next discuss the choice of ontology language and the representation of these constraints.
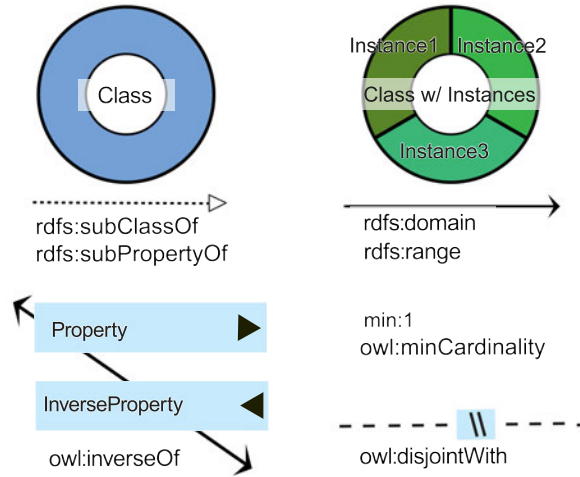
Figure 7.3.: We use Negru and Lohmann's Visual Notation for OWL Ontologies (VOWL)[a] for the subsequent images. Here we show examples of classes and relations represented in VOWL.

[a]http://vowl.visualdataweb.org/v1/
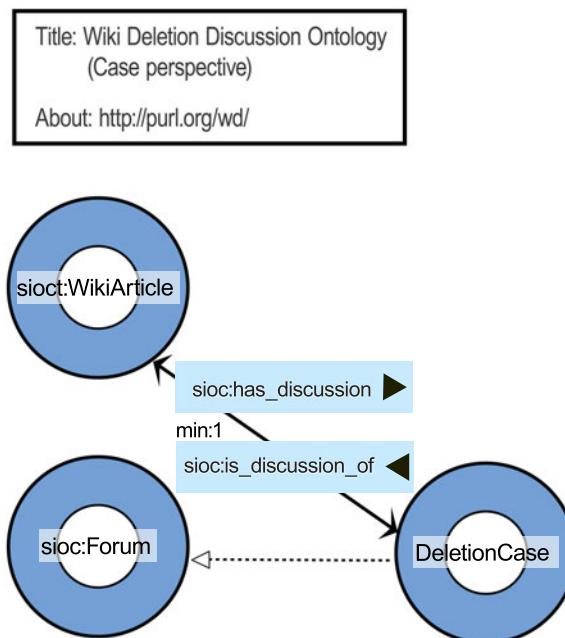
Figure 7.4.: Case perspective of the Wikipedia Deletion Discussion Ontology[a] in Visual Notation for OWL Ontologies.

[a]http://purl.org/wd/
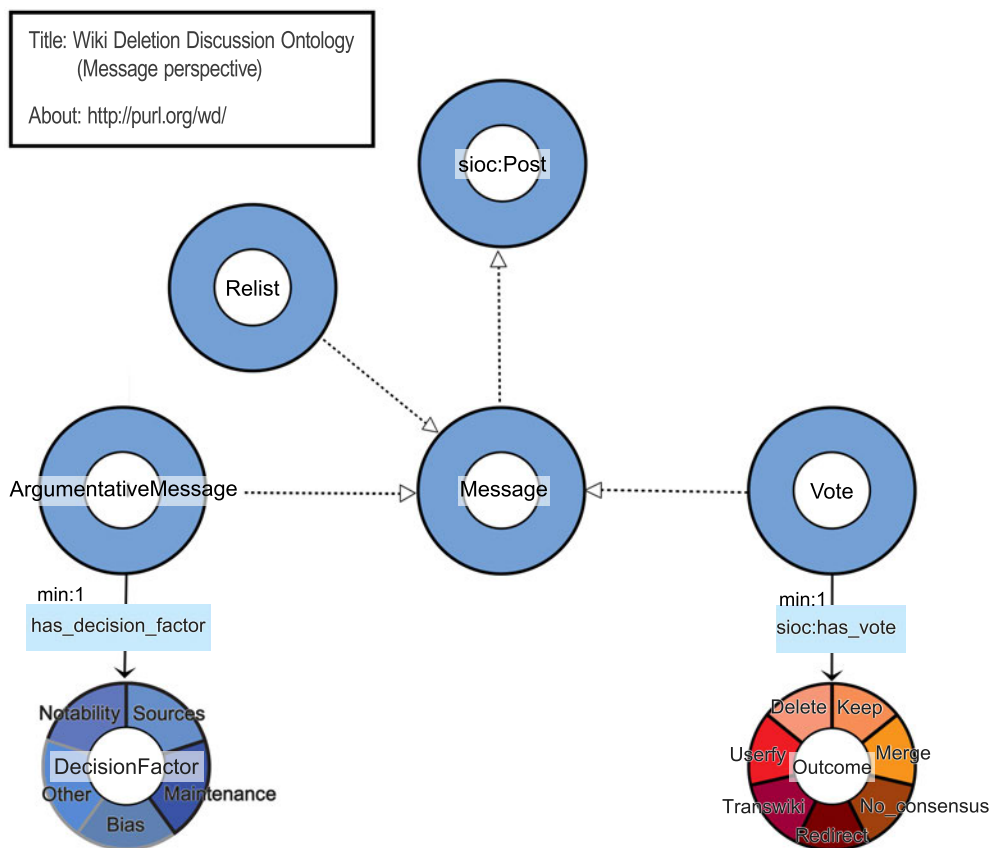
Figure 7.5.: Message perspective of the Wikipedia Deletion Discussion Ontology[a] in Visual
Notation for OWL Ontologies. In our implementation, we annotated at the
message level, specifying each Message and its DecisionFactor(s), as we will
discuss in Section 7.3.1.

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[a]http://purl.org/wd/

Title: Wiki Deletion Discussion Ontology
(User perspective)

About: http://purl.org/wd/

sioc:UserAccount

IPAddressUserAccount

Bot

UserAccount

AuthenticatedUserAccount

Administrator

sioc:function_of

sioc:function_of

sioc:function_of

Nominator Closer

sioc:Role

Commenter
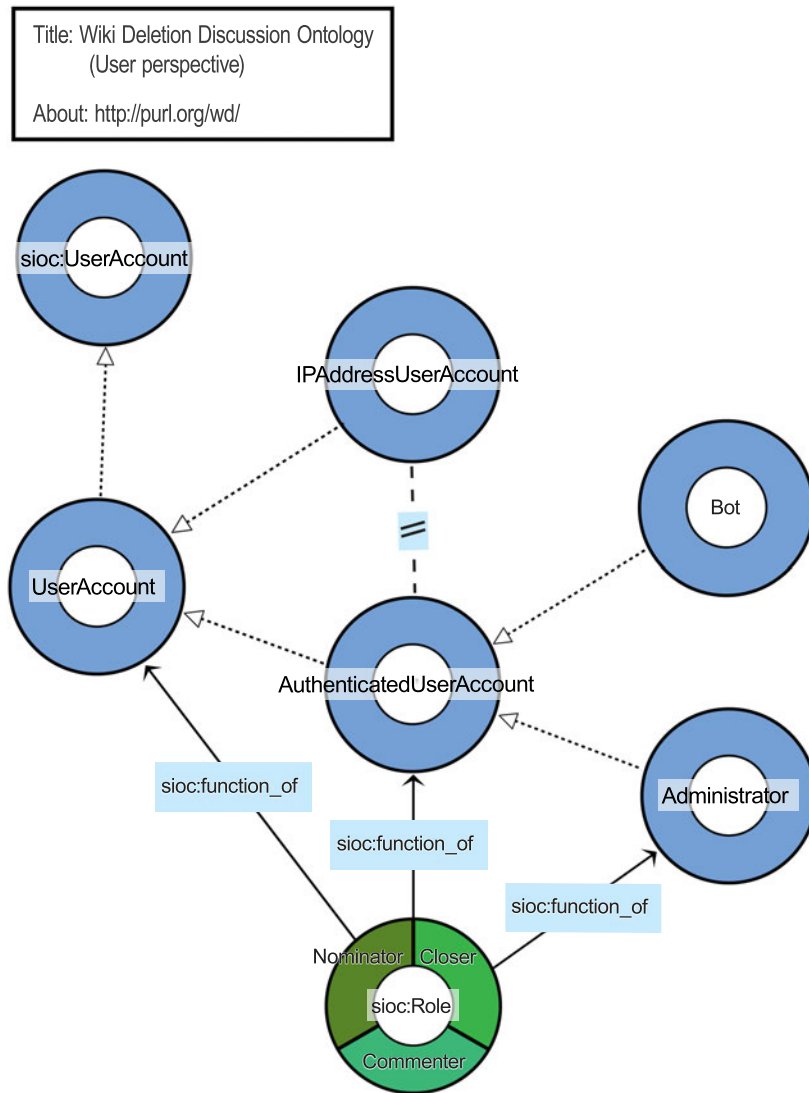
Figure 7.6.: User perspective of the Wikipedia Deletion Discussion Ontology[a] in Visual
Notation for OWL Ontologies.

[a]http://purl.org/wd/

7.2.3. Language choice and constraints

For the ontology language, our choices were between the two W3C standards for ontologies: RDFS and OWL. OWL subsumes RDFS and has further features enabling more information to be indicated. We chose OWL, since after defining classes and properties with RDFS, we wanted to add features for which we needed the richer language. We now describe the OWL features that we used: cardinality, disjointness and difference, and (machine-understandable) inverses.

First, we made two cardinality assertions: We specified that `wd:ArgumentativeMessage` has at least one `wd:DecisionFactor` and that `wd:DeletionCase` has at least one associated `sioct:WikiArticle`.

Second, we wanted to indicate disjointness (for Classes) and difference (for instances). For Classes, we felt it important to indicate that five core Classes were non-overlapping: a `wd:Message` is not a `wd:DeletionCase`, a `wd:DecisionFactor`, a `wd:Outcome`, or a `sioc:UserAccount`. Further, the instances of Outcome were declared to be different from one another. We carefully enumerated the possibilities we had seen in discussions, and made them `owl:differentFrom` each other, as instances of `wd:Outcome` class[5]: `wd:Delete`, `wd:Keep`, `wd:Merge`, `wd:No_consensus`, `wd:Redirect`, `wd:Transwiki`, `wd:Userfy`.

Finally, we also wanted to add the constraint that each `wd:DeletionCase` concerns at least one article. This is easiest to represent by adding an inverse relationship, so we added an inverse for `sioc:has_discussion`. We could define `wd:is_discussion_of` in both RDFS and OWL: the difference is that in OWL we can assert that this is the inverse of `sioc:has_discussion` in a machine-understandable way.

Provisionally we have chosen OWL for constraints, yet in the application we will next describe, only RDFS features are used. The ontology could be simplified considerably, and if future applications do not need the constraints described above, RDFS would be the better choice. Next we turn to developing an application based on this ontology.

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[5]Our instances focus on the outcomes; these are used both for the outcome (`wd:has_decided_outcome`) associated with a discussion, as well as the possibilities suggested (`wd:has_possible_outcome`).

7.3. Application development

7.3.1. Semantic enrichment using the ontology

We follow the Semantic Web application development procedure previously shown in Figure 7.1. Now that we have an ontology, we can semantically enrich (Handschuh and Staab 2002) Wikipedia deletion discussions from our annotated corpus using the ontology. In particular, we record the decision factor categorizations from Chapter 6 as annotations. These annotations are embedded as RDFa (Section 3.3.2) in the HTML of webpages from the Wikipedia discussions.

An example discussion comment is shown with RDFa[6] markup about its decision factors in Listing 7. In the markup, we manually add a fragment identifier (in this case `Post23`) so that we can make statements about the Message. We assert that Post23 is a Message[7] and that it has two decision factors: Notability and Maintenance.[8] We include the text of the message, wrapped in `"content:encoded"`. In effect, we transform our annotation from Chapter 6 into inline RDFa annotation by manually adding markup to the Wikipedia HTML.

We also made two changes to the document header as shown in Listing 8. First, to identify that this is now an HTML+RDFa document, instead of an HTML document, we changed the `DOCTYPE`. Second, we added namespaces for each ontology that we reference, so that we can abbreviate their names in the remainder of the document.

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[6]We used RDF1.0 since it was widely supported at the time of the implementation, for instance by the JavaScript libraries we used; using the newer specification, RDFa 1.1, the markup would be even shorter.

[7]We manually add `Post23 rdf:type wd:Message`

[8]`Post23 wd:has_decision_factor wd:notability`, for instance.

Listing 7: Semantic annotations in RDFa 1.0 added to the HTML markup for a deletion discussion.

```html
<li about="#Post23" rel="rdf:type" href="http://purl.org/wd/#Message">
<span about="#Post23"
rel="wd:has_decision_factor" href="http://purl.org/wd/#notability">
<span about="#Post23"
rel="wd:has_decision_factor" href="http://purl.org/wd/#maintenance">
<span about="#Post23" property="content:encoded">
Could you elaborate upon what it is you consider to be necessary to
establish notability of a school? The article cites several different
third-party sources that I consider to be reliable, thus addressing the
general notability guideline. Apparently you see things differently.
Have you found that the <a
href="http://en.wikipedia.org/wiki/Amarillo_Globe-News" title="Amarillo
Globe-News">Amarillo daily newspaper</a>, the <a
href="http://en.wikipedia.org/wiki/US_Department_of_Energy" title="US
Department of Energy" class="mw-redirect">US Department of Energy</a>,
and <a href="http://en.wikipedia.org/wiki/United_Press_International"
title="United Press International">United Press International</a> are
unreliable sources, or do you have evidence that these sources are
affiliated with this school (and thus not independent sources)? Or is
your concern about something else? Please clarify your reasoning. --<a
href="http://en.wikipedia.org/wiki/User:Orlady"
title="User:Orlady">Orlady</a> (<a
href="http://en.wikipedia.org/wiki/User_talk:Orlady" title="User
talk:Orlady">talk</a>) 02:43, 1 February 2011 (UTC)</span></span></span>
</li>
```

Listing 8: The DOCTYPE was changed to reflect the RDFa and namespace were added.

```html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.0//EN"
 "http://www.w3.org/MarkUp/DTD/xhtml-rdfa-1.dtd">
<html lang="en" dir="ltr" class="client-js"
xmlns:foaf="http://xmlns.com/foaf/0.1/"
xmlns:wd="http://purl.org/wd/#"
xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" dir="ltr"
xmlns:sioc="http://rdfs.org/sioc/ns#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
```

7.3.2. Enabling querying

Based on the ontology we can now query the decision factors from an entire discussion. In particular, we can determine how many messages use a given decision factor (for the bar chart), and which messages those are (to display the discussions with a given decision factor).

In both cases, we use SPARQL (Section 3.3.3) to query the RDFa data, building on an existing JavaScript library that implements SPARQL. That library is rdfQuery,[9] which augments the jQuery[10] JavaScript library. An example SPARQL query is shown in Listing 9; it finds all messages with decision factor Notability; using the rdfQuery code syntax this looks like Listing 10.

Listing 9: SPARQL

```
PREFIX wd: <http://purl.org/wd/#>

SELECT ?message
where{
?message wd:has_decision_factor wd:notability .
}
```

Listing 10: SPARQL in RDFQuery

```
$('#content').rdf().prefix('wd', 'http://purl.org/wd/#').
where('?message wd:has_decision_factor wd:notability').length;
```

Listing 11: We called scripts from the RDFQuery and JQuery JavaScript libraries.

```
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.8.2/jquery.min.js">
</script>
<script src="jquery.rdfquery.rules-1.0.js" type="text/javascript"></script>
```

Using this query, we can count the comments with a given decision factor, to yield a bar chart like those shown in Figure 7.2 on page 161. We can also display the comments

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[9]http://code.google.com/p/rdfquery/
[10]http://jquery.com/

with a given decision factor, for instance when clicking on one of the bars, to get the corresponding list of comments. Also to enable returning to the whole list of comments, we add a button to reload the page.

We described the process of implementing a Semantic Web application. A more detailed description of the process, with the code required, is given in Appendix C, including JavaScript code for both of these functionalities as well as further implementation details about how the original HTML of our use case examples was transformed.

This implementation demonstrates the applicability of our knowledge representation, and especially that it is encoded in the same page, in a machine-readable (and potentially machine-writeable) way. To demonstrate its utility in practice, we conducted a pilot user-based evaluation.

7.4. Methodology for an initial user-based evaluation

7.4.1. Overview

In an initial pilot user-based evaluation, we compared our new interface for supporting consensus-finding in Wikipedia discussions (shown in Figure 7.2 and discussed above) with the existing discussion interface currently used in Wikipedia.

Our evaluation used the repeated-measures, within-subject design to compare the two interfaces. This method is commonly used because each participant tests each experimental condition removing the inherent variation between people. Further, fewer participants are needed since there is only one group (Mac Queen and Knussen 2002, pp. 54-57).

Our experiment had two systems. The control system was the unmodified, native Wikipedia interface. The experimental system was our modified interface shown in Figure 7.2 above, which adds a bar chart that can be used to navigate to comments on any of four decision factors: Sources, Notability, Maintenance, and Bias, as well as a catchall 'Other' category. The order of the systems was varied. Each participant used both systems and we randomly assigned users to one of two conditions: Control-first or Experimental-first.
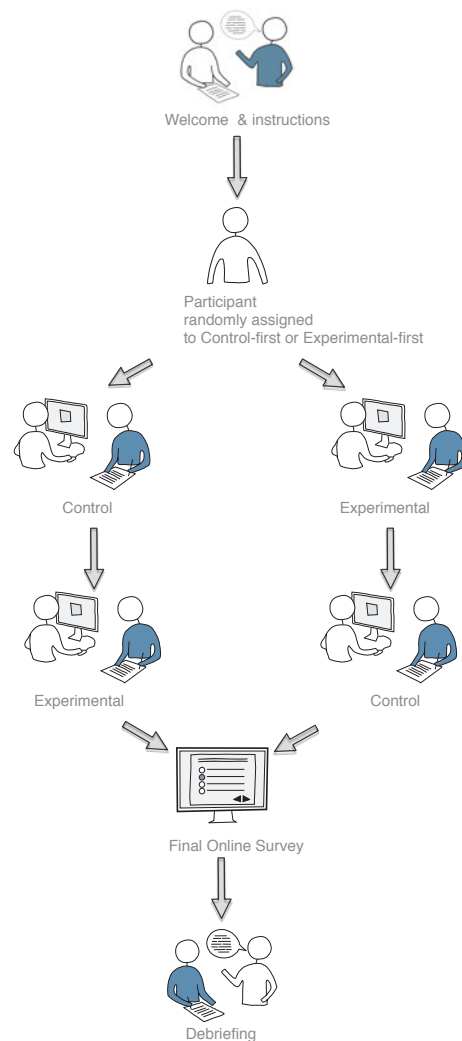
Figure 7.7.: Overview of the user-based evaluation. Our evaluation used a repeated-measures within-subject design, with two interface systems: a control interface and the experimental interface from Figure 7.2.

An overview of the experiment is shown in Figure 7.7. Details are shown in Figure 7.8 and will be described further in Section 7.4.2. Each session had three parts: an introduction to the first system, followed by using the system, and completing a survey about the system; similarly for the second system; and finally a third and overall survey and debriefing.

We now describe the process followed with each system.

7.4.2. Process for testing each system

Details of the process for testing each system are shown in Figure 7.8.

(a)   (b)
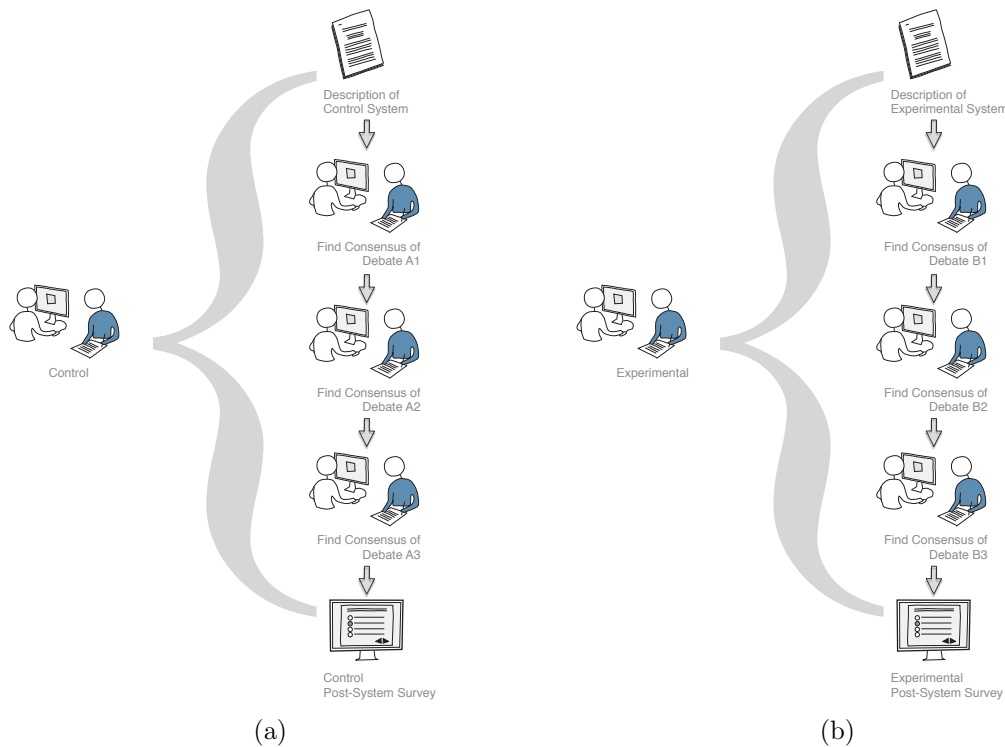
Figure 7.8.: Details of the user-based evaluation described in Figure 7.7 for (a) the control system; and (b) the experimental system.

During the introduction for a given system, the participant was given a handout with information about the system (see Appendix D.2) and presented with a webpage with the same information about the system also linking to three discussions using that system (see Appendices D.3 and D.5). We first gave general orientation about the interfaces, and for the Experimental system we showed the participant that the interface was clickable.

The use phase of the pilot evaluation was based on task (T3) from Section 5.7, Determine the consensus of a deletion discussion. For each system, the participant was asked to complete (T3) for each of three given discussions. For each discussion, the participant was asked to read it and determine the consensus of the discussion, i.e. whether the Wikipedia article under discussion should be deleted. A paper worksheet was supplied (see Appendix D.2) which asked the participant to indicate the discussion outcome and their rationale for that outcome. Each participant received the same three

discussions, in the same order, for a given system. All discussions were chosen from our annotated corpus (Section 5.6). For each system, the first discussion was chosen as a familiarization and learning task, with a Wikipedia discussion that had substantial disagreement. The second two discussions for each system were seen as the evaluative tasks; these were chosen to be roughly equal in length between the systems, and to have one 'Keep' and one 'Delete' outcome.

After using the first system to determine the outcome for three discussions, the participant was asked to fill out an online survey about their views of the system in an online survey. For the complete list of questions see Appendix D.

The process was repeated with the second system (either the experimental or the control system, whichever the participant had not used first). Finally, after using both systems, the participant was asked to fill out a third survey, shown in Appendix D.7. The final questionnaire assessed the participant's preference for one of the two presented interfaces.

7.4.3. Participants

We solicited volunteer participants by email in our research institute. We scheduled a dedicated time for each user to participate. When the user arrived, we provided an overview of the study verbally and on a participant information sheet (Appendix D.2). Participants used our MacBook Pro laptop computer with external mouse. After getting consent from the participant, we videorecorded the session with usability software called SilverBack.[11] Throughout the session, the primary investigator was present, to answer questions and to present the next task in the evaluation when needed. We offered participants candy as a thank you for their participation.

7.4.4. Deletion discussions used in testing

Materials were presented in a Web browser, and the particular discussions used are shown in Appendices D.3 and D.5.

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[11]http://www.silverbackapp.com

Discussion complexity was controlled to the extent possible. We reviewed candidate deletion discussions from our use case corpus (from Chapter 6), considering the discussion length and Wikipedia's decided outcome as the primary deciding factors.

The practice discussion was chosen to be a complex discussion; decided outcomes were not matched ('Delete' for the Control test discussion; 'No consensus' for the Experimental test discussion). As discussed above, the second two discussions for each system were seen as the evaluative tasks. We chose discussions that were roughly equal in length between the systems, with one 'Keep' and one 'Delete' outcome for each system.

To prepare discussions for use in testing, we started with the HTML from Wikipedia individual deletion discussion pages. We made one change to all the pages, and for the experimental pages we also added bar chart navigation.

Changes made to all discussions control webpages and experimental webpages)

For testing, we needed to hide certain information since Wikipedia uses red-colored links and tooltips to indicate when pages do not exist. This could indicate 'delete' outcomes.

We removed information from all for instance, as shown in Listing 12, a link to the page "Emsworth Cricket Club" has a title indicating "page does not exist" and the CSS class "new", which turns the link red. The title and class need to be removed for testing so that we did not prejudice participants about whether an article under discussion should be deleted.

Listing 12: Hiding information about which pages were deleted

```
<a href="/w/index.php?title=Emsworth_Cricket_Club&amp;action=edit&amp;redlink=1"
class="new" title="Emsworth Cricket Club (page does not exist)">Emsworth
Cricket Club</a></span>
```

Adding bar charts and navigation for the experimental webpages

For the experimental pages we also added a bar chart that could be used to navigate the discussion as shown in Figure 7.9, using the steps described above in the implementation section.
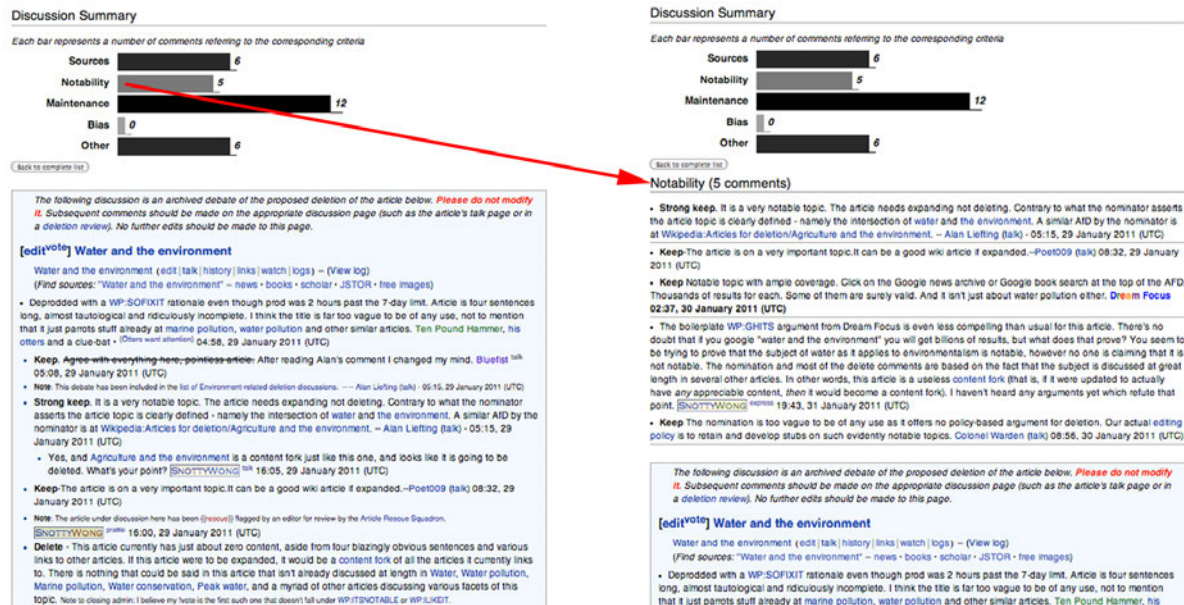
Figure 7.9.: The experimental system. The bar chart lists the number of comments with a given decision factor. Clicking on the Notability bar shows the five comments discussing Notability. (Image from our implementation, content from the Wikipedia deletion discussion on Water and the environment)

7.5. Data collected

We measured time per task, and captured videos of the participant's face and screen along with keyboard and mouse clicks with Silverback. After completing the three decision tasks with a given system, participants we asked to complete a post-task questionnaire that assessed perceptions of six indicators of decision-making performance: usefulness, ease of use, and decision confidence adopted from (Moon and Kim 2001) as well as perceived effort, information completeness and information quality adopted from (Wixom and Todd 2005). After completion of all the tasks, participants were asked to complete the final questionnaire assessing preference for one of the two presented interfaces. For the complete list of questions see Appendix D.

7.5.1. Participants took three surveys

Each participant was asked to complete three surveys during the evaluation: one after using each system, and a third survey after using both systems. The survey questionnaires

were prepared with eSurv[12] and presented to the participants as online surveys. Blank survey forms for all three surveys are shown in Appendix D.

Two post-system surveys

The first two surveys asked participants to evaluate the system just used, either Control (referred to as "System A" during the experiment) or Experimental (referred to as "System B" during the experiment) . There were eighteen questions on a 1-7 Likert-type scale, along with a space for "other comments," as shown in Appendix D.4 and Appendix D.6.

These eighteen questions were based on the Technology Acceptance Model and its variants, with the six indicators of decision-making performance mentioned above (Perceived usefulness, Perceived ease of use, Decision confidence, Perceived effort, Information completeness, and Information quality). We asked three questions to get at each indicator; this approach, known as the parallel forms method (De Vaus 2002), helps ensure robust results from surveys. In the analysis, we combine indicators into constructs by mapping from questions to constructs as shown in Appendix D.1. Questions were presented in random order in the survey; this was intended to make the repetition of questions about the same construct less jarring and obvious.

Final survey

The final, third survey had seven multiple-choice questions and a comment field. For clarity, it also displayed a screenshot of each system, A and B. The first seven questions asked participants which system (A or B or don't know) was preferable in terms of providing better information structure and for the same six constructs above (Perceived usefulness, Perceived ease of use, Decision confidence, Perceived effort, Information completeness, and Information quality). The final question asked participants to choose which system they preferred (A or B); the comment box, labeled "Why," was intended as a place for participants to explain their choice. Next we describe the conducted evaluation, in terms of the participants and the time it took.

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[12]http://esurv.org

7.6. Description of evaluation as conducted

7.6.1. Participants

20 participants participated in our user study, 10 in the control-first condition, and 10 in the experimental-first condition. All participants worked in computer science research as postgraduate researchers or technical staff of our Web research institute in Ireland. Participants were 8 female and 12 male; 4 were native English speakers and 16 were non-native English speakers who use English for work daily. Participants had some experience with reading or editing Wikipedia, but were not familiar with Wikipedia deletion discussions.

There were slight discrepancies in the divisions between conditions: the control-first condition had 3 native English speakers, compared to 1 native English speaker in the experimental-first condition. The control-first condition had 5 female participants, compared to 3 female participants in the experimental-first condition.

7.6.2. Time to run experiments

Experiments lasted ranged from roughly 35 minutes to 2 hours, based on how long the participant took for the tasks. Tasks were videorecorded, and recordings uniformly start after consent procedures. Recording continued during some, but not all, debriefings.

The task portion of the study depended on the participants; based on the total video-recorded durations, 7 lasted less than 45 minutes, 6 lasted 45-60 minutes, 4 lasted 61 minutes to 71 minutes, and the final 3 were 84-123 minutes.

We now discuss the evaluation results, starting with the quantitative results.

7.7. Quantitative results from the two post-system surveys

As shown in Figure 7.7, each participant was asked to complete a survey after using each system (experimental and control) as well as a final survey after using both systems.

In this section we analyze the numerical values from these surveys;[13] in the subsequent section we analyze participants' comments.

We begin by analyzing the two surveys given after the two systems, 'Control' and 'Experimental'. Each of the two post-system surveys included 18 questions intended to measure the 6 constructs, as discussed above in Section 7.5.1. We would like to determine whether there is a difference between the experimental system and the control system. We start by testing for internal consistency of the answers to questions on each of the constructs and then conduct a Wilcoxon signed-rank test as we next discuss.

7.7.1. Testing the internal consistency

To test the internal consistency of responses to questions about each construct, we first use Cronbach's Alpha (Cronbach 1951).

Results for Cronbach's Alpha are shown in Figure 7.10. These results show good consistency for five of the six constructs, based on the .7 threshold typically used to indicate a reliable set of items (De Vaus 2002, p. 20). We removed the Information Quality construct from further analysis since the results were below this threshhold, indicating that answers on the corresponding questions were insufficiently consistent to be combined.[14]

7.7.2. Comparing paired data samples from the two surveys with the Wilcoxon signed-rank test

We use the Wilcoxon signed-rank test (1945) to compare the constructs for the control and experimental systems. This is a statistical hypothesis test for determining differences between pairs of data samples; it does not require the data to meet a normal distribution. We use the 5 remaining constructs (excluding information quality as discussed above in Section 7.7.1) and compare paired samples from the two post-system surveys.

Statistically significant differences between the control and experimental conditions were found for three constructs: perceived usefulness, perceived ease of use, and infor-

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[13]For these quantitative results, we processed survey results with the statistical package R (R Core Team 2013) along with the Rstudio IDE: http://www.rstudio.com.

[14]Participant comments in the qualitative analysis, indicating their perceptions of information quality, provide further insight about this inconsistency.
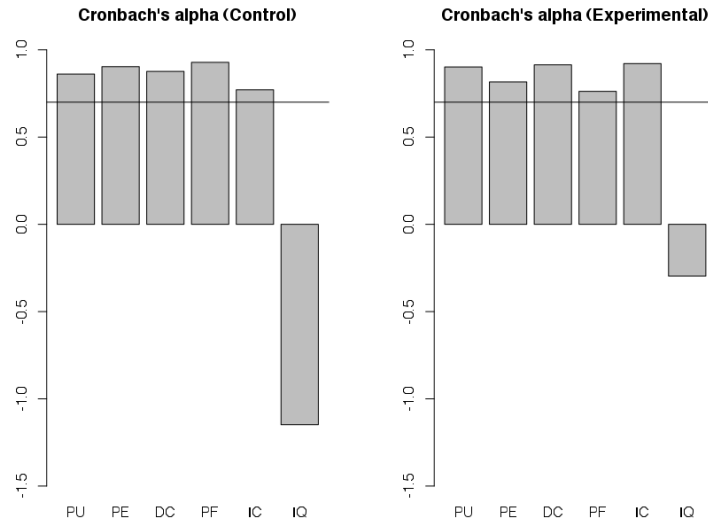
Figure 7.10.: Cronbach's Alpha values for the 6 constructs of the control system (left) and the experimental system (right), along with the threshold line. Constructs are Perceived usefulness (PU), Perceived ease of use (PE), Decision confidence (DC), Perceived effort (PF), Information completeness (IC), and Information quality (IQ). The line .7 is drawn as the minimum for reliability/internal consistency (De Vaus 2002, p. 20).

Table 7.3.: A Wilcoxon signed-rank test on the post-system survey results shows statistically significant differences between the control and experimental interfaces in three cases: perceived usefulness, perceived ease of use, and information completeness. Asterisks in the table denote statistically significant differences.

Abbreviation	Construct	p-value
PU*	Perceived usefulness*	0.0009911667
PE*	Perceived ease of use*	0.001455296
DC	Decision confidence	0.2493653
PF	Perceived effort	0.276186
IC*	Information completeness*	0.03852975
IQ	Information quality[a]	N/A

[a]Information quality was not tested due to insufficient internal consistency between the data as described in Section 7.7.1.

mation completeness as shown in Table 7.3. For two constructs, decision confidence and perceived effort, there is no statistically significant difference between the two conditions. To find which system was preferred, we next compare the means.

7.7.3. Comparison of the mean responses from the two surveys

Next we compare the mean responses on the survey in order to determine which system was preferred. Figure 7.11 shows the difference in means between survey responses on the five constructs analyzed for the control and the experimental system. As discussed above in Section 7.7.1, one construct was dropped from analysis due to inconsistency in the answers to the three questions associated with the construct.

The experimental system is preferred for the three constructs with statistically significant differences: perceived usefulness, perceived ease of use, and information completeness. Meanwhile, the control system is slightly preferred for perceived effort while the experimental system is slightly preferred for decision confidence.
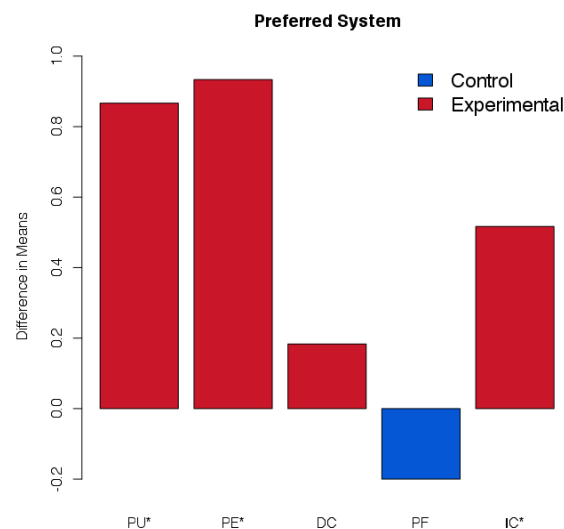
Figure 7.11.: Asterisks denote statistically significant differences between the control and experimental systems, based on post-system surveys. Constructs are Perceived usefulness (PU*), Perceived ease of use (PE*), Decision confidence (DC), Perceived effort (PF), and Information completeness (IC*).

7.8. Quantitative results of the final survey

As shown in Figure 7.12, 3 participants preferred the control interface while 16 preferred the experimental interface; 1 participant did not complete the final survey. Comments from both sets of participants are considered in the qualitative results section below. To delve into these preferences, we next analyze the survey comments.
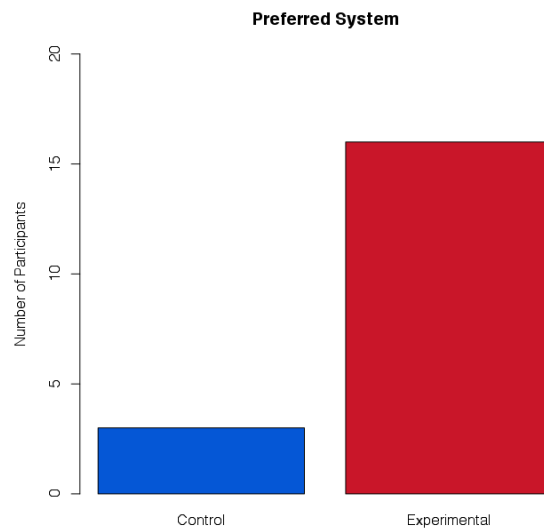
Figure 7.12.: Participants' preferred system, after using both systems. Data collected from 19 participants in the final survey, after they have used both interfaces. (One participant failed to complete the final survey.)
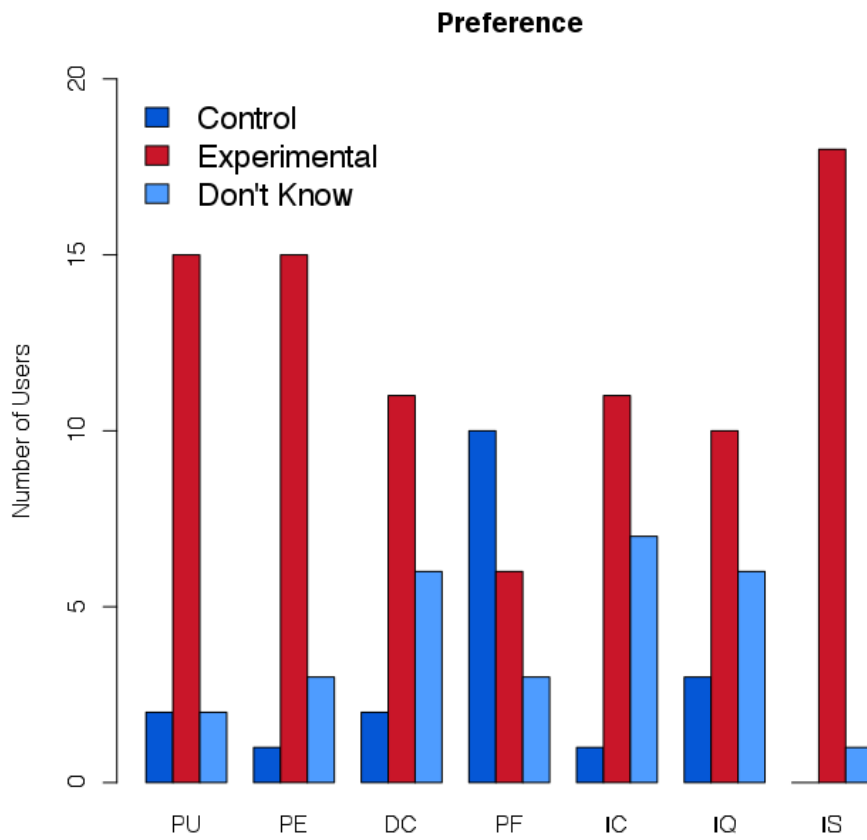
Figure 7.13.: Preferences between the control and experimental system from the final survey. Constructs are Perceived usefulness (PU), Perceived ease of use (PE), Decision confidence (DC), Perceived effort (PF), Information completeness (IC), Information quality (IQ), and Information structure (IS).

7.9. Qualitative results of the post-system survey for the control interface

In addition to the final survey, we also solicited comments on two intermediate surveys, taken by all 20 participants. After using the control system (the native Wikipedia interface), 9 of the 20 participants made comments.[15] Overall these highlight uncertainty about the decision. The main issues mentioned are lack of knowledge about the rules and policies and lack of access to the original source article.

Non-intuitive but learnable: The native Wikipedia interface was seen as challenging to start with, but eventually usable due to the content: "In my opinion, the UI is not very intuitive. For me, that I have never participated in such a decision making process in Wikipedia, was not easy to understand how it works. But once you read the first article, you get what is going on, and the second and third article are easier.

However, the content provided is good enough, and it helps you to make your own decision." (P6)

Demand for summarization and support: Experience with discussions made the process and interface easier to follow.

The native Wikipedia interface was particularly confusing to those who used it after our system: "No way to sub divide the information - means time spent reading similar arguments instead of reading them together which would summarise them faster and create a better pro/con idea faster." (P4)

In particular, there was a demand for summarization of the content: "There is a lack of easily visible key points in the debate." (P11)

Participants noted that the decisions were hard to make: "discussed topics were rather hard." (P11)

Needed the article: One artificial element of our test was the use of the discussion without recourse to the Wikipedia article being discussed. This was an inherent limitation associated with using past discussions, since as we noted in Section 7.4.4 we had to hide information regarding which articles had already been deleted.

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[15]We have changed the spelling and capitalization of comments; otherwise they are unchanged.

"I had to read twice the comments to understand what they are referring. The decision making process takes quite long based on these comments only and it would have been better to provide supplementary information about what they are talking about. Moreover, some of the comments need to be reinforced with evidence of their claim and some comments are biased since they had bad experiences which both don't justify the argument." (P8)

The native Wikipedia interface was usable for completing the task, but participants wanted a better interface, summaries of key points, and access to supplementary information such as the article content.

7.10. Qualitative results of the post-system survey for the experimental interface

Of the 20 participants who took the survey after using the experimental interface, 7 made comments.

The No-Consensus discussion task was especially challenging: Task B1 was a particularly challenging example with a long no-consensus article. Participants commented that this "I found the first article particularly difficult to decide on the outcome compared to other articles for this system and system A." (P2) Another said "One of my decisions was a borderline decision and I am not entirely sure if it was right." (P11) This might have lowered the decision confidence results for the experimental system.

Filtering and support were beneficial: The system was preferred for decision-making, as it helped to filter information: "The system provides very good support for the decision making process." (P11)

Participants suggested that filtering was beneficial for mental concentration and could aid effectiveness and efficiency for long discussions: "this system helps me a lot to concentrate on the category that I want to decide upon. that would be effective and very efficient once the number of comments increases." (P18)

More context would help: "It would've been more helpful if the bar chart on the top wasn't just raw numbers, but also included the average number of comments for other similar articles for deletion. Just some form of context for the numbers. I felt a bit unsure as to how to interpret them at first." (P2)

"Ideally highlighting those statements that are more related to the currently selected factor, would be perceived as a major improvement, despite being trivial, I guess." (P16)

7.10.1. More details from those who preferred the control interface

The negative comments on our system, from those who preferred the native Wikipedia interface, are particularly informative. The main challenge was that the volume of comments on a particular decision factor was not sufficiently informative. For these participants, filtering was not sufficiently helpful since "one still needs to go through all the comments." (P10) Various interface suggestions were made, such as highlighting the statements in the original context, or indicating the polarity of comments on each decision factor (i.e. whether they were pro or con, arguing for keeping or deleting the article).

Overviews are not sufficiently helpful: "The bars and categorisation of comments do not help with the decision in any way. One still needs to go through all the comments, since the bars do not indicate whether a person votes for or against the deletion. All they do is to give an overview about what type of argument the editors used, but not if they agree with each other or, more general, if they voted for or against a deletion." (P10)

Easier to read the whole discussion: "I would prefer to use system A as I like to read from the start of the thread to the finish. I can get a better feel for how the discussion is going and can quickly identify important comments which might have a few replys directly underneath. However, system B would be a useful tool to have as well as system A from a filtering perspective." (P12)

Duplication of content in multiple categories can be confusing: In the end, the bars are useless as they are at the moment, and the categorisation does only provide little help – purely by grouping the comments into smaller chunks that are easier to digest than a whole page of unfiltered comments. Although the fact that an argument can be in several categories can be a bit confusing at times." (P10)

Challenge of the task dominated: "I am not sure to what extent we differentiate the system and the actual input - information in it provided by people. I find that the system as a way of providing threaded view on the discussion didn't influence me so much rather than the actual information provided by the people, thus my uncertain

answers to this survey. Also on evaluating if my work was hard or the decision correct or if the information was sufficient. Since I have no comparison I can not be sure about these questions." (P3)

7.11. Qualitative results of final survey

Next we analyze the survey comments. Note that only 19 participants took the final survey, compared to 20 participants overall. Our experimental system was preferred for structure, filtering, and navigation.

During the experiment we referred to the control interface as "System A" and the experimental interface as "System B".[16]

7.11.1. Participants who preferred the experimental interface

Participants made a number of comments explaining why they preferred the experimental interface ("System B"). Participants mentioned several advantages of the experimental interface, especially that explicit criteria helped made it easier to make decisions, grouping helped focus the mind on the criteria, and the structure made overviews and exploring easier.

Decision factors made the criteria explicit: Participants appreciated having the criteria or parameters made explicit: "System B outlines the main criteria for decision making. The summary of the discussion is a useful tool." (P1)

"It is much easier to deal the problem in terms of parameter rather than finding the parameters and then dealing with the problem." (P9)

Grouping: Participants said that it was easier to focus on grouped comments.

"B would speed up the process as it groups arguments for and against into groups so easier to read and then decide if for example the article has enough reputable sources. Grouping of discussions also makes it easier to maintain focused thoughts on each criteria and then to form an overall opinion." (P4)

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[16]We have changed the spelling and capitalization of comments; otherwise they are unchanged.

"The ability to navigate the comments made it a bit easier to filter my mind set and to come to a conclusion." (P14)

Summarization: "Information is structured and I can quickly get an overview of the key arguments." (P11)

"It offers the structure needed to consider each factor separately, thus making the decision easier. Also, the number of comments per factor offers a quick indication of the relevance and the deepness of the decision." (P18)

"Linked summary gives a nice exploration point." (P17)

Participants mainly preferred the experimental interface, saying that explicit criteria helped made it easier to make decisions, grouping helped focus the mind on the criteria, and the structure made overviews and exploring easier. We next discuss the comments from participants who preferred the control interface.

7.11.2. Participants who preferred the control interface

Of the 19 participants who took the final survey, 3 indicated a preference for the control interface ("System A").

Comprehensive reading of the discussion was important to these participants.

Comprehensive reading: Reading all messages in order was of interest to these participants. In particular, the number of comments was used to indicate messages of high interest: "I can get a better feel for how the discussion is going and can quickly identify important comments which might have a few replies directly underneath" (P12).

Replies need improved handling: Another participant agreed, also mentioning that the experimental interface caused problems with replies: "The grouping of comments into category potentially rips discussions apart. For example, a reply might talk about different aspects than the original comment, and thus won't be displayed under the original comment in the category view. It can make it harder to follow discussions." (P10) Replies might not mention the same decision factor; in this case our experimental interface separated replies from the message to which they replied. This was unacceptable for this participant, who also found the summary bar chart to be confusing, adding that "the bars on top of the comments create confusion, since they hold no information whatsoever about a comment actually votes for or against deletion. It is completely

useless and one has to read through the comments anyway to see if people are in favour of the article or not." (P10) Since the summary did not separate pro and con views, it was not helpful to this participant, who instead read the comments carefully.

Relevance of criteria (decision factors) not obvious or clear: That careful reading was a theme for these participants. For the third participant, it was important to read comments "to decide for themselves whether the opinion seems fair or not." (P3) The simplification of the categories posed challenges since "I am first not sure which of these criteria should play bigger importance on my choice, and secondly focusing on one criteria where the opinions are not well defended one may miss other opinions in a "less important" criteria that are way better defended". (P3) Without experience of the policies or procedures, the criteria were not obvious to participants as the key deciding factors.

For participants who preferred the control interface, comprehensive and careful reading was more important to participants than other issues. Based on these and all the participant comments described earlier, we next outline suggestions for future work.

7.12. Suggestions for future work

We received various feedback about the implementation in the user-based evaluation as well as in informal formative evaluations conducted separately. These suggestions are related to the decision factors, the bar chart, the display of comments, and technical improvements.

Provide additional context, such as definitions and examples or typical distributions of comments: To maximize the impact of the decision factors, it would be useful to give definitions and examples for each decision factor. Context would also be helpful: for instance, for similar discussions, what was the breakdown of comments?

These point to potential interface improvements. Definitions and examples for each decision factor could easily be added to the interface, as tooltips over the bar graph, and perhaps with a help marker (such as a question mark) next to the name of each decision factor.

Showing the breakdown of discussions from our corpus would be straightforward, and this could be done graphically and/or numerically. One graphical approach would be to show the typical number and distribution of discussions in a small bar chart. A

numerical approach might be to show the percentage for each decision factor and the typical percentage, instead of or in addition, to the number of messages.

Classify pros and cons on each factor: The bar graph would be even more useful if it indicated positive and negative comments for each factor, perhaps showing results to the left (in red) for negative comments and to the right (in green) for positive comments.

There are two approaches to distinguishing positive and negative comments. On the one hand, a quick and dirty approach would be to assume (heuristically), that all 'Keep' comments are positive and all 'Delete' comments are negative. But this is incorrect: We note that a 'Keep' comment can contain both positive and negative comments. For instance, one Keep comment argues for notability then says *I'd like to see some third-party reliable sources (and less promotional language in the article), though,*: we might classify this as positive on Notability, negative on Sources, and negative on Maintenance and Bias.

The better but more labor-intensive approach would be to categorize each argument as being pro or con a given decision factor. This would require us to amend our annotation in order to classify positive vs. negative comments.

Improve handling of replies: The display of comments was generally satisfactory but could have been improved. One frequently requested issue was to connect replies to the source discussion; in System B as presented, "the replies are confusing because sometimes hard to find what they are referenced to" (P4). One colleague in a formative evaluation also suggested adding the number of replies, and maybe the arguments that are used in the reply.

A challenge for automatic transformation is that comments are not consistently marked up by Wikipedia's HTML. For instance, since replies are not explicitly indicated in the Wikipedia HTML, these markers would most likely need to be added manually. Existing relationships in the SIOC ontology could be used, such as the `sioc:reply_of` and `sioc:has_reply` relationships. Then the replies could be connected to original messages, and the number of replies and decision factors used in replies could also be indicated.

Improve display of comments: The idea of highlighting comments came up several times, and one participant strongly suggested highlighting statements inline. There are several choices. For instance, would it be better to use highlighting *instead* of moving messages, or *in addition*? Should we use a single color to highlight, as an interaction mechanism, or use multiple colors to facilitate reading the discussion in a single pass?

The main advantage of highlighting messages is that it could improve the handling of replies, discussed above. Yet for long discussions, significant scrolling would be needed. It could also help deal with the 'other' category, to which no other decision factors apply: We included the 'Other' category in order to ensure that each message was listed at least once, but some people thought that it wasn't helpful. Removing 'Other' could have negative implications since it would make some messages less prominent (and visible only by scrolling through the entire discussion). That would be less problematic if instead of navigation to content, highlighting were used. If further testing shows that 'Other' is confusing or unhelpful, it could be easily be removed.

While a single color of highlighting could be used to show the last decision factor clicked on, using different colors of highlighting for each decision factor could facilitate reading the discussion as a whole, and might also address some of the concerns of participants who prefer to read all the comments inline.

For using multiple colors of highlighting, the difficulty in choosing readable color combinations that are visually understandable when combined. For instance, we could interpret green highlighting, if Notability messages used yellow highlighting while Sources messages used blue highlighting: here green highlighting would indicate the presence of both Notability and Sources in a message. Since 4 of the 5 decision factors can coexist in various combinations, considering the color combinations would be beneficial for making good choices for highlighting.

These are mainly implementation issues, but some choices would have to be made based on further testing as well as on researching known interface design principles.

Display authorship based on an enhanced ontology: The ontology structures far more information that just the decision factors; it handles much of the information shown in Section 5.8. For this implementation, information such as the author and date was not used, but this is automatically recorded information that would be easy to annotate with the RDFa and then use. For instance, showing the contributor list could be helpful. One current approach to commenters who are new to Wikipedia is to annotate their comments as being from newcomers (i.e. that they may be biased or insufficiently experienced); this can be offensive to the contributors (who may notice text to that effect). Filtering to show common authors might also emphasize the extent to which the same contributors participate (Geiger and Ford 2011). Some discussion participants wanted to ignore the comments of particular commenters, or found those commenters' actions questionable; the social implications of showing authors might require iteration and refinement.

Hiding specific information could easily be accomplished with SPARQL, once attributes of the text are suitably marked up. What is more difficult is finding a good interface to present to the user for hiding contributors. Further, it would be preferable to proceed carefully due to the potential social ramifications.

Identifying new users could be accomplished using the Wikipedia API to determine the number of past edits; determining experience with Wikipedia deletion discussions is somewhat more challenging. At a minimum, the number of edits to the Wikipedia project namespace, which containing deletion discussions, policies, Wikigroups, and various discussions, would be one proxy for that.

Improve implementation code: Some technical improvements could be made. Returning to the entire list is inelegant: We added a button "Back to complete list" that reloaded the page. Similarly, the bar chart starts with default values which are overridden; this could be improved. Even when the bar chart is fully drawn it may show a bar when there are no comments. One colleague suggested adding colors to the bars, but this was not mentioned by our participants.

These changes are implementation details. They are a matter of refining the existing JavaScript, moving from a quick prototype to a more polished implementation.

Detect affinity groups with automatic methods such as textmining or social network analysis: One research challenge would be to help users evaluate each comment. For instance, it might help to cluster comments, grouping similar rationales. It could help to display whether responses clarify or disagree with any single comment. Some topics, such as promotional language or personal involvement, might be automatically detected with textmining or social network analysis (or perhaps both combined for the latter).

For this work, there are several existing tools. For instance textmining tools such as Linguistic Inquiry and Word Count[17] provide the percentages of personal and impersonal pronouns. Social network analysis software might be used. Social network analysis could be used on individual discussions or groups of discussions, to understand the extent to which there is topical clustering. Previous work on affinities could also be explored; though we are not aware of any publicly available tools, study methods might provide inspirational for new implementations. For instance, Revert Graph in (Kittur, Suh, Pendleton, and Chi 2007) clusters individuals into affinity groups, based on which individuals revert each other's work. This could be adapted to deletion discussions by partitioning respondents

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[17]http://www.liwc.net/

to a particular deletion discussion based on the outcome suggested; by using data for multiple discussions over time, patterns might emerge for regular participants of debates.

Use of such tools requires minimal to significant pre-processing and data cleaning. This is particularly challenging since Wikipedia's inconsistent markup can frustrate naive approaches to structure the data.

Larger and more realistic test: This was a small test with 20 participants, chosen from within our institute of 130 people. This choice of participants was appropriate for a pilot study but is an inherent limitation. Even in a large institute with little direct contact, participants may have inklings of the goals of the project, and this may (even unconsciously) influence their results. This choice of participants was made for convenience. Since usability problems are inevitable in a first deployment of a system, and since the Wikipedia community studied receives many requests from researchers, participation of the community would be more appropriate when a more robust and user-friendly prototype is available for testing. Ideally, such testing would be in a task-based setting for realistic goals of real participants who already use Wikipedia, or who are realistic novices. In this case, the participants in our pilot study were mostly novices, and generally not very active editors of Wikipedia.

Interaction design: Our pilot evaluation tested core RQ's, however it unavoidably introduced a host of interaction design issues. This is simply part of the complexity of evaluating interactive research prototypes. Further analysis of process data could help counter the limitations of human perception. Using more empirical data could help.

7.13. Conclusions

This chapter describes two contributions. First, it develops an ontology for argumentation in Wikipedia deletion discussions. Our ontology is designed based on the requirements derived from our netnography, Chapter 5, to be suited to the task of sense-making and consensus-finding in deletion discussions. Our ontology uses decision factors to model argumentation. As we argued in Chapter 6 annotating decision factors is more robust and simpler than annotating Walton's argumentation schemes, and this provides better coverage of our Wikipedia deletion discussion corpus. Compared to previous argumentation ontologies, the Wikipedia deletion discussions ontology is more task-based; it is also more tailored to the social web since reuses and extends the most prevalent

existing social web ontology, SIOC. This improves on the state of the art by providing a practical contribution enabling arguments to be manipulated on the Social Semantic Web in a human-centered, task-based manner.

The second contribution of this chapter is an argumentation filtering system that structures arguments with decision factors. This tool is customized to the task (T3) described in the requirements analysis Chapter 5. In our twenty-participant user-based evaluation, 16 of 19 participants (84%)[18] preferred our argumentation support interface over the native Wikipedia discussion interface. Further, our interface had statistically significant improvements over the control condition found for three constructs: perceived usefulness, perceived ease of use, and information completeness. The system could be further improved and testing iterated, based on a number of recommendations for improvement received in the evaluation.

The work in this chapter could be applied outside Wikipedia, to any open collaboration system, based on the process that we described in Chapter 4. In the next chapter we conclude the thesis.

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[18]Omitting one participant who did not take the final survey.

Chapter 8.

Conclusions

In this chapter we conclude the thesis. We first summarize the research questions and contributions of the thesis. Next we provide a critical perspective on the thesis, discussing its limits and weaknesses. We then suggest future work. After summarizing our work, we conclude the chapter, and the thesis, with some final remarks.

8.1. Research questions and contributions

In this section we review the research questions and how our contributions address them and advance the state of the art.

8.1.1. Identifying, annotating, and filtering arguments and opinions in open collaboration systems

The overriding concern of our thesis is ***How do we support collaboration around arguments and opinions on the World Wide Web?***

We introduced a novel four-part procedure for providing task-based argumentation support that combines interaction design methods with Semantic Web development. Our procedure combines ethnography, iterative annotation, ontology development, and user-based evaluation. This procedure, described in Chapter 4, ***identifies, annotates, and filters arguments and opinions***. Following the procedure in an open collaboration system allows us to provide argumentation support for a collaborative group on the World Wide Web.

We applied the procedure to a use case on Wikipedia, the world's sixth most popular website, yielding practical contributions to our three research questions:

RQ1: What are the opportunities and requirements for providing argumentation support?

RQ2: Which arguments are used in open collaboration systems?

RQ3: How can we structure and display arguments and opinions to support filtering?

RQ1 and RQ2 were each addressed in a single phase of our procedure while RQ3 was addressed in the latter two phases, as we outlined in Chapter 4. Since this procedure is one of the contributions of the thesis, we now review its phases in more detail, before reviewing how we provide argumentation support for information quality assurance discussions in Wikipedia.

Phase 1 of our procedure, the Selection & Requirements Analysis phase, addressed RQ1 using netnography. In the Selection & Requirements Analysis phase, we selected a community of interest, characterized the opportunities for argumentation support, and chose a sample corpus of discussions.

Phase 2 of our procedure, the Categorization phase, addressed RQ2 using annotation. In the Categorization phase we iteratively coded the sample corpus according to two argumentation theories, validated the coding, and chose a preferred theory.

Phase 3 of our procedure, the Structuring & Prototyping phase, addressed RQ3 using Semantic Web application development. In the Structuring & Prototyping phase, we devised an ontology based on the tasks, questions, and analysis; applied this ontology to the data; and used the resulting structured data to deploy a new filtering interface for task-based support of human reasoning. The resulting interfaces could subsequently be tested and iteratively refined.

Phase 4 of our procedure, the Evaluation phase, showed that we have provided argumentation support (RQ3) with the prototype developed in Phase 3. In the Evaluation phase, we designed an evaluation and recruited participants; ran the evaluation; and analyzed both quantitative and qualitative results. The procedure could then be iterated, spiraling back to considering requirements and improving the prototype and/or the categories it uses.

8.1.2. Applying the procedure to Wikipedia deletion discussions

Applying our procedure yielded further contributions. We applied our procedure to Wikipedia deletion discussions, which consist of arguments about whether or not content is appropriate for the English-language Wikipedia. Consensus outcomes of these discussions determine which articles are deleted from the encyclopedia.

The requirements analysis, Chapter 5, found *opportunities and requirements for providing argumentation support* (RQ1). In particular we identified three tasks where argumentation support could be beneficial: (T1) Determining one's personal position, (T2) Expressing one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation, and (T3) Determining the consensus of a deletion discussion. Further, we identified several kinds of information that should be made available for argumentation support, such as the participants in a discussion, the issues raised, the policies mentioned, and any previous discussions on the same topic.

The categorization, Chapter 6, found the most prevalent *arguments in open collaboration systems* (RQ2) using two approaches to argumentation, then compared these approaches based on the requirements analysis. First, according to Walton's argumentation schemes, the two most prevalent main arguments in Wikipedia deletion discussions are Argument from Evidence to Hypothesis and Argument from Rules. This shows the community's focus on sourcing information and on applying particular rules for determining whether content is appropriate for the encyclopedia (especially the notability guidelines). Second, according to factors theory, the two most prevalent arguments concern Notability and Sources, again emphasizing the importance of rule-based arguments according to the notability guidelines, for Notability, and the verifiability policy, for Sources. Drawing from the requirements analysis, we show that factors are more suited to deletion discussions than Walton's schemes.

The Structuring & Prototyping phase, Chapter 7, provides a concrete example of *how we can structure and display arguments and opinions to support filtering* (RQ3). To structure argumentative messages in Wikipedia deletion discussions, we develop an ontology based on both the requirements analysis (RQ1) and the categorization (RQ2). In particular, from the requirements analysis we use discussion participants, decision outcomes, and the associated article while from the categorization we draw on factors

theory. This ontology is the basis for our interface. Our filtering interface supports the consensus-finding task (T3) from the requirements phase.

The Evaluation phase, also described in Chapter 7, validated the interface we devised for (RQ3) and shows that it does indeed provide task-based support. In a task-based pilot evaluation, 16 of 19 user testers (84%) preferred our ontology-driven filtering interface.[1] Further, our interface had statistically significant improvements over the native Wikipedia interface for three constructs: perceived usefulness, perceived ease of use, and information completeness. The system could be further improved and testing iterated, based on a number of recommendations for improvement received in the evaluation.

We now describe the implications of our work for open collaboration systems, the World Wide Argument Web, and Semantic Web applications development.

8.1.3. Implications for open collaboration systems

In open collaboration systems, argumentation support is of particular relevance since decisions are made through open online discussions in which anyone can participate. The massive scale of these systems makes argumentation support necessary while the existence of group strategies for decision-making (whether or not fully articulated) makes argumentation support feasible.

The arguments given in content deletion discussions are strongly connected to some of the characteristic features that open collaboration systems share; we introduced these features in Section 5.2. Relevant features include the low barrier to entry and exit (indicating that newcomers may join, and leaders may leave frequently over time), and the persistent but malleable social structures (such as collectively-developed policies that can be changed over time).

The low barrier to entry and exit matters because the status of a member within the community impacts the arguments they give. For instance newcomers and article creators tend to make different types of arguments than established participants who have not previously edited the article in question. The persistent but malleable social structures matter as well. First, we have shown that certain rules are important for effective arguing. Second, the very mutability of rules makes their documentation complex, as we have

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[1]Out of our 20 user testers, one failed to complete the final survey.

pointed out. This is a particular challenge to socializing newcomers, since rules may not be evident to newcomers (see e.g. Section 5.5.2).

Since we show how generic features of open collaboration systems (e.g. policies and frequent newcomers) impact the content deletion process, our work has implications for understanding content management procedures and collective discussions on other open collaboration systems.

8.1.4. Implications for the World Wide Argument Web

The World Wide Argument Web, introduced in Section 1.3.3 and further discussed in Chapter 3, envisions structured expressions of agreement and disagreement on the Web. Our work contributes to enacting this vision, drawing from Chapter 6. In particular, we present a novel corpus with Walton's argumentation schemes. Further, our work may be the first application of the argumentation theory of factors outside the legal domain.

By combining our categorization with our requirements analysis, we show that the existing generic patterns used for the emerging World Wide Argument Web have shortcomings for task-based argumentation work. Our work shows the benefits of using domain-specific factors to support argumentation in open collaboration systems on the Social Web.

Previous data models for structuring argumentation for the Web consider argumentative tasks out of context. One challenge is that argumentation schemes are difficult to specify or annotate, either by the author or by another person. Our task-oriented perspective on argumentation, and the difficulty of argument scheme annotation, shows that alternatives approaches to argumentation are worth considering: Walton's argumentation schemes may be are not the most practical for some purposes.

8.1.5. Implications for Semantic Web application development

Our focus on human-centered, task-based application of Semantic Web application development is another contribution. The novelty of our procedure is that it combines Semantic Web application development with iterative design, and that it specifies particular methods—netnography, iterative annotation, ontology development, Semantic Web application prototyping, and user-based evaluation—for developing argumentation support systems. This procedure provides a bridge between the Semantic Web and human-centered design

communities, showing a common framework in which netnographic requirements analysis and annotation (such as argumentation annotation) are used for ontology development.

8.1.6. Contributions summary

In short, our contributions in the thesis include:

- A procedure for providing argumentation support in open collaboration systems.

- A demonstration of this procedure on a use case, which has the following outcomes:
  - A requirements analysis for providing argumentation support.

  - A categorization of the most common arguments used according to two theories: Walton's argumentation schemes and the factors-dimensions theory of argumentation.

  - An ontology for argumentation in Wikipedia deletion discussions.

  - An argumentation filtering system that visually summarizes arguments with bar charts of the decision factors.

8.2. Critical perspective

Next we take a critical perspective on our work and discuss its limitations and the opportunities for improvement. Following from this critical perspective, we will develop a research agenda and future work, which we discuss separately.

Apply the procedure to additional use cases: In the introduction we proposed cognitive support for argumentation throughout the Web and presented several examples of situations where argumentation support is needed. We provided a procedure for argumentation support which we tested only for a single case, deletion discussions in the open collaboration system Wikipedia. To increase the impact of our work, our procedures

should be applied to several use cases. This would also help generalize our findings, since results about argumentation in multiple different environments could subsequently be compared.

More precisely define argumentation support: In this thesis, we operationalized 'argumentation support' as supporting argumentation-based decision-making in a given environment. This led us to focus on filtering and grouping arguments by domain-specific decision factors. We did not clearly distinguish argumentation support from task-based support. Nor did we clearly delineate conditions under which task-based support also qualifies as argumentation support. The term 'argumentation support' is used by a large and diverse literature; yet it is still challenging to specify what constitutes and does not constitute argumentation support. The term 'argumentation support' would benefit from precise definition. This might distinguish different types of argumentation support (such as the issue networking/funneling/reputation distinction given in (Moor and Aakhus 2006)) or subordinate tasks involved in argumentation support, drawing from the cognitive psychology literature.

Build theory about how arguments can be reused outside their immediate context: The idea of an Argument Web presupposes that it is useful to bring together arguments from all parts of the Web, based on certain features. However, to our knowledge, there is no comprehensive theory of the aspects that affect informal argumentation. In particular, what aspects of argumentation are useful, especially for audiences beyond the original participants, or contexts beyond the original discussion? So far, previous research in informal argumentation has highlighted certain aspects of a discussion to consider, such as the purpose (discussed in Walton and Krabbe's work (1995)) or the field (as Toulmin suggested (1958)). We have also made our own first attempts to address which aspects are relevant to argumentation in social media (Schneider, Davis, and Wyner 2012).

In Chapter 2 we suggest the discourse community, with shared similar purpose, participants, and social context, as the most natural place for studying argumentation. Besides the purpose, we also highlighted the conversation style and argument complexity as features to examine. Our theories are suggestive but not established: further research is needed to characterize which aspects must be taken into account for reusing argumentation. This will be important for the Argument Web, where reuse out of context is intended.

Procedural challenges: We have described a reusable procedure for providing argumentation support. There are certain challenges in applying this procedure which need further definition or refinement.

Examples of such problems range include: how to pick a representative sample as a corpus, what is the recommended software for annotation, what is the best way to segment and prepare messages for annotation.

Continually involve stakeholders: Another issue in our use case is that of stakeholder involvement. We chose Wikipedia deletion discussions based on a survey of argumentation, rather than because the community was seeking support. This limited the opportunity for direct engagement on a continual basis, in order to not overwhelm this community; Wikipedia is highly researched and as a result, community members may frequently receive requests to participate in or contribute to research studies. Meanwhile, the community we particularly wanted to target, of newcomers to Wikipedia and newcomers to deletion discussions, are particularly hard to reach; the on-wiki methods and community-oriented listservs we tried were not successful.

Starting with a community demand for support would have made our notion of reuse more precise, but might have limited our ability to engage with the topic of argumentation itself. We recommend engaging stakeholders further, beyond interviews with stakeholders. For instance, direct observations of stakeholders engaged in natural tasks (e.g. using the messages and conversations under study) would validate the researcher's task identification. Further, iterative contact and feedback would be beneficial, and might be facilitated with a panel of community members who were invited to periodically test approaches and solutions.

8.3. Future work

Taking a critical perspective on our work leads to setting a research agenda for improving and further developing this line of research. We next discuss several areas suggested for future work. In particular, future research should study argumentation in other online communities; devise metamodels (such as a consensus ontology) for informal argumentation on the Web; scale up our annotation; and engage with stakeholders to provide practical Wikipedia support.

Engagement with the Wikipedia community might involve enhancing and testing our filtering visualization tool. This might impact newcomer socialization, for instance by supporting social sensitivity and mentoring. Successful engagement would require our system to scale up to larger deletion discussion corpora. Then we might, for instance, develop tools for auditing consistency or summarization rationales in deletion discussions. Another particular area of engagement would be to guide correct application of the rules commonly used in deletion discussions. For instance, decision factors might be developed into new argumentation patterns with critical questions to be asked.

8.3.1. Study argumentation in other online communities

One area for future work is to study argumentation in other online communities. Our reusable analysis procedure has several benefits: in addition to providing argumentation support in a given environment, using this method repeatedly would generate multiple use cases and corpora that could be used for cross-comparative work. Our corpus annotated with Walton argumentation scheme would be one such resource. We have already mentioned reviews, e-government, and other open collaboration systems as possible targets for such comparative work.

With multiple results from this procedure, we could develop theories of which aspects are relevant in informal argumentation. Further, across environments that are sufficiently similar, we could define a meta-model (such as a consensus ontology), to map between them. Where valid, such a meta-model would ease cross-community transference of knowledge, because it could also be used to bring information together into the same place, to view different viewpoints on related topics.

The problem of argumentation support is not limited to Wikipedia, or to open collaboration systems: throughout the Web, there are problems that require consideration of differences in values, preferences, and viewpoints. These include, but are not limited to situations such as e-democracy, group problem-solving and decision-making, and reviews.

Learn from previous work on CSCW and rhetoric: In studying argumentation in other online communities, we should learn from and further apply previous work, particularly on CSCW and rhetoric. In the CSCW literature we focused our interest on studies that foreground rhetoric in order to study open source communities, such as (Barcellini, Détienne, and Burkhardt 2008) and (Ko and Chilana 2011). These were not the only uses of rhetoric in CSCW, but they seemed the most relevant for our work.

In the 1980's, computer support systems had first made use of the Language/Action Perspective and Speech Act theory (for a review see Schoop 2001). But subsequently researchers' attention moved to incremental formalization in order to avoid the high cognitive overhead and unacceptable cost-benefit ratios of early systems (Buckingham Shum and Hammond 1994; Shipman III and Marshall 1999).

Late in our research, we found some more recent work using rhetoric to study team communications. In a series of controlled experiments, (Convertino, Mentis, Rosson, Carroll, Slavkovic, and Ganoe 2008; Mentis, Bach, Hoffman, Rosson, and Carroll 2009; Convertino, Mentis, Rosson, Slavkovic, and Carroll 2009) adapt Conversation Game Analysis. They annotate three aspects of the communication—transferring info, checking understanding, or managing the process and decision—seen as the communicative functions of Dialogue Acts. They use the results from both paper-based and computer-supported studies to study common ground. In particular, they find differences in communication styles between high-performing and low-performing groups: as teams gain more experience with each other and their own roles, they are more likely to offer information before it is requested. They speculate how task-oriented computer systems for emergency management could improve on face-to-face communications. These studies suggest that the rhetorical structure of conversations can provide a valuable way to study team formation and process. One important area of future work is to compare what argumentative and rhetorical support is beneficial for different types of groups.

8.3.2. Devise metamodels

If we could define appropriate meta-models, there would be even more benefit. Cognitive support for arguing would transform the Web from a tool for collecting and distributing opinionated viewpoints into a decision-support engine atop a vast global opinion-base. The Argument Web could be queried for opinions, supporting decisions about both individual action (what product to buy, whether to vaccinate a child) and collective action (how to address climate change), with rationales from global opinions, rather than the top ten hits on today's search engines.

For instance, with multiple results from this procedure, we could develop theories of which aspects are relevant in informal argumentation. Further, across environments that are sufficiently similar, we could define a meta-model (such as a consensus ontology), to map between them. Where valid, such a meta-model would ease cross-community

transference of knowledge, because it could also be used to bring information together into the same place, to view different viewpoints on related topics.

Justify and compare the models used: We used two argumentation models for our annotation: Walton's argumentation theory and decision factors. Our analysis did not fully justify this choice of models, nor did we completely compare these models. In particular, more attention needs to be paid to the level of analysis of argumentation, and what kind of analysis is useful for which purposes. For example, the framework in (Weinberger and Fischer 2006) distinguishes the micro-level of argumentation, which focuses on claims, grounds, and warrants, from the macro-level of argumentation, which focuses on arguments, counterarguments, and the integration of the conflicting stances.

The level of argumentative analysis is a useful distinction to recognize in our own work. Walton's argumentation theory is a micro-level model that addresses the interior structure of an argument, which can be used to identify flaws or points of critique for that argument. By contrast, decision factors is a macro-level model that indicates the important criteria for the overall decision; hence it can be used to bring related arguments and counter arguments on the same topic together. Micro-level models allow deeper specification of the structure of a single contribution while macro-level models allow broader focus on the interrelation between several contributions.

A meso-level approach, as an intermediate level between the micro- and macro-levels, would be to look at the sequence of discussion. For instance, (McLaren, Scheuer, and Mikšátko 2010) annotate a corpus of e-learning dialogues with argumentation-related discussion characteristics and then use supervised machine learning to automatically detect argumentative sequences. The annotation is based on message characteristics which they call 'shapes': Topic Focus, Reasoned Claim, Critical Evaluation of Opinions, Summary, Task Management, Request for Clarification, and Intertextuality. Sequences of these shapes could indicate, for instance a contribution followed by a counterargument, or a chain of opposition.

Recognition of the level of argumentative analysis might also lead us to comparisons with other argumentation models. For instance, the Toulmin model, which was described in Section 3.4.1, has been used extensively to model the micro-level of argumentation. Compared to macro-level models such as decision factors, micro-level models such as Toulmin's model allows deeper specification, for instance of the claim, data, and warrant. Compared to the micro-level model we used, Walton's argumentation schemes, Toulmin's model has a more generic structure and focuses on practical argumentation.

Toulmin has been used in classroom interventions, where it is commonly used in teaching science (McDonald and Kelly 2012), and to analyze legal arguments (Marshall 1989) and essay writing styles(e.g. Cheng and Chen 2009). Recently Toulmin's model has also been used to analyze Q&A messages on the Yahoo! Answers website (Savolainen 2012). Further, as we described in Section 3.4.1, there is a candidate ontology using Toulmin's model, so annotation could test how practical this model is for use in the Argument Web.

8.3.3. Scale up

To move from the Web to the Argument Web, we need to identify and structure Web data as arguments. Arguments can be specified by humans, or detected by machines, or perhaps these human and algorithmic approaches could be combined. In the past few years, there has been significant progress on classifying arguments automatically or semi-automatically.

Detecting and classifying arguments at the sentence level: Motivated by legal argumentation, Mochales Palau and Moens focused on the problem of detecting and classifying arguments. Overall they find that classification of argumentative sentences is feasible, with accuracy in the range of 73-80%, depending heavily on the corpus (Palau and Moens 2009; Mochales and Moens 2011). Classifying premises and conclusions, while more difficult, also yields acceptable accuracy of 68% for premises and 74% for conclusions (Palau and Moens 2009; Mochales and Moens 2011). In addition to using the Araucaria corpus of arguments[2] (Katzav, Reed, and Rowe 2004), they also construct a corpus. They use their corpus of legal argumentation from the European Court of Human Rights (ECHR) to report the prevalence of argumentation schemes (Mochales and Ieven 2009), based on the 25 schemes from (Walton 1995). In related work, they develop a context-free grammar, which they use to detect arguments in ECHR case law documents with an accuracy of around 60% (Palau and Moens 2009).

Argumentation scheme classification: Feng and Hirst automatically classify arguments using computational linguistics (Feng 2010; Feng and Hirst 2011). Starting with the premises and conclusion of an argument, they determine how they fit together as an instance of one of Walton's argumentation schemes (Walton, Reed, and Macagno 2008). Accuracy ranged from 63% to 90%. One goal of their work was to help infer the enthymemes, or unstated premises, by revealing which parts of the argument scheme

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[2]http://araucaria.computing.dundee.ac.uk/doku.php#araucaria_argumentation_corpus

were missing. They used arguments already annotated in the Araucaria corpus, focusing on the five most common Walton's argumentation schemes in that corpus: Argument from example, Argument from cause to effect, Practical reasoning, Argument from consequences, and Argument from verbal classification. They determined the scheme-specific features in these patterns, including cue phrases, punctuation, keywords, modal verbs, dependency relations, and other existing patterns.

Systemic functional grammar: Systemic functional grammar and metadiscourse (Martin 1992) are the inspirations for another line of work on argumentation (Sándor 2007). Sándor breaks information down into its constituent notions and detects the connections between them with a dependency parser (in this case the Xerox Incremental Parser, XIP). For example, (Lisacek, Chichester, Kaplan, and Sándor 2005) mined the bioinformatic literature for what they called "paradigm shift" sentences: the first appearance of evidence, emerging trends, contradiction of conventional knowledge, and identification of controversy, debate, or contradiction. They used a simple idea: that three basic notions are represented (time, idea, and contrast) and that these notions are connected to each other in the dependency graph of the sentence.

Textual entailment: In natural language processing, textual entailment is an approach for determining the relationship between the meaning of two statements, indicating whether one statement can be inferred from the other. Recently, Cabrio and Villata used textual entailment in order to turn natural language arguments into argumentation frameworks which could be automatically evaluated (Cabrio and Villata 2012b; Cabrio and Villata 2012a). They constructed a dataset from Debatepedia;[3] based on a training set of 100 pairs of statements, textual entailment yields precision of .74, recall of .76, and accuracy of .75 in obtaining the argument type of the test set, 100 pairs of test statements. The authors report that these results are in line with the state-of-the-art on the Recognizing Textural Entailment challenge, which uses 10 times as much data for both training and testing (Cabrio and Villata 2012a). Further, based on their training sample, they find that the performance increases with the size of the training set, suggesting that larger training sets might further improve the results (Cabrio and Villata 2012b).

Mapping between argumentation schemes and discourse relations: Researchers have often suggested a relationship between discourse relations and argumentation, for instance using Rhetorical Structure Theory (RST) (Mann and Thompson 1988). Drawing examples from letters to the editor, Azar 1999 hypothesized that Evidence, Justify,

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[3]A dataset containing the pairs of statements they used, with manual annotations of argument type and complex attack, is available at http://bit.ly/VZIs6M.

Motivation, Antithesis and Concession are the most relevant RST relations. A different study by (Bal and Saint-Dizier 2009) found the most central discourse relations in news editorials to be Exemplification, Contrast, Discourse Frame, Justification, Elaboration, Paraphrase, Cause-effect, Result, Explanation, Reinforcement.

Cabrio, Tonelli, and Villata investigated the relationship between argumentation schemes and discourse relations annotated in the Penn Discourse Treebank (Cabrio, Tonelli, and Villata 2013a; Cabrio, Tonelli, and Villata 2013b) (an annotated corpus of Wall Street Journal articles). They map five argumentation schemes to discourse relation categories used in the Penn Discourse Treebank: Argument from Example, Argument from Cause to Effect, Argument from Effect to Cause, Argument from Practical Reasoning, and Argument from Inconsistency (Cabrio, Tonelli, and Villata 2013b). They also suggest two new argumentation schemes based on the discourse relations used in the Penn Discourse Treebank, namely Argument from Equivalence and Argument from Specification (Cabrio, Tonelli, and Villata 2013b).

Recently (Peldszus and Stede 2013) have pointed out some limitations of Rhetorical Structure Theory, for mining argumentation: there are long-distant dependencies, which violate adjacency. More seriously, rebuttals can get lost in the RST tree representations. Some modifications of RST or an alternative seem to be needed.

Detecting evaluative expressions with <TextCoop>: The <TextCoop> platform (Saint-Dizier 2012), developed by Saint-Dizier and his colleagues, has been used for several argument identification tasks. For example, Garcia Villalba and Saint-Dizier (2012) focus on the problem of detecting arguments in opinionated texts. They combine a custom lexicon with identifying discourse relations based on Rhetorical Structure Theory. Experiments on a small corpus of 50 texts and 21,500 words gives precision around 90% and recall around 85% in detecting relevant discourse relations in the consumer review domain. Relations used are justification, reformulation, illustration, precision, comparison, consequence, contrast, and concession.

Example applications

Mixed initiative system: De Liddo, Sándor, and Shum have extended Sándor's work in literature mining 2007 to combine machines and humans into a mixed initiative system (De Liddo, Sándor, and Shum 2012). The Xerox Incremental Parser is also able to identify rhetorical functions: summarizing, background knowledge, contrasting ideas,

novelty, significance, surprise, open question, and generalizing. Researchers have also suggested several scenarios where a dashboard summarizing the rhetorical functions would be useful, such as finding background when researching an essay, exploring a collection of argumentative essays, and analyzing the overall literature in a field (Taibi, Sándor, Simsek, Buckingham Shum, De Liddo, and Ferguson 2013).

Wikipedia diffs: Cabrio, Villata, and Gandon experimented with applying textual entailment in Wikipedia 2013.[4] Their goal was to compare statements in Wikipedia's five most revised articles over a 4-year period. For the textual entailment task, sentence pairs were generated from each pair of consecutive years, using a total of 452 sentence pairs from Wikipedia from the years 2009 to 2012. For the argumentation framework, the results of textual entailment were interpreted as support (for paraphrases with bidirectional entailment) or attack (for no entailment and incomplete information overlap). Arguments could then be marked up with an extension of SIOC Argumentation: the terms `sioc_arg:challengesArg` and `sioc_arg:supportsArg` were introduced to describe the attack and support relationships. Arguments could then be searched, and SPARQL would allow complex queries, such as retrieving all attacking arguments which contain a specific word (e.g. "crisis"). The authors envisioned that this could be useful not only for enabling on-demand search but also to alert users to edits that changed the meaning of an article's content.

Practical considerations for scaling up with machine learning

Scaling up from a single day's corpus to ten years' worth of data requires either a large-scale human effort or smart automation. Machine learning would be a natural choice, and we are hopeful that our hand-annotated decision factors data would be suitable training data for supervised machine learning. Inter-annotator agreement gives some indication of how difficult a task is for humans and is sometimes used as an upper limit for the success of machine learning algorithms. As we discussed in Section 6.4, the inter-annotator agreement for the four decision factors was good, with Cohen's kappa in the range of .64 to .82. This makes it plausible that the annotation data could be used as training data for machine learning. For many binary classification tasks, small sets of annotated training data can be used with standard algorithms to achieve acceptable levels of performance.

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[4]A dataset containing the pairs of statements they used, with manual annotations of entailment, has been made available at http://bit.ly/WikipediaDatasetXML.

Supervised machine learning requires several steps: formatting the data, cleaning and preprocessing it, selecting features, choosing and running algorithms, then comparing the accuracy against a gold standard (such as human annotation). Ultimately, applying machine learning is an iterative process, as the results can be used to modify the choices, for instance to identify additional data cleaning steps, other features, and the best choice of machine learning algorithms. The results can depend heavily on the choices made, and according to experts, "developing successful machine learning applications require a substantial amount of 'black art'" Domingos 2012. Next we discuss the standard process and speculate about the challenges in creating binary classifiers for each of the 4 main decision factors.

The first step is cleaning and preprocessing. This would start with the data from our annotation process, which is in XML produced by GATE (for decision factors) and CorpusTool (for argumentation schemes). Cleaning and preprocessing would include removing username signatures, normalizing the text, and removing rare words. Besides considerations such as spelling, capitalization, and punctuation, we might consider how links and policy mentions are indicated. For example, messages with the decision factor Sources often have links to external pages and may mention policies such as verifiability and sources. Each policy can be referenced in several ways, including by linking, by giving a short name such as WP:RS (reliable sources), or by mentioning a keyword (such as 'reliable' or 'independent' for sources). We might also consider removing the name of the Wikipedia article.

The choice of features might depend on which decision factor (Notability, Sources, Bias, or Maintenance) we were classifying. Sample features might include the internal links (e.g. to policies and diffs), the external links, words, sentences, the number of pronouns, and so forth. A priori, it is not clear which features to use, though we could draw on the features used in (Mochales and Moens 2011). Some information might need to be recovered from the HTML and specified explicitly in the input data. In some cases, it is important to have balanced data with equal likelihood of being inside or outside each class, so we might need to truncate our sample.

Various supervised machine learning algorithms are available, including Naive Bayes, logistical regression, linear regression, support vector machines, and decision trees. For supervised machine learning, one user-friendly tool is LightSideLabs[5] (Mayfield and Rosé 2013), which is built on top of Weka[6] (Witten and Frank 2011).

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[5]http://lightsidelabs.com/what/research/
[6]http://www.cs.waikato.ac.nz/ml/weka/

Since we have a small data set, we would plan to use cross-fold validation in order to hold out a sample of our training set as the testing set. After training the data, we would need to compare the performance of the various algorithms to determine whether any of them provide acceptable results. A confusion matrix could help highlight particular problems and suggest remedies. For instance, we might identify additional data cleaning, or features to add or drop, iterating until results were adequate.

Results could provide the data for large-scale visualizations of the discussion archives. For instance with the resulting data the full archives could be browsed by decision factor, and each archived discussion could show a bar chart giving the prevalence of each decision factor. We could also explore giving real-time feedback to newcomers, indicating which decision factor(s) they mention, and suggesting one decision factor for them to consider if they have not discussed any of the decision factors.

8.3.4. Engage with stakeholders to provide practical Wikipedia support

Enhancing and testing the visualization: Another area for future work is to engage with Wikipedia stakeholders in order to develop practical support within Wikipedia based on our decision factors. First, our prototype system needs enhancement, for instance we need to make the reply structure available as a way to navigate conversations. With this enhancement, the system should be tested with two groups: discussion closers, who need to find consensus in practice, and new participants, who need to understand how consensus is determined in order to be more persuasive in the discussions.

Newcomer socialization: Socialization of new participants of particular interest: Retaining and effectively using the skills of novice editors depends in part on socializing them to the community norms. Article quality and appropriateness of content are key aspects of this socialization. Another aspect is the tone of discussions.

Our research has supported the observation that newcomers who get mentoring in deletion discussions continue participating (Schneider, Passant, and Decker 2012). Tone and friendliness seem to be aspects of this mentoring, but further research should study the outcomes of deletion debates on newcomer socialization at large scale.

Support social sensitivity and mentoring: Social sensitivity appears to be a key factor in shortening and smoothing discussions, both with novices and with other

experienced editors. For in-person task groups, collective intelligence correlates with the average social sensitivity of a group (Woolley, Chabris, Pentland, Hashmi, and Malone 2010); if similar phenomena operate online, techniques for increasing the social sensitivity of ad-hoc online task groups would be helpful.

Social sensitivity and neutrality may also help counter the fatigue of ongoing participation in contentious activities such as deletion. A taxonomy of the emotional triggers and the associated needs discussants are trying to address (e.g. 'understand why this article was deleted', 'provide further information about a point that was not taken into consideration', 'vent about policy and bureaucratic challenges') could help suggest ways to meet participants' needs while defusing emotional debates, and might suggest likely subproblems that could be fruitfully addressed.
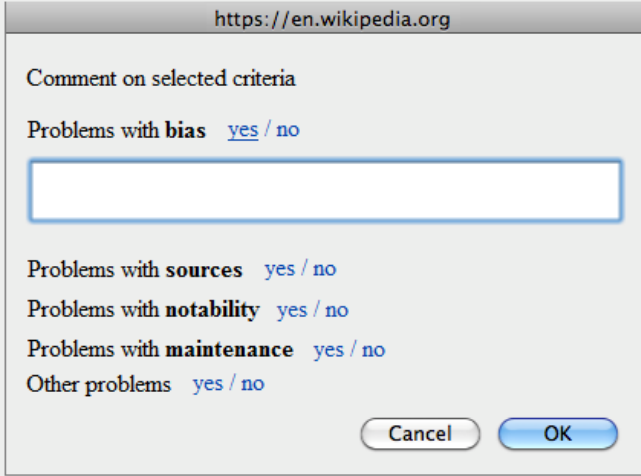
One application would be supporting mentoring. Co-editing and prominent discussions of how to improve an article already occur alongside and in deletion debates. Future development should promote positive interactions with creators.[7] Even when a creator's article is deleted, when the overall tenor of the discussion is positive, the result seems to be beneficial for the creator (who gets personalized mentoring on article policy).[8] Fewer than one in five deletion discussions includes the article creator; we suggest flagging these cases for further attention from skillful mentors.

Scale up to larger deletion discussion corpora with human annotation: In addition to improving and further testing the prototype, we also need to extend our decision factors filtering system to debates beyond our annotated corpus. Decision factors could be added manually by debate participants, or automatically determined. We plan to test both techniques; for the latter, we will use our content analysis as an annotated corpus for machine learning (discussed above), to detect the main issues at stake. Automation results can be evaluated first with closers' decision rationales for archived debates, and then tried as a support for live debates.

With human annotation, we could ask editors to indicate which issues are important in the discussion (Figure 8.1). In a virtuous cycle, seeing a useful endproduct (such as the prototype system) makes it more likely that discussants would be motivated to annotate their own comments.

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[7]See our article (Schneider, Passant, and Decker 2012) for a discussion of examples including http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/William_Vickers_(fiddler) and http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/St._Andrew's_Episcopal_School(Amarillo,_Texas); had these articles been summarily deleted, we doubt that these Wikipedians, as first-time article creators, would have immediately created subsequent articles.

[8]See for instance http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Hugh_Allison

Figure 8.1.: Scaffold commenting, by providing the decision factors, as shown in (Schneider and Samp 2012).

Alternately, we could design a game with a purpose (e.g. Pearl and Steyvers 2010); perhaps a few of the many Wikipedia editors, would enjoy the chance to learn more about Wikipedia's processes while playing a short, entertaining annotation game.

Machine annotation of the 10 year backlog of debates (~200,000) would be particularly valuable. Currently we have a well-annotated corpus indicating decision factors for 72 debates (Schneider, Passant, and Decker 2012). Taking this as a gold standard, we could create a training set, in order to automatically determine decision factors.

Develop audit and summarization tools for deletion discussions: There is further potential for support in other aspects of the deletion debates. For instance, archived debates could benefit from audit and summarization tools. Audit tools could help identify decisions worth reviewing. Overturning a decision does not always indicate that a decision was bad. Topics may be unacceptable at one time, and later acceptable; references to particular polices may help identify this.[9] Audit tools for archived deletion decisions could help editors identify material that might now be within scope for the encyclopedia.

Summarization tools applied to archived debates could provide readable summaries even when discussions are long and complex. Towards this end, we would like to identify and distinguish the 'conversation within a conversation' subthreads that add complexity to long debates, using methods for detecting topic divergence, as well as new methods focusing on user needs and emotions.

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[9]For instance the 'No future films' policy specifies that films should not have their own article until filming has started.

Guide correct application of rules by framing decision factors as argumentation schemes for deletion discussions: Decision factors could be made into their own argumentation schemes, that show the valid ways to apply the decision factors. It is encouraging that we can link the arguments given in deletion discussions to policies and guidelines within Wikipedia: in other words the discussions appear to be follow certain rules that have been expressed in the encyclopedia. Yet work is needed to make these rules less difficult to apply.

Currently, guidelines like Notability are difficult to apply, in part because the guidelines are distributed across many parts of the encyclopedia: beyond the 12 core Notability guidelines, there are additional guidelines suggested by smaller groups.[10]

Operationalized ways of expressing the rules might help. Approaches include argumentation schemes and checklists. Argumentation schemes originally were designed to document fallacies and explain how to avoid them with critical questions that ensure that a scheme was being correctly applied. Checklists can also be used to provide scaffolding and guidance for performing complex tasks. Guiding correct application of rules with critical questions or checklists might be helpful for those learning both the rules and how to apply them. For instance, operationalized ways of expressing the rules might be of benefit for newcomers writing articles (so that they are not proposed for deletion) and for those contributing arguments for discussions.

Develop domain-specific argumentation schemes: Domain-specific argumentation schemes could be used to indicate the specialized reasoning that is used in Wikipedia deletion discussions. The decision factors point to the most important topics for these schemes, and for each of Notability, Sources, Maintenance, and Bias, we could induce the most common argument from past examples. The resulting domain-specific argumentation schemes could take the form of templates with blanks to fill in. Checklists of critical questions, for instance, could scaffold the process of showing that a sources is reliable or that an article topic is notable.

Provide argumentative writing support: Future work could address support for writing, which was suggested in (T2), one of the three tasks we introduced in Section 5.7. This task was to *Express one's personal position on a deletion discussion in accordance with Wikipedia community norms for argumentation.* The progress we made on this task

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[10]The general notability guideline is supplemented by 11 subject-specific guidelines for topics such as 'Sports and athletes'. These are in turn supplemented by guidance on subtopics that is distributed around the encyclopedia in multiple places; for instance the Cricket notability guidelines are hosted by a WikiProject http://en.wikipedia.org/wiki/Wikipedia:CRIN#CRIN.

was to document the Wikipedia community norms for argumentation. This is most clearly seen in (Schneider, Samp, Passant, and Decker 2013), where we identify the differences in arguing between novices and experts.

Scaffolding argumentative writing tasks for new Wikipedians could draw on that information. Argumentative writing support might initially take the form of a tutorial for new Wikipedians. In its initial, static form, the tutorial would draw attention to the community norms, highlighting the argumentation schemes used more often by experts than by novices, and pointing out the 4 key decision factors as topics to be addressed in successful messages. The tutorial would provide examples in context, perhaps taken from our annotation manuals. Inspiration might also come from the wide variety of studies on argumentative writing, from fields such as computer supported collaborative writing (Erkens, Prangsma, Jaspers, and Kanselaar 2002; Southavilay, Yacef, and Calvo 2009), rhetoric and composition (Harrell and Wetzel 2013), second-language learning (Cheng and Chen 2009), and English for specific purposes (Hyland 1999) and from the argumentation (Andriessen and Coirier 1999) and hypertext communities (Schuleat and Smith 1990).

Later, machine learning could be used to provide an interactive personal writing coach. The newcomer would type their message and the coach would suggest improvements: counterarguments that might need to be addressed, inappropriate topics that could be refocused, etc. This could draw from current systems for automatic essay scoring, which already provide some feedback to writers (Shermis and Burstein 2013).

8.4. Summary

In this thesis we have provided a procedure for providing argumentation support in open collaboration systems. We applied our procedure on arguments used for information quality assurance in the world's sixth most popular website, Wikipedia, an open collaboration system in which outcomes and decisions are based on the arguments given in online discussions to which anyone can contribute.

We provided argumentation support for open, community discussions known as deletion discussions. Deletion discussions consist of arguments about whether or not content is appropriate for the English-language Wikipedia; consensus outcomes of these discussions determine which articles are deleted from the encyclopedia. To support

the task of consensus-finding, we created a task-based interface. In a pilot user-based evaluation, our interface provides statistically significant improvements over the native Wikipedia discussion interface in terms of perceived usefulness, perceived ease of use, and information completeness. Further, 16 of our 19 user testers[11] (84%) preferred our interface to the native Wikipedia discussion interface.

Potential uses for this procedure in the future are to provide argumentation support in other communities and to help develop a metamodel for argumentation on the Web. Our work contributes towards enacting a World Wide Argument Web in which we can more fully use and reuse arguments.

8.5. Final remarks

The World Wide Web has impacted the way we access information, growing from a single computer server in 1990 to a massive global network of computer networks today in 2013. In the next twenty years, we expect a Web of Arguments to be enacted atop this infrastructure.

On the Web of Arguments:

- Searching for issues, claims, and opinion clusters will be straightforward.

- Authoring opinions, that link to evidence from any source, will be easy.

- Publishing and navigating claims networks will be seamless.

Imagine searching the Web on an issue. The search takes just seconds, and presents an organized list of points and counterpoints to consider, with further descriptions and authorship information for each. This is the Web of Arguments.

Imagine searching the scholarly Web for a claim. The evidence for and against the claim is shown in a network of claims. This claims network makes deep interconnections in the published literature, linking directly to the experiments and the statements that are used as supporting evidence. This is the Web of Arguments.

Imagine searching the Web for opinion clusters. The visualization identifies the factors along which people agree, and those along which they disagree. To the human eye, the consensus and the market segments become clear. This is the Web of Arguments.

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[11]Out of our 20 user testers, one failed to complete the final survey.

Imagine blogging "perfect evening for diving in windswept Salthill tonight" supported by a photo from the user as well as by the tide calendar and temperature, humidity, and wind data from sensor networks.[12] This is blogging on the Web of Arguments.

Imaging editing your research lab wiki, as a scientist studying anti-malaria compounds. Timestamps from the experiment log are automatically linked to supporting data from the laboratory sensors. When you type "careful temperature control" into the discussion section, the wiki automatically generates a graph using the timestamps and the lab sensor data.[13] This is open notebook science on the Web of Arguments.

Imagine navigating claims related to an experiment in your research lab wiki. Claims assertions are automatically generated from the results, discussion session, and conclusion, and from citations in the procedure and materials sections. Claims can be published either automatically, automatically under conditions (such as 'no known contradictory claims'), or after human review. Clicking on the 'explore' button next to a claim shows related research organized into a claims network. This is navigating the Web of Arguments.

The Web of Arguments will speed knowledge exchange in daily life, in business, and especially in science. Enacting a Web of Arguments will help individuals who search the Web to consider what to think about an issue, scientists exploring a new field or contested claim, and companies who seek to understand the nuanced social media response to their products. The Web of Arguments will enable searching of issues, claims, and opinion clusters, and easy authoring and exploration of arguments that link human commentary to documentary evidence from machines. Building on today's Social Web and Web of Data, including the emerging sensor web, we can enact a Web of Arguments.

---

[12]Drawn from life envisioning enriching a tweet from the NUIG student union http://twitter.com/NUIGSU/status/369883209611214849.

[13]Drawn from life, envisioning enriching open notebook science from Jean-Claude Bradley's Drexel lab http://usefulchem.wikispaces.com/Exp024 and http://usefulchem.wikispaces.com/Exp025.

Part III.

Appendices & Backmatter

Appendix A.

Wikipedia Deletion Discussions ontology

Listing 13: Wikipedia Deletion Discussions ontology in Turtle

```turtle
@prefix wd: <http://vocab.deri.ie/wd#> .
@prefix cc: <http://creativecommons.org/ns#> .
@prefix dcterms: <http://purl.org/dc/terms/>.
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix sioc: <http://rdfs.org/sioc/ns#> .
@prefix sioct: <http://rdfs.org/sioc/types#> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

wd: a owl:Ontology ;
owl:versionInfo "Revision .85"@en ;
dcterms:creator <http://jodischneider.com/> ;
dcterms:contributor <http://apassant.net/> ;
dcterms:created "2012-11-07"^^xsd:date ;
dcterms:title "WD, the Wikipedia Deletion Discussion Ontology"@en ;
dcterms:description "WD, the Wikipedia Deletion Discussion Ontology,
is an ontology for characterizing Wikipedia deletion discussions"@en ;
cc:license <http://creativecommons.org/licenses/by/3.0/> .
```

Listing 14: Wikipedia Deletion Discussions ontology in Turtle

```
#Properties

wd:has_decision_factor a owl:ObjectProperty ;
rdfs:comment "indicates a decision factor"@en ;
rdfs:domain wd:Message ;
rdfs:range wd:DecisionFactor .

# @@TODO: document that model differs slightly from reality
#We model this as at most one vote per message
#but in reality votes are VERY #OCCASIONALLY not exclusive
#e.g. "<b>Delete</b>, or <b>Merge</b> (with redirect)"
sioc:has_vote a owl:ObjectProperty ;
rdfs:comment "indicates the DecisionType outcome from the DeletionCase"@en ;
rdfs:domain wd:Message ;
rdfs:range wd:Outcome .

# @@TODO: discuss with sioc list, push an inverse of has_discussion into SIOC
wd:is_discussion_of a owl:ObjectProperty ;
owl:inverseOf sioc:has_discussion ;
rdfs:comment "The Item that is related to this discussion."@en ;
rdfs:range sioc:Item ;
rdfs:isDefinedBy wd: ;
rdfs:label "is discussion of"@en.
```

Listing 15: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
#Classes

# @@TODO: document facts about __instances of wd:DeletionCase__, e.g.:
#            sioc:has_container sioct:Wiki ;
#            wd:is_discussion_of sioct:WikiArticle .
#
wd:DeletionCase rdfs:subClassOf sioc:Forum ;
rdfs:comment "A deletion discussion in a wiki."@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Deletion Case"@en ;
rdfs:subClassOf [
owl:minCardinality 1;
owl:onProperty wd:is_discussion_of] .


# @@TODO: document that we do not expect wd:DecisionFactor(s) to be explicit.
#         We classify messages to determine these.
#
wd:DecisionFactor a owl:Class ;
rdfs:comment "A decision factor raised in an argumentative discussion"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Decision Factor"@en ;
owl:disjointWith
wd:DeletionCase ,
wd:Message ,
wd:Outcome ,
sioc:UserAccount .

# @@TODO: document facts about __instances of wd:Message__, e.g.:
#            sioc:has_container wd:DeletionCase ;
#            sioc:has_creator wd:commenter .
#
wd:Message rdfs:subClassOf sioc:Post ;
rdfs:comment "A message in a deletion discussion"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Message"@en ;
owl:disjointWith
wd:DeletionCase ,
wd:DecisionFactor ,
wd:Outcome ,
sioc:UserAccount.
```

Listing 16: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
wd:Outcome a rdfs:Class ;
owl:disjointWith
wd:DeletionCase ,
wd:DecisionFactor ,
wd:Message ,
sioc:UserAccount .

wd:has_decided_outcome a rdfs:Property ;
rdfs:comment "The decision made following an argumentative discussion"@en ;
rdfs:label "Has Decided Outcome"@en ;
rdfs:range :Outcome .

wd:has_possible_outcome a rdfs:Property ;
rdfs:comment "A possible outcome for an argumentative discussion"@en ;
rdfs:label "Has Possible Outcome"@en ;
rdfs:range :Outcome .
```

Listing 17: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
wd:IP_AddressUserAccount rdfs:subClassOf sioc:UserAccount ;
# We need to make the relationship with sioc:ip_address clear.
# In SIOC, sioc:ip_address is a DataTypeProperty with Domain:sioc:Item
# But sioc:UserAccount is a subclass of foaf:OnlineAccount
# The lack of parallels seems problematic to me
# because when we want to point to the
# sioc:UserAccount associated with a wd:Message,
# we need an answer, even if a sioc:ip_address is listed.
owl:disjointWith wd:DeletionCase,
wd:Message,
wd:DecisionFactor ,
wd:Outcome ,
wd:AuthenticatedUserAccount .


wd:AuthenticatedUserAccount rdfs:subClassOf sioc:UserAccount ;
owl:disjointWith wd:DeletionCase,
wd:Message,
wd:DecisionFactor ,
wd:Outcome ,
wd:IP_AddressUserAccount .


# @@TODO: document facts about __instance of wd:Bot__, e.g.:
#          sioc:has_owner wd:BotOperator .
wd:Bot rdf:subClassOf wd:AuthenticatedUserAccount .


# @@TODO: document that we assume (but do not model) that
#    we are talking about ONE sioct:Wiki shared by both
#    the administrator and the discussion.
wd:Administrator rdf:subClassOf wd:AuthenticatedUserAccount .
```

Listing 18: Wikipedia Deletion Discussions ontology in Turtle (con't)

```turtle
wd:Relist rdfs:subClassof wd:Message .
#Instances

# @@TODO: document that these are not comprehensive for votes
# e.g. we do not model weak_keep (use keep)
wd:Delete a wd:Outcome ;
rdfs:comment "delete decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "delete decision"@en ;
owl:differentFrom
wd:Keep ,
wd:Merge ,
wd:No_consensus ,
wd:Redirect ,
wd:Transwiki ,
wd:Userfy .

wd:Keep a wd:Outcome ;
rdfs:comment "keep decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "keep decision"@en ;
owl:differentFrom
wd:Delete ,
wd:Merge ,
wd:No_consensus ,
wd:Redirect ,
wd:Transwiki ,
wd:Userfy .
```

Listing 19: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
wd:Merge a wd:Outcome ;
rdfs:comment "merge decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "merge decision"@en ;
owl:differentFrom
wd:Delete ,
wd:Keep ,
wd:No_consensus ,
wd:Redirect ,
wd:Transwiki ,
wd:Userfy .

wd:No_consensus a wd:Outcome ;
rdfs:comment "No consensus decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "No consensus"@en ;
owl:differentFrom
wd:Delete ,
wd:Keep ,
wd:Merge ,
wd:Redirect ,
wd:Transwiki ,
wd:Userfy .

wd:Redirect a wd:Outcome ;
rdfs:comment "Redirect decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Redirect decision"@en ;
owl:differentFrom
wd:Delete ,
wd:Keep ,
wd:Merge ,
wd:No_consensus ,
wd:Transwiki ,
wd:Userfy .
```

Listing 20: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
wd:Transwiki a wd:Outcome ;
rdfs:comment "Transwiki decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Transwiki decision"@en ;
owl:differentFrom
wd:Delete ,
wd:Keep ,
wd:Merge ,
wd:No_consensus ,
wd:Redirect ,
wd:Userfy .

wd:Userfy a wd:Outcome ;
rdfs:comment "Userfy decision"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Userfy decision"@en ;
owl:differentFrom
wd:Delete ,
wd:Keep ,
wd:Merge ,
wd:No_consensus ,
wd:Redirect ,
wd:Transwiki .
```

Listing 21: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
#DecisionFactorInstances
# For documentation: Multiple factors can apply; only "other" is disjoint.

wd:Bias a wd:DecisionFactor ;
rdfs:comment "Bias"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Bias"@en .

wd:Maintenance a wd:DecisionFactor ;
rdfs:comment "Maintenance"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Maintenance"@en .

wd:Sources a wd:DecisionFactor  ;
rdfs:comment "Sources"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Sources"@en .

wd:Notability a wd:DecisionFactor  ;
rdfs:comment "Notability"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Notability"@en .

wd:Other a wd:DecisionFactor  ;
rdfs:comment "used when no listed factors apply"@en ;
rdfs:isDefinedBy wd: ;
rdfs:label "Other"@en ;
owl:differentFrom
wd:Bias ,
wd:Maintenance ,
wd:Sources ,
wd:Notability .
```

Listing 22: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
#Role Instances

wd:Nominator rdf:type sioc:Role ;
sioc:function_of wd:AuthenticatedUserAccount ;
sioc:has_scope wd:DeletionCase .

wd:Commenter rdf:type sioc:Role ;
sioc:function_of sioc:UserAccount ;
sioc:has_scope wd:DeletionCase .

# @@TODO: document that model differs slightly from reality
# usually but not always an administrator
# *always* an administrator if the outcome is delete
wd:Closer rdf:type sioc:Role ;
sioc:function_of wd:AuthenticatedUserAccount ;
sioc:has_scope wd:DeletionCase .
```

Listing 23: Wikipedia Deletion Discussions ontology in Turtle (con't)

```
#Message Instances

# ArgumentativeMessage and Vote are neither disjoint nor synonymous.

# For documentation:
# sioc:has_creator sioc:commenter ;
# sioc:has_vote wd:PossibleOutcome .
wd:Vote rdfs:subClassOf wd:Message .

# For documentation:
# sioc:has_creator sioc:commenter ;
# sioc:has_argument wd:DecisionFactor .
wd:ArgumentativeMessage rdfs:subClassOf wd:Message .
```

Appendix B.

Annotation details

In this appendix, we provide further details about the annotation, which were omitted from Chapter 6.

B.1. Preparation for annotation

To prepare text files for annotation, each debate in our corpus was downloaded as a single HTML file, then HTML was stripped out with a standard parser, finally regular expressions were used to trim excess page content (including the consensus result and archiving notices). The consensus result was removed since we did not code the result or its justification. Rather, we only coded the messages within the discussion, starting with the nomination.

We also needed to segment messages, since in the MediaWiki platform, there is no automatic message segmentation. Rather breaks between messages are socially enforced; these are added by users who are, for instance, expected to sign each message they post with '˜˜˜˜', which becomes a signature such as 'Jodi.a.schneider (talk) 11:56, 30 July 2013 (UTC)'. We added linebreaks after each occurrence of '(UTC)'. This provided a visual indication of (likely) message boundaries which we could use to generate automatic segmentation in the annotation; while annotating, message boundaries could be adjusted, so we corrected obvious segmentation errors (such as from unsigned posts) when we encountered them.

B.2. Tools used for annotation

In this section we discuss the tools we used for annotation. We annotate in two different ways, according to two different argumentation theories: argumentation schemes (discussed in Section 6.3) and decision factors (discussed in Section 6.4).

To annotate argumentation schemes, we used UAM CorpusTool[1] (O'Donnell 2008) as previously shown in Figure 6.2. We used the pre-segmentation feature (paragraph level) to chunk messages, already having manipulated the files to have linebreaks at the timestamps that typically end messages. Annotation involves clicking text and indicating the appropriate features from a previously supplied scheme. UAM CorpusTool calculates

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[1]http://www.wagsoft.com/CorpusTool/

Figure B.1.: Part of the HTML before modifications were made to get a text corpus we could easily annotate.

Figure B.2.: The resulting text that we annotated. We added linebreaks between obvious message boundaries.

comparative statistics across subsets, giving rich and easy-to-use overviews of findings, and saves annotations as stand-off XML, a common standard.

To annotate decision factors, we used GATE—General Architecture for Text Engineering[2] as previously shown in Figure 6.6 (Cunningham, Maynard, Bontcheva, Tablan, Aswani, Roberts, Gorrell, Funk, Roberts, Damljanovic, Heitz, Greenwood, Saggion, Petrak, Li, and Peters 2011). GATE is open source software backed by a large community of users and researchers, which we had previously used for text processing on another project. Annotators found the interface of GATE standalone difficult to use for the task; other groups recommend using the Web-based GATE Teamware interface, which, however, requires a software license.[3] While GATE can calculate statistics on inter-annotator agreement, we missed the comparative corpus statistics of CorpusTool. GATE's main advantage for annotation, which we did not take advantage of, is its ability to integrate automatic annotation based on rules with manual annotation.

B.3. Final annotation manual for Walton's argumentation schemes

Next we show the final annotation manuals for Walton's argumentation schemes. This manual includes blank space for recording difficult examples for discussion. It supplements materials such as the "A User's Compendium of Schemes" (Walton, Reed, and Macagno 2008, Chapter 9) given to annotators in their first round of annotation.

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[2]http://gate.ac.uk/
[3]http://gate.ac.uk/teamware/man-ann-intro.pdf

Argument Pattern	Definition	Example from Wikipedia
Argument from Verbal Classification	Definitional arguments.	The current title is misleading.
Argument from Analogy	Based on a similar case.	Articles like X are not notable enough for their own standalone articles.
Argument from Bias	Bias suspected.	Reads like an advertisement.
Argument from Cause to Effect	Using cause and effect.	Given what's here, it's reasonable to assume that other sources mention X.
Argument from Composition	From the parts to the whole.	Mostly about already discussed at X.
Argument from Evidence to Hypothesis	Providing evidence.	I have added some reliable sources.
Argument from Ignorance	Assumption when no supporting evidence can be found.	No search results.
Argument from Need for Help	Help should be provided when possible.	If the article can be fixed through normal editing, then it is not a good candidate for AfD.
Argument from Position to Know	Personal knowledge.	I grew up in that area & had never heard of her.
Argument from Precedent	Based on past decisions.	We've had this same debate for numerous articles, and decided…
Argument from Rules	Rule-based argument.	Fails <guideline>.
Argument from Waste	Avoid wasted work.	Merge to save the work.

Argumentation from Values	Evaluate with value judgments.	It's a useful search term, so make it a redirect.
Practical Reasoning	Actions towards a goal.	How would you merge a disambiguation page?
No reason given	Vote without explanation.	Per nominator.
Note	Non-argumentative note	Note: This debate has been included in the list…

Difficult examples

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Argument Pattern	Definition	Rough example from Wikipedia	Example from 2012-03-01 corpus	Second example from 2012-03-01 (including earlier versions of 2nd AfD)
Argument from Analogy	Based on a similar case.	Articles like X are not notable enough for their own standalone articles.	The test is not for just the combination of those two items, but for the notability of it as a topic. For example, if there are articles on "cars", and "trailers" that doesn't necessarily mean that there should be an article on "cars with trailers" even if that combination of words is common in a google search. That's the question here. I don't know the answer. North8000 (talk) 12:16, 2 March 2012 (UTC)	I may have expressed myself unclearly. I didn't say the people listed were non-notable in themselves, but that there's no evidence that they are all notable in terms of what the list purports to link them to, which is the Battle of Stalingrad. I'm sure many of them had highly notable careers, but would a notable highlight of those careers have been taking charge of attaching the labels on to the supply boxes that were flown in to the city? A silly example I accept, but my earlier point is that we don't know what their contribution to the battle was. Even listing a divisional commander is meaningless if their division was actually 100 miles away and only a small portion of the division ever went near the battle. Regarding the possible copyvio, it's not really my area but I suspect that due to the similarity of items, order, spelling etc there may be more to the situation than you believe. EyeSerenetalk 15:04, 2 March 2012 (UTC)
Argument from Bias	Bias suspected.	Reads like an advertisement.	Delete as nothing more than promotional guff by a clearly problematic editor who seems hell-bent on spamming his business and products across Wikipedia. --Biker Biker (talk) 15:46, 1 March 2012 (UTC)	Additional. I was unable to find anything to back up the claims of the theme song. The only source that mentions it is this article. I also want to note that the name of the original contributor to the article is the same as one of the band members, so there's a definite COI going on here. Not against the rules, but there does seem to be some puffery going on in the article.Tokyogirl79 (talk) 07:36, 25 January 2012 (UTC) tokyogirl79
Argument from Cause to Effect	Using cause and effect.	Given what's here, it's reasonable to assume that other sources mention X.	Given the vast amount of coverage Apple gets for its product launches I'm sure they will be covered in business courses in the years to come as a good way to do business and get large amounts of attention towards your products. -- Eraserhead1 <talk> 11:22, 4 March 2012 (UTC)	You have voted for keep for an article where notability is disputed. It seems to me that you do need to show that the article is notable. You posit that reliable sources must exist, to create the products, but we don't even know if the products are created with similar techniques for example and no reason to believe it is so. For example, we don't know if they were created with the technique mentioned here: [18] IRWolfie- (talk) 14:14, 5 March 2012 (UTC)
Argument from Composition	From the parts to the whole.	Mostly about already discussed at X.	The article is largely surplus to requirements given the information already contained in Battle of Stalingrad and the associated Axis order of battle at the Battle of Stalingrad and Red Army order of battle at the Battle of Stalingrad . EyeSerene talk 08:27, 1 March 2012 (UTC)	Comment. On the one hand, I don't think the character is himself notable enough for a stand-alone article. On that basis, this should likely redirect to Dans le ciel (and note that this is the only character discussed on that page in detail). The language here is far from neutral, as well; it's almost lauditory of the work. That might be an artifact of translation, perhaps? This can be discussed in sufficient detail (and in a more neutral manner) as part of the main article. UltraExactZZ Said ~ Did 21:57, 1 March 2012 (UTC)

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Argument from Evidence to Hypothesis	Providing evidence.	Source X isn't good enough because... // Here are the sources, which tell us...	Weak keep. Here is some coverage in Publishers Weekly that backs up the "500,000 copies in print" assertion[35]. A writeup in School Library Journal [36]. And some newspaper reviews[37][38][39][40]: the reviewers aren't Michiko Kakutani, but taken together I'd be inclined to keep--preferably as one consolidated article for all the books.--Arxiloxos (talk) 06:26, 1 March 2012 (UTC)	Merge to Apache Software Foundation with redirect: The sources in the article are unacceptable at all: the paper by the authors (one with DOI), the speculations on a future product and three home sites. I failed to find the good sources in the wild, as books and news know nothing on the topic; scholar yields three sources for Apache (primary) and another one with passing mention; and most of web search results are either tied to ApacheCon or Universities' groups and departments -- all being primary sources for the topic. (Though I stopped researching when the tourism-related results started prevailing.) This is actually a tricky thing, as this software is a successor of another software, and it is easier to find someone who didn't develop it. Still, the notability is not inherited. I'm not entirely sure whether it is WP:TOOSOON or permanent, but no indication of notability is available for me. — Dmitrij D. Czarkoff (talk) 02:36, 16 February 2012 (UTC)
Argument from Ignorance	Assumption when no supporting evidence can be found.	No search results.	A seemingly unnotable website and blog. It has no references that would support any sort of notability. Searching around only gives results of personal pages (facebook, twitter, etc), thus it fails WP:RS. Rorshacma (talk) 00:19, 24 February 2012 (UTC)	I don't see enough scholarly research solely on this topic to warrant an article [1] Anything useful information will be better suited in Sexual addiction and Pornography addiction Supernova Explosion Talk 05:57, 1 March 2012 (UTC)
Argument from Need for Help	Help should be provided when possible.	If the article can be fixed through normal editing, then it is not a good candidate for AfD.	Keep - this article needs extensive development and lots of citations, but it is unquestionably notable. It does need some expert attention to select and paraphrase good review articles (i.e. secondary sources) from the thousands of papers on immunity and inflammatory diseases. Chiswick Chap (talk) 09:15, 1 March 2012 (UTC)	Keep The article needs some major rework to make it Wikified, but it is of notable interest especially if editors can tie it into the larger thread of Protestantism and evangelism in Iowa and the Midwest. Such religious movements had intermittent impact over Iowa history particularly in the matter of populist farming movements like the Grange. Recommend keep. Expressenvelope (talk) 01:04, 11 March 2008 (UTC)
Argument from Position to Know	Personal knowledge.	I grew up in that area & had never heard of her.	Keep: Like Clarityfiend, I know zilch about modern art. But I've actually heard of this guy. --Jorgath (talk) 18:22, 1 March 2012 (UTC)	
Argument from Precedent	Based on past decisions.	We've had this same debate for numerous articles, and decided...	Comment by previous closing admin: The deletion requests for this article reminds me of Wikipedia: Articles for deletion/Corn soup. LED-embedded glass is, like corn soup but obviously to a much lesser extent, something almost inherent to any modern metropolitan resident's daily life, hence there is likely to be lots of Google hits but not many of them useful as encyclopedic citations. That said, Google Books did yield some useful results: Popular science magazine, 1986 Structural glass textbook, 2011 Building materials textbook, 2010 and Gizmodo how-to guide As the closing admin of last month's AfD, I don't think it's appropriate for me to !vote here, but as an engineer myself I just want to flag up a few things that may be relevant to this discussion that aren't discussed on the article or the previous AfD. Deryck C. 18:16, 1 March 2012 (UTC)	

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				This person is famous for WP:ONEEVENT , and is not notable by themselves. It should be merged into Enclaved Greek Cypriots CMD (talk) 15:09, 1 March 2012 (UTC)
Argument from Rules	Rule-based argument.	Fails <guideline>.	Delete . Fails WP:FOOTYN and WP:GNG. Mattythewhite (talk) 15:03, 11 March 2012 (UTC)	Article does not indicate notability. Walter Görlitz (talk) 20:17, 1 March 2012
Argumentation from Values	Evaluate with value judgments.	It's a useful search term, so make it a redirect.	Delete per nom. A list of tallest buildings for a place without any especially tall buildings is pointless and even kind of insulting. Andrew Lenahan - St ar bli nd 18:13, 1 March 2012 (UTC)	Delete yeah lacks the prominence to be a credible wealth of information. --Wooktook (talk) 01:48, 22 February 2012 (UTC)
			The concept of immune-mediated inflammatory diseases is not widely recognised within the medical community. Despite what the article says, it is very difficult to group together the widely divergent diseases listed. The fact that they're all treated with immunosuppression is about the only thing. Searching the term as a text word on Pubmed yields 45 references, none of which address the concept in itself. I think deletion is the best step here. JFW	T@lk 19:40, 23 February 2012 (UTC)	We need to stand back from this and look at the history of these discussions. There is no doubt that the integration of LEDs with glass (as opposed to glass illuminated by LEDs as a separate component) is something with widespread application, multiple manufacturers and into which a great deal of development money is being poured by firms like Samsung. The actual techniques for doing this vary, and naturally every manufacturer will tend to present theirs as distinctive. There is problem in giving a name to a suitable article, and if we look at the history it is not surprising because articles on specific techniques have been deleted or in this case edited down to a stub, but we are in danger of saying that WP should not cover it at all. It may be that 'embedding' is not the best generic descriptor (I would understand why people might not like it for a lamination process, for example, though I am not sure it is inappropriate). For this reason, to search only on the term 'embedded' or reject references that do not contain it may mislead us. But the title has already changed (again for reasons of the history of the article) and it can change again. As Deryck Chan has pointed out, we should not blind ourselves to the significance of the topic. --AJHingston (talk) 11:43, 3 March 2012 (UTC)
Argument from Verbal Classification	Definitional arguments.	The current title is misleading.	This article has been created and then deleted at least three times in the last 12 months. On each occasion it has appeared in a similar format and without much difficultly established that it was self-promotional. On this occasion the author has admitted working for the subject corporation from the get-go. At least they're being honest but this the reliable, independent, standard we aspire too. The article needs to go.31.185.142.25 (talk) 21:43, 15 February 2012 (UTC)	
Argument from Waste	Avoid wasted work.	Merge to save the work. // Delete to save time		
Practical Reasoning	Actions towards a goal.	Merge with Ledglass, noting that the latter article says "may also be described as LED Glass or LED embedded Glass", and also that the single reference given for this (LED-embedded glass) article doesn't seem to use that phrase but only "Light-emitting diode (LED) illuminated glass". PamD 19:09, 5 March 2012 (UTC)	I would suggest only showing the ones you believe actually help to establish notability. IRWolfie- (talk) 23:42, 6 March 2012 (UTC)	

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No reason given	Vote without explanation.	Per nominator.	Delete per above. -- Joaquin008 (talk) 11:35, 4 March 2012 (UTC)	Yes, I concur with your suggestion to redirect the book titles to a single series article.--Arxiloxos (talk) 07:17, 1 March 2012 (UTC)	
Note	Non-argumentative note; only templated messages	Note: This debate has been included in the list...	Note: This debate has been included in the list of Arts-related deletion discussions. • Gene93k (talk) 16:02, 23 February 2012 (UTC)	Relisted to generate a more thorough discussion so a clearer consensus may be reached. Please add new comments below this notice. Thanks, —Tom Morris (talk) 23:59, 1 March 2012 (UTC)	X has made few or no other edits outside this topic.
No argument	Non-templated; meta-arguments	Officially withdrawing nomination. I didn't know if the above statement brought notice as far as withdrawing the nomination went, but I'm posting this just in case.Tokyogiri79 (talk) 14:44, 2 March 2012 (UTC)tokyogiri79	Comment. The same article appears to have been discussed a month and a half ago under a different title: Wikipedia:Articles for deletion/Transparent LED-embedded glass. That discussion resulted in 'keep'. - Smerdis of Tlön - killing the human spirit since 2003! 15:57, 1 March 2012 (UTC)	Comment: Copyright permission e-mailed to you as requested Thank you for your concern.- Robpricer (talk) 20:46, 10 March 2008 (UTC)	How would you merge a disambiguation page?

B.4. Annotation manuals for decision factors

We now show annotation materials for Rounds 3 and 4. Note that we determined categories while annotating in Round 1, hence there was no annotation manual at that stage. Between Round 2 and Round 3, categories remained relatively constant: they changed names, and a 'No factors applicable' category was added, as shown earlier in Figure 6.4 on 140.

First we show materials for Round 3, consisting of the annotation manual for Round 3 which shows examples of the 10 categories then in use, and the guidance for Round 3.

Original Comment	Assigned Category/ Categories
Delete as nothing more than promotional guff by a clearly problematic editor who seems hell-bent on spamming his business and products across Wikipedia.	Biased or point-of-view issues
I am sure the author was well meaning, but this is an essay, and specifically wp:not what Wikipedia is meant for.	Genre appropriate
this article is savable but at its current state, needs a lot of improvement.	Maintenance issues
Delete procedurally, as a copyvio of Wikipedia talk:Articles for creation/March 7 2012 Apple media event. No attribution present in the article to the originator of the work, no link to the original work - a blatant (and so far, unapologetic) violation of CC-BY-SA. This !vote is neutral as far as the article's other merits, and may be considered void if attribution is restored to the article's history.	Meets minimal requirements
No evidence of any notability at all, no reliable secondary sources discuss it. Significant coverage by reliable sources is required to satisfy WP:GNG. The article creator created the similar articles Dichroic LEDGlass,LEDFilm and Ledglass. I have no idea how something completely unsourced with no evidence of notability survived the first AfD although it seems there was a lack of responses.	Notability
3/4 of the article consisted of details specific-to-one-manufacturer stated as if they were about the topic overall. Somebody just fixed that, taking all of that out which left the article as a stub.	Size or comprehensiveness; Biased or point-of-view issues
The inclusion criteria for the list is vague	Topic clear
The article is largely surplus to requirements given the information already contained in Battle of Stalingrad	Topic unique
As a histmerge is not possible but as the copyright issues have been address per the comment below I am changing my !vote to Keep. There are plenty of reliable verifiable sources for this event, The speculation is referred to as just that; speculation. As such I see no logical reason to delete it.	Verifiable; Meets minimal requirements
This debate has been included in the list of People-related deletion discussions	No factors
Likely a CSD candidate, but there is a giant list of sources that are not reliable. Listed for lack of notability, and Wikipedia isn't a resume.	

Biased or point-of-view issues
- Advertising
- Bias in the content
- One-sided
- Promotional
- Spam
- Too much from a single point-of-view
- Written by the subject of the article or someone close to it
Relevant policies:
- WP:POV - Point of view
- WP:COI - Conflict of interest
- WP:SPAM - spam

Genre appropriate
- Mention that Wikipedia is not for essays, book reports, etc.
Relevant policies:
- WP:NOT - what Wikipedia is not
- Wikipedia is not a dictionary
- other relevant policies that mention specific types of content

Maintenance issues
- Discussion of problems with maintaining the article, as it is now, or as it could be in the future.
- The current writing needs work.
- The content needs to be cleaned up.
- Keeping the article would be more trouble than starting over from scratch due to problems of these sorts.
- Content of the article is incorrect
- Increasing usefulness

Meets minimal requirements
- Copyright violations
- Non-free content
- Licensing
Relevant policies:
- WP:Copyvio
- WP:Non-free_content
- WP:Public_domain

Notable
- Issues about the importance of a topic
- Whether a topic meets specific guidelines and policies for that area -- many, many acronyms!

Relevant policies:

Many, many specific policies, including:
WP:GNG - general notability guidelines
WP:BIO - biography notability guidelines
WP:AUTHOR - author notability guidelines
WP:ORG
There are more listed at http://en.wikipedia.org/wiki/Category:Wikipedia_notability_guidelines
and feel free to ask -- I just know these!

Size or comprehensiveness
- Stub
- Article could never be comprehensive

Topic clear
- Inclusion criteria are not clear
- Topic does not make sense

Topic unique
- "Merge to"
- "Redirect"
- Mentions of content fork

Verifiable
- About whether reliable sources can be found
- Ability to verify the content

Relevant policies:
- WP:RS - Reliable sources -- BUT, if the issue is whether the article has sources at all (as opposed to whether the content in the article can be verified, don't use this annotation, but use Verifiability instead).

Z-No factors applicable
This should be used when there are no factors mentioned.
- "Note : This debate has been included in the list of People- related deletion discussions"
- "Note : The article under discussion here has been {{ rescue }} flagged by an editor for review by the Article Rescue Squadron"
- "Per nom" (without any explanation)
- "Keep" (without any explanation)
- "Delete" (without any explanation)
- "Relisted to generate a more thorough discussion so a clearer consensus may be reached. Please add new comments below this notice."
If you see another similar case, please email me so I can add it to this list.

Distinguishing verifiability from notability (both discuss sources):

Verifiability discussions are about:
- Can we verify the content?
- Are there reliable sources at all?

When *notability* is discussed through sources it's about establishing:
- Do the sources show that this is important?
- Is there significant coverage of the topic in the sources?

The guidance for the final (Round 4) annotation manual for decision factors follows.

Bias; point-of-view issues; authorship issues
- Advertising
- Bias in the content
- One-sided
- Promotional
- Sockpuppets
- Spam
- Too much from a single point-of-view
- Written by the subject of the article or someone close to it
Relevant policies:
- WP:POV - Point of view
- WP:COI - Conflict of interest
- WP:SPAM - spam

Maintenance issues
These can be on various levels: article/topic/category/encyclopedia
- Discussion of problems with maintaining the article, as it is now, or as it could be in the future.
- The current writing needs work.
- The content needs to be cleaned up, e.g. is incorrect (but not due to bias).
- Keeping the article would be more trouble than starting over from scratch due to problems of these sorts.
- Keep the article because it would be harder to recreate.
- Article needs to be/remain split out from another article
- "Having more than a sentence or two [in another article] would be excessive" so it needs its own article.
- I have made changes to the article.
- Content needs to be covered somewhere.

Notable/notability/importance
- Issues about the importance of a topic
- Whether a topic meets specific guidelines and policies for that area -- many, many acronyms!
Relevant policies:
Many, many specific policies, including:
WP:GNG - general notability guidelines
WP:BIO - biography notability guidelines
WP:AUTHOR - author notability guidelines
WP:ORG - organization notability guidelines
WP:EVENT - event notability guidelines

There are more listed at http://en.wikipedia.org/wiki/Category:Wikipedia_notability_guidelines
and feel free to ask -- I just know these!

Sources/verifiability
- Need more sources
- Need better sources
- Can we find reliable sources
- Need third-party sources
- Need independent sources
- Primary vs. secondary sources

- Can we verify the content
Relevant policies:
- WP:RS - Reliable sources

Z-Other
- Other discussion of factors or values
- Should relate to arguments relevant to whether to keep or delete the article
-- Complaints/concerns/suggestions for changes to a policy used in these arguments
-- Procedural issues related to how to improve an article

Sample policies:
WP:NOT
WP:OTHERSTUFF

"None" (previously Z-No factors applicable) -- now achieved by all other categories being FALSE
This should be used when there are no factors mentioned.
- "Note : This debate has been included in the list of People- related deletion discussions"
- "Note : The article under discussion here has been {{ rescue }} flagged by an editor for review by the Article Rescue Squadron"
- "Per nom" (without any explanation)
- "Keep" (without any explanation)
- "Delete" (without any explanation)
- "Relisted to generate a more thorough discussion so a clearer consensus may be reached. Please add new comments below this notice."
- "Note: I contacted everyone who participated in the last AFD"
- Anything that can't be interpreted clearly from just what is written

If you see another similar case, please email me so I can add it to this list.

Annotations on an example (March 2012) corpus were used to test the Round 4 manual, and we discussed the differences in annotator choices before annotating the corpus in Round 4.

In practice, some annotations were difficult to distinguish. I've analyzed the places you two made different choices and made notes here about many of them.

Bias vs. Verbal classification
Mention of advertising decides this for me.

> Speedy delete . Evangelism - which is just another name for advertising. The organisation may be notable but even so the best thing to do is to delete this text and wait for someone capable of writing an article to come along. -- RHaworth (Talk | contribs) 20:07, 10 March 2008 (UTC)

Composition

> The article is largely surplus to requirements given the information already contained in Battle of Stalingrad and the associated Axis order of battle at the Battle of Stalingrad and Red Army order of battle at the Battle of Stalingrad . EyeSerene talk 08:27, 1 March 2012 (UTC)

Composition vs. Analogy

> And he'd be right, if the main article were so long that forking part of it into a subarticle (like this one) made sense. Then this would be treated as if it were a section of the main work's article. But that's not the case here. UltraExactZZ Said ~ Did 02:34, 2 March 2012 (UTC)

Composition vs. No reason
Essentially this says: the material could be covered elsewhere

> Merge any valid, referenced information to Medicare fraud , then delete. Northamerica1000 (talk) 21:34, 1 March 2012 (UTC)

Composition vs. Precedent
Depends what you read as the main argument. "This character has some critical commentary on it. I think it would be suitable for merging into the main article or a List of Octave Mirbeau characters but the main article is so underdeveloped it should probably be merged." suggests composition. (Precedent is also prominent here but seems mainly the counterargument.)

> Weak keep/merge ::: In all fairness when we have articles like List of Pokemon and List of G-Jane characters and List of Power Rangers episodes one does find your remark"The creator doesnt seem to understand Wikipedia's notability guidelines" amusing given that we generally accept articles on fictional characters and list cruft which are utter shite. It woulod be double standards, one does not have to look far to find scores of articles on characters and TV episodes on series a lot of us have not heard of. At least this article is analytical. PDF sources do not matter. This character has some critical commentary on it. I think it would be suitable for merging into the main article or a List of Octave Mirbeau characters but the main article is so underdeveloped it should probably be merged.♦ Dr. Blofeld 09:39, 7 March 2012 (UTC)

Composition vs. Rules

Since this goes into detail about the material ("Subject matter could reasonably by covered at Medicare fraud"), it can be composition. Rules is also prominent here.

> Speedy Delete - Subject matter could reasonably by covered at Medicare fraud , minus the BLP concerns of naming someone who has not been convicted, but for now, this Wikipedia:Attack page should be speedied G10 (although I am not attacking the article creator, this may become an event page or return later) needs Wikipedia:Blow it up and start over if he gets convicted. Dru of Id (talk) 03:25, 1 March 2012 (UTC)

Evidence to a hypothesis

> Delete. Not enough coverage to establish notability. The brief blurbs in the Monterey County Weekley aren't enough.-- Kubigula (talk) 16:21, 4 March 2012 (UTC)

> Contested PROD, references have been added but no notability is shown for the club, the references only comment on the league position - and the league is fourth-level and non-professional. Fails WP:GNG . Cloudz 679 15:38, 1 March 2012 (UTC)

Evidence to a hypothesis vs. Cause/effect

This is mainly about supporting a statement with evidence.

> Delete , agree with Chipmunkdavis. I also note that the one reference that could be argued to establish notability is severely misquoted. The block quote in the middle of the article is introduced with"the United Nations International Convention on the Elimination of all Forms of Racial Discrimination noted that ...". However, the actual source document [1] is not the text of the"United Nations International Convention" (of course such a convention wouldn't mention an individual event like this!), nor some other document authored by the UN organization in question, but merely a report submitted to it by the Republic of Cyprus as a state party. Fut.Perf. ☼ 15:58, 1 March 2012 (UTC)

Evidence to a hypothesis from Ignorance:

This is mostly about **evidence** (though rules, ignorance also appear):

> Keep -- They have an international reputation, I don't even follow ballet and I've heard of them in Canada. There aren't that many professional ballet companies, and they are one prominent one. The students from the ballet school that they run compete in national USA competitions. They perform regionally in California, Nevada, Arizona, and collaborate with international performers like Cirque du Soleil. Former members have gone on to work for international ballet groups that tour worldwide. They've been in existence for over 25 years under two names. I think the issue here is that it's an artsy topic, so its falling through the cracks of WP's notability criteria, which strangely enough, seem to have allowed every 4th rate Science Fiction author in the world to get a biography here. We don't have notability criteria specifically for performing arts/theatre companies, although there is Wikipedia:Notability (music) for guidance... OttawaAC (talk) 20:39, 6 March 2012 (UTC)

Evidence to a hypothesis from Rules:

The bulk of this comment is explaining why the sources are unacceptable. The rules
(TOOSOON and Notability-is-not-inherited) are side points. While in some sense this is a rule
application (using sources as an entry point to verifiability&notability), the focus is on a detailed
assessment of the evidence. There is some mention of ignorance ("I stopped researching when
the tourism-related results started prevailing") but again, not the main point.

> Delete Merge to Apache Software Foundation with redirect: The sources in the article are
> unacceptable at all: the paper by the authors (one with DOI), the speculations on a future
> product and three home sites. I failed to find the good sources in the wild, as books and
> news know nothing on the topic, scholar yields three sources for Apache (primary) and
> another one with passing mention; and most of web search results are either tied to
> ApacheCon or Universities' groups and departments – all being primary sources for the
> topic. (Though I stopped researching when the tourism-related results started prevailing.)
> This is actually a tricky thing, as this software is a successor of another software, and it
> is easier to find someone who didn't develop it. Still, the notability is not inherited. I'm not
> entirely sure whether it is WP:TOOSOON or permanent, but no indication of notability is
> available for me. — Dmitrij D. Czarkoff (talk) 02:36, 16 February 2012 (UTC)

These give some indication of the evidence

> Delete No suitable coverage to establish wp:notability. Basically 2 listing type entries.
> RW notability looks likely. Selected by readers of one magazine. North8000 (talk)
> 21:55, 1 March 2012 (UTC)

> There's not a single independent source in the article that supports any claims of
> notability. My search also failed to find reliable sources. In fact, the article's only claim to
> notability seems to be his rank and many previous martial arts discussions have
> concluded that is not sufficient to show notability. Papaursa (talk) 21:55, 3 March 2012
> (UTC)

There is also a 'need for help' here, but it's the less important part

> Keep - it may need work, but the concept is clearly notable and recognized in the
> literature. See the scholarship , treatise references , and news articles about the
> concept. This nomination, while well-meaning, did not take into account easy online
> research . Rescue? Bearian (talk) 23:19, 23 February 2012 (UTC)

This is challenging -- rules and assumptions are mentioned but the main argument is:
'because of this source, they seem to pass the rule', rather than 'this rule applies.' Need for help
is also mentioned but not the main argument.

> tokyogirl79 Comment . Kept searching and I finally found the BBC mention. I was thinking
> it was a television spot when it was actually a local BBC station interviewing the band
> along with several others about a music promotion called the B-Side Project. I did finally
> manage to locate the show that the band's song is being used for (after searching for
> quite a while), Philly Undercover. It's on National Geographic Wild, so I'm going to

assume that this is enough to pass WP:NBAND . I'm going to try to improve the article before making a final judgement, but I'm removing my delete vote. Tokyogirl79 (talk) 10:18, 25 January 2012 (UTC)

Ignorance

A seemingly unnotable website and blog. It has no references that would support any sort of notability. Searching around only gives results of personal pages (facebook, twitter, etc), thus it fails WP:RS . Rorshacma (talk) 00:19, 24 February 2012 (UTC)

Ignorance vs. Evidence
This is not a positive argument from evidence. Rather, it is an argument that sources aren't found in the expected places.

Delete : this is the record of poor sources in the wild. Even blogs don't mention it, just a couple of questions on forums. — Dmitrij D. Czarkoff

Ignorance vs. Evidence and composition
I don't see enough scholarly research solely on this topic to warrant an article [1]
Anything useful information will be better suited in Sexual addiction and Pornography addiction Supernova Explosion Talk 05:57, 1 March 2012 (UTC)

Ignorance vs. Rules and evidence
This treats rules & ignorance about equally. I chose ignorance since rules is more generic: we are _always_ using the rules.

Delete My search didn't find any independent sources for him. I also don't see that he passes WP:MANOTE . Astudent0 (talk) 19:39, 7 March 2012 (UTC)

Delete No indication of wp:notability. No indication of existence of the term outside of the writing of the author who created the term. North8000 (talk) 22:09, 1 March 2012 (UTC)

No argument vs. Need for help vs. Evidence to a hypothesis
This is mainly advice; I would class it as no argument. It's describing criteria for making a successful argument.

Hello there, and thanks for adding the material to the article. Unfortunately, I think you may be under a misapprehension as to the nature of Wikipedia's notability guidelines for organizations . The things you mention here - notable cases, age of the organisation, respected barristers - are all reasons that writers outside Wikipedia might write about Cornerstone, but I'm afraid Wikipedia is relatively impervious to such factors. Instead, what you really need to show is that the organisation has been written about in multiple reliable sources that are independent of Cornerstone Barristers themselves. Think newspaper articles, books, and articles in academic journals for the kind of material you should be looking for. If you want to see the detailed guidelines, you can find them here . All the best — Mr. Stradivarius ♫ 11:18, 14 February 2012

No argument

> Does the Monterey County Weekly not count? Confused. SeasideMusic (talk) 22:16, 15 February 2012 (UTC)

> I would very strongly suggest you stick to actual facts , otherwise you are invalidating your own arguments. Kudpung (talk) 07:48, 21 November 2010 (UTC)

> Brilliant! That does make it a lot more palatable. Those paywall articles really frustrate me as what little in snippet form I could see looked like throw-away refs or just passing mentions, so thank you for looking them up. I'd go for keep now. The California designers really are nowhere near as well documented as the New York ones which makes researching the more obscure ones a bit trickier - I was surprised there wasn't even a non-reliable-source blog entry about her. Mabalu (talk) 23:17, 1 March 2012 (UTC)

No argument vs. note

We will now save 'note' for the formal templated notes.

> Withdrawing nom per the arguments presented above. -- Supernova Explosion Talk 04:08, 9 March 2012 (UTC)

No argument vs. rules & evidence

There's nothing here to go by.

> Not a notable band? Bihco (talk) 06:53, 25 January 2012 (UTC)

No argument vs. values

This is heavy on emotion but doesn't give any explicit argument:

> what bollocks. First I see Wikipedia:Articles for deletion/Solo (Norwegian soft drink) and now this too?-- Milowent • has spoken 16:35, 23 February 2012 (UTC)

No reason given from verbal classification:

There's no easily discernible argument here. While "incubator is a genre of the software" is similar to a definition; but I don't see how this is used as an argument here.

> As I got it, incubator is a genre of this software, not its current stage with ASF. Though you are right about merging. — Dmitrij D. Czarkoff (talk) 16:04, 16 February 2012

Note

— Wooktook (talk • contribs) has been blocked indefinitely.

Practical reasoning

> Looks like a simple mistake, editor probably meant this to be added to their own userpage Aunty-S (talk) 08:44, 1 March 2012 (UTC)

> To me, the articles cited don't seem to be actual reviews, etc., and therefore doesn't support the assertion. Instead, they are just announcements about upcoming

performances, without anything substantial. Ultimately, though, that's just my opinion. By bringing the issue here, other editors will have an opportunity to review and provide their opinions, so that a consensus can be formed. Singularity42 (talk) 22:23, 15 February 2012 (UTC)

Move to Wiktionary:NNPP per Chiswick Chap 's rationale and coverage in the wild. — Dmitrij D. Czarkoff (talk) 20:43, 1 March 2012 (UTC)

Practical Reasoning vs. Verbal Classification
Not all mentions of moving are associated with verbal classification. This is practical reasoning about what to do with the article.

Comment as the page has now been moved to Datacenter Star Audit (with capitalization), the redirect at the lowercase name and the article at the title case name should both be deleted, assuming the result of this discussion is to do so. Liv it ⇑ Eh? / What? 13:29, 9 March 2012 (UTC)

Precedent
Comment by previous closing admin: The deletion requests for this article reminds me of Wikipedia:Articles for deletion/Corn soup . LED-embedded glass is, like corn soup but obviously to a much lesser extent, something almost inherent to any modern metropolitan resident's daily life, hence there is likely to be lots of Google hits but not many of them useful as encyclopedic citations. That said, Google Books did yield some useful results: Popular science magazine, 1986 Structural glass textbook, 2011 Building materials textbook, 2010 and Gizmodo how-to guide As the closing admin of last month's AfD, I don't think it's appropriate for me to!vote here, but as an engineer myself I just want to flag up a few things that may be relevant to this discussion that aren't discussed on the article or the previous AfD. Der yck C. 18:16, 1 March 2012 (UTC)

Rules
Delete . Fails WP:FOOTYN and WP:GNG . Mattythewhite (talk) 15:03, 11 March 2012 (UTC)

delete clearly not notable but I admire the Contributors vigour in attempting to keep it alive — Preceding unsigned comment added by IrishLad1916 (talk • contribs) 19:31, 1 March 2012 (UTC)

Rules vs. Bias
Comment: Major copyright violation: large copy-paste sections. See article boiler plate. - CobaltBlueTony™ talk 20:33, 10 March 2008 (UTC)

Rules vs. Composition
This doesn't provide any significant evidence; rather it's essentially a (notability rule) restatement: that an article should indicate notability.

Article does not indicate notability. Walter Görlitz (talk) 20:17, 1 March 2012

This doesn't specifically discuss the composition of the article; it's mainly about the rules.
> This person is famous for WP:ONEEVENT , and is not notable by themselves. It should be merged into Enclaved Greek Cypriots . CMD (talk) 15:09, 1 March 2012 (UTC)

This doesn't give any explicit evidence, except that the product is real.
> Real product, possibly popular, not notable. There is no significant coverage.

No specific evidence listed.
> Delete as circular referencing. No third-party notability is discernible. Dahn (talk) 22:05, 1 March 2012 (UTC)

Rules vs. Note
Any speedy deletes can be tagged as rules.
> Tagged for speedy delete (G11). Whenaxis talk · contribs | DR goes to Wikimania! 00:44, 2 March 2012 (UTC)

Rules vs. Evidence to a hypothesis
This doesn't specifically discuss the evidence but refers to it vaguely.
> Keep per Milowent's additions; significant coverage in multiple reliable sources. Gongshow Talk 00:06, 8 March 2012 (UTC)

Rules vs. Note
> Noted, but I don't see that makes any difference. An article stand or falls on its merits, not who wrote it. Quarterwit (talk) 08:07, 13 March 2008 (UTC)

Values
> Delete per nom. A list of tallest buildings for a place without any especially tall buildings is pointless and even kind of insulting. Andrew Lenahan - St ar bli nd 18:13, 1 March 2012 (UTC)

> Delete yeah lacks the prominence to be a credible wealth of information. -- Wooktook (talk) 01:48, 22 February 2012 (UTC)

This isn't obvious, and "Need for help" is also prominent. Evidence is not a good choice because there's no explicit evidence in "it's pretty important".
> Tentative Keep - if references can be found for this, keep it, because it seems to be pretty important. — Preceding unsigned comment added by Wer900 (talk • contribs) 22:41, 9 March 2012 (UTC)

Verbal Classification vs. Evidence to a hypothesis
> Disagree. Evangelism, according to Merrium Webster is"1: the winning or revival of

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personal commitments to Christ 2: militant or crusading zeal" According to Dictionary.com"1. the preaching or promulgation of the gospel; the work of an evangelist. 2. evangelicalism. 3. missionary zeal, purpose, or activity." Rather the article in question is a group based on a 150 history of Iowa including creation of schools both here and in other states, some as large as the UNIVERSITY of NORTHERN IOWA (UNI.) Not only is the history of the"Iowa Band" (now"Iowa Alliance") described in depth, but the history of the group is well noted and sources are sited. Evangelism would be telling you about Jesus based on ONE book, The Holy Bible. This article isn't trying to win people to Christ as per the good Mr. Webster. It would appear, rather, that you are instead solely censoring this article because of a religious (relationship with God) tone carried within in spite of the historical significance and mention of the"Iowa Band" in other articles you have already published.- Robpricer (talk) 20:23, 10 March 2008 (UTC)

Appendix C.

Further details on implementing the experimental interface

In this appendix, we provide further details for the implementation, which were omitted from Chapter 7.

We made several changes to local copies of Wikipedia HTML in order to implement our tool. We started with the individual HTML pages for each deletion discussion, which we downloaded from Wikipedia.

First, we added RDFa markup. In each deletion discussion, we added fragment identifiers for the important aspects we wanted to reference: Results, Nomination, each Message. We also added RDFa code for each Message to indicate the decision factors, as shown in Listing 7. Even less markup would be needed using newer RDFa standards.[1] We normalized a minimal amount of Wikipedia code (namely <dl> and <dd> tags which are used in native Wikipedia code for indenting replies to messages). We also changed the DOCTYPE and fixed the HTML namespaces as shown in Listing 24.

Second, we referenced existing scripts; as shown in Listing 25 two existing JavaScript libraries, RDFQuery and JQuery, are added to the HTML <head>.

Third, we added a custom script to display the bar chart by adding an HTML <div> tag before bodycontent as shown in Listing 26. We also added CSS styling for the table, not shown. To generate the chart, we used JavaScript given in Listing 27 and its continuations, lst:custom-javascript2 and lst:custom-javascript3.

Listing 24: The DOCTYPE was changed to reflect the RDFa and namespace were added.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.0//EN"
 "http://www.w3.org/MarkUp/DTD/xhtml-rdfa-1.dtd">
<html lang="en" dir="ltr" class="client-js"
xmlns:foaf="http://xmlns.com/foaf/0.1/"
xmlns:wd="http://purl.org/wd/#"
xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" dir="ltr"
xmlns:sioc="http://rdfs.org/sioc/ns#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
```

---

[1]We are usingRDF1.0; RDFa1.1 first became available in mid-2012 when we started the implementation. Since August 2013 there is support for RDFa in HTML4 and HTML5 under a new W3C recommendation, HTML+RDFa 1.1.(McCarron, Adida, Birbeck, Kellogg, Herman, and Pemberton 2013).

Listing 25: We called scripts from the RDFQuery and JQuery JavaScript libraries.

```
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.8.2/jquery.min.js">
</script>
<script src="jquery.rdfquery.rules-1.0.js" type="text/javascript"></script>
```

Listing 26: We added a bar chart. (Additional visual styles were added to the CSS; not shown)

```html
<div>
<h2>Discussion Summary</h2>
  <i>Each bar represents
  a number of comments referring to the corresponding criteria</i><br>
<div style="float:left;">
<ul class="hbarlegend">
<li>Sources</li>
<li>Notability</li>
<li>Maintenance</li>
<li>Bias</li>
<li>Other</li>
</ul>
</div>
<div style="float:left; width:300px;">
<ul id="bargraph" class="hbargraph">
<li style="list-style: none">
<a href="#"></a></li>
<li class="rank3" style="width:60%">
<span class="hbarvalue">10</span>
</li>
<li class="rank2" style="width:72%">
<span class="hbarvalue">12</span>
</li>
<li class="rank1" style="width:100%">
<span class="hbarvalue">17</span>
</li>
<li class="rank4" style="width:30%">
<span class="hbarvalue">5</span>
</li>
<li class="rank5" style="width:12%">
<span class="hbarvalue">2</span>
</li>
</ul>
</div>
</div>
<div style="clear:both;"></div>
<div id="displayarea"></div>
```

Listing 27: Custom JavaScript, provided by Conor Maguire.

```javascript
<script type="text/javascript">

$('#list1').empty(); $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:sources')
.each(function () { var message="result:";
message = message + this.message.value; $('#list1')
.append('<li>' + message + '</li>'); });

//array of totals
var totals = new Array(new Array());

//sources
Count totals[0] = $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:sources')
.length; //notabilityCount totals[1] = $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:notability')
.length; //maintenanceCount totals[2] = $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:maintenance')
.length; //biasCount totals[3] = $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:bias')
.length; //otherCount totals[4] = $('#content')
.rdf() .prefix('wd', 'http://purl.org/wd/#')
.where('?message wd:has_decision_factor wd:other') .length;

//get max val
var maxVal = Math.max.apply( Math, totals );

//express counts as percentage of maxVal and add percentages to array
var percentages = new Array();
for (var i = 0; i < totals.length; i++)
{ percentages[i] = Math.round( (totals[i]/maxVal)*100 ); }
console.log(percentages);
```

Listing 28: Custom JavaScript, provided by Conor Maguire, continued.

```javascript
//get the ranks
var rank = percentages.slice(0);
rank.sort(function(a,b){return b-a});

console.log(rank);

//draw the graph
$('#bargraph').empty();
for (var i = 0; i < totals.length; i++)

{ $('#bargraph').append('<a href="#"
onclick="return displaycontents(' + i + ')">
<li class="rank' + (rank.indexOf(percentages[i])+1)
+ '" style="width:' + percentages[i] + ')">
<span class="hbarvalue">' + totals[i] +'</span></li></a>'); }

function displaycontents(i) {
var whereClause=''; var pTitle=''; switch(i) {
case 0:
//sources
whereClause = '?message wd:has_decision_factor wd:sources';
pTitle = 'Sources'; break;

case 1:
//notability
whereClause = '?message wd:has_decision_factor wd:notability';
pTitle = 'Notability'; break;

case 2:
//maintenance
whereClause = '?message wd:has_decision_factor wd:maintenance';
pTitle = 'Maintenance'; break;

case 3:
//bias
whereClause = '?message wd:has_decision_factor wd:bias';
pTitle = 'Bias'; break;
```

Listing 29: Custom JavaScript, provided by Conor Maguire, continued.

```
case 4:
//other
whereClause = '?message wd:has_decision_factor wd:other';
pTitle = 'Other'; break;


default: pTitle = 'error'; } $('#displayarea').empty();


var count = $('#content')
.rdf().prefix('wd','http://purl.org/wd/#')
.where(whereClause).length;
$('#displayarea').append('<h2>'
+ pTitle + ' (' + count + ' comments)</h2>');
$('#displayarea').append('<ul>');


$('#content') .rdf() .prefix('wd', 'http://purl.org/wd/#')
.where(whereClause) .each(function () {
var linkuri = new String(this.message.value);
var searchContext = linkuri.split('#');
$('#displayarea').append('<li>' + $('span[about="#' + searchContext[1] +
 '"][property="content:encoded"]').html() + '<hr/ ></li>');


}); $('#displayarea').append('</ul>');


return false; } </script>
```

After finding that some existing scripts were causing problems, we commented out Wikipedia's PHP script calls to the index and the load functions, such as the examples shown in Listing 30. These were unneeded since we were working with HTML on our own server and not making calls to the Wikipedia database.

Listing 30: Unneeded PHP scripts from the Wikipedia source HTML were commented out to avoid problems.

```
<!--
<script src="./List_of_legislation_sponsored_by_Ron_Paul_files/load.php">
</script>
<script src="./List_of_legislation_sponsored_by_Ron_Paul_files/load(1).php">
</script>
-->

<!--
<script src="./List_of_legislation_sponsored_by_Ron_Paul_files/index(4).php">
</script>
<script src="./List_of_legislation_sponsored_by_Ron_Paul_files/load(8).php">
</script>
<script src="./List_of_legislation_sponsored_by_Ron_Paul_files/load(9).php">
</script>
-->
```

We later added navigation back to the list as shown in Listing 31.

Listing 31: Navigation back to list

```
<input type="button" value="Back to complete list"
onClick="window.location.reload()">
```

Appendix D.

Materials from the user-based evaluation

D.1. Constructs from the two post-system surveys

   I. Perceived usefulness (Moon and Kim 2001)

    a) Using x enables me to accomplish tasks more quickly

    c) Using xxx increases my task productivity

    d) Using xxx supports the critical part of my task

  II. Perceived ease of use (Moon and Kim 2001)

    c) I find it easy to get xxx to do what I want it to do

    d) My interaction with xxx is clear and understandable

    e) I find xxx easy to use

 III. Decision confidence

    a) I am confident in my choice

    b) I made a good choice

    c) I would make the same decision if I had to redo the task

 IV. Perceived effort (Wixom and Todd 2005)

    a) I put a lot of effort into making the decision

    b) I worked hard to make the decision

    c) Making the decision required me to put forth a great deal of effort

  V. Information completeness (Wixom and Todd 2005)

    a) xxx provides me with a complete set of information for my decision.

    b) xxx produces comprehensive information for my decision.

    c) xxx provides me with the information I need to make the decision.

 VI. Information quality   (Wixom and Todd 2005)

a) Overall, I would give the information from xxx high marks

b) In general, xxx provides me with high-quality information

c) Overall, the quality of information provided by xxx is not sufficient

D.2. Materials distributed to participants during the user-based evaluation

Next we show the participant information sheet, system information, and task lists given to participants during the user-based evaluation.

PARTICIPANT INFORMATION SHEET

Aims

In this study, we are comparing two systems for presenting online discussions. Each discussion is about whether an article belongs in Wikipedia.

Your task is to decide on the outcome of each discussion, whether it was to

- a) **keep** the article, or
- b) **delete** the article

And describe why you made that decision. For each task, try to make the best decision possible while minimizing the time required.

Set-up

You may use your own computer, or the computer provided (MacBook Pro).

You will get a list of web pages to view in a given order.

Tasks

The study is divided into three parts:

1. System A – three articles and one survey
2. System B – three articles and one survey
3. Overall survey

Throughout the experiment the researcher will be nearby to answer your questions.

Duration

Approximately 30 minutes

System A Description

In System A, you are presented with a typical Wikipedia discussion. It is a series of comments discussing whether to keep or delete the article. Comments may indicate the suggested outcome of the discussion (e.g. 'delete', 'keep', 'merge') and give reasons for that outcome. Replies are typically indented and nested below earlier comments as in a threaded discussion.

Once you are ready, please proceed to evaluate the three articles with System A.

System A   Participant Number _____

Task Name (sys.A)	Discussion Outcome (Keep, Delete)	Why?
Emsworth Cricket Club		
List of business failures		
Donna M. Marbach		
Survey		

System B Description

In System B, you are presented with a typical Wikipedia discussion. It is a series of comments discussing whether to keep or delete the article. Comments may indicate the suggested outcome of the discussion (e.g. 'delete', 'keep', 'merge') and give reasons for that outcome. Replies are typically indented and nested below earlier comments as in a threaded discussion.

Above the discussion, there is a toolbox categorising the comments. Each comment is categorised by the factors it discusses: **sources, notability, bias, maintenance**. Comments may fall into one or more of these categories; or to the categories **other** or **none**. Click on one of the bars: **sources, notability, bias, maintenance, other** to see the list of related comments. Descriptions of these factors are given below.

Once you are ready, please proceed to evaluate the three articles with System B.

Factor Descriptions

Sources

- More or better sources are required or have been added
    - e.g. third-party sources, independent sources, secondary vs. primary sources
- Verification of content is needed

Notability

- Importance of a topic
- Whether a topic meets guidelines and policies for inclusion in Wikipedia

Bias

- Bias, such as advertising, spam, promotional content
- Written from a single point-of-view
- Written by the subject of the article or someone close to it

Maintenance

- Ease of maintaining the article, as it is now, or as it could be in the future.
    - e.g. The writing needs work or the content is incorrect (not due to bias).
- Can consider various perspectives: article/topic/category/encyclopedia
    - e.g. Article needs to be/remain split out from another article
- Changes made to the article during the discussion period

Other

- Other factors or values relevant to whether to keep or delete the article
    - e.g. Procedural issues related to how to improve an article
    - e.g. complaints/concerns/suggestions for changes to a policy used

None (not displayed)

- No justification (e.g. 'per nominator')
- Notes e.g. "Note: This debate has been included in the list of …"

System B   Participant Number _____

Task Name (sys.B)	Discussion Outcome (Keep, Delete)	Why?
St. Andrew's Episcopal School (Amarillo, Texas)		
List of Legislation by Ron Paul		
Water and the environment		
Survey		

D.3. Webpages pertaining to the control interface in the user-based evaluation. ("System A" indicates the native Wikipedia interface used as the control.)

Next we show the webpages pertaining to the control interface used in the user-based evaluation.

System A Description

In System A, you are presented with a typical Wikipedia discussion. It is a series of comments discussing whether to keep or delete the article. Comments may indicate the suggested outcome of the discussion (e.g. 'delete', 'keep', 'merge') and give reasons for that outcome. Replies are typically indented and nested below earlier comments as in a threaded discussion.

Once you are ready, please proceed to evaluate the three articles with System A.

1. Article 1: Emsworth Cricket Club
2. Article 2: List of business failures
3. Article 3: Donna M. Marbach
4. Survey on System A

Wikipedia:Articles for deletion/Emsworth Cricket Club

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^{vote}] Emsworth Cricket Club

Emsworth Cricket Club ⟨edit|talk|history|links|watch|logs⟩ – (View log)
(*Find sources:* "Emsworth Cricket Club" (http://www.google.com/search?
as_eq=wikipedia&q=%22Emsworth+Cricket+Club%22&num=50) – news
(http://www.google.com/search?q=%22Emsworth+Cricket+Club%22&tbm=nws&tbs=ar:1) · books
(http://www.google.com/search?tbs=bks:1&q=%22Emsworth+Cricket+Club%22) · scholar
(http://scholar.google.com/scholar?q=%22Emsworth+Cricket+Club%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Emsworth+Cricket+Club%22&acc=on&wc=on) · free images
(http://images.google.com/images?safe=off&as_rights=
(cc_publicdomain%7ccc_attribute%7ccc_sharealike%7ccc_noncommercial%7ccc_nonderived)&q=%2
2Emsworth+Cricket+Club%22))
Cold harbour lawn ⟨edit|talk|history|links|watch|logs⟩

Two articles covering an amateur cricket club and its grounds. Apparently very old, but I can't really find any reliable in depth coverage independent from the club's own website showing notability. Travelbird (talk) 12:22, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Cricket-related deletion discussions. -- • Gene93k (talk) 14:43, 29 January 2011 (UTC)

Valid reason as it took a long time to find any information regards to this amatuer cricket club, allthough with some indepth research at libraries and online libraries, I have been able to find many forms of reliable indepth coverage that you seek. If you follow this link to the British Newspaper Library you will find the valid source of information http://newspapers.bl.uk/blcs/ Leegray21 (talk) 15:10, 29 January 2011 (UTC)

Delete - Its a village cricket club - the local newspaper cuttings that decorate the article do not show the sort of substantial, coverage that is required to meet notability guidelines.Nigel Ish (talk) 19:33, 29 January 2011 (UTC)

- **Delete** Amateur sports club which got some routine local coverage over the centuries. Does not satisfy WP:ORG. Edison (talk) 21:20, 29 January 2011 (UTC)
- **Comment**Why should a local cricket club not have it's own page on this website? Obviously a valid club and been established for a while. Nothing offensive or false on the page. All need to do is put in Emsworth Cricket Club into a search engine and information comes up. Why just because it is a small team and not major does it not deserve it's own page on here? It's like saying some individual people even though done something small cannot as not a major celebrity. —Preceding unsigned comment added by 90.215.177.155 (talk) 08:10, 30 January 2011 (UTC)
- **Delete** - I've played for this cricket club in the past (for neutrality and privacy I won't mention who I am) and it is not a notable club per WP:CRIN, which states it must play in an ECB Premier League, which currently they play in Hampshire Cricket League County Division Four South, by my reckoning some way away from that level of recreational cricket. AssociateAffiliate (talk) 15:53, 30 January 2011

(UTC)

- **Comment** - also support deletion of Cold harbour lawn, which too fails WP:CRIN in relation to the ground having no historical cricketing importance and having not held major cricket matches. AssociateAffiliate (talk) 15:58, 30 January 2011 (UTC)

I don't think this page should be deleted, after all most local cricket clubs have history and is wikipedia not an encyclopedia of history aswell as other catergories/genres. The club does not state it plays ECB premier league and as such is not lying about being involved with any premier league in the ECB. County Division 4 as I have had a look online is an amateur league but surely still credible as a form of cricket. In regards to matches being played on the pitch Cold Harbour Lawn, could you not consider their first game as being an important match as its was against the original Hambledon Cricket Club and therefore one of the oldest clubs in the history of the game, I think if you've had a bad experience with any cricket or any club why be so damn petty and delete it from a factual source of information available freely online, if thats the case every amateur cricket club or sporting club on this site should be deleted for not having the required information that everyone is moaning about on here. At the end of the day the club has history which being 200 years is just as special as a article on a breed of dog or something similar. I'm just utterly amazed that some people just are so petty and for the sake of having an article on Wikipedia they are insisting that the club be lost to pages of history that are sadly being burnt by some people that make it their sole purpose to ruin things for others. I think if that the administrators that are dealing with this article deletion should use common sense in regards to this matter, and think what they are doing before completing what i think would be a total and utter petty matter. And I think as i said previously that people should not take to bemoaning if you've had a bad experience with this particular club, think about what you're doing and move on like any credible and proper player for instance in cricket would do when you're out...you're out so deal with it...again its just people being petty in a non important matter. 90.196.35.173 (talk) 22:12, 30 January 2011 (UTC)

- **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 03:32, 31 January 2011 (UTC)

- **Comment** - The original Hambledon Club ceased to exist after 1796. Precisely why it isn't notable, because it **doesn't** play in an ECB Premier League, in this case the Southern Premier Cricket League. County Division 4 is about as non-notable in cricketing terms as they come. CricketArchive doesn't even hold scorecards for the league. All amatuer cricket clubs or teams that don't meet WP:CRIN are deleted. The criteria is simple in English cricket terms: Historically notable, have played first-class, List A or Twenty20 or is in an ECB Premier League. If they're none of those, 9/10 times they're not notable. Who has said anything about having bad experiences with this club? I have played for it, but left of my own accord. Please keep it civil. AssociateAffiliate (talk) 17:28, 31 January 2011 (UTC)

- **Comment** -as a completely impartial person, who has stumbled over this article, i think it would be a great shame if this page was deleted.

cricket is an integral part in british culture, in an age where our culture is being slowly diluted and eradicated.

it's amazing that an amatuer club that existed BEFORE the battle of waterloo, is still going strong. It's even more amazing that it doesn't warrent a place in an opensource encylopedia, just because they have not played at the top level. it's like saying this amazing piece of english history does not matter.

it's like finding a penny coin from hundreds of years back, and chucking it in the bin, because it had no real monetery value.

Emsworth Cricket Club is one of the oldest cricket clubs in the world, and this really is worth a mention. Especially on a website, where pointless people like say, Katie Price, who has never done anything special, except exposing her genitals, gets a mention.

please reconsider this. Emsworth Cricket Club is a gem of a club, and something that every englishman should be proud of. Clubs like Emsworth are an integrial part of our english village culture. — Preceding

unsigned comment added by Malcster2 (talk • contribs) 19:45, 4 February 2011 (UTC)

- **Comment** Cricket is no part of my culture even though I'm half English. However, I would support the retention of this article if it were better referenced. I don't think 'Jordan' has actually exposed that part of her anatomy, although various other parts have achieved public fame. She has a very good PR man, and the both of them are probably doing quite well out of it. (Why, I don't know as I do not know anyone who gives a tuppenny damn about her or even fancies her.) If you can find enough coverage to show notability, there's a chance. Get digging. Peridon (talk) 21:42, 4 February 2011 (UTC)
- **Delete**: per AssociateAffiliate. This is an encyclopaedia not a vast resource for everything you can find in real life or on the internet. English cricket/village cricket may have historical merit; every village club ever to have played the game does not.—User:MDCollins (talk) 16:58, 6 February 2011 (UTC)

- ~~**Keep** cricket club. **Redirect** ground to the club. Read the scans of old newspaper articles, they are reliable sources!~~ . **Delete**.Szzuk (talk) 18:32, 6 February 2011 (UTC)
- **Comment** surely this isn't just about being an average club, but a club that has been around for 200 years, and was around when cricket was in it's infancy. that is what makes it special, and not just another village club.

English Cricket and Village cricket certainly does have it's merit, but without clubs such as emsworth cc starting up all those years ago, or should i say, 2 CENTURYS AGO, there would be no cricket/village cricket. This club really is a piece of living history. —Preceding unsigned comment added by 86.131.76.162 (talk) 20:37, 6 February 2011 (UTC)

- **Comment**: This speicalness argument is getting lame. **READ WP:CRIN**. AssociateAffiliate (talk) 21:32, 6 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page*.

Retrieved from "http://en.wikipedia.org/w/index.php?
title=Wikipedia:Articles_for_deletion/Emsworth_Cricket_Club&oldid=412519440"

- This page was last modified on 7 February 2011 at 12:08.
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Wikipedia:Articles for deletion/List of business failures (2nd nomination)

From Wikipedia, the free encyclopedia

< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^{vote}] List of business failures

List of business failures (edit|talk|history|links|watch|logs) – (View log)
(*Find sources:* "List of business failures" (http://www.google.com/search?
as_eq=wikipedia&q=%22List+of+business+failures%22&num=50) – news
(http://www.google.com/search?q=%22List+of+business+failures%22&tbm=nws&tbs=ar:1) · books
(http://www.google.com/search?tbs=bks:1&q=%22List+of+business+failures%22) · scholar
(http://scholar.google.com/scholar?q=%22List+of+business+failures%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22List+of+business+failures%22&acc=on&wc=on) · free images
(http://images.google.com/images?safe=off&as_rights=
(cc_publicdomain%7ccc_attribute%7ccc_sharealike%7ccc_noncommercial%7ccc_nonderived)&q=%2
2List+of+business+failures%22))

Way too vague a criterion. Businesses go out of business all the time. No definition for what constitutes a "failure"; we have everything from the Dixie Square Mall to redlinked businesses of dubious notability. Last AFD closed as keep because nominator was a sockpuppet. Ten Pound Hammer, his otters and a clue-bat • ^(Otters want attention) 20:47, 29 January 2011 (UTC)

- **Delete** or **split up**. There are several more focused lists crying to be freed from this one's carcass, but the current list is a mess. It's got everything from Newton Heath, which turned into Manchester United, to Debbie Reynold's Hollywood Hotel and Casino, which was sold and later shut down under a different name and owner, and Maria's Bakery, hardly a notable disaster. Clarityfiend (talk) 23:33, 29 January 2011 (UTC)
  - **Note**: This debate has been included in the list of Business-related deletion discussions. -- • Gene93k (talk) 00:55, 30 January 2011 (UTC)
  - **Note**: This debate has been included in the list of Lists-related deletion discussions. -- • Gene93k (talk) 00:55, 30 January 2011 (UTC)

- **Keep** The scope of the article seems clear enough. If there are problems with particular entries or if the list grows large then these matters may be dealt with by ordinary editing. It is not our editing policy to use wholesale deletion for such reasons. Colonel Warden (talk) 08:38, 30 January 2011 (UTC)
  - **Comment**. How do you determine which businesses are "notable for their financial impact in the economy"? Where's the dividing line? Clarityfiend (talk) 22:52, 30 January 2011 (UTC)
    - Notability is determined by the availability of good sources. This then divides notable failures from the non-notable ones. Colonel Warden (talk) 10:05, 1 February 2011 (UTC)
- **Delete** -- no notability criteria for which business failures would be sufficiently notable to merit inclusion; and no criteria have been offered that come from a reliable secondary source. N2e (talk) 03:18, 31 January 2011 (UTC)
- **Keep** TenPoundHammer, you claim the last one closed because the nominator was a sockpuppet, not because everyone else there, including yourself, said Keep. That is an odd claim. Seems like it'd be a snow keep no matter what. Anyway, there is nothing wrong with the list. If you want to read about a business that failed, this is a good place to find one. Almost all the links are blue, aiding in navigation by linking to other Wikipedia articles, with the few red ones have citations to them strangely enough.

Business failures are always mentioned in the news media, and also this is something clearly notable, something an encyclopedia should have, something people can and should learn from. What did they do wrong? Why did they fail? **Dream Focus** 12:10, 31 January 2011 (UTC)

Note: I contacted everyone who participated in the last AFD, who wasn't here already and wasn't banned for being a sock-puppet, since they should be aware of reruns. **Dream Focus** 12:15, 31 January 2011 (UTC)

- **Keep** - The criteria for inclusion in this list is sufficient for editors to determine if a company belongs. Is there any serious doubt that Enron was a spectacular example of a business failure? And that it was documented as such in reliable sources? Inclusion of companies that are borderline cases can be discussed on the article's talk page but do not invalidate the premise of the list. -- Whpq (talk) 17:27, 31 January 2011 (UTC)

  - **Note**: The article under discussion here has been {{rescue}} flagged by an editor for review by the Article Rescue Squadron. SɴᴏᴛᴛʏWᴏɴɢ express 19:15, 31 January 2011 (UTC)
- **Depends** - The inclusion criteria for the list is overly vague, and produces a list that can never be practically completed. If someone wants to take the time to define what a notable business failure is, and then cull the list of non-notable business failures, then I would say we should **Keep** it. If no one will take the time to do this and the article will sit for a few more years in this state, then I would say we should **Delete** it until such time that the inclusion criteria can be properly defined. The ARS have already been notified, perhaps they can devote some time to tightening up this list. SɴᴏᴛᴛʏWᴏɴɢ express 19:15, 31 January 2011 (UTC)

  The inclusion is defined as "This list of business failures collects significant companies who met eventual demise of their well known brand. The causes include criminal proceedings, simple insolvency and are notable for their financial impact in the economy." **Dream Focus** 21:36, 31 January 2011 (UTC)

    Define "significant, "demise", and "well known" in this context. SɴᴏᴛᴛʏWᴏɴɢ prattle 15:18, 3 February 2011 (UTC)

- **Neutral** how does one define a business failure? You can't really define a business failure as such, for that reason I'm neutral. IJA (talk) 21:09, 31 January 2011 (UTC)

  See business failure **Dream Focus** 21:36, 31 January 2011 (UTC)

  So why are A.F.C. Bournemouth, Crystal Palace F.C. and Portsmouth F.C. in the list? IJA (talk) 02:21, 1 February 2011 (UTC)

    If you see something that doesn't belong remove it, and discuss on the talk page. If someone came along and added something incorrectly or as vandalism, that doesn't mean the entire article should be deleted. Normal editing will fix any problems. **Dream Focus** 10:13, 1 February 2011 (UTC)
    I just took these football clubs out. They still exist as going concerns and brands and so have no business being in this list. This is how such particular entries should be dealt with. Deleting the entire article for the sake of a handful of incorrect entries would be absurd. Colonel Warden (talk) 10:18, 1 February 2011 (UTC)

- **Keep** A definition of "business failure" would be an improvement, but not having a precise definition is no reason to delete this list. Any particular company included incorrectly can be challenged or removed, or rescued with reliable secondary sources. So, keep, but discuss a definition on the article talk page. --DThomsen8 (talk) 22:43, 1 February 2011 (UTC)
- **Keep** Perhaps in the future the list will be split into List of companies that declared bankruptcy, List of companies that were placed in receivership, and others, but in the meantime this is a perfectly acceptable list. Would not have a problem removing the redlinks, but I don't agree with TPH's assertion that the presence of a few redlinks is a reason to delete a list. UnitedStatesian (talk) 03:53, 2 February 2011 (UTC)

- **Keep** I think this article is notable, however I do suggest that there should be some sort of criteria to define what is classed as a business failure. However I can't see any strong reasons as to why this article should be deleted, therefore I think we should Keep this article. IJA (talk) 03:55, 4 February 2011 (UTC)

- **Delete** - Microscopic fragment of an unreasonably vast list, with insufficiently coherent inclusion criteria. The same information is accessible through the articles on the firms in question and via the " (YEAR) Disestablishments" categories. Carrite (talk) 20:07, 6 February 2011 (UTC)
- **Weak keep** and even then, *only* because it's been flagged for rescue and the subject would be notable enough to rate encyclopedic treatment. If it's not an indiscriminate list, then I'd call it a barely discriminate one-- the only distinguishing info seems to be the year of "failure", which isn't that useful. If details were to be added, such as what the business was (I shopped at Montgomery Ward and flew on TWA, so I know what those were, but we can't assume that everyone does), then I agree with the person above that this would eventually be broken down into other lists. If not, I think the outcome next time around will be a delete. Mandsford 14:14, 7 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

Wikipedia:Articles for deletion/Donna M. Marbach (2nd nomination)

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^{vote}] Donna M. Marbach

Donna M. Marbach ⟨edit│talk│history│links│watch│logs⟩ – (View log)
(*Find sources:* "Donna M. Marbach" (http://www.google.com/search?
as_eq=wikipedia&q=%22Donna+M.+Marbach%22&num=50) – news
(http://www.google.com/search?q=%22Donna+M.+Marbach%22&tbm=nws&tbs=ar:1) · books
(http://www.google.com/search?tbs=bks:1&q=%22Donna+M.+Marbach%22) · scholar
(http://scholar.google.com/scholar?q=%22Donna+M.+Marbach%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?Query=%22Donna+M.+Marbach%22&acc=on&wc=on) ·
free images (http://images.google.com/images?safe=off&as_rights=
(cc_publicdomain%7ccc_attribute%7ccc_sharealike%7ccc_noncommercial%7ccc_nonderived)&q=%2
2Donna+M.+Marbach%22))

Extremely minor local poet who fails WP:AUTHOR and who does not meet the requirements of WP:BK or WP:BIO. No WP:RS whatsoever presented or available. Tagged for notability since May, 2010, without a single source added in that time. Issues of WP:AUTO and WP:COI as well. The organization founded by the subject was recently deleted at AfD. [1]
(http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Just_Poets) Qworty (talk) 18:37, 22 January 2011 (UTC)

- This reads more like a resume than an encyclopedia article. I think there's a major conflict of interest as the creator of the article appears to be a SPA (which brings up OWN as well). Furthermore, I grew up in the area where she lives, and I've never even heard of her. --23 Benson (talk) 22:39, 22 January 2011 (UTC)
  - **Note**: This debate has been included in the list of Poetry-related deletion discussions. -- • Gene93k (talk) 23:11, 23 January 2011 (UTC)
  - **Note**: This debate has been included in the list of Authors-related deletion discussions. -- • Gene93k (talk) 23:11, 23 January 2011 (UTC)
- **Delete**. As an author, appears to have had a few works published, but there doesn't appear to be any critical commentary about her works, thus failing WP:CREATIVE. More importantly, there's nothing else out there about her, so she doesn't meet WP:GNG. The rest looks more like a resume. --**Kinu** ^{*t*}/_{*c*} 09:45, 24 January 2011 (UTC)
- **Keep:** A lot of small accomplishments that add up to enough to keep per WP:BIO on authors. - Ret.Prof (talk) 14:17, 24 January 2011 (UTC)
  - To be frank, this rationale seems very flimsy. A laundry-list that might may or may not meet WP:BIO/WP:CREATIVE does not mean that WP:GNG can be ignored (indeed, the basic criterion of WP:BIO is the satisfaction of WP:GNG). Especially important given that this is a WP:BLP. --**Kinu** ^{*t*}/_{*c*} 15:03, 24 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:40, 29 January 2011 (UTC)

- **Comment** Ret.Prof's argument-from-accumulation has the further demerit that there's nothing in the guideline cited in support of it (WP:BIO) that *says* that a lot of small accomplishments add up to general notability. Yakushima (talk) 11:27, 29 January 2011 (UTC)
- **Delete** Given the dearth of other sources directly about her, I concluded that her notability hinges entirely on WP:AUTHOR's condition that "[t]he person has created, or played a major role in **co-creating,** a significant or well-known work, or **collective** body of work, that has been the subject of [...] multiple independent periodical articles or reviews." She's edited or co-edited a number of books, after all. Maybe something there? Alas, none of those books show up at google book search as having been reviewed "in any of the usual places". Except for one edit to Grey[2] (http://en.wikipedia.org/w/index.php?title=Grey&diff=prev&oldid=147714425), the article's originator (User:DMMPoet) is WP:SPA for Donna M. Marbach, and clearly doesn't mean to make a secret of that. Under WP:AGF, my guess is that she just *thought* she was notable enough (possibly under the all-too-common WP:OTHERSTUFF assumption). She might well agree, if she were in on this discussion, that her bio doesn't make the cut. If so, a speedy delete here will help us get on to all that misleading OTHERSTUFF, of which there never seems to be any shortage. Yakushima (talk) 11:59, 29 January 2011 (UTC)
- **Keep** This article is inside WP:BIO and should be kept.--BabbaQ (talk) 00:36, 4 February 2011 (UTC)
  - And I ask again, which part of WP:BIO is met, and where are the WP:RS? Considering this is a WP:BLP, actually providing some rationale would be more helpful than a WP:VAGUEWAVE. --**Kinu** *t*/ _c 00:43, 4 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

Retrieved from "http://en.wikipedia.org/w/index.php?title=Wikipedia:Articles_for_deletion/Donna_M._Marbach_(2nd_nomination)&oldid=412095682"

D.4. Post-system survey on the control interface in the user-based evaluation. ("System A" indicates the native Wikipedia interface used as the control.)

Next we show the post-system survey on the control interface in the user-based evaluation.

Survey on System A

* You have just made decisions on the outcomes of three discussions. Please answer, based on the the tool you used and the decisions you made.

	Strongly Agree	-	-	Neutral	-	-	Strongly Disagree
Making the decision required me to put forth a great deal of effort.	○	○	○	○	○	○	○
The system produces comprehensive information for my decision.	○	○	○	○	○	○	○
Overall, I would give the information from the system high marks.	○	○	○	○	○	○	○
My interaction with the system is clear and understandable.	○	○	○	○	○	○	○
Overall, the quality of information provided by the system is not sufficient.	○	○	○	○	○	○	○
Using the system enables me to accomplish tasks more quickly.	○	○	○	○	○	○	○
I am confident in my choice.	○	○	○	○	○	○	○
I worked hard to make the decision.	○	○	○	○	○	○	○
I put a lot of effort into making the decision.	○	○	○	○	○	○	○
In general, the system provides me with high-quality information.	○	○	○	○	○	○	○
I would make the same decision if I had to redo the task.	○	○	○	○	○	○	○
The system provides me with the information I need to make the decision.	○	○	○	○	○	○	○
Using the system increases my task productivity.	○	○	○	○	○	○	○
Using the system supports the critical part of my task.	○	○	○	○	○	○	○
I made a good choice.	○	○	○	○	○	○	○
The system provides me with a complete set of information for my decision.	○	○	○	○	○	○	○
I find the system easy to use.	○	○	○	○	○	○	○
I find it easy to get the system to do what I want it to do.	○	○	○	○	○	○	○

[Reset](#)

Other comments

< Finish Survey>

D.5. Webpages pertaining to the experimental interface in the user-based evaluation. ("System B" indicates the Semantic Web Application used as the experimental interface.)

System B Description

In System B, you are presented with a typical Wikipedia discussion. It is a series of comments discussing whether to keep or delete the article. Comments may indicate the suggested outcome of the discussion (e.g. "delete ", "keep ", "merge ") and give reasons for that outcome. Replies are typically indented and nested below earlier comments as in a threaded discussion. Above the discussion, there is a toolbox categorising the comments. Each comment is categorised by the factors it discusses: **sources**, **notability**, **bias**, **maintenance**. Comments may fall into one or more of these categories; or to the categories **other** or **none**. Click on one of the bars: **sources**, **notability**, **bias**, **maintenance**, **other** to see the list of related comments.

Descriptions of these factors are given below.

Once you are ready, please proceed to evaluate the three articles with System B.

1. Article 1: St. Andrew's Episcopal School (Amarillo, Texas)
2. Article 2: List of Legislation by Ron Paul
3. Article 3: Water and the environment
4. Survey on System B

Factor Descriptions

Sources

- More or better sources are required or have been added
  - e.g. third-party sources, independent sources, secondary vs. primary sources
- Verification of content is needed

Notability

- Importance of a topic
- Whether a topic meets guidelines and policies for inclusion in Wikipedia

Bias

- Bias, such as advertising, spam, promotional content
- Written from a single point-of-view
- Written by the subject of the article or someone close to it

Maintenance

- Ease of maintaining the article, as it is now, or as it could be in the future.
  - e.g. The writing needs work or the content is incorrect (not due to bias).
- Can consider various perspectives: article/topic/category/encyclopedia
  - e.g. Article needs to be/remain split out from another article
- Changes made to the article during the discussion period

Other

- Other factors or values relevant to whether to keep or delete the article
  - e.g. Procedural issues related to how to improve an article
  - e.g. complaints/concerns/suggestions for changes to a policy used

None (not displayed)

- No justification (e.g. "per nominator")
- Notes e.g. "Note: This debate has been included in the list of..."

Wikipedia:Articles for deletion/St. Andrew's Episcopal School (Amarillo, Texas)

Discussion Summary

Each bar represents a number of comments referring to the corresponding criteria

Criteria	Count
Sources	10
Notability	14
Maintenance	11
Bias	5
Other	1

Back to complete list

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^{vote}] St. Andrew's Episcopal School (Amarillo, Texas)

St. Andrew's Episcopal School (Amarillo, Texas) (edit|talk|history|links|watch|logs) – (View log) (*Find sources:* "St. Andrew's Episcopal School (Amarillo, Texas)" (http://www.google.com/search?as_eq=wikipedia&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22&num=50) – news (http://www.google.com/search?q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22&tbm=nws&tbs=ar:1) · books (http://www.google.com/search?tbs=bks:1&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22) · scholar (http://scholar.google.com/scholar?q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&as_rights=(cc_publicdomain%7Ccc_attribute%7Ccc_sharealike%7Ccc_noncommercial%7Ccc_nonderived)&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22))

This primary school fails the WP:GNG, and, as it is not a high school, is not inherently notable. Contested PROD. Prod removed without comment/reason. Ravendrop (talk) 14:09, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Texas-related deletion discussions. -- • Gene93k (talk) 14:42, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Schools-related deletion discussions. -- • Gene93k (talk) 14:43, 29 January 2011 (UTC)
- **Keep** - Although this is not a primary school (which usually ends at grade 2 or 3), it's not a high school. However, the school's performance in the national middle school science bowl is a distinctive that would make this school notable. I'd like to see some third-party reliable sources (and less promotional language in the article), though, to establish general notability. --Orlady (talk) 15:32, 29 January 2011 (UTC)
    - I see that the Middle School Science Bowl information was added to the article after this AfD was

started. --Orlady (talk) 15:42, 29 January 2011 (UTC)

- PS - Since the above comment was posted, I and others have added several third-party reliable sources to the article. I'[m no longer concerned about the absence of sources. --Orlady (talk) 05:40, 31 January 2011 (UTC)

- **Delete** Not notable. If suffucient third party sources are found to establish notability, then the article can be reinstated. Until then, it's of little encyclopedic value. Disagree that the "school's performance in the national middle school science bowl" is reason enough to make it notable. Dominus Vobisdu (talk) 15:38, 29 January 2011 (UTC)

  - The article now cites several third-party sources that tell about the school's participation and success in the National Middle School Science Bowl. Although there has never been agreement on notability guidelines for schools, past outcomes at AfD and the various failed proposals listed at Wikipedia:Schools all indicate a presumption of notability for pre-secondary schools that have received various awards deemed to be significant, such as the Blue Ribbon School designation. Since it is more common to be a Blue Ribbon School than it is to consistently placing near the top in in a national competition (because there are many more Blue Ribbon Schools each year than there are finalists in these competitions), it seems to me that this achievement is an indication of notability. --Orlady (talk) 20:42, 29 January 2011 (UTC)

    - It may be notable enough for your local newspaper, but not for WP, in my opinion. Sorry, you haven't convinced me, and I stand by my vote for "Delete". Dominus Vobisdu (talk) 20:51, 29 January 2011 (UTC)

      - It's not in my local newspaper, since I don't live anywhere near Amarillo. Regardless -- in addition to coverage in Amarillo, the school's success is documented on US Department of Energy websites about the science bowl. --Orlady (talk) 20:58, 29 January 2011 (UTC)

        You are aware that the Science Bowl is HOSTED by the US Department of Energy. Of course one would expect to see the winners listed there. Does very little to boost notability, I'm sorry to say.

        I'm not being nasty about this. I've looked at your sources and read through WP:SCHOOLS, WP:OUTCOMES, and the most recent guideline proposals, and I honestly can't find anything that can possibly justify the existence of this page on WP by a long shot. Of course, I have nothing against the school (I've never heard about it before), and am glad the kids excel in science because I'm a biologist myself. I wish them all the luck in the world, but giving the school a page on WP is going too far, even if it probably would be one of the schools I'd check out for my kids to attend should fortune ever bring me to Amarillo. Dominus Vobisdu (talk) 21:35, 29 January 2011 (UTC)

        Don't you think this addition was a *teensy* bit over the top: "in 2008 a team from the school placed third overall", sourced to the... St. Andrew's Episcopal School website? Dominus Vobisdu (talk) 21:44, 29 January 2011 (UTC)

        > The other SEVEN sources cited in that section of the article are all third-party reliable sources. That one little factoid, sourced to the school website, helped to "fill in a blank" in the article. Since those other sources verify that the school placed first in the fuel-cell car competition and third in academics, it's highly credible that they were third place overall. --Orlady (talk) 15:56, 30 January 2011 (UTC)

        >> The reliability of the sources is not being questioned, nor is it an issue as far as this AfD is concerned. The issue is, and remains, notability. Dominus Vobisdu (talk) 21:16, 30 January 2011 (UTC)

- **Delete** Typical elementary school. The consensus has been to delete such articles or to redirect them to the school district, which this independent school does not seem to have. Most schools win some kind of

award from time to time. Edison (talk) 21:17, 29 January 2011 (UTC)

- Maybe most schools win awards from time to time, but how many schools won the regionals to advance to a national competition 5 out of the 9 times the national competition has been held, then finished in the top 3 slots in 6 out of the 10 national competitions they were in? If I were a middle school science teacher somewhere else, I'd be looking at St. Andrews' record and asking "Who are those guys?" --Orlady (talk) 15:56, 30 January 2011 (UTC)

  - If I were a Christian, I'd be looking at the following edits and wonder "Who are those guys?": 1 (http://en.wikipedia.org/w/index.php?title=Lindeneau_Elementary_School&diff=prev&oldid=410906813), 2 (http://en.wikipedia.org/w/index.php?title=Lindeneau_Elementary_School&diff=prev&oldid=410906813) and 3 (http://en.wikipedia.org/w/index.php?title=St._Andrew%27s_Church&diff=410027835&oldid=409566391). The editors in question are the ones who are helping you fix up the article. I've been watching this article to learn more about the AfD process. Unfortunately, what I've learned is that some Episcopalians apparently believe that using sneaky tactics to promote their congregation and "kicking the cat" are AOK. Tsk, tsk. If you are in contact with these editors, please let them know that they are setting a bad example. Dominus Vobisdu (talk) 21:12, 30 January 2011 (UTC)

    I have never meet Orlady and I appreciate all the work ~~she~~ the person has put into the article. I just graduate from the school and goto the church. I love my church and my school and thought they deserved a wiki page. If they get deleted for not being WP valuable them so be it. Maybe it's in bad taste but if my school does not meet WP standards then why should others?? Copritch (talk) —Preceding undated comment added 00:08, 31 January 2011 (UTC).
    To be honest it's been a real turn off adding articles to WP and I don't think I will add articles again. So smile and enjoy. Copritch (talk) 00:58, 31 January 2011 (UTC)

    - If your goal is to support your school, Copritch, adding PROD templates to articles about other middle schools and elementary schools is not a particularly effective way of achieving that goal. A more effective way to pursue your objective would be to add third-party sources to the article (apparently the 10 sources cited already aren't enough for some people) and !vote in this AfD -- including information on why you think this school is notable. --Orlady (talk) 04:35, 31 January 2011 (UTC)

- More then an elementary school. It has has up to eighth grade. Copritch (talk) 05:34, 31 January 2011 (UTC)

- **Keep** The school was founded by a very influential family (Bivins), granted not notable outside of Amarillo, but the school did produce a US Texas Senator and a US Ambassador. Most importantly the school has won the National Middle School Science Bowl, organized and sponsored by the United States Department of Energy, in hydrogen fuel cell cars challenge three times. Most high schools cannot accomplish this and even less middle schools. As a previous voter put it "Most schools win some kind of award from time to time.". This is true at a local and regional level but not at a national level sponsored by the US Government. Ask most middle school and high school students how do you make car run on hydrogen instead of gas. Most probably won't get it right but these students are build and racing hydrogen cars in middle school. One day the list of notable alumni on the page will be long. Copritch (talk) 05:24, 31 January 2011 (UTC)
  - According to Wikipedia:Notability (high_schools) high schools are generally considered notable. So a middle school academically outperforming a notable high school makes the school notable, in my opinion. Copritch (talk) 13:28, 31 January 2011 (UTC)
- **Delete**, or **Merge** (with redirect) the essentials to the school district or locality, as per standard procedure. This school has not demonstrated sufficient notability for its own Wikipedia page. Kudpung (talk) 21:09, 31 January 2011 (UTC)

  - Could you elaborate upon what it is you consider to be necessary to establish notability of a school? The article cites several different third-party sources that I consider to be reliable, thus

addressing the general notability guideline. Apparently you see things differently. Have you found that the Amarillo daily newspaper, the US Department of Energy, and United Press International are unreliable sources, or do you have evidence that these sources are affiliated with this school (and thus not independent sources)? Or is your concern about something else? Please clarify your reasoning. --Orlady (talk) 02:43, 1 February 2011 (UTC)

> Per Edison and Dominus Vobisdu. This just a WP:ROTM. Sources don't *make* notability, they confirm it. If Copritch, who claims to be a member of the Schools Project but isn't and didn't read the guidelines before writing their first article, it's really not our fault if we have to delete or merge it. It could have been merged and redirected uncontentiously with a friendly note to the creator to explain why. So before I get branded as a deletionist, I'm here to uphold a practice that has been established for over three years and implemented on thousands of primary and middle school pages: I'm offering a **merge and redirect** and I've saved hundreds of schools from deletion this way. If at some time in the future, the school becomes truly notable for something really exceptional, other than a student telling us they love it because they went to it, the redirect can be reverted to an article again, if and when that student has learned with our help, not to do copyvios, and how to write correct articles. I've already !voted here, and personally I don't mind what happens to the school as long as a clear consensus is reached based on standard practice and the quality of the comments, and properly closed by an uninvolved admin. --Kudpung (talk) 09:48, 1 February 2011 (UTC)

>> I am find with a merge or something similar. So what is the proper way to fix this situation? Do I merge create a new section in Amarillo? Create a page called Schools in Amarillo, Texas? The school does not really have a school district to merge to. Give me some direction. Copritch (talk) 13:14, 1 February 2011 (UTC)

- **Proposed solution** to AfD. Merge document to Teel Bivins under family background because his family did start the school and it seems to me to be a reasonable place for it on WP. Then redirect St. Andrew's Episcopal School (Amarillo, Texas) to it. Does that sound like a solution to all invoked? I don't want to something wrong or create a new article that ends back in AfD. Copritch (talk) 13:39, 1 February 2011 (UTC)

  - Bad proposed solution, IMO. The biographical article about a US Ambassador to Sweden is not exactly a logical place for an encyclopedia reader to expect to find information about a private school in Amarillo, Texas. Moreover, Teel Bivins was not the school's founder, and I have yet to see a reliably sourced indication that he attended the school. (I do, however, infer that the school was actually started on his behalf and that he went to kindergarten there. His parents started the school as a kindergarten, apparently because no kindergarten was offered in Amarillo, and he was the right age to be a member of the very first class. His attendance would have been limited to kindergarten, since the school didn't expand to higher grades until some time later.) --Orlady (talk) 15:47, 1 February 2011 (UTC)

- **Comment** - Re-reading the foregoing, I am distressed to see this discussion taking on some aspects of a personal attack on the user who created the article, who (although the account was registered several years ago) is a new contributor who seems to be getting bitten hard for his first article contributions. Focus should be on the article, not on the motives or inferred motives of the article's creator. As for the assertions made regarding WP:OUTCOMES#Education, I must say that discussion participants are holding this article to a far higher standard than I have seen in past outcomes of many school-related AfDs I participated in over the last few years. For example, Wikipedia:Articles for deletion/Blountville Middle School (one that I nominated) was closed as a keep, although both at the time it was closed (http://en.wikipedia.org/w/index.php?title=Blountville_Middle_School&oldid=229493177) and as it now exists I see no more credible a claim of notability there (and far less sourcing) than exists currently for St. Andrew's. "Run of the mill" is an excellent descriptor of many school-related articles I've dealt with that did get "merged and redirected" (e.g. this one in New York (http://en.wikipedia.org/w/index.php?title=Columbus_Elementary_School&oldid=234736098), this one in Tennessee (http://en.wikipedia.org/w/index.php?title=Brainerd_Baptist_School&oldid=252064266), and this one in England (http://en.wikipedia.org/w/index.php?title=Langtoft_Primary_School&oldid=265476808)), but in my experience any school that makes are credible claim at some sort of notability gets retained. Please look at the article and evaluate it on its merits, not at the user who created it. --Orlady (talk) 23:26, 1

February 2011 (UTC)

- **Weak keep** This is tough one, really. Normally I don't support keeping elementary and most middle school articles, but the performances at the Middle School Science Bowl are notable, even if very low on notability, IMO. If it was merged, it would either need to go to the article on Amarillo, Texas (education section) or an "Education in Amarillo, Texas" article yet to be created. The notable alumni needs a source, though. There would also need to be an extensive article cleanup, however, particularly the section about the Middle School Science Bowl, which is more about the bowl than about the school. --JonRidinger (talk) 18:04, 2 February 2011 (UTC)
- **Weak keep**. Given that its entire history is documented and only one sentence in the article is unsourced, I see no pressing policy-based reason to delete this article. That leaves us with notability guidelines to argue over, and in this case they can be interpreted either way. This particular school does appear to have received a slightly higher-than-average level of coverage for sporting and scientific achievements, and semi-significant coverage in pieces on other topics like this one (http://amarillo.com/stories/011908/obi_obit1.shtml). Maybe - just maybe - enough to meet WP:GNG. I don't envy the admin who has to close this. Alzarian16 (talk) 11:51, 7 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

Wikipedia:Articles for deletion/List of legislation sponsored by Ron Paul

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion (Redirected from Wikipedia:Articles for deletion/List of legislation sponsored by Ron Paul)

Discussion Summary

Each bar represents a number of comments referring to the corresponding criteria

Criteria	Count
Sources	2
Notability	6
Maintenance	9
Bias	1
Other	9

Back to complete list

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^{vote}] List of legislation sponsored by Ron Paul

Legislation sponsored by Ron Paul ⟨edit|talk|history|links|watch|logs⟩ (delete (http://en.wikipedia.org/w/index.php? title=Legislation_sponsored_by_Ron_Paul&wpReason=AfD+discussion%3A+%5B%5BWikipedia%3AArticles +for+deletion%2FLegislation+sponsored+by+Ron+Paul+%282nd+nomination%29%5D%5D&action=delete)) – (View log)
(*Find sources:* "List of legislation sponsored by Ron Paul" (http://www.google.com/search? as_eq=wikipedia&q=%22List+of+legislation+sponsored+by+Ron+Paul%22&num=50) – news (http://www.google.com/search? q=%22List+of+legislation+sponsored+by+Ron+Paul%22&tbm=nws&tbs=ar:1) · books (http://www.google.com/search?tbs=bks:1&q=%22List+of+legislation+sponsored+by+Ron+Paul%22) · scholar (http://scholar.google.com/scholar?q=%22List+of+legislation+sponsored+by+Ron+Paul%22) · JSTOR (http://www.jstor.org/action/doBasicSearch? Query=%22List+of+legislation+sponsored+by+Ron+Paul%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&as_rights= (cc_publicdomain%7ccc_attribute%7ccc_sharealike%7ccc_noncommercial%7ccc_nonderived)&q=%22List+of +legislation+sponsored+by+Ron+Paul%22))

Does not warrant its own article. No other legislator has an article for legislation they have sponsored, as far as I can tell. Notable legislation already discussed in depth at Ron Paul#Legislation. NYyankees51 (talk) 19:52, 29 January 2011 (UTC) This is what we have THOMAS for. NYyankees51 (talk) 17:06, 31 January 2011 (UTC)

- **Delete** per NYyankees51. Also, there's way too much Ron Paul-worship here already. --Nlu (talk) 19:30, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Politics-related deletion discussions. -- • Gene93k (talk) 19:54, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Law-related deletion discussions. -- • Gene93k (talk) 19:55, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Lists-related deletion discussions. -- • Gene93k (talk) 19:55, 29 January 2011 (UTC)
- **Keep** Ron Paul is an odd politician so there is interest in the legislation he sponsored. The level of worship is not a Wikipedia criteria for delete or keep; witness the worship of video game articles that the average adult has no interest or knowledge of. For most politicians, this article is not right but Paul is a weirdo. The other possibility is merge but merge would just result in delete of the information...that's the way Wikipedia is. Spevw (talk) 20:12,

29 January 2011 (UTC)

Oddness is not a Wikipedia criteria for delete or keep either.—Chris!$_{c/t}$ 20:17, 29 January 2011 (UTC)

- **Keep** per concensus established in the two previous Afds (This is the same article, it was retitled "List of...." (http://en.wikipedia.org/w/index.php?title=Legislation_sponsored_by_Ron_Paul&action=history) in July 2008). Article hasn't significantly changed since previous discussions. Also, WP:OTHERSTUFFDOESNTEXIST is not a valid argument for deletion.--JayJasper (talk) 20:19, 29 January 2011 (UTC)
- **Comment** Why don't we have articles like this for Ted Kennedy or Charlie Rangel or Nancy Pelosi or all the other wingnuts who have been around for decades? NYyankees51 (talk) 22:03, 29 January 2011 (UTC)
- **Keep** A lot of work has gone in to creating this article. If it's possible to merge it in to another existing Ron Paul article then that should be done. But I think that there's too much content to merge in to another article. Nipsonanomhmata $^{(Talk)}$ 01:46, 30 January 2011 (UTC)
  - **Comment** I know a lot of work has gone into the article and I hate dumping people's stuff out the window but unfortunately that doesn't give it notability. Most of it is non-notable so it wouldn't be too much to merge the notable stuff. NYyankees51 (talk) 04:35, 30 January 2011 (UTC)
- **Delete** The majority of Paul's proposed legislation was never passed into law, nor did it ever impact the political environment in Washington, so where is the notability? Regent of the Seatopians (talk) 02:09, 30 January 2011 (UTC)
- **Speedy keep** Did anyone besides JayJasper read the prior two AFDs, after which a third nomination for the same reasons is questionable at minimum? NYyankees51, this article is a breakout of the WP:SUMMARY in Ron Paul#Legislation, as agreed since 2007 to manage this degree of notable content. To your argument from WP:OTHERSTUFF, the previous AFD mentioned similar still-extant articles for Clinton, Romney, Giuliani, and Kerry; the folks you mention would also be good candidates for such articles. Notability is demonstrated by the number of sources, both those in the header that affirm notability of Paul's body of work generally, and those that discuss specific accomplishments. To Nlu, I affirm Spevw. To Regent, the notability of proposed legislation has long been judged by WP:GNG and found sufficient in many many cases. Incidentally, due to the 112th, many of the numbers will need updating (and Audit the Fed, both 111th and 112th, is still insufficiently covered per new sources), but that's a fixit need and should not affect anyone's views. JJB 21:28, 30 January 2011 (UTC)
- **Reluctant keep** although I think this article skirts WP:NOTADIR. It would be better cast as a general subarticle on Paul's congressional career, akin to those in Category:Tenures in political office by individual. The only really similar article to this that I know of is Sponsorship of legislation by John Kerry, which was created during the 2004 presidential election and has been thoroughly ignored ever since (averages about four page views a day; the Ron Paul one does a bit better). Wasted Time R (talk) 02:56, 1 February 2011 (UTC)

  Turns out I was wrong, there are two others: List of bills sponsored by Barack Obama in the United States Senate, List of bills sponsored by John McCain in the United States Senate. So, I've created a new category for them, Category:Lists of United States federal legislation by sponsor, and placed this one in it. Wasted Time R (talk) 01:21, 2 February 2011 (UTC)

- **Keep**. Just because other politicians don't have lists doesn't make such lists a bad thing, per WP:OTHERSTUFF. The point is that this section, if incorporated (as the nominator suggests) into the main Ron Paul article, would make said article inaccessible and worse for it. Per WP:SPINOUT, separating to another article is the right thing to do. Hence, this article must be kept. Bastin 00:02, 2 February 2011 (UTC)

- **Comment** I would venture to say that all lists of sponsorships should be deleted/merged, except maybe for Obama since he is the president. This is what we have THOMAS for; Wikipedia does not need these lists. NYyankees51 (talk) 01:57, 2 February 2011 (UTC)
  - Yank, THOMAS is for bare lists, WP is for encyclopedic weighting and discussion of the listed items. Several of these items are terrifically notable enough to have their own articles (more could), while others are merely legislative suggestions Paul reinvokes every two years that never get covered (e.g., raw milk), which are instead appropriate for list inclusion. Reliable sources cover much more information on legislation lists than would fit in most bio articles, this is what we have WP:SPINOUT for. JJB 02:58, 2 February 2011 (UTC)
- **Keep** - per WP:OTHERSTUFF. just because this might be a list which is unusal doesnt make it worthy for deletion.--BabbaQ (talk) 00:26, 4 February 2011 (UTC)

*The above discussion is preserved as an archive of the debate. **Please do not modify it**. Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

title=Wikipedia:Articles_for_deletion/List_of_legislation_sponsored_by_Ron_Paul_(3rd_nomination)&oldid=412313947"

Wikipedia:Articles for deletion/Water and the environment

From Wikipedia, the free encyclopedia

< Wikipedia:Articles for deletion

Discussion Summary

Each bar represents a number of comments referring to the corresponding criteria

Criteria	Count
Sources	6
Notability	5
Maintenance	12
Bias	0
Other	6

(Back to complete list)

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

[edit^vote] Water and the environment

Water and the environment ⟨edit|talk|history|links|watch|logs⟩ – (View log)
(*Find sources:* "Water and the environment" (http://www.google.com/search?
as_eq=wikipedia&q=%22Water+and+the+environment%22&num=50) – news
(http://www.google.com/search?q=%22Water+and+the+environment%22&tbm=nws&tbs=ar:1) ·
books (http://www.google.com/search?tbs=bks:1&q=%22Water+and+the+environment%22) · scholar
(http://scholar.google.com/scholar?q=%22Water+and+the+environment%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Water+and+the+environment%22&acc=on&wc=on) · free images
(http://images.google.com/images?safe=off&as_rights=
(cc_publicdomain%7ccc_attribute%7ccc_sharealike%7ccc_noncommercial%7ccc_nonderived)&q=%22Water+and+the+environment%22))

- Deprodded with a WP:SOFIXIT rationale even though prod was 2 hours past the 7-day limit. Article is four sentences long, almost tautological and ridiculously incomplete. I think the title is far too vague to be of any use, not to mention that it just parrots stuff already at marine pollution, water pollution and other similar articles. Ten Pound Hammer, his otters and a clue-bat • (Otters want attention) 04:58, 29 January 2011 (UTC)

  - **Keep**. ~~Agree with everything here, pointless article.~~ After reading Alan's comment I changed my mind. Bluefist ^talk 05:08, 29 January 2011 (UTC)
  - **Note**: This debate has been included in the list of Environment-related deletion discussions. —-- Alan Liefting (talk) - 05:15, 29 January 2011 (UTC)
  - **Strong keep**. It is a very notable topic. The article needs expanding not deleting. Contrary to what the nominator asserts the article topic is clearly defined - namely the intersection of water and the environment. A similar AfD by the nominator is at Wikipedia:Articles for deletion/Agriculture and the environment. -- Alan Liefting (talk) - 05:15, 29 January 2011 (UTC)

- - Yes, and Agriculture and the environment is a content fork just like this one, and looks like it is going to be deleted. What's your point? SNOTTYWONG ᵗᵃˡᵏ 16:05, 29 January 2011 (UTC)

- **Keep**-The article is on a very important topic.It can be a good wiki article if expanded.--Poet009 (talk) 08:32, 29 January 2011 (UTC)

- **Note**: The article under discussion here has been {{rescue}} flagged by an editor for review by the Article Rescue Squadron. SNOTTYWONG ᵖʳᵃᵗᵗˡᵉ 16:00, 29 January 2011 (UTC)
- **Delete** - This article currently has just about zero content, aside from four blazingly obvious sentences and various links to other articles. If this article were to be expanded, it would be a content fork of all the articles it currently links to. There is nothing that could be said in this article that isn't already discussed at length in Water, Water pollution, Marine pollution, Water conservation, Peak water, and a myriad of other articles discussing various facets of this topic. Note to closing admin: I believe my !vote is the first such one that doesn't fall under WP:ITSNOTABLE or WP:ILIKEIT. SNOTTYWONG ᵖʳᵃᵗᵗˡᵉ 16:00, 29 January 2011 (UTC)
- **Delete:** unsourced and largely contentless WP:CFORK of Water (particularly Water#Effects on human civilization) and subsidiary articles (particularly Water pollution). $Hrafn^{Talk}_{Stalk}$(P) 16:53, 29 January 2011 (UTC)
- **Keep** Notable topic with ample coverage. Click on the Google news archive or Google book search at the top of the AFD. Thousands of results for each. Some of them are surely valid. And it isn't just about water pollution either. **Dream Focus 02:37, 30 January 2011 (UTC)**

  The boilerplate WP:GHITS argument from Dream Focus is even less compelling than usual for this article. There's no doubt that if you google "water and the environment" you will get billions of results, but what does that prove? You seem to be trying to prove that the subject of water as it applies to environmentalism is notable, however no one is claiming that it is not notable. The nomination and most of the delete comments are based on the fact that the subject is discussed at great length in several other articles. In other words, this article is a useless content fork (that is, if it were updated to actually have *any* appreciable content, *then* it would become a content fork). I haven't heard any arguments yet which refute that point. SNOTTYWONG ᵉˣᵖʳᵉˢˢ 19:43, 31 January 2011 (UTC)

    In some nations they have a minister for Water and the Environment, calling it that. [1] (http://www.echonews.com.au/story/2010/10/14/murray-darling-still-plan-making-a-big-splash/). I see there are agencies dedicated to this as well, such as the Anglian Water and the Environment Agency [1]. Not every search result is about that, but there are plenty of them. This term is commonly used. **Dream Focus 16:35, 1 February 2011 (UTC)**

      I'm fairly sure you'll find that the ministry in question covers the wikt:conjunction of water and the environment, not the wikt:intersection of the two, as the article does. $Hrafn^{Talk}_{Stalk}$(P) 16:53, 1 February 2011 (UTC)

- **Keep** The nomination is too vague to be of any use as it offers no policy-based argument for deletion. Our actual editing policy is to retain and develop stubs on such evidently notable topics. Colonel Warden (talk) 08:56, 30 January 2011 (UTC)

  - "Vague" boilerplate references to WP:IMPERFECT likewise "offers no policy-based argument for" *keeping* an obvious (unsourced and largely contentless) WP:CFORK. $Hrafn^{Talk}_{Stalk}$(P) 09:25, 30 January 2011 (UTC)

- **Delete** As far as I can tell this article is nothing but a list of the phases of water followed by a list of some articles related to water. Plus, all possible additions to this page should already be covered in another, more fitting article (for example, erosion, or the section of the water page covering its effect on life.)--Yaksar (let's chat) 02:19, 5 February 2011 (UTC)
- **Delete** per nominator and Yaksar. Johnfos (talk) 02:24, 5 February 2011 (UTC)
- **Delete**. Very poor content fork of Water, especially Water#On_Earth and Water#Effects_on_life. An

article of this sort should be developed organically as a split-off from Water per WP:SS, not simply created as a haphazard and unsourced stub. **Sandstein** 09:41, 6 February 2011 (UTC)

- **Delete**. This is all done elsewhere far better, just not worth rescuing such a vague concept. Szzuk (talk) 21:38, 6 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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title=Wikipedia:Articles_for_deletion/Water_and_the_environment&oldid=412465571"

D.6. Post-system survey on the experimental interface in the user-based evaluation. Semantic Web Application. ("System B" indicates the Semantic Web Application used as the experimental interface.)

Next we show the post-system survey on the experimental Interface in the user-based evaluation.

Survey on Tool B

* You have just made decisions on the outcomes of three discussions. Please answer, based on the the tool you used and the decisions you made.

	Strongly Agree	-	-	Neutral	-	-	Strongly Disagree
I worked hard to make the decision.	○	○	○	○	○	○	○
I am confident in my choice.	○	○	○	○	○	○	○
Using the system enables me to accomplish tasks more quickly.	○	○	○	○	○	○	○
Making the decision required me to put forth a great deal of effort.	○	○	○	○	○	○	○
I find the system easy to use.	○	○	○	○	○	○	○
The system provides me with a complete set of information for my decision.	○	○	○	○	○	○	○
I find it easy to get the system to do what I want it to do.	○	○	○	○	○	○	○
The system provides me with the information I need to make the decision.	○	○	○	○	○	○	○
The system produces comprehensive information for my decision.	○	○	○	○	○	○	○
I would make the same decision if I had to redo the task.	○	○	○	○	○	○	○
I put a lot of effort into making the decision.	○	○	○	○	○	○	○
Using the system increases my task productivity.	○	○	○	○	○	○	○
In general, the system provides me with high-quality information.	○	○	○	○	○	○	○
Using the system supports the critical part of my task.	○	○	○	○	○	○	○
Overall, the quality of information provided by the system is not sufficient.	○	○	○	○	○	○	○
I made a good choice.	○	○	○	○	○	○	○
Overall, I would give the information from the system high marks.	○	○	○	○	○	○	○
My interaction with the system is clear and	○	○	○	○	○	○	○

understandable.

Other comments

< Finish Survey>

D.7. Final survey on the user-based evaluation.

Final survey

* Based on the systems you used, please answer the following questions.

System A is shown on the left and System B is shown on the right.

System A	System B
Extremely minor local poet who fails WP:AUTHOR and who does not notability since May, 2010, without a single source added in that time AfD. [1] Qworty (talk) 18:37, 22 January 2011 (UTC) • This reads more like a resume than an encyclopedia article. I thin well). Furthermore, I grew up in the area where she lives, and I've • Note: This debate has been included in the list of Poetry-related deletion discus • Note: This debate has been included in the list of Authors-related deletion disc. • Delete. As an author, appears to have had a few works published, importantly, there's nothing else out there about her, so she doesr • Keep: A lot of small accomplishments that add up to enough to ke • To be frank, this rationale seems very flimsy. A laundry-list th the basic criterion of WP:BIO is the satisfaction of WP:GNG).	**Discussion Summary** *Each bar represents a number of comments refern* Sources ▮▮▮▮▮ Notability ▮▮▮▮▮ Maintenance ▮▮▮▮▮ Bias ▮ 0 Other ▮▮▮▮▮ **Sources (6 comments)** • **Delete:** unsourced and largely contentless WP:C 16:53, 29 January 2011 (UTC)

	A	B	don't know
more useful	○	○	○
easier to use	○	○	○
allows making more confident decisions	○	○	○
requires more effort to make a decision	○	○	○
provides more complete information	○	○	○
provides higher quality information	○	○	○
provides better information structure	○	○	○

[Reset]

* Which system would you prefer to use to make deletion decision?

System A is shown on the left; System B is shown on the right.

System A	System B
Extremely minor local poet who fails WP:AUTHOR and who does not notability since May, 2010, without a single source added in that time AfD. [1] Qworty (talk) 18:37, 22 January 2011 (UTC)	**Discussion Summary**
	Each bar represents a number of comments refer

System A list:
- This reads more like a resume than an encyclopedia article. I thin well). Furthermore, I grew up in the area where she lives, and I've
- **Note**: This debate has been included in the list of Poetry-related deletion discus
- **Note**: This debate has been included in the list of Authors-related deletion disc.
- **Delete**. As an author, appears to have had a few works published, importantly, there's nothing else out there about her, so she doesr
- **Keep**: A lot of small accomplishments that add up to enough to k
  - To be frank, this rationale seems very flimsy. A laundry-list th the basic criterion of WP:BIO is the satisfaction of WP:GNG).

System B:
Discussion Summary bars — Sources, Notability, Maintenance, Bias 0, Other

Sources (6 comments)
- **Delete:** unsourced and largely contentless WP:C
  16:53, 29 January 2011 (UTC)

○ A

○ B

Reset

* Why?

< Finish Survey>

Appendix E.

Samples from our corpus: Wikipedia Articles for Deletion started on 2011-01-29

The full corpus is available from the Wikipedia deletion discussion archives [1] and on our website[2] We selected the following 21 of the 72 discussions in our corpus as examples:

1. Bryan Meredith (soccer)[3]

2. Deichstraße[4]

3. Donna M. Marbach[5] (user test, control page A3)

4. Emsworth Cricket Club[6] (user test, control page A1)

5. Heath Totten[7]

6. History of the BattleTech universe[8]

7. Hugh Allison[9]

---

[1] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Log/2011_January_29

[2] Currently at http://jodischneider.com/pubs/phd/index.html with a permanent redirect from http://purl.org/jsphd.

[3] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Bryan_Meredith_(soccer)

[4] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Deichstra%C3%9Fe

[5] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Donna_M._Marbach_(2nd_nomination)

[6] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Emsworth_Cricket_Club

[7] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Heath_Totten

[8] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/History_of_the_BattleTech_universe

[9] http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Hugh_Allison

8. Legislation sponsored by Ron Paul (2nd nomination)[10] (user test, experimental page B2)

9. List of business failures (2nd nomination)[11] (user test, control page A2)

10. Melqui Torres[12]

11. Mike Emmett[13]

12. Norazia[14]

13. Prometheus (film project)[15]

14. Punjab Juvenile Justice System Rules 2002[16]

15. Restoring the Lost Constitution[17]

16. RobApps[18]

17. St. Andrew's Episcopal School (Amarillo, Texas)[19] (user test, experimental page B1)

18. The Best of The Velvet Underground:The Millennium Collection (2nd nomination)[20]

19. UK Airsoft Wiki[21]

20. Water and the environment[22] (user test, experimental page B3)

21. William Vickers (fiddler)[23]

---

[10]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Legislation_sponsored_by_Ron_Paul_(2nd_nomination)
[11]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/List_of_business_failures_(2nd_nomination)
[12]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Melqui_Torres
[13]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Mike_Emmett
[14]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Norazia
[15]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Prometheus_(film)
[16]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Punjab_Juvenile_Justice_System_Rules_2002
[17]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Restoring_the_Lost_Constitution
[18]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/RobApps
[19]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/St._Andrew%27s_Episcopal_School_(Amarillo,_Texas)
[20]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/The_Best_of_The_Velvet_Underground:_The_Millennium_Collection_(2nd_nomination)
[21]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/UK_Airsoft_Wiki
[22]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Water_and_the_environment
[23]http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/William_Vickers_(fiddler)

These deletion discussions appear below.

Wikipedia:Articles for deletion/Bryan Meredith (soccer)

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **Delete**. Wikipedia does not operate on a process of "if he may be notable in a few weeks, keep". If you wish to install such a policy, do so on a discussion page; do not make up rationales contrary to policy and guidelines on individual AfDs. Ironholds (talk) 16:31, 6 February 2011 (UTC)

Bryan Meredith (soccer)

Bryan Meredith (soccer) 〈edit│talk│history│links│watch│logs│views〉 – (View log)
(*Find sources:* "Bryan Meredith (soccer)" (http://www.google.com/search?
as_eq=wikipedia&q=%22Bryan+Meredith+%28soccer%29%22&num=50) – books
(http://www.google.com/search?tbs=bks:1&q=%22Bryan+Meredith+%28soccer%29%22) ·
scholar (http://scholar.google.com/scholar?q=%22Bryan+Meredith+%28soccer%29%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Bryan+Meredith+%28soccer%29%22&acc=on&wc=on) · free images
(http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Bryan+Meredith+%28soccer%29%22+-
site:wikipedia.org+-site:wikimedia.org))

Fails both WP:GNG and WP:NFOOTY. Was only drafted by seattle, in the second round, in 2011, and has never played a pro game. Contested PROD, with claim that he passed a different set of GNG for college athletes, of which I can find no proof. (See talk page for PROD contester's rationale). Ravendrop (talk) 08:54, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Football-related deletion discussions. -- • Gene93k (talk) 19:24, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Sportspeople-related deletion discussions. -- • Gene93k (talk) 19:24, 29 January 2011 (UTC)
- **Note**: This discussion has been included in WikiProject Football's list of association football-related deletions. GiantSnowman 15:59, 30 January 2011 (UTC)
- **Delete** - fails WP:GNG and WP:NFOOTBALL. GiantSnowman 16:01, 30 January 2011 (UTC)
- **Delete** - Since the only league he has played in is not fully pro, he fails WP:NSPORT. He also fails WP:GNG due to a lack of significant coverage. Sir Sputnik (talk) 03:29, 31 January 2011 (UTC)
- **Wait a few weeks**. I have proposed this each year following the MLS SuperDraft, because this always happens. As I said on his talk page, because of the nature of US sports, drafts, and the nature of college sports and how WP:GNG notability for college players is always contentious, I'm advocating a blanket "hangon" for all articles on newly-drafted players until we get a little way into the 2011 MLS season. If players drafted this year who have articles haven't made their debut by, say, the end of April, then I'll support a mass cull of all articles on such players; waiting a little

while allows people interested in these players to see their articles and obtain some information, but still gives us leeway to follow the appropriate notability guidelines later. It also saves editors from having to go through the busy work deleting and re-creating articles which could be time better spent doing other things. I realize that this is technically a violation of the guidelines, but I'm just asking for a little, time-limited concession. --JonBroxton (talk) 20:52, 1 February 2011 (UTC)

- **Keep, for right now** - I agree with Jon, wait for a while and see if he makes his professional debut. – Michael (talk) 15:50, 4 February 2011 (UTC)
- **Procedural keep** I do not consider the player to be notable enough for an article at this point in time. But Jon's suggestion, if followed through on a league-wide basis, has the potential to give us a relatively drama-free method for deleting those players that don't make the grade once the season is in full flow. So my feeling is to assume good faith on Jon's part, and WP:IAR in the hope that he can turn his vision into an effective annual mechanism for the MLS draft. If it doesn't materialise in the time frame he has proposed, players such as this should be renominated and deleted unless they have established themselves in the first team. —WFC— 21:14, 5 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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title=Wikipedia:Articles_for_deletion/Bryan_Meredith_(soccer)&oldid=412367541"

Wikipedia:Articles for deletion/Deichstraße

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **keep**. (non-admin closure) Logan ₜₐₗₖ Contributions 00:52, 6 February 2011 (UTC)

Deichstraße

Deichstraße ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Deichstraße" (http://www.google.com/search?as_eq=wikipedia&q=%22Deichstra%C3%9Fe%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22Deichstra%C3%9Fe%22) · scholar (http://scholar.google.com/scholar?q=%22Deichstra%C3%9Fe%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22Deichstra%C3%9Fe%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22Deichstra%C3%9Fe%22+-site:wikipedia.org+-site:wikimedia.org))

Article doesn't meet Notability guidelines, nor are there any sources for verification. **Dusti***poke* 02:19, 29 January 2011 (UTC)

- **Delete**. While there is an article in the German Wikipedia (http://de.wikipedia.org/wiki/Deichstra%C3%9Fe), it doesn't have any references either. Bluefist talk 02:56, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Germany-related deletion discussions. -- • Gene93k (talk) 14:48, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Transportation-related deletion discussions. -- • Gene93k (talk) 14:49, 29 January 2011 (UTC)

- **Keep** The German article has lots of info that could be added but also lists two books as sources, one of which I added to teh article as a source; I can only see it in snippet view on GoogleBooks but it refers to at least 4 specific buildings on the street as architecturally significant. I added references from several guidebooks, including 2 saying the "Great Fire" of Hamburg broke out at a specific house number on the street. The street has its own subpage on the official Hamburg website, which I also added as a reference. I think that's enough to establish architectural and historical notability and I'm sure more could be found. I also added the pic the German article is using, and the Commons category link. And the interwikis to both en. and de. I think the article creator should be lashed with a wet noodle, but I note that he doesn't seem to have been notified and nor does the AfD template appear to have been placed on the page. Maybe after those are done he will add more references himself. Yngvadottir (talk) 17:11, 29 January 2011 (UTC)

- **Strong Keep** It is an important historical part of Hamburg and I believe it deserves mention here.-

JustPhil 20:01, 29 January 2011 (UTC)

- **Keep**, probably speedy. - No sources for verification in existence? Quite the leap of faith there by the nom. Just a g-book search (http://www.google.com/search?hl=en&biw=1024&bih=692&q=Deichstra%C3%9Fe&um=1&ie=UTF-8&tbo=u&tbs=bks:1&source=og&sa=N&tab=wp) brings up quite a lot of sources for verification. --Oakshade (talk) 23:44, 29 January 2011 (UTC)

- **Strong Keep**. Very notable street of historical significance. Large numbers of references available. --Boson (talk) 00:32, 30 January 2011 (UTC)

- **Speedy Keep**. Would have done that myself if I had not been out of action for so long and don't really want to look up all the red tape. Agathoclea (talk) 18:28, 4 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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  Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.

Wikipedia:Articles for deletion/Donna M. Marbach (2nd nomination)

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. **NW** (*Talk*) 03:43, 5 February 2011 (UTC)

Donna M. Marbach

Donna M. Marbach

AfDs for this article:
• Articles for deletion/Donna M. Marbach
• Articles for deletion/Donna M. Marbach (2nd nomination)

(edit | talk | history | links | watch | logs | views) – (View log)
(*Find sources:* "Donna M. Marbach" (http://www.google.com/search?as_eq=wikipedia&q=%22Donna+M.+Marbach%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22Donna+M.+Marbach%22) · scholar (http://scholar.google.com/scholar?q=%22Donna+M.+Marbach%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22Donna+M.+Marbach%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22Donna+M.+Marbach%22+-site:wikipedia.org+-site:wikimedia.org))

Extremely minor local poet who fails WP:AUTHOR and who does not meet the requirements of WP:BK or WP:BIO. No WP:RS whatsoever presented or available. Tagged for notability since May, 2010, without a single source added in that time. Issues of WP:AUTO and WP:COI as well. The organization founded by the subject was recently deleted at AfD. [1] (http://en.wikipedia.org/wiki/Wikipedia:Articles_for_deletion/Just_Poets) Qworty (talk) 18:37, 22 January 2011 (UTC)

- This reads more like a resume than an encyclopedia article. I think there's a major conflict of interest as the creator of the article appears to be a SPA (which brings up OWN as well). Furthermore, I grew up in the area where she lives, and I've never even heard of her. --23 Benson (talk) 22:39, 22 January 2011 (UTC)
- **Note**: This debate has been included in the list of Poetry-related deletion discussions. -- • Gene93k (talk) 23:11, 23 January 2011 (UTC)
- **Note**: This debate has been included in the list of Authors-related deletion discussions. -- • Gene93k (talk) 23:11, 23 January 2011 (UTC)
- **Delete**. As an author, appears to have had a few works published, but there doesn't appear to be

any critical commentary about her works, thus failing WP:CREATIVE. More importantly, there's nothing else out there about her, so she doesn't meet WP:GNG. The rest looks more like a resume. --**Kinu** ^t/_c 09:45, 24 January 2011 (UTC)

- **Keep:** A lot of small accomplishments that add up to enough to keep per WP:BIO on authors. -Ret.Prof (talk) 14:17, 24 January 2011 (UTC)
    - To be frank, this rationale seems very flimsy. A laundry-list that might may or may not meet WP:BIO/WP:CREATIVE does not mean that WP:GNG can be ignored (indeed, the basic criterion of WP:BIO is the satisfaction of WP:GNG). Especially important given that this is a WP:BLP. --**Kinu** ^t/_c 15:03, 24 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:40, 29 January 2011 (UTC)

- **Comment** Ret.Prof's argument-from-accumulation has the further demerit that there's nothing in the guideline cited in support of it (WP:BIO) that *says* that a lot of small accomplishments add up to general notability. Yakushima (talk) 11:27, 29 January 2011 (UTC)
- **Delete** Given the dearth of other sources directly about her, I concluded that her notability hinges entirely on WP:AUTHOR's condition that "[t]he person has created, or played a major role in **co-creating,** a significant or well-known work, or **collective** body of work, that has been the subject of [...] multiple independent periodical articles or reviews." She's edited or co-edited a number of books, after all. Maybe something there? Alas, none of those books show up at google book search as having been reviewed "in any of the usual places". Except for one edit to Grey[2] (http://en.wikipedia.org/w/index.php?title=Grey&diff=prev&oldid=147714425), the article's originator (User:DMMPoet) is WP:SPA for Donna M. Marbach, and clearly doesn't mean to make a secret of that. Under WP:AGF, my guess is that she just *thought* she was notable enough (possibly under the all-too-common WP:OTHERSTUFF assumption). She might well agree, if she were in on this discussion, that her bio doesn't make the cut. If so, a speedy delete here will help us get on to all that misleading OTHERSTUFF, of which there never seems to be any shortage. Yakushima (talk) 11:59, 29 January 2011 (UTC)
- **Keep** This article is inside WP:BIO and should be kept.--BabbaQ (talk) 00:36, 4 February 2011 (UTC)
    - And I ask again, which part of WP:BIO is met, and where are the WP:RS? Considering this is a WP:BLP, actually providing some rationale would be more helpful than a WP:VAGUEWAVE. --**Kinu** ^t/_c 00:43, 4 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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- This page was last modified on 5 February 2011 at 03:43.
-

Wikipedia:Articles for deletion/Emsworth Cricket Club

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. Ged*UK* 12:08, 7 February 2011 (UTC)

Emsworth Cricket Club

Emsworth Cricket Club ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Emsworth Cricket Club" (http://www.google.com/search?
as_eq=wikipedia&q=%22Emsworth+Cricket+Club%22&num=50) – books
(http://www.google.com/search?tbs=bks:1&q=%22Emsworth+Cricket+Club%22) · scholar
(http://scholar.google.com/scholar?q=%22Emsworth+Cricket+Club%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Emsworth+Cricket+Club%22&acc=on&wc=on) · free images
(http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Emsworth+Cricket+Club%22+-site:wikipedia.org+-
site:wikimedia.org))
Cold harbour lawn ⟨edit|talk|history|links|watch|logs|views⟩

Two articles covering an amateur cricket club and its grounds. Apparently very old, but I can't really find any reliable in depth coverage independent from the club's own website showing notability. Travelbird (talk) 12:22, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Cricket-related deletion discussions. -- • Gene93k (talk) 14:43, 29 January 2011 (UTC)

Valid reason as it took a long time to find any information regards to this amatuer cricket club, allthough with some indepth research at libraries and online libraries, I have been able to find many forms of reliable indepth coverage that you seek. If you follow this link to the British Newspaper Library you will find the valid source of information http://newspapers.bl.uk/blcs/ Leegray21 (talk) 15:10, 29 January 2011 (UTC)

Delete - Its a village cricket club - the local newspaper cuttings that decorate the article do not show the sort of substantial, coverage that is required to meet notability guidelines.Nigel Ish (talk) 19:33, 29 January 2011 (UTC)

- **Delete** Amateur sports club which got some routine local coverage over the centuries. Does not satisfy WP:ORG. Edison (talk) 21:20, 29 January 2011 (UTC)
- **Comment**Why should a local cricket club not have it's own page on this website? Obviously a valid club and been established for a while. Nothing offensive or false on the page. All need to do

is put in Emsworth Cricket Club into a search engine and information comes up. Why just because it is a small team and not major does it not deserve it's own page on here? It's like saying some individual people even though done something small cannot as not a major celebrity. —Preceding unsigned comment added by 90.215.177.155 (talk) 08:10, 30 January 2011 (UTC)

- **Delete** - I've played for this cricket club in the past (for neutrality and privacy I won't mention who I am) and it is not a notable club per WP:CRIN, which states it must play in an ECB Premier League, which currently they play in Hampshire Cricket League County Division Four South, by my reckoning some way away from that level of recreational cricket. AssociateAffiliate (talk) 15:53, 30 January 2011 (UTC)
- **Comment** - also support deletion of Cold harbour lawn, which too fails WP:CRIN in relation to the ground having no historical cricketing importance and having not held major cricket matches. AssociateAffiliate (talk) 15:58, 30 January 2011 (UTC)

I don't think this page should be deleted, after all most local cricket clubs have history and is wikipedia not an encyclopedia of history aswell as other catergories/genres. The club does not state it plays ECB premier league and as such is not lying about being involved with any premier league in the ECB. County Division 4 as I have had a look online is an amateur league but surely still credible as a form of cricket. In regards to matches being played on the pitch Cold Harbour Lawn, could you not consider their first game as being an important match as its was against the original Hambledon Cricket Club and therefore one of the oldest clubs in the history of the game, I think if you've had a bad experience with any cricket or any club why be so damn petty and delete it from a factual source of information available freely online, if thats the case every amateur cricket club or sporting club on this site should be deleted for not having the required information that everyone is moaning about on here. At the end of the day the club has history which being 200 years is just as special as a article on a breed of dog or something similar. I'm just utterly amazed that some people just are so petty and for the sake of having an article on Wikipedia they are insisting that the club be lost to pages of history that are sadly being burnt by some people that make it their sole purpose to ruin things for others. I think if that the administrators that are dealing with this article deletion should use common sense in regards to this matter, and think what they are doing before completing what i think would be a total and utter petty matter. And I think as i said previously that people should not take to bemoaning if you've had a bad experience with this particular club, think about what you're doing and move on like any credible and proper player for instance in cricket would do when you're out...you're out so deal with it...again its just people being petty in a non important matter. 90.196.35.173 (talk) 22:12, 30 January 2011 (UTC)

- **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 03:32, 31 January 2011 (UTC)

- **Comment** - The original Hambledon Club ceased to exist after 1796. Precisely why it isn't notable, because it **doesn't** play in an ECB Premier League, in this case the Southern Premier Cricket League. County Division 4 is about as non-notable in cricketing terms as they come. CricketArchive doesn't even hold scorecards for the league. All amatuer cricket clubs or teams that don't meet WP:CRIN are deleted. The criteria is simple in English cricket terms: Historically notable, have played first-class, List A or Twenty20 or is in an ECB Premier League. If they're none of those, 9/10 times they're not notable. Who has said anything about having bad experiences with this club? I have played for it, but left of my own accord. Please keep it civil. AssociateAffiliate (talk) 17:28, 31 January 2011 (UTC)

- **Comment** -as a completely impartial person, who has stumbled over this article, i think it would be a great shame if this page was deleted.

cricket is an integral part in british culture, in an age where our culture is being slowly diluted and eradicated.

it's amazing that an amatuer club that existed BEFORE the battle of waterloo, is still going strong. It's even more amazing that it doesn't warrent a place in an opensource encylopedia, just because they have not played at the top level. it's like saying this amazing piece of english history does not matter.

it's like finding a penny coin from hundreds of years back, and chucking it in the bin, because it had no real monetery value.

Emsworth Cricket Club is one of the oldest cricket clubs in the world, and this really is worth a mention. Especially on a website, where pointless people like say, Katie Price, who has never done anything special, except exposing her genitals, gets a mention.

please reconsider this. Emsworth Cricket Club is a gem of a club, and something that every englishman should be proud of. Clubs like Emsworth are an integrial part of our english village culture. — Preceding unsigned comment added by Malcster2 (talk • contribs) 19:45, 4 February 2011 (UTC)

- **Comment** Cricket is no part of my culture even though I'm half English. However, I would support the retention of this article if it were better referenced. I don't think 'Jordan' has actually exposed that part of her anatomy, although various other parts have achieved public fame. She has a very good PR man, and the both of them are probably doing quite well out of it. (Why, I don't know as I do not know anyone who gives a tuppenny damn about her or even fancies her.) If you can find enough coverage to show notability, there's a chance. Get digging. Peridon (talk) 21:42, 4 February 2011 (UTC)
- **Delete**: per AssociateAffiliate. This is an encyclopaedia not a vast resource for everything you can find in real life or on the internet. English cricket/village cricket may have historical merit; every village club ever to have played the game does not.—User:MDCollins (talk) 16:58, 6 February 2011 (UTC)

- ~~**Keep** cricket club. **Redirect** ground to the club. Read the scans of old newspaper articles, they are reliable sources!~~ . **Delete**.Szzuk (talk) 18:32, 6 February 2011 (UTC)
- **Comment** surely this isn't just about being an average club, but a club that has been around for 200 years, and was around when cricket was in it's infancy. that is what makes it special, and not just another village club.

English Cricket and Village cricket certainly does have it's merit, but without clubs such as emsworth cc starting up all those years ago, or should i say, 2 CENTURYS AGO, there would be no cricket/village cricket. This club really is a piece of living history. —Preceding unsigned comment added by 86.131.76.162 (talk) 20:37, 6 February 2011 (UTC)

- **Comment**: This speicalness argument is getting lame. **READ WP:CRIN**. AssociateAffiliate (talk) 21:32, 6 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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title=Wikipedia:Articles_for_deletion/Emsworth_Cricket_Club&oldid=412519440"

- This page was last modified on 7 February 2011 at 12:08.
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Wikipedia:Articles for deletion/Heath Totten

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **keep**. (non-admin closure) Logan ₜₐₗₖ ᶜᵒⁿᵗʳⁱᵇᵘᵗⁱᵒⁿˢ 00:29, 6 February 2011 (UTC)

Heath Totten

Heath Totten ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Heath Totten" (http://www.google.com/search?
as_eq=wikipedia&q=%22Heath+Totten%22&num=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22Heath+Totten%22) · scholar (http://scholar.google.com/scholar?
q=%22Heath+Totten%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?
Query=%22Heath+Totten%22&acc=on&wc=on) · free images (http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Heath+Totten%22+-site:wikipedia.org+-
site:wikimedia.org))

Non-notable, 32-year old, free agent, minor league baseball pitcher who hasn't played since 2008. His 66-73 record is far from stellar and, in my opinion, does not merit an article. Alex (talk) 22:13, 29 January 2011 (UTC)

- **Keep** "hasn't played since 2008" His page at the official Minor League Baseball website [1] (http://web.minorleaguebaseball.com/milb/stats/stats.jsp?
n=Heath%20Totten&pos=P&sid=l112&t=p_pbp&pid=456726) states that his status is "Active". It also states that he has pitched as recently as December 29, 2010. He is playing for Bravos de Margarita in the Venezuelan League - the highest professional league in the country of Venezuela. Some of his teammates this past year are major league players. The second guideline of the baseball notability guidelines: "Have appeared in at least one game in ... any other top-level national league." Having played in the top professional league of Venezuela, I feel he qualifies. Kinston eagle (talk) 22:38, 29 January 2011 (UTC)

    I would also note that he participated in the 2010 Caribbean Series. Wikipedia:Notability (sports) states that "Sports figures are presumed notable (except as noted within a specific section) if they: 1. have participated in a major international ... professional competition at the highest level" Kinston eagle (talk) 22:49, 29 January 2011 (UTC)

    The Olympics are "major." The Caribbean Series is not. Alex (talk) 18:38, 31 January 2011 (UTC)

    The Olympics are a major amateur competition. The Caribbean Series is professionals only. Regardless, there were no Summer Olympics in 2010, so one could argue that this was the most important international baseball tournament of that year - professional or amateur. Kinston eagle (talk) 19:31, 31 January 2011 (UTC)

- **Keep** per Kinston. Spanneraol (talk) 23:07, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Sportspeople-related deletion discussions. -- • Gene93k (talk) 01:03, 30 January 2011 (UTC)
- **Comment** That rule really needs tweaking then. There is no way a person who plays in a relatively unknown (and meaningless) "top-tier level" league in a country like Venezuela is as notable and noteworthy as someone who plays in the major leagues. I hate to go all WP:WAX-y on us, but that opens up the door to a lot of REALLY obscure people that are really not deserving of an article. For example, there are "top level" leagues in countries like Colombia that don't even have websites, and are akin to sandlot or at best independent or A-ball quality in the United States. However, as the rules are written, they are just as deserving of an article as Babe Ruth. That seems a bit wrong. If Player X plays in Venezuela, he is article worthy, even though the competition is not much better than the United States' minor leagues. However, if Player Y plays in the U.S. minors and does just as well as Player X, he doesn't get an article because he didn't play in a de facto "top league." That is off. Players like this maybe deserve articles on the Baseball Reference Bullpen, not Wikipedia. Alex (talk) 05:26, 30 January 2011 (UTC)

  Well, if someone plays for some obscure team in a country that has no websites then it would be very difficult to acquire sourcing about them.. In Totten's place, his appearance in the Caribbean series carries more weight with me than his playing in the Venezuelan league. Spanneraol (talk) 16:07, 30 January 2011 (UTC)

  The guideline was written that way for a reason. Within the context of Venezuelan athletics, Venezuelan professional baseball is notable, as are the participants at the top level of that sport. If we're going to have articles on Venezuela at all, then we need to cover Venezuela regardless of whether or not Venezuelan things would be notable outside the particular context of that country. As to B-R bullpen, why should we care what they do or don't cover? They're a separate organization operated by a separate set of people. -Hit bull, win steak$^{(Moo!)}$ 17:06, 31 January 2011 (UTC)

  Which entirely sets aside, of course, the matter of Totten being notable purely for his minor league accomplishments. He was a two-time minor league all-star who set a record in the Southern League. That's a pretty good case in and of itself. -Hit bull, win steak$^{(Moo!)}$ 17:11, 31 January 2011 (UTC)

  You are insinuating then that being a minor league All-Star is inherently notable, which it too is not. Is every Purple Heart winner deserving of an article? Is every member of a rotary club Hall of Fame worthy of an article? The notability of those accomplishments are akin to the notability of being a minor league All-Star. His record is nothing more than a random, unsourced tidbit, meaningless trivia. Most innings pitched without a walk is hardly anything that would merit an article, especially from a minor league. Alex (talk) 18:37, 31 January 2011 (UTC)

  There are a hell of a lot more Rotarians and Purple Heart winners than there are minor league All-Stars, and in my experience a player generally is the subject of enough profiles and interviews to meet GNG once he wins a spot on a minor league all-star team at A+ or above. Whether or not people at AFD feel like actually looking for those sources is another matter, of course. As for the record, you'd do well to keep in mind that others may disagree with your interpretation of its prestige. -Hit bull, win steak$^{(Moo!)}$ 22:16, 31 January 2011 (UTC)

- **Keep** per Kinston eagle. Rlendog (talk) 21:43, 31 January 2011 (UTC)

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title=Wikipedia:Articles_for_deletion/Heath_Totten&oldid=412252841"

Wikipedia:Articles for deletion/History of the BattleTech universe

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< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. **Tone** 21:17, 5 February 2011 (UTC)

History of the BattleTech universe

History of the BattleTech universe (edit|talk|history|links|watch|logs|views) – (View log) (*Find sources:* "History of the BattleTech universe" (http://www.google.com/search? as_eq=wikipedia&q=%22History+of+the+BattleTech+universe%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22History+of+the+BattleTech+universe%22) · scholar (http://scholar.google.com/scholar?q=%22History+of+the+BattleTech+universe%22) · JSTOR (http://www.jstor.org/action/doBasicSearch? Query=%22History+of+the+BattleTech+universe%22&acc=on&wc=on) · free images (http://images.google.com/images? safe=off&tbm=isch&tbs=sur:fmc&q=%22History+of+the+BattleTech+universe%22+- site:wikipedia.org+-site:wikimedia.org))

The article is almost exclusively a plot-only description of a fictional work and lacks references independent of the subject from third-party sources which means it doesn't meet verifiability to check notability. The article relies on primary sources and it appears to be original research by synthesis. Also, it is written with an in-universe perspective that lacks real-world perspective. It's an unneeded content fork that doesn't meet the criteria of the general notability guideline and falls into the criteria of reasons for deletion. Jfgslo (talk) 15:42, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Literature-related deletion discussions. —Jfgslo (talk) 15:52, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Comics and animation-related deletion discussions. —Jfgslo (talk) 15:52, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Fictional elements-related deletion discussions. —Jfgslo (talk) 15:52, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Science fiction-related deletion discussions. —Jfgslo (talk) 15:52, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Games-related deletion discussions. —Jfgslo (talk) 15:52, 29 January 2011 (UTC)
- **Keep** Can't understand such a massively popular series, without being able to read through its fictional history. Very encyclopedic. I believe we had this same debate for the histories of other universes/series, from Star Wars, Star Trek, Harry Potter, and others. Sometimes they are called timelines. **Dream Focus 16:10, 29 January 2011 (UTC)**
- **Strong delete:** WP:NOTPLOT: "Plot-only description of fictional works." Pure "fictional

histories" are thus *never* encyclopaedic, by *explicit* policy. Complete lack of third-party sourcing is independently highly problematical. *Hrafn*$^{Talk}{}_{Stalk}$$^{(\mathbf{P})}$ 16:38, 29 January 2011 (UTC)

- **Strong delete** per NOTPLOT, this belongs on a wiki dedicated to BattleTech not Wikipedia, this is way too much detail, Sadads (talk) 18:29, 29 January 2011 (UTC)
- **Delete or transwiki somewhere that can use this** per NOTPLOT. Way, way, way too much detail. OSborn $^{arf}{}_{contribs.}$ 18:45, 29 January 2011 (UTC)
- **Delete** you can understand this series without a WP:CONTENTFORK by referring to the WP:DUE and concise summary at the main series article. We've had this same debate for numerous timelines... including Harry Potter. And they're all deleted... barring some heroic reason that the main article isn't enough and that sources can justify an entirely separate article. There's a consensus that timelines aren't inherently notable and there are policies such as WP:NOT that represent what the actual consensus is. Precedents:

  - Wikipedia:Articles for deletion/Dragonlance timeline (2nd nomination)
  - Wikipedia:Articles for deletion/Chronology of the Harry Potter series (5th nomination)
  - Wikipedia:Articles for deletion/Honorverse timeline
  - Wikipedia:Articles for deletion/Neon Genesis Evangelion timeline (2nd nomination)
  - Wikipedia:Articles for deletion/Shadowrun timeline (3rd nomination)
  - Wikipedia:Articles for deletion/The Sopranos timeline
  - Wikipedia:Articles for deletion/Thurian Age
  - Wikipedia:Articles for deletion/Historical Wheel of Time events
  - Wikipedia:Articles for deletion/World of Greyhawk timeline

  Shooterwalker (talk) 23:34, 29 January 2011 (UTC)
  I would think that shows that if you keep nominating something long enough, you'll get people who agree with you to end it your way. **Dream Focus** 01:05, 30 January 2011 (UTC)

  > Remember to assume good faith. The few re-nominations involved articles that were deleted then re-created, or found themselves at "no consensus" as people tried to argue about whether the articles had any potential to meet consensus policies and guidelines. The best way to rescue an article is help it meet consensus policies and guidelines... not baldly asserting it's fine the way it is. Shooterwalker (talk) 01:35, 30 January 2011 (UTC)

- I transwikied the entire history of the article to http://battletech.wikia.com/wiki/History_of_the_BattleTech_universe to save all the work of the editors who have worked on in since it was created on October 4 2004. **Dream Focus** 19:27, 3 February 2011 (UTC)

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title=Wikipedia:Articles_for_deletion/History_of_the_BattleTech_universe&oldid=412220136"

Wikipedia:Articles for deletion/Hugh Allison

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< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. -- **Cirt** (talk) 21:14, 31 January 2011 (UTC)

Hugh Allison

Hugh Allison ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Hugh Allison" (http://www.google.com/search?
as_eq=wikipedia&q=%22Hugh+Allison%22&num=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22Hugh+Allison%22) · scholar (http://scholar.google.com/scholar?
q=%22Hugh+Allison%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?
Query=%22Hugh+Allison%22&acc=on&wc=on) · free images (http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Hugh+Allison%22+-site:wikipedia.org+-
site:wikimedia.org))

This has just been speedied, which was too hasty, then restored. Nevertheless the subject of the article does lack notability. Many of the claimed credits are for work which was not paid at all, or not at professional rates. I suggest deletion. SamuelTheGhost (talk) 21:04, 22 January 2011 (UTC)

- This has been speedy deleted four times since 2007, and the creator has not managed to fix it in that time. I speedied it recently after it appeared on the spam list, and restored it because the creator asked me to, but I can't find secondary sources. SlimVirgin ᵗᵃˡᵏˡᶜᵒⁿᵗʳⁱᵇˢ 22:13, 22 January 2011 (UTC)

- SamuelTheGhost thanks for keeping me up to speed. SlimVirgin, thanks for restoring it. I am going to cut the page down shortly (so it reads less like a CV as per your suggestion). I agree the subject lacks any real notability outside the London Fringe and Internet Radio scene, but I believe he is of interest to some people, maybe those auditioning for him.--TimothyJacobson (talk) 22:48, 22 January 2011 (UTC)

  I should also thank SchuminWeb for deleting the original statement of spam, and should declare that I have messaged this user to ask for help in improving the article. NB, I have started work on changing this article so it is more wiki-worthy. It is breaking my heart to cut down a page I probably contributed more to than anyone else, but I do see everyone's point. I had felt that by putting links to where I found the info from would make the article more wiki-worthy, but I would agree that most of the info comes from www.hughallison.com (so this is what I creditted) so I can now see it would have been best if I had not put the info on at all. Re SamuelTheGhost's comment above, which I have just re-read, although I have long suspected that most of Allison's work is that for which he has not been paid professional rates, if there is a site or similar which states this, I would appreciate knowing it, in case that provides more useful info/citations which I could use when trying to rebuild the page--TimothyJacobson (talk) 23:23, 22 January 2011 (UTC)

As per above, I am hoping to remove all credits which are sourced from www.hughallison.com - as a geuine question, should I also remove credits from doollee.com and or the Young Vic Genesis Page which I have also cited many times?--TimothyJacobson (talk) 23:33, 22 January 2011 (UTC)

I do apologise for adding so many comments to this page, but I want to keep everything I am doing above board, and also making it clear what I am doing and asking questions etc so as to make sure the page is not redeleted. I am aware that I still need to dramatically chop down and rewrite the "Directing" section and the "Writing" section. I am tired/hungry now, so leave it for a bit, but will strive to amend them within the next 48 hours. Do please message me to let me know if there is anything else that should be changed. Specifically, the "Gospel" section - is this ok, should it be shortened, should it go to a separate article page, or should I cut it completely? All thoughts & advice welcome--TimothyJacobson (talk) 23:47, 22 January 2011 (UTC)

Hi Tim, we're allowed in biographies of living persons to use the subject's own self-published website as a source, but only within reason. It can't reach the point where the Wikipedia article has effectively become an extension of—or even substitute for—the personal website, so that's a matter of editorial judgment, erring on the side of caution. Other than the subject's, we're not allowed to use any self-published sources. See WP:BLPSPS. The most important thing here is to find secondary sources who have written about him, to establish whether he's notable enough for a WP biography. SlimVirgin talk|contribs 00:02, 23 January 2011 (UTC)

Hi Slim. Thanks for that. To be safe though, I will stick to not using quotes from the presumably self-published hughallison.com and will only use a minimal amount from the (presumably also self-published) wix.com. To my understanding, re my above question, I will also remove the "Young Vic" references, as I believe that anything about the Genesis Project can be edited by the directors, in the same way that actors can edit their Spotlight/imdb pages. Unless requested otherwise, I will keep the doollee.com citations, as (having looked at the site in more detail) it seems that anyone thereon still needs to submit their work to be vetted. // Also, re the comment on your talk page, I can't find any references anywhere to the Observer/As You Like It quote (other than on Allison's website and on other wiki's so I will remove it).--TimothyJacobson (talk) 01:11, 23 January 2011 (UTC)

I have done quite a bit more work, including cutting the no of words dramatically. I think my original thought was that the piece would have been less likely to be deleted if the page was longer, as it would imply Allison had done more and was thus wiki-worthy. I am now going down the less-is-more route. [also, I didn't want to risk the page being labelled a stub]// I would appreciate people having a look at the page as it stands, and letting me know their thoughts. Specifically, (1) Is there anything else that should be changed/removed, (2) does the page still rely on any sources from websites which are self-published or not allowed by Wiki for any other reason, (3) does it still look like an extension of Allison's website and (4) now that the lists are smaller, do the directing section and the writing section still need to be amended into more of a paragraph or encyclopedic style? I will be online again within 48 hours to make any suggested amendments.--TimothyJacobson (talk) 02:31, 23 January 2011 (UTC)

It's still just a list, not an article, and it needs secondary sources. That's the thing to focus on. If there are no secondary sources (e.g. newspaper articles about him, or that mention him in more than passing), it should be deleted. SlimVirgin talk|contribs 03:51, 23 January 2011 (UTC)

> I have just done more trimming and it is (in my opinion at least) no longer a list; just a couple of basic paragraphs. I will work on the secondary sources issue within 48 hours.--TimothyJacobson (talk) 12:05, 23 January 2011 (UTC)

I have just gone back to the article. I can't find anything online where Allison gets more than a fleeting mention or a credit, so I believe that (much as it would break my heart based on the no of hours I have put in over the years working on the article) it is perhaps sensible that the piece is deleted. I also looked through several of the other Actors/Filmmakers for deletion, and I think I understand even more why the Hugh Allison one should go.--TimothyJacobson (talk) 00:19, 24 January 2011 (UTC)

> Thanks, Tim, and thanks too for trying to find sources. SlimVirgin ^{talk|contribs} 00:23, 24 January 2011 (UTC)

> > No probs--TimothyJacobson (talk) 00:27, 24 January 2011 (UTC)

- **Note**: This debate has been included in the list of Actors and filmmakers-related deletion discussions. -- • Gene93k (talk) 23:23, 23 January 2011 (UTC)

- **Delete** - I can find no significant coverage in reliable sources to establish notability. Kudos to TimothyJacobson for a valiant rewrite, but at this point, I don't see that the subject meets wikipedia's inclusion criteria.-- Whpq (talk) 15:10, 24 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:39, 29 January 2011 (UTC)

- **Delete** The first source [1] (http://www.thisislondon.co.uk/theatre/show-23376849-gospel.do) is actually a reader's comment (note the "report abuse" link on the review text.) The second leads to a site with more detail about him,[2] (http://www.google.com/search?source=ig&hl=en&rlz=1G1GGLQ_ENJP338&q=site:www.yorkshakespeareproject.org+hugh.allison&btnG=Google+Search&aq=f&oq=) but with no source meeting WP:RS for WP:N. The third is just an event listing, crediting him with co-direction.[3] (http://www.thestage.co.uk/listings/production.php/47717/ferry-lights-tomorrow-we-build-our-jerusalem). The fourth [4] (http://www.doollee.com/PlaywrightsA/allison-hugh.html) credits him with a list of plays, and there are some links to theater schedules, but it's not clear anybody's vetting the information posted. The fifth is a duplicate of fourth link. The sixth [5] (http://www.hertfordshire.com/pages/entries/show-entry.asp?id=9651) doesn't mention him at all. A google book search turns up only one source [6] (http://books.google.com/books?id=U5krAQAAIAAJ&q=hugh.allison+playwright+-%22smith,+hugh+allison%22+-%22hugh+allison+smith%22&dq=hugh.allison+playwright+-%22smith,+hugh+allison%22+-%22hugh+allison+smith%22&hl=en&ei=evZDTZ6EMYG8vwPBk4jyAQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCYQ6AEwAA) that says anything at all about him -- and it's a bit dismissive (dings him for a "turgid" production.) So far, we don't have multiple independent third-party sources. At this point, the likelihood of finding any seems remote. Yakushima (talk) 11:16, 29 January 2011 (UTC)

- **Delete** - Footnotes point to superficial listings of individual's name and position. Fails to meet muster for non-trivial third party coverage, in my opinion. Carrite (talk) 03:15, 30 January 2011 (UTC)

- **Delete**; I don't think anything can be done to save the page--TimothyJacobson (talk) 10:31, 30

January 2011 (UTC)

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title=Wikipedia:Articles_for_deletion/Hugh_Allison&oldid=411242394"

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Wikipedia:Articles for deletion/Legislation sponsored by Ron Paul (2nd nomination)

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< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **keep.** As a note to Diligent Terrier and to those who took up his arguments, an article cannot be deleted *and* merged due to licencing issues. Therefore, AfDs should not be opened to propose mergers. Merging an article does not need an AfD (but it does need consensus). Sandstein (talk) 06:18, 28 April 2008 (UTC)

Legislation sponsored by Ron Paul

Legislation sponsored by Ron Paul
(edit | talk | history | links | watch | logs | views)
(delete (//en.wikipedia.org/w/index.php?

> AfDs for this article:
> - Articles for deletion/Legislation sponsored by Ron Paul
> - Articles for deletion/Legislation sponsored by Ron Paul (2nd nomination)

title=Legislation_sponsored_by_Ron_Paul&wpReason=AfD+discussion%3A+%5B%5BWikipedia%3A Articles+for+deletion%2FLegislation+sponsored+by+Ron+Paul+%282nd+nomination%29%5D%5D&ac tion=delete)) – (View log)

An entire article on a U.S. Congressman's legislation sponsorships does not seem like it belongs in Wikipedia. I think we should merge the worthwhile info into Ron Paul's article, but delete this article and the parts that talk about every single piece of legislation the he sponsored - Diligent**Terrier** (and friends) 17:09, 22 April 2008 (UTC)

- **Delete** and merge the good info into Political positions of Ron Paul and Ron Paul. - Diligent**Terrier** (and friends) 17:12, 22 April 2008 (UTC)
- **Delete**. Per Diligent Terrier, merge the good info into the article about himself and the one that simply lists his positions. Articles in the style of "Legislation sponsored by" sound like they have the potential to hint at non-neutrality through an implicit guilt by assosciation fallacy, which would be a POV grey area. WilliamH (talk) 17:32, 22 April 2008 (UTC)
- **Nuke** from orbit per nom and previous votes. **Ziggy Sawdust** 18:08, 22 April 2008 (UTC)
- **Speedy keep** per long-established consensus against merging, demonstrated at this article, Ron Paul, and the prior AFD. Arguments presented by nom are WP:IDONTLIKEIT, WP:UNENCYCLOPEDIC, and WP:NOGOOD. The other argument is WP:CRYSTAL: a comment in this style sounds like it has the potential to hint at an argument through an implicit fallacy which would be a grey area (it speaks for itself). What qualifies as ungood and why? WP:SOFIXIT. Further, nom has not attempted *any* of the deletion alternatives recommended prior to AFD: editing, discussing, or proposing merge (which is not done by AFD); nom has only added tags and failed to respond to an offer to discuss: see talk. FYI, similar articles exist for Clinton, Romney, Giuliani, and Kerry. JJB 18:09, 22 April 2008 (UTC)
- **Comment**: I have notified the other editors of this article at this point. JJB 18:27, 22 April 2008 (UTC)
- **Keep**. I see nothing wrong with this article. It's large and well-referenced, so a merge would be unsuitable. As for deletion, I also disagree, as it's fully-verifiable with reliable sources and a good supplement to the main article about Paul. SchuminWeb (Talk) 18:31, 22 April 2008 (UTC)

- **Comment**: Prior AFD !votes were 3 delete (1 nom, 2 per nom), 2 merge, 7 keep (1 strong, 2 speedy). Should never have been renominated. JJB 18:34, 22 April 2008 (UTC)
- **Comment**: One of the bills mentioned in this article just survived its own AFD as debatably notable in itself. Several other bills have their own articles or sections of other articles. JJB 18:34, 22 April 2008 (UTC)
- **Keep**, of course. Re-noms when the original AfD produced such an overwhelming consensus to keep just scream bad faith, sour grapes, and forum shopping. Kurt Weber (**Go Colts!**) 18:40, 22 April 2008 (UTC)
- **Keep** although I'd like to see a merge some day. I still think this was rather a bad idea and largely, perhaps entirely, redundant, but I can't muster the enthusiasm to propose a merge at this time. Deletion is not an option in this sort of case unless it's done right away. Many thanks to JJB for letting me know about this AfD. I nominated it for deletion first time round. Angus McLellan (Talk) 18:48, 22 April 2008 (UTC)
- **Weak Keep**: Honestly, I don't really like this article, but I can't find a good reason to support its deletion. Most (if not all) of the bills Ron Paul has proposed are non-notable as they are the Congressional equivalent of WP:SPIDER and WP:POINT. However, his legislative antics have caught the attention of reliable sources, Congressional Quarterly gave him a nod in their list of 50 ways to be a congressman for his Don Quixoteish behavior. Maybe a move to a more suitable title, like Congressional career of Ron Paul, chopping out the list cruft, and focusing the article more on the the collateral effects of and (significant) reactions to his antics is in order. If the AFD does close in Delete, I would recommend userfying the article to John or myself. Burzmali (talk) 18:49, 22 April 2008 (UTC)
    - Thank you very much for changing your vote from last AFD's "merge"! But I suppose the presence of V costumes at the White House this last April 15 probably does tempt WP:SPIDER. Please inform ArbCom. JJB 20:38, 22 April 2008 (UTC)
- **Keep** - I was not crazy about this article either, and on first face it seems like notability would be a concern. But the lead paragraph does a great job establishing that notability, and the article is extremely well referenced. I also took quick issue with the fact that the whole article is a list of bullets: in the end it's obvious that bulleted lists are the best way to organize the information, and the formatting is impeccable. I find no good reason to delete this article. -FrankTobia (talk) 18:52, 22 April 2008 (UTC)
- **Delete** as undesirably selective or nuke and recreate as an article more in line with the aforementioned Senate career of Hillary Rodham Clinton, or merge, as there already is a Political positions of Ron Paul article. According to the Library of Congress, Ron Paul has sponsored or co-sponsored 422 pieces of legislation, and yet a little more than ten percent are represented here. Why? Why those? I think a better way to go would be to create an article about his career out of whole cloth (and, of course, reliable sources), rather than make an incomplete list of his favorite legislations. Because clearly there is an editorial process here selecting what editors feel are the "important" legislations he's supported (e.g. the article omits such goverment-standard wankery as H.CON.RES.125 (http://thomas.loc.gov/cgi-bin/bdquery/D?d110:7:./temp/~bdjIih::%7C/bss/d110query.html%7C) "Recognizing the health benefits of eating seafood as part of a balanced diet, and supporting the goals and ideals of National Seafood Month.") And while the legislations here are sourced, the editorial process to choose which ones get included isn't, which I don't think is a good thing. Ford MF (talk) 19:13, 22 April 2008 (UTC)
    - Would you mind explaining how to obtain your list of 422 bills from LOC? The editorial process is the same as throughout WP: those bills which are deemed notable enough to merit listing in subsections of an article (whether or not they are notable enough for separate articles). Just like we have a list of commemorative days that includes everything not notable enough for its own article (such as National Seafood Month). (Of course since Paul represents many shrimp farmers, this sponsorship is not mere wonkery.) The fact that Wikipedians deem about 10% of the bills notable enough is not a deletion argument. I'll add that HCR right now. Note that is only the fourth bill which was cosponsored rather than originally sponsored, which should suggest the primary editorial process involved here. JJB 20:32, 22 April 2008 (UTC)
        - Re: tallying his bills: LoC search (http://thomas.loc.gov/bss/d110query.html), filtering by Ron Paul as sponsor or co-sponsor yields 422 hits. Ford MF (talk) 23:05, 22 April 2008 (UTC)
- **Strong Keep** There's no good reason to delete it. It doesn't diminish other more notable articles (Wikipedia is not Britannica). SteveSims (talk) 20:16, 22 April 2008 (UTC)
- **Keep** too big to merge into any other article; information is relevant. **Monobi** (*talk*) 20:30, 22 April 2008 (UTC)

- **Keep**. Much of the legislation proposed by the subject has been the subject of controversy, and as such, is more notable than the regular day to day proposals in Congress. Also, it's too big to merge somewhere else. **Celarnor** Talk to me 21:24, 22 April 2008 (UTC)
- **Speedy Keep** Per all the previous keep arguments of the past AfD's. The article was good enough to keep before and I see no major decline in quality since the last AfD. Buspar (talk) 22:24, 22 April 2008 (UTC)
- **Speedy keep** no valid argument in the nomination for deletion of this article. **Jerry** talk ¤ count/logs 04:46, 23 April 2008 (UTC)
- **Keep**. It passed with a pretty convincing keep decision only about 4 months ago. If content has been added since which jeopardizes its viability, then revert back to the version kept in January, if necessary. 23skidoo (talk) 17:18, 23 April 2008 (UTC)
- **Speedy keep**. I disagree with everything proposed by the nominator, and cannot see how it correlates to Wikipedia policy. Coccyx Bloccyx (talk) 18:40, 23 April 2008 (UTC)
- **Delete**. Per Diligent Terrier --Lemmey talk 06:02, 27 April 2008 (UTC)
- **Keep** seems to be notable. **Yahel Guhan** 23:04, 27 April 2008 (UTC)

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Wikipedia:Articles for deletion/List of business failures (2nd nomination)

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The result was **keep**. Regrettably, as this is a rather poor list. Stifle (talk) 10:47, 8 February 2011 (UTC)

List of business failures

List of business failures

AfDs for this article:
• Articles for deletion/List of business failures
• Articles for deletion/List of business failures (2nd nomination)
• Articles for deletion/List of business failures (3rd nomination)

(edit | talk | history | links | watch | logs | views) – (View log)
(*Find sources:* "List of business failures" (http://www.google.com/search?as_eq=wikipedia&q=%22List+of+business+failures%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22List+of+business+failures%22) · scholar (http://scholar.google.com/scholar?q=%22List+of+business+failures%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22List+of+business+failures%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22List+of+business+failures%22+-site:wikipedia.org+-site:wikimedia.org))

Way too vague a criterion. Businesses go out of business all the time. No definition for what constitutes a "failure"; we have everything from the Dixie Square Mall to redlinked businesses of dubious notability. Last AFD closed as keep because nominator was a sockpuppet. Ten Pound Hammer, his otters and a clue-bat • (Otters want attention) 20:47, 29 January 2011 (UTC)

- **Delete** or **split up**. There are several more focused lists crying to be freed from this one's carcass, but the current list is a mess. It's got everything from Newton Heath, which turned into Manchester United, to Debbie Reynold's Hollywood Hotel and Casino, which was sold and later shut down under a different name and owner, and Maria's Bakery, hardly a notable disaster. Clarityfiend (talk) 23:33, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Business-related deletion discussions. -- • Gene93k (talk) 00:55, 30 January 2011 (UTC)
- **Note**: This debate has been included in the list of Lists-related deletion discussions. -- • Gene93k (talk) 00:55, 30 January 2011 (UTC)

- **Keep** The scope of the article seems clear enough. If there are problems with particular entries or if the list grows large then these matters may be dealt with by ordinary editing. It is not our editing policy to use wholesale deletion for such reasons. Colonel Warden (talk) 08:38, 30 January 2011 (UTC)
    - **Comment**. How do you determine which businesses are "notable for their financial impact in the economy"? Where's the dividing line? Clarityfiend (talk) 22:52, 30 January 2011 (UTC)
        - Notability is determined by the availability of good sources. This then divides notable failures from the non-notable ones. Colonel Warden (talk) 10:05, 1 February 2011 (UTC)
- **Delete** -- no notability criteria for which business failures would be sufficiently notable to merit inclusion; and no criteria have been offered that come from a reliable secondary source. N2e (talk) 03:18, 31 January 2011 (UTC)
- **Keep** TenPoundHammer, you claim the last one closed because the nominator was a sockpuppet, not because everyone else there, including yourself, said Keep. That is an odd claim. Seems like it'd be a snow keep no matter what. Anyway, there is nothing wrong with the list. If you want to read about a business that failed, this is a good place to find one. Almost all the links are blue, aiding in navigation by linking to other Wikipedia articles, with the few red ones have citations to them strangely enough. Business failures are always mentioned in the news media, and also this is something clearly notable, something an encyclopedia should have, something people can and should learn from. What did they do wrong? Why did they fail? **Dre**a**m Focus 12:10, 31 January 2011 (UTC)**

Note: I contacted everyone who participated in the last AFD, who wasn't here already and wasn't banned for being a sock-puppet, since they should be aware of reruns. **Dre**a**m Focus 12:15, 31 January 2011 (UTC)**

- **Keep** - The criteria for inclusion in this list is sufficient for editors to determine if a company belongs. Is there any serious doubt that Enron was a spectacular example of a business failure? And that it was documented as such in reliable sources? Inclusion of companies that are borderline cases can be discussed on the article's talk page but do not invalidate the premise of the list. -- Whpq (talk) 17:27, 31 January 2011 (UTC)

- **Note**: The article under discussion here has been {{rescue}} flagged by an editor for review by the Article Rescue Squadron. SɴᴏᴛᴛʏWᴏɴɢ ᵉˣᵖʳᵉˢˢ 19:15, 31 January 2011 (UTC)
- **Depends** - The inclusion criteria for the list is overly vague, and produces a list that can never be practically completed. If someone wants to take the time to define what a notable business failure is, and then cull the list of non-notable business failures, then I would say we should **Keep** it. If no one will take the time to do this and the article will sit for a few more years in this state, then I would say we should **Delete** it until such time that the inclusion criteria can be properly defined. The ARS have already been notified, perhaps they can devote some time to tightening up this list. SɴᴏᴛᴛʏWᴏɴɢ ᵉˣᵖʳᵉˢˢ 19:15, 31 January 2011 (UTC)

The inclusion is defined as "This list of business failures collects significant companies who met eventual demise of their well known brand. The causes include criminal proceedings, simple insolvency and are notable for their financial impact in the economy." **Dre**a**m Focus 21:36, 31 January 2011 (UTC)**

Define "significant, "demise", and "well known" in this context. SɴᴏᴛᴛʏWᴏɴɢ ᵖʳᵃᵗᵗˡᵉ 15:18, 3 February 2011 (UTC)

- **Neutral** how does one define a business failure? You can't really define a business failure as such, for that reason I'm neutral. IJA (talk) 21:09, 31 January 2011 (UTC)

  See business failure **Dream Focus 21:36, 31 January 2011 (UTC)**

  So why are A.F.C. Bournemouth, Crystal Palace F.C. and Portsmouth F.C. in the list? IJA (talk) 02:21, 1 February 2011 (UTC)

  > If you see something that doesn't belong remove it, and discuss on the talk page. If someone came along and added something incorrectly or as vandalism, that doesn't mean the entire article should be deleted. Normal editing will fix any problems. **Dream Focus 10:13, 1 February 2011 (UTC)**
  > I just took these football clubs out. They still exist as going concerns and brands and so have no business being in this list. This is how such particular entries should be dealt with. Deleting the entire article for the sake of a handful of incorrect entries would be absurd. Colonel Warden (talk) 10:18, 1 February 2011 (UTC)

- **Keep** A definition of "business failure" would be an improvement, but not having a precise definition is no reason to delete this list. Any particular company included incorrectly can be challenged or removed, or rescued with reliable secondary sources. So, keep, but discuss a definition on the article talk page. --DThomsen8 (talk) 22:43, 1 February 2011 (UTC)
- **Keep** Perhaps in the future the list will be split into List of companies that declared bankruptcy, List of companies that were placed in receivership, and others, but in the meantime this is a perfectly acceptable list. Would not have a problem removing the redlinks, but I don't agree with TPH's assertion that the presence of a few redlinks is a reason to delete a list. UnitedStatesian (talk) 03:53, 2 February 2011 (UTC)

- **Keep** I think this article is notable, however I do suggest that there should be some sort of criteria to define what is classed as a business failure. However I can't see any strong reasons as to why this article should be deleted, therefore I think we should Keep this article. IJA (talk) 03:55, 4 February 2011 (UTC)

- **Delete** - Microscopic fragment of an unreasonably vast list, with insufficiently coherent inclusion criteria. The same information is accessible through the articles on the firms in question and via the "(YEAR) Disestablishments" categories. Carrite (talk) 20:07, 6 February 2011 (UTC)
- **Weak keep** and even then, *only* because it's been flagged for rescue and the subject would be notable enough to rate encyclopedic treatment. If it's not an indiscriminate list, then I'd call it a barely discriminate one-- the only distinguishing info seems to be the year of "failure", which isn't that useful. If details were to be added, such as what the business was (I shopped at Montgomery Ward and flew on TWA, so I know what those were, but we can't assume that everyone does), then I agree with the person above that this would eventually be broken down into other lists. If not, I think the outcome next time around will be a delete. Mandsford 14:14, 7 February 2011 (UTC)

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Wikipedia:Articles for deletion/Melqui Torres

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The result was **keep**. **Tone** 21:16, 5 February 2011 (UTC)

Melqui Torres

> Melqui Torres ⟨edit | talk | history | links | watch | logs | views⟩ – (View log)
> (*Find sources:* "Melqui Torres" (http://www.google.com/search?
> as_eq=wikipedia&q=%22Melqui+Torres%22&num=50) – books (http://www.google.com/search?
> tbs=bks:1&q=%22Melqui+Torres%22) · scholar (http://scholar.google.com/scholar?
> q=%22Melqui+Torres%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?
> Query=%22Melqui+Torres%22&acc=on&wc=on) · free images
> (http://images.google.com/images?
> safe=off&tbm=isch&tbs=sur:fmc&q=%22Melqui+Torres%22+-site:wikipedia.org+-
> site:wikimedia.org))

Non-notable, 33-year old, free agent minor league baseball pitcher who hasn't played since 2008. He is 48-52 with a 4.54 ERA, which are far-from-stellar statistics. He doesn't merit an article. Alex (talk) 22:09, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Baseball-related deletion discussions. -- • Gene93k (talk) 01:01, 30 January 2011 (UTC)
- **Note**: This debate has been included in the list of Sportspeople-related deletion discussions. -- • Gene93k (talk) 01:02, 30 January 2011 (UTC)
- **Keep** Played for the Hyundai Unicorns in the highest professional league in Korea. The second guideline of the baseball notability guidelines: "Baseball figures are presumed notable if they ... Have appeared in at least one game in ... any other top-level national league." Having played in the top professional league of Korea, I feel he qualifies. Kinston eagle (talk) 02:12, 30 January 2011 (UTC)
- **Keep** per Kinston eagle. -Hit bull, win steak [Moo!] 16:59, 31 January 2011 (UTC)
- **Keep** per Kinston eagle. --Muboshgu (talk) 22:59, 31 January 2011 (UTC)

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Wikipedia:Articles for deletion/Mike Emmett

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The result was **Speedily deleted per G7, NAC.**. ukexpat (talk) 21:23, 30 January 2011 (UTC)

Mike Emmett

Mike Emmett ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Mike Emmett" (http://www.google.com/search?
as_eq=wikipedia&q=%22Mike+Emmett%22&num=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22Mike+Emmett%22) · scholar (http://scholar.google.com/scholar?
q=%22Mike+Emmett%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?
Query=%22Mike+Emmett%22&acc=on&wc=on) · free images
(http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22Mike+Emmett%22+-
site:wikipedia.org+-site:wikimedia.org))

Insufficiently sourced BLP, and promotional WP:PUFFERY, possibly written by the subject him/herself. No Ghits appear to be available for *this* Mike Emmett other than the usual social networking sites.Kudpung (talk) 09:31, 29 January 2011 (UTC)

- **Delete.** Super puff piece lacking in relevant WP:RS, concocted as WP:SPAM by WP:SPA afflicted with WP:COI and WP:AUTO. Qworty (talk) 10:26, 29 January 2011 (UTC)
- **Delete**, per nom. JohnInDC (talk) 11:18, 29 January 2011 (UTC)
- **Do Not Delete.** michaelwemmett (talk) 11:43, 29 January 2011 (UTC) reliable PUBLISHED sources are now online at http://www.michaelwemmett.com/emmett1.jpg and http://www.michaelwemmett.com/emmett2.jpg Edits have also been made to the article.

  - Obvious COI is obvious. Ten Pound Hammer, his otters and a clue-bat • ^(Otters want attention) 18:32, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Authors-related deletion discussions. -- • Gene93k (talk) 19:26, 29 January 2011 (UTC)
- **Delete**. As I indicate in the lengthy discussion with the WP:COI author on the talk page of the article, there is little to no sourcing for this article. As indicated there, I find it odd that someone who is touted in the article to be a pioneer of sports journalism on the Internet has little to no WP:RS information about him on said Internet or in any other sources. To be fair, I don't think it's a hoax, but I feel like it's an attempt to build an article out of things that ultimately aren't sourceable and thus do not meet WP:V. The one cited source is the Mulligan book, but (a) one paragraph in one source (see the image provided by the subject above) does not meet the "multiple" and "non-trivial" aspects of WP:GNG, and considering this is a WP:BLP, that's not enough for an article, and (b) also importantly, in a TL;DR comment on said talk page, the subject of the article states "[b]esides myself, the book also spoke with"... which seems to indicate the included information about the subject in the book is based on information from the subject

himself rather than other sourceable information. I'm not questioning the book authors' reliability, but without any other actual source to corroborate the information in and to expand on the one paragraph, the "multiple" aspect of WP:GNG is nowhere near met, and there simply isn't enough here to write an actual encyclopedic article. Ultimately what's left is a resume in prose.--**Kinu** ^{t}/$_c$ 19:29, 29 January 2011 (UTC)

- **Delete** - per Kinu's excellent discourse. ukexpat (talk) 00:30, 30 January 2011 (UTC)
- **Delete** as per Kinu. Nipsonanomhmata (Talk)

The Mulligan book has 15 pages about me and my career and as far as articles online go, if you folks had been around actively working on the Web in 2000, you would know when the Dot Com Bubble burst, many, many companies went out of business. Servers with information about me, as well as Nando.net, were taken off line. And in the past decade, sites such as NASCAR.com (where I was the managing editor), had revamped their sites and cleaned out their servers. Articles that had been written about me were erased. Even New Media Columnist Steve Outing (SteveOuting.com), who had documented my career online and with SportsEditor.com in the 1990s, has a Web site that only goes back to 2006 with articles. The fact is this: I was the first sports editor on the Web. My boss was the first managing editor on the Web. We opened our doors in Raleigh, N.C., to other newspapers in the country because our publisher was also the chairman of AP (I assume, but cannot be sure, you know what The Associated Press is). USA TODAY, The N.Y. Times, and many other newspapers sent people to our offices in Raleigh to learn how we built and kept updating our Web site. They then took back what they learned and built sites on their own. That really did happen whether you like it, or believe it, or not. I suggest you take a look at hundreds of other articles you have about living persons. You will find those links they list are dead, too. —Preceding unsigned comment added by 174.97.234.123 (talk) 14:46, 30 January 2011 (UTC)

- Comment: The author blanked the page, so I've sent to deletion per G7." **T**$_{eLeS}$ (**T** $_{@ L C S}$) 17:17, 30 January 2011 (UTC)
    - That editor has also been blocked for sockpuppetry, violating WP:LEGAL, etc., etc. Another day on Wikipedia. Nothing to see here, people. :P --**Kinu** ^{t}/$_c$ 20:12, 30 January 2011 (UTC)

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Wikipedia:Articles for deletion/Norazia

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The result was **no consensus**. Ron Ritzman (talk) 01:39, 5 February 2011 (UTC)

Norazia

Norazia ﹝edit│talk│history│links│watch│logs│views﹞ – (View log)
(*Find sources:* "Norazia" (http://www.google.com/search?
as_eq=wikipedia&q=%22Norazia%22&num=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22Norazia%22) · scholar (http://scholar.google.com/scholar?q=%22Norazia%22) ·
JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22Norazia%22&acc=on&wc=on) ·
free images (http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Norazia%22+-site:wikipedia.org+-site:wikimedia.org))

I just can't find any sources on this worth anything. **D O N D E** groovily Talk to me 05:09, 14 January 2011 (UTC)

- **Note**: This debate has been included in the list of Bands and musicians-related deletion discussions. -- • Gene93k (talk) 03:02, 15 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:02, 21 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 01:51, 29 January 2011 (UTC)

- **Comment**. Not easy to find reliable sources for this, but there is a bit in French. This one, from Radio France (2005), is both independent and substantial.[1] (http://sites.radiofrance.fr/franceinter/em/souslesetoilesexactement/index.php?id=37968) An article in *Guitar Extreme* magazine indicates that she was nominated for a fr:Prix Adami/Bruno Coquatrix new artist award in 2008. A few other tidbits: a listing from *Le Figaro*[2] (http://scope.lefigaro.fr/musiques/concert/world-music/e-e560927--norazia/static/); a page from a magazine/website called *Le Most*[3] (http://www.lemost.fr/index.php?page=article&ref=1&sousref=4&art=769); a sort-of-review of her second album at fr:Radio Néo[4] (http://www.radioneo.org/artistes/biographie-norazia).--Arxiloxos (talk) 07:10, 30 January 2011 (UTC)
- **Keep** Ahmad, Azman (28 January 2005), "Tough fight for Siti", *The Malay Mail* says she had 4 nominations at Anugerah Planet Muzik 2005 and that looks like a good enough award. Coverage also in Bouziane, Daoudi (16 January 2004), "Norazia", *Libération Tentations* (machine translation includes "Indonesian cosmopolitan, Norazia signed a first album that has elapsed to nearly a

million copies.") and a short review in "Rappels", *Libération Tentations*, 23 January 2004. duffbeerforme (talk) 09:46, 3 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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title=Wikipedia:Articles_for_deletion/Norazia&oldid=412084008"

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Wikipedia:Articles for deletion/Prometheus (film)

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< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **keep** and redirect to Alien (franchise)#Alien Prequel. *lifebaka*++ 01:15, 8 February 2011 (UTC)

Prometheus (film project)

Prometheus (film) 〈edit|talk|history|links|watch|logs|views〉 – (View log)
(*Find sources:* "Prometheus (film)" (http://www.google.com/search?
as_eq=wikipedia&q=%22Prometheus+%28film%29%22&num=50) – books
(http://www.google.com/search?tbs=bks:1&q=%22Prometheus+%28film%29%22) · scholar
(http://scholar.google.com/scholar?q=%22Prometheus+%28film%29%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Prometheus+%28film%29%22&acc=on&wc=on) · free images
(http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Prometheus+%28film%29%22+-site:wikipedia.org+-
site:wikimedia.org))

Film has not yet entered production. Too soon for a page likely to be littered with rumour and speculation. magnius (talk) 20:50, 29 January 2011 (UTC)

- **Weak keep**. Although the film is in the future, and could even be potentially cancelled, it's will be filmed by a major film studio by a major director, and seems to be a lock to be produced. I would *definitely* remove all rumors in the article though.--Esprit15d • talk • contribs 23:32, 29 January 2011 (UTC)

  > If the film is cancelled, THEN delete the page? This, to me, makes more sense. Anthony of the Desert (talk) 16:45, 2 February 2011 (UTC)

  > > If the film is *made*, THEN *create* the page. This, to me, makes the most sense. -- IllaZilla (talk) 01:32, 6 February 2011 (UTC)

- **Note**: This debate has been included in the list of Film-related deletion discussions. -- • Gene93k (talk) 00:56, 30 January 2011 (UTC)
- **Note**: This debate has been included in the list of Science fiction-related deletion discussions. -- • Gene93k (talk) 00:57, 30 January 2011 (UTC)
- **Redirect** for now to Alien (franchise)#Alien Prequel where this topic is already far better covered and better sourced. As we do not treat "film projects" as films until principle filming actually begins, we might allow a return only if/when filming begins OR when coverage increases to the point where the topic of the project might merit an independent article as one of those rare exceptions to WP:NFF. **Schmidt,** *MICHAEL Q.* 02:17, 30 January 2011 (UTC)
- **Redirect** per MichaelQSchmidt. This project has generated enough buzz that it has acquired a

certain notability, but the Alien (franchise) already provides enough coverage for now.—RJH (*talk*) 17:06, 30 January 2011 (UTC)

- **keep** there are 3 sources that is enough for notabilityThisbites (talk) 05:51, 31 January 2011 (UTC)

  > Yes and no. While WP:NFF does allow that occasional exceptions might occur, the topic is curently far better covered and sourced at Alien (franchise)#Alien Prequel. If the nominated article were far more comprehensive, it might merit independence... but it currently is not.. and so does not... for now. **Schmidt,** *MICHAEL Q.* 21:58, 31 January 2011 (UTC)

- **Strong keep**: The article is in its embryonic stage and will expand as the film goes into production and more details are released. I never understand the willingness to delete pages which are obviously of interest to the public in general, especially with a franchise such as that of **Alien**. As long as there are references to any news releases and the quality maintained, their is no reasoning for getting rid of the article. If the there is a redirect, any fears of quality will just be much of an issue on that page, so that point has no merit. Anthony of the Desert (talk) 16:38, 2 February 2011 (UTC)

  > With the greatest of respect, and though I do agree that as the film approaches production coveage will quite likley increase, the topic of the prequel IS currently far better covered over at Alien (franchise)#Alien Prequel, and it is only in <u>very</u> rare cases that an unmade film is allowed to have its own seperate article. As you do wish to improve this one as more comes forward, why not simply request of the closer that the current one be userfied to you in a workspace at User:Anthony of the Desert/Prometheus (film) so that it can be expanded and better sourced. I would be glad to advise on how to prepare the article for an eventual return to mainspace. **Schmidt,** *MICHAEL Q.* 08:29, 3 February 2011 (UTC)

- **Delete & redirect the title** to Alien (franchise)#Alien Prequel, per WP:NFF & the fact that the topic is already better covered there. --IllaZilla (talk) 05:02, 3 February 2011 (UTC)
- **Keep**. Film project by major director. Polisher of Cobwebs (talk) 23:31, 5 February 2011 (UTC)

  > This does not address the concerns of the nomination, nor is notability inherited from the director. The director being highly notable is an *indicator* that the topic may receive significant coverage in reliable secondary sources, but as this is a future film that has not yet even begun filming (and appears to still be in the embryonic stages), comprehensive coverage does not yet exist. Thus far the source coverage that has popped up is mostly of the bottom-of-the-barrel internet rumor variety. --IllaZilla (talk) 01:00, 6 February 2011 (UTC)

    >> I really can't understand the problem with this article - when the film does enter production, it almost certainly will receive significant coverage, so if we delete it now, it will very likely be recreated again eventually. What, then, is the point of deletion? Polisher of Cobwebs (talk) 01:05, 6 February 2011 (UTC)

      >>> The film *may* enter production, it may not. It hasn't yet. WP:NFF exists primarily because so many film projects never see completion (I believe, in fact, that more films die in the idea stages than actually get made). WP:V and WP:N rely on the topic *already having received* significant coverage, not on the assumption that it *may receive* such coverage at some unknown point in the future. Wikipedia isn't the news, so it isn't really within our scope to cover topics that *might be notable at some point in the future*. If the film actually gets made, significant coverage will probably appear and yes, at that point we'll want an article on it. But that's no reason for keeping it around in the hope that it

actually gets made. The point of deletion is to remove an article that is guaranteed to be full of rumor and speculation as, by its nature, it is about an item that does not yet exist and may never come to exist. Deletion now is not an impediment to a new article being created in the future if, in fact, the film comes to fruition, especially given that the project is *already covered more thoroughly* in one of our other articles. --IllaZilla (talk) 01:17, 6 February 2011 (UTC)

> Thanks for directing me to the guideline, however, there is at least one reason for keeping the article for now - it would save anyone the trouble of having to recreate it from scratch. Polisher of Cobwebs (talk) 03:01, 6 February 2011 (UTC)

>> I think that's a very weak reason. It's a stub: The thing is 9 sentences, an IMDb link, and a navbox. Since most of it is speculative, future-tense material, it'd wind up totally rewritten anyway. --IllaZilla (talk) 03:15, 6 February 2011 (UTC)

>>> Any of the material there is potentially helpful to future editors, including the IMDb link. Polisher of Cobwebs (talk) 03:20, 6 February 2011 (UTC)

>>> Like I said, all of the material is already presented better at Alien (franchise)#Alien Prequel, so nothing useful to future editors is lost if we redirect this there. An IMDb link takes literally seconds to find. --IllaZilla (talk) 03:24, 6 February 2011 (UTC)

>>>> That would be true if you're already familiar with IMDb, but not everyone is. Frankly, the basis of my disagreement with you here is that I don't agree with the WP:NFF guideline; it seems to me always better to keep an article on projects like this if there's a reasonable chance they will be significantly covered in future. I don't expect my saying that to alter the outcome of this AfD, but I will say it for the record. Polisher of Cobwebs (talk) 05:20, 6 February 2011 (UTC)

>>>>> You don't need to be familiar at all with IMDb. You literally just go to imdb.com and type "prometheus" in the search box, just like you would at Google or any other searchable website (including Wikipedia). Anyhoo...I think we just have fundamental differences of opinion here regarding articles on future topics. You think we should keep such articles on the possibility of their future coverage, while I take the opposite tack: I believe that our standards require us to judge article topics based on *existing* coverage, not on uncertain future

coverage. With a few notable exceptions (*Chinese Democracy* had a well-written and well-sourced article well before its release, having been in production & thoroughly reported on for 13 years...but again, the coverage already existed), this weeds out most articles about future films/albums/games that have not yet begun principal development and about which we inevitably wind up reporting mostly on rumors and speculation. --IllaZilla (talk) 05:33, 6 February 2011 (UTC)

- **Weak Keep**. Sources look ok so its not crystal ball, but still a bit too sketchy. Szzuk (talk) 21:25, 6 February 2011 (UTC)

  WP:CRYSTAL isn't the central issue here. It's WP:NFF and the fact that the topic is already better covered at Alien (franchise)#Alien Prequel. --IllaZilla (talk) 21:50, 6 February 2011 (UTC)

- **Keep** and **mergefrom** Alien_(franchise)#Alien_Prequel. I see notability and RS to support the article's existance. --Brunswick Dude (talk) 18:49, 7 February 2011 (UTC)
- **Keep**. Appears to have sufficient prominent coverage to satisfy the GNG and justify an exception to the SNG. Since the project is no longer categorized as a prequel to Alien, the section there should be truncated, with relevant material merged into this article. Obviously standard deletin is inappropriate; the choices should be limited to keep andmerge/redirect. Hullaballoo Wolfowitz (talk) 21:53, 7 February 2011 (UTC)

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Wikipedia:Articles for deletion/Punjab Juvenile Justice System Rules 2002

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The result was **delete**. If anyone wants this userfied to re-work into an more appropriate article ask me and I'll provide a copy. Beeblebrox (talk) 02:49, 7 February 2011 (UTC)

Punjab Juvenile Justice System Rules 2002

Punjab Juvenile Justice System Rules 2002 (edit | talk | history | links | watch | logs | views) – (View log)

(*Find sources:* "Punjab Juvenile Justice System Rules 2002" (http://www.google.com/search? as_eq=wikipedia&q=%22Punjab+Juvenile+Justice+System+Rules+2002%22&num=50) – books (http://www.google.com/search? tbs=bks:1&q=%22Punjab+Juvenile+Justice+System+Rules+2002%22) · scholar (http://scholar.google.com/scholar?q=%22Punjab+Juvenile+Justice+System+Rules+2002%22) · JSTOR (http://www.jstor.org/action/doBasicSearch? Query=%22Punjab+Juvenile+Justice+System+Rules+2002%22&acc=on&wc=on) · free images (http://images.google.com/images? safe=off&tbm=isch&tbs=sur:fmc&q=%22Punjab+Juvenile+Justice+System+Rules+2002%22+-site:wikipedia.org+-site:wikimedia.org))

I don't believe a set of rules in regards to the Justice System are inherintly "Notable". No sources, references, and contains only Original research. **Du**s**ti***poke* 10:26, 29 January 2011 (UTC)

- **Delete**, but I don't think it's original research in either a Wikipedia sense or a commonly-understood sense. If it's governmental regulations, it's inherently *not* original research. But I agree with the notability arguments. In addition, this is analogous to Wikipedia's not being a dictionary. --Nlu (talk) 10:38, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Pakistan-related deletion discussions. -- • Gene93k (talk) 19:39, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Crime-related deletion discussions. -- • Gene93k (talk) 19:39, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Law-related deletion discussions. -- • Gene93k (talk) 19:40, 29 January 2011 (UTC)
- **Keep and expand** - What this article needs is an expansion and re-write not deletion.--BabbaQ (talk) 19:51, 29 January 2011 (UTC)
- **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 03:33, 31 January 2011 (UTC)

Punjab Juvenile Justice System Rules 2002 hereinafter referred to as the Rules have been made by the Government of the Punjab, Pakistan in 2002, for protection of juveniles in conflict with the law. The article does not include the original text or any copyrighted material of these Rules that may make this article a candidate for deletion. The article can be expanded by including (e.g.) material about the following:

- What change these Rules have brought about regarding treatment of juvenile delinquents as compared with the adults?
- What are the shortcomings of these Rules?
- What are the international instruments involved e.g. United Nations' conventions on the juvenile justice?
- Comparision of these Rules with similar statutes of other developing and developed countries?
- Have these Rules proved to be helpful to convince the law enforcers to go for Restorative Justice instead of Retributive Justice in case of Juveniles?
- Implementation issues?
- Etc., etc.,

For the above reasons, this article shall not be deleted and indeed expanded in scholarly manner.--182.177.145.81 (talk) 16:16, 31 January 2011 (UTC)

- **Comment** Copyright is not the issue. (Indeed, it's highly doubtful that governmental works are considered copyrighted in general.) The issue here is that this is the wrong scope for an encyclopedia; this is not the place for what would essentially become a legal treatise. --Nlu (talk) 16:38, 31 January 2011 (UTC)
- **Comment** The points that IP raises above would be sufficient to improve the article, if and only if that information came strictly from reliable sources. My worry, though, is that IP's point is that xe could make this analysis themselves, which would constitute original research. The very last phrase ("expanded in a scholarly manner") directly implies original research on the part of xyrself or other editors. If the article is deleted (as I think it should be unless more sources are provided to show that this law is notable), I would be willing to take a userfied version of this temporarily and work with the IP editor to determine if the article could be expanded into a full article meeting our policies. Qwyrxian (talk) 23:41, 31 January 2011 (UTC)
- **Delete** I just realized that I wasn't clear in my point above that if the article is not improved to demonstrate notability (and it does so in a manner consistent with WP:OR) then it should be deleted and worked on in userspace or the Incubator. Qwyrxian (talk) 23:48, 3 February 2011 (UTC)
- **Keep and expand** Why an article on Juvenile Justice System Rules prevalent in the largest province of Punjab having population of more than 90 million people including juveniles is not Notable?--Tariq babur (talk) 06:03, 4 February 2011 (UTC)

  Because there are probably thousands of such rules. Otherwise, every single law passed in any large country would be Notable. Take a look at the general notability guidelines--you'll see that the main requirement is that there must be multiple instances of coverage in reliable sources to demonstrate notability. Qwyrxian (talk) 06:08, 4 February 2011 (UTC)

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Wikipedia:Articles for deletion/Restoring the Lost Constitution

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The result was **keep**. Merge/redirect discussions can continue on the article's talk page. (non-admin closure) Logan ₜₐₗₖ ^Contributions^ 00:38, 6 February 2011 (UTC)

Restoring the Lost Constitution

Restoring the Lost Constitution ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Restoring the Lost Constitution" (http://www.google.com/search?
as_eq=wikipedia&q=%22Restoring+the+Lost+Constitution%22&num=50) – books
(http://www.google.com/search?tbs=bks:1&q=%22Restoring+the+Lost+Constitution%22) · scholar (http://scholar.google.com/scholar?q=%22Restoring+the+Lost+Constitution%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22Restoring+the+Lost+Constitution%22&acc=on&wc=on) · free images
(http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22Restoring+the+Lost+Constitution%22+-
site:wikipedia.org+-site:wikimedia.org))

Read likes an WP:OR book report, only two citations, no content about why book is notable. Rillian
(talk) 19:51, 29 January 2011 (UTC)

- Agreed; I have trouble thinking that any singular book/project of Randy Barnett is particularly notable, to be honest. Also somewhat biased in tone. **Merge and Redirect** ThatOtherMike (talk) 21:24, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Literature-related deletion discussions. -- • Gene93k (talk) 19:59, 29 January 2011 (UTC)
- **Keep.** This article has been in existence since 2004. It is not some little stub article, either. If you don't like the way the article is written, then **fix it**. Lack of citations is not part of WP:DEL#REASON. Regarding WP:OR, the standard is "all material added to articles must be *attributable* to a reliable published source, even if not actually attributed." You are arguing based on the fact that material is not *attributed* to reliable sources, but that is not the standard. Here's some material for you: [1] (http://old.nationalreview.com/books/ponnuru200406171542.asp), [2] (http://www.fff.org/freedom/fd0501h.asp), [3] (http://mises.org/journals/jls/19_2/19_2_6.pdf), [4] (http://www.bsos.umd.edu/gvpt/lpbr/subpages/reviews/barnett1104.htm). Regarding notability, I'll simply point out that a Google search for "Restoring the Lost Constitution" (in quotes) turns up over 28,000 results. Wikipedia is not a paper encyclopedia. It does not have a limit on how much information it can hold. What is the benefit of deleting information that people may actually want to read? On a personal note, in the past I have found this article to be a useful source of information. --JHP (talk) 08:32, 30 January 2011 (UTC)

> The claim of WP:OR is related to the inclusion of editor commentary and POV opinion about the book's content and the claimed impact of the content. Rillian (talk) 15:14, 30 January 2011 (UTC)
>
> Also, a merge and redirect does not mean the content will be deleted, just included with the Randy Barnett article. The question at hand is whether the book is worthy of a stand-alone article. Rillian (talk) 15:16, 30 January 2011 (UTC)

- **Merge and redirect** Wikipedia is not a book report. If this book received media coverage and commentary, write an article about that. Shii (tock) 02:09, 31 January 2011 (UTC)
- **Keep** -- this book been much discussed in U.S. constitutional scholarship in recent years, and has won awards, per existing source. The article clearly needs more sources for it's claims, but article deletion is inappropriate; rather, the unsourced material should be deleted if it is not sourced in a reasonable period of time. N2e (talk) 03:11, 31 January 2011 (UTC)

- **Procedural Close** - AFD is not the venue for discussing article merges. -- Whpq (talk) 17:29, 31 January 2011 (UTC)

- **Comment**: AfD is indeed the venue for discussing the fate of any article where its status is unclear and a community decision is required. *Merge and redirect* is an extremely common outcome. Kudpung (talk) 01:45, 3 February 2011 (UTC)
    - **Reply** - the nominator altered his nomination statement rather than striking through (http://en.wikipedia.org/w/index.php?title=Wikipedia%3AArticles_for_deletion%2FRestoring_the_Lost_Constitution&action=historysubmit&diff=411215939&oldid=411196810). The nomination to which I responded, did not advocate deleting the article. -- Whpq (talk) 20:18, 3 February 2011 (UTC)
- **Merge and redirect** : The entire 'theory' section is unsourced original research and/or point of view, and should be deleted immediately. There are no sources on the page that assert notability for the book even if it is an award winner. Verifiability, not truth, is the core policy of Wikipedia. Kudpung (talk) 01:55, 3 February 2011 (UTC)
- **Keep**: Barnett's a bit kooky, but i see indications of notability that shouldn't be ignored. Book review in a major law review journal: [5] (http://goliath.ecnext.com/coms2/gi_0199-4425077/Restoring-the-Lost-Constitution-The); book review in American Prospect: [6] (http://www.prospect.org/cs/articles?articleId=7628); review in washington times [7] (http://goliath.ecnext.com/coms2/gi_0199-2367680/Constitutional-rights-Preserving-the-Founders.html); mention in passing by Jeffrey Rosen (leading legal writer) at NYT[8] (http://www.nytimes.com/2005/04/17/magazine/17CONSTITUTION.html?pagewanted=print&position) called it a "provocative book". From most of these sources you can predict Barnett's political leaning, but these aren't petty sources.--**Milowent** • talk blp-r 05:06, 4 February 2011 (UTC)

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Wikipedia:Articles for deletion/RobApps

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The result was **no consensus**. Ron Ritzman (talk) 01:39, 5 February 2011 (UTC)

RobApps

RobApps (edit | talk | history | links | watch | logs | views) – (View log)
(*Find sources:* "RobApps" (http://www.google.com/search?
as_eq=wikipedia&q=%22RobApps%22&num=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22RobApps%22) · scholar (http://scholar.google.com/scholar?
q=%22RobApps%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?
Query=%22RobApps%22&acc=on&wc=on) · free images (http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22RobApps%22+-site:wikipedia.org+-
site:wikimedia.org))

Non notable iPhone application creation company, which fails WP:ORG. Mattg82 (talk) 02:46, 14 January 2011 (UTC)

- **Note**: This debate has been included in the list of Software-related deletion discussions. -- • Gene93k (talk) 02:51, 15 January 2011 (UTC)
- **Note**: This debate has been included in the list of Business-related deletion discussions. -- • Gene93k (talk) 02:51, 15 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:03, 21 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 01:50, 29 January 2011 (UTC)
The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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Wikipedia:Articles for deletion/St. Andrew's Episcopal School (Amarillo, Texas)

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< Wikipedia:Articles for deletion

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*The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **no consensus**. There is liberty to redirect or merge to a school district if desired; such a proposal can be discussed on the talk page. Stifle (talk) 10:48, 8 February 2011 (UTC)

St. Andrew's Episcopal School (Amarillo, Texas)

St. Andrew's Episcopal School (Amarillo, Texas) (edit | talk | history | links | watch | logs | views) – (View log)
(*Find sources:* "St. Andrew's Episcopal School (Amarillo, Texas)" (http://www.google.com/search?
as_eq=wikipedia&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22&nu
m=50) – books (http://www.google.com/search?
tbs=bks:1&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22) · scholar
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q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22) · JSTOR
(http://www.jstor.org/action/doBasicSearch?
Query=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Texas%29%22&acc=on&wc=on) ·
free images (http://images.google.com/images?
safe=off&tbm=isch&tbs=sur:fmc&q=%22St.+Andrew%27s+Episcopal+School+%28Amarillo%2C+Tex
as%29%22+-site:wikipedia.org+-site:wikimedia.org))

This primary school fails the WP:GNG, and, as it is not a high school, is not inherently notable. Contested PROD. Prod removed without comment/reason. Ravendrop (talk) 14:09, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Texas-related deletion discussions. -- • Gene93k (talk) 14:42, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Schools-related deletion discussions. -- • Gene93k (talk) 14:43, 29 January 2011 (UTC)
- **Keep** - Although this is not a primary school (which usually ends at grade 2 or 3), it's not a high school. However, the school's performance in the national middle school science bowl is a distinctive that would make this school notable. I'd like to see some third-party reliable sources (and less promotional language in the article), though, to establish general notability. --Orlady (talk) 15:32, 29 January 2011 (UTC) I see that the Middle School Science Bowl information was added to the article after this AfD was started. -- Orlady (talk) 15:42, 29 January 2011 (UTC) PS - Since the above comment was posted, I and others have added several third-party reliable sources to the article. I'[m no longer concerned about the absence of sources. --Orlady (talk) 05:40, 31 January 2011 (UTC)
- **Delete** Not notable. If suffucient third party sources are found to establish notability, then the article can be reinstated. Until then, it's of little encyclopedic value. Disagree that the "school's performance in the national middle school science bowl" is reason enough to make it notable. Dominus Vobisdu (talk) 15:38, 29 January 2011 (UTC)
  - The article now cites several third-party sources that tell about the school's participation and success in the National Middle School Science Bowl. Although there has never been agreement on

notability guidelines for schools, past outcomes at AfD and the various failed proposals listed at Wikipedia:Schools all indicate a presumption of notability for pre-secondary schools that have received various awards deemed to be significant, such as the Blue Ribbon School designation. Since it is more common to be a Blue Ribbon School than it is to consistently placing near the top in in a national competition (because there are many more Blue Ribbon Schools each year than there are finalists in these competitions), it seems to me that this achievement is an indication of notability. --Orlady (talk) 20:42, 29 January 2011 (UTC)

- It may be notable enough for your local newspaper, but not for WP, in my opinion. Sorry, you haven't convinced me, and I stand by my vote for "Delete". Dominus Vobisdu (talk) 20:51, 29 January 2011 (UTC)

  - It's not in my local newspaper, since I don't live anywhere near Amarillo. Regardless -- in addition to coverage in Amarillo, the school's success is documented on US Department of Energy websites about the science bowl. --Orlady (talk) 20:58, 29 January 2011 (UTC)

    You are aware that the Science Bowl is HOSTED by the US Department of Energy. Of course one would expect to see the winners listed there. Does very little to boost notability, I'm sorry to say.

    I'm not being nasty about this. I've looked at your sources and read through WP:SCHOOLS, WP:OUTCOMES, and the most recent guideline proposals, and I honestly can't find anything that can possibly justify the existence of this page on WP by a long shot. Of course, I have nothing against the school (I've never heard about it before), and am glad the kids excel in science because I'm a biologist myself. I wish them all the luck in the world, but giving the school a page on WP is going too far, even if it probably would be one of the schools I'd check out for my kids to attend should fortune ever bring me to Amarillo. Dominus Vobisdu (talk) 21:35, 29 January 2011 (UTC)

    Don't you think this addition was a *teensy* bit over the top: "in 2008 a team from the school placed third overall", sourced to the... St. Andrew's Episcopal School website? Dominus Vobisdu (talk) 21:44, 29 January 2011 (UTC)

    - The other SEVEN sources cited in that section of the article are all third-party reliable sources. That one little factoid, sourced to the school website, helped to "fill in a blank" in the article. Since those other sources verify that the school placed first in the fuel-cell car competition and third in academics, it's highly credible that they were third place overall. --Orlady (talk) 15:56, 30 January 2011 (UTC)

      - The reliability of the sources is not being questioned, nor is it an issue as far as this AfD is concerned. The issue is, and remains, notability. Dominus Vobisdu (talk) 21:16, 30 January 2011 (UTC)

- **Delete** Typical elementary school. The consensus has been to delete such articles or to redirect them to the school district, which this independent school does not seem to have. Most schools win some kind of award from time to time. Edison (talk) 21:17, 29 January 2011 (UTC)

  - Maybe most schools win awards from time to time, but how many schools won the regionals to advance to a national competition 5 out of the 9 times the national competition has been held, then finished in the top 3 slots in 6 out of the 10 national competitions they were in? If I were a middle school science teacher somewhere else, I'd be looking at St. Andrews' record and asking "Who are those guys?" --Orlady (talk) 15:56, 30 January 2011 (UTC)

- If I were a Christian, I'd be looking at the following edits and wonder "Who are those guys?": 1 (http://en.wikipedia.org/w/index.php?title=Lindeneau_Elementary_School&diff=prev&oldid=410906813), 2 (http://en.wikipedia.org/w/index.php?title=Lindeneau_Elementary_School&diff=prev&oldid=410906813) and 3 (http://en.wikipedia.org/w/index.php?title=St._Andrew%27s_Church&diff=410027835&oldid=409566391). The editors in question are the ones who are helping you fix up the article. I've been watching this article to learn more about the AfD process. Unfortunately, what I've learned is that some Episcopalians apparently believe that using sneaky tactics to promote their congregation and "kicking the cat" are AOK. Tsk, tsk. If you are in contact with these editors, please let them know that they are setting a bad example. Dominus Vobisdu (talk) 21:12, 30 January 2011 (UTC)

  I have never meet Orlady and I appreciate all the work ~~she~~ the person has put into the article. I just graduate from the school and goto the church. I love my church and my school and thought they deserved a wiki page. If they get deleted for not being WP valuable them so be it. Maybe it's in bad taste but if my school does not meet WP standards then why should others?? Copritch (talk) —Preceding undated comment added 00:08, 31 January 2011 (UTC).
  To be honest it's been a real turn off adding articles to WP and I don't think I will add articles again. So smile and enjoy. Copritch (talk) 00:58, 31 January 2011 (UTC)

  > If your goal is to support your school, Copritch, adding PROD templates to articles about other middle schools and elementary schools is not a particularly effective way of achieving that goal. A more effective way to pursue your objective would be to add third-party sources to the article (apparently the 10 sources cited already aren't enough for some people) and !vote in this AfD -- including information on why you think this school is notable. --Orlady (talk) 04:35, 31 January 2011 (UTC)

  - More then an elementary school. It has has up to eighth grade. Copritch (talk) 05:34, 31 January 2011 (UTC)

- **Keep** The school was founded by a very influential family (Bivins), granted not notable outside of Amarillo, but the school did produce a US Texas Senator and a US Ambassador. Most importantly the school has won the National Middle School Science Bowl, organized and sponsored by the United States Department of Energy, in hydrogen fuel cell cars challenge three times. Most high schools cannot accomplish this and even less middle schools. As a previous voter put it "Most schools win some kind of award from time to time.". This is true at a local and regional level but not at a national level sponsored by the US Government. Ask most middle school and high school students how do you make car run on hydrogen instead of gas. Most probably won't get it right but these students are build and racing hydrogen cars in middle school. One day the list of notable alumni on the page will be long. Copritch (talk) 05:24, 31 January 2011 (UTC) According to Wikipedia:Notability (high_schools) high schools are generally considered notable. So a middle school academically outperforming a notable high school makes the school notable, in my opinion. Copritch (talk) 13:28, 31 January 2011 (UTC)

- **Delete**, or **Merge** (with redirect) the essentials to the school district or locality, as per standard procedure. This school has not demonstrated sufficient notability for its own Wikipedia page. Kudpung (talk) 21:09, 31 January 2011 (UTC)

  Could you elaborate upon what it is you consider to be necessary to establish notability of a school? The article cites several different third-party sources that I consider to be reliable, thus addressing the general notability guideline. Apparently you see things differently. Have you found that the Amarillo daily newspaper, the US Department of Energy, and United Press International are unreliable sources, or do you have evidence that these sources are affiliated with this school (and thus not independent sources)? Or is your concern about something else? Please clarify your

reasoning. --Orlady (talk) 02:43, 1 February 2011 (UTC)

Per Edison and Dominus Vobisdu. This just a WP:ROTM. Sources don't *make* notability, they confirm it. If Copritch, who claims to be a member of the Schools Project but isn't and didn't read the guidelines before writing their first article, it's really not our fault if we have to delete or merge it. It could have been merged and redirected uncontentiously with a friendly note to the creator to explain why. So before I get branded as a deletionist, I'm here to uphold a practice that has been established for over three years and implemented on thousands of primary and middle school pages: I'm offering a **merge and redirect** and I've saved hundreds of schools from deletion this way. If at some time in the future, the school becomes truly notable for something really exceptional, other than a student telling us they love it because they went to it, the redirect can be reverted to an article again, if and when that student has learned with our help, not to do copyvios, and how to write correct articles. I've already !voted here, and personally I don't mind what happens to the school as long as a clear consensus is reached based on standard practice and the quality of the comments, and properly closed by an uninvolved admin. --Kudpung (talk) 09:48, 1 February 2011 (UTC)

I am find with a merge or something similar. So what is the proper way to fix this situation? Do I merge create a new section in Amarillo? Create a page called Schools in Amarillo, Texas? The school does not really have a school district to merge to. Give me some direction. Copritch (talk) 13:14, 1 February 2011 (UTC)

- **Proposed solution** to AfD. Merge document to Teel Bivins under family background because his family did start the school and it seems to me to be a reasonable place for it on WP. Then redirect St. Andrew's Episcopal School (Amarillo, Texas) to it. Does that sound like a solution to all invoked? I don't want to something wrong or create a new article that ends back in AfD. Copritch (talk) 13:39, 1 February 2011 (UTC)

  - Bad proposed solution, IMO. The biographical article about a US Ambassador to Sweden is not exactly a logical place for an encyclopedia reader to expect to find information about a private school in Amarillo, Texas. Moreover, Teel Bivins was not the school's founder, and I have yet to see a reliably sourced indication that he attended the school. (I do, however, infer that the school was actually started on his behalf and that he went to kindergarten there. His parents started the school as a kindergarten, apparently because no kindergarten was offered in Amarillo, and he was the right age to be a member of the very first class. His attendance would have been limited to kindergarten, since the school didn't expand to higher grades until some time later.) --Orlady (talk) 15:47, 1 February 2011 (UTC)

- **Comment** - Re-reading the foregoing, I am distressed to see this discussion taking on some aspects of a personal attack on the user who created the article, who (although the account was registered several years ago) is a new contributor who seems to be getting bitten hard for his first article contributions. Focus should be on the article, not on the motives or inferred motives of the article's creator. As for the assertions made regarding WP:OUTCOMES#Education, I must say that discussion participants are holding this article to a far higher standard than I have seen in past outcomes of many school-related AfDs I participated in over the last few years. For example, Wikipedia:Articles for deletion/Blountville Middle School (one that I nominated) was closed as a keep, although both at the time it was closed (http://en.wikipedia.org/w/index.php?title=Blountville_Middle_School&oldid=229493177) and as it now exists I see no more credible a claim of notability there (and far less sourcing) than exists currently for St. Andrew's. "Run of the mill" is an excellent descriptor of many school-related articles I've dealt with that did get "merged and redirected" (e.g. this one in New York (http://en.wikipedia.org/w/index.php?title=Columbus_Elementary_School&oldid=234736098), this one in Tennessee (http://en.wikipedia.org/w/index.php?title=Brainerd_Baptist_School&oldid=252064266), and this one in England (http://en.wikipedia.org/w/index.php?title=Langtoft_Primary_School&oldid=265476808)), but in my experience any school that makes are credible claim at some sort of notability gets retained. Please

look at the article and evaluate it on its merits, not at the user who created it. --Orlady (talk) 23:26, 1 February 2011 (UTC)

- **Weak keep** This is tough one, really. Normally I don't support keeping elementary and most middle school articles, but the performances at the Middle School Science Bowl are notable, even if very low on notability, IMO. If it was merged, it would either need to go to the article on Amarillo, Texas (education section) or an "Education in Amarillo, Texas" article yet to be created. The notable alumni needs a source, though. There would also need to be an extensive article cleanup, however, particularly the section about the Middle School Science Bowl, which is more about the bowl than about the school. --JonRidinger (talk) 18:04, 2 February 2011 (UTC)

- **Weak keep**. Given that its entire history is documented and only one sentence in the article is unsourced, I see no pressing policy-based reason to delete this article. That leaves us with notability guidelines to argue over, and in this case they can be interpreted either way. This particular school does appear to have received a slightly higher-than-average level of coverage for sporting and scientific achievements, and semi-significant coverage in pieces on other topics like this one (http://amarillo.com/stories/011908/obi_obit1.shtml). Maybe - just maybe - enough to meet WP:GNG. I don't envy the admin who has to close this. Alzarian16 (talk) 11:51, 7 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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title=Wikipedia:Articles_for_deletion/St._Andrew%27s_Episcopal_School_(Amarillo,_Texas)&oldid=412701292"

Wikipedia:Articles for deletion/The Best of The Velvet Underground: The Millennium Collection (2nd nomination)

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< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **keep**. Stifle (talk) 10:47, 8 February 2011 (UTC)

The Best of The Velvet Underground: The Millennium Collection

The Best of The Velvet Underground: The Millennium Collection (edit | talk | history | links | watch | logs | views) – (View log)
(*Find sources:* "The Best of The Velvet Underground: The Millennium Collection" (http://www.google.com/search?

AfDs for this article:
• Articles for deletion/The Best of The Velvet Underground: The Millennium Collection
• Articles for deletion/The Best of The Velvet Underground: The Millennium Collection (2nd nomination)

as_eq=wikipedia&q=%22The+Best+of+The+Velvet+Underground%3A+The+Millennium+Collection%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22The+Best+of+The+Velvet+Underground%3A+The+Millennium+Collection%22) · scholar (http://scholar.google.com/scholar?q=%22The+Best+of+The+Velvet+Underground%3A+The+Millennium+Collection%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22The+Best+of+The+Velvet+Underground%3A+The+Millennium+Collection%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22The+Best+of+The+Velvet+Underground%3A+The+Millennium+Collection%22+-site:wikipedia.org+-site:wikimedia.org))

Still unsourced beyond Allmusic. Article is very extensive on OR but very short on sources. Last AFD was closed as no consensus, but I feel that many !voters were misinterpreting my rationale as WP:OTHERSTUFFEXISTS. Ten Pound Hammer, his otters and a clue-bat • (Otters want attention) 19:36, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Albums and songs-related deletion discussions. -- • Gene93k (talk) 19:59, 29 January 2011 (UTC)
- **Delete,** WP:NALBUMS requires coverage in reliable source**s** (emphasis mine). All we have here is a single Allmusic review. J04n(talk page) 21:20, 29 January 2011 (UTC)
- **Speedy Keep**, disruptive nomination, and severely trout slap the nominator for misrepresenting the character of the original AFD. The original AFD was closed *earlier this month,* and absolutely nothing has changed. No on in the first AFD had any confusion about the deletion rationale, and no one in that discussion said anything resembling what the nominator somehow now "feels" was said there. The nominator has removed at least one plainly reliable source from the article, making his complaint about sourcing defects rather hollow. The Velvet Underground is a group of singular importance in the history of contemporary popular music, and punching holes in their otherwise comprehensive discography simply damages Wikipedia as an encyclopedic resource. As I pointed out in the previous AFD, WP:OSE declares that "that "In categories of items with a finite number of entries where most are notable, it serves no useful purpose to endlessly argue over the notability of a minority of these items" and points out that providing entries/articles for full sets of such items "serves the purpose of Wikipedia being a comprehensive reference," a point that stands unrefuted (indeed, pretty much stands without disagreement.) There are scores of print resources about the Velvets -- Amazon.com alone lists nearly 150 books, including a "Rough Guide" volume which, given the nature of the series, includes a full discography/analysis which would cover this release -- but such texts are not conveniently available online, and googling for generic titles on GBooks is time-consuming and unproductive. Hasty deletion of such presumptively valid content is inapprpriate and destructive Hullaballoo Wolfowitz (talk) 19:46, 30 January 2011 (UTC)speedy keep, disruptive nomination
- **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 03:07, 31 January 2011 (UTC)
- **Keep** per Hullaballoo Wolfowitz. — Malik Shabazz Talk/Stalk 03:29, 31 January 2011 (UTC)
- **Delete**: Non-charting non-notable compilation. Almost non-existant coverage. JacksOrion (talk) 03:58, 4 February 2011 (UTC)
- **Keep** - While I am sympathetic to the cause of stamping out pages on obscure compilation albums such as those found in the bins at truck stops, the seminal status of this band combined with the fact that this is a major label release would seem to indicate that this page is best left alone. Carrite (talk) 20:12, 6 February 2011 (UTC)
- **Keep** per Hullaballoo Wolfowitz and Carrite, who provide good reasons why we shouldn't mechanically apply notability guidelines in this instance, where it would "[punch a] hole in their otherwise comprehensive discography." And one of the key meanings of "encyclopedic" is "comprehensive"; Hullaballoo's quote above is hard to counter here, and has not been countered. Basic information about this album at a minimum is certainly verifiable, it's a major label release, and a highly notable band. Consequently, deletion would not yield any concrete benefit or further any policy. **postdlf** (*talk*) 00:23, 8 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

- This page was last modified on 8 February 2011 at 10:47.
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Wikipedia:Articles for deletion/UK Airsoft Wiki

From Wikipedia, the free encyclopedia

< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. Sorry, Paul Firmin, I have to disregard your opinion per WP:COI. **Sandstein** 09:33, 6 February 2011 (UTC)

UK Airsoft Wiki

UK Airsoft Wiki ⟨edit | talk | history | links | watch | logs | views⟩ – (View log)
(*Find sources:* "UK Airsoft Wiki" (http://www.google.com/search?as_eq=wikipedia&q=%22UK+Airsoft+Wiki%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22UK+Airsoft+Wiki%22) · scholar (http://scholar.google.com/scholar?q=%22UK+Airsoft+Wiki%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22UK+Airsoft+Wiki%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22UK+Airsoft+Wiki%22+-site:wikipedia.org+-site:wikimedia.org))

There's no indication of notability and it seems to simply be a promotional page for the site. Yaksar (let's chat) 23:33, 29 January 2011 (UTC)

- **Note**: This debate has been included in the list of Websites-related deletion discussions. -- • Gene93k (talk) 01:08, 30 January 2011 (UTC)
- **Delete** -- notability not demonstrated in a reliable secondary source. N2e (talk) 02:59, 31 January 2011 (UTC)

If you looked at the page it clearly states that its in Beta Testing. I know wikipedia has a dislike for all things airsoft but this page will have refs from other sources once it is live and the have it nominated for deletion is just plain stupid. -- Paul Firmin 08:58, 31 January 2011 (UTC)

Honestly, Wikipedia has nothing against airsoft. Your wiki, however, is not something that belongs in an encyclopedia. I encourage you to keep editing Wikipedia, and I'm sure most of your contributions are very helpful. But Wikipedia is not just a compendium of everything. I'd suggest checking out Wikipedia:Notability. If you've got any more questions, you're welcome to ask on my talk page. --Yaksar (let's chat) 09:47, 31 January 2011 (UTC)

- **Delete** - No coverage in reliable sources to establish notability. -- Whpq (talk) 17:04, 31 January 2011 (UTC)

- **Keep** - There are loads of pages on wikipedia with no reliable sources on them and they simply have the Template:Refimprove template added to it. In fact there is well over 500 (http://en.wikipedia.org/w/index.php?

title=Special:WhatLinksHere/Template:Refimprove&limit=500) pages on wikipedia that have this template on it. If this page is deleted can it be added again once it has reliable sources? I do understand that articles on wikipedia need to be sourced but as the site is still in testing and not live it has not such sources yet but it is due to have two once live. -- Paul Firmin 22:37, 1 February 2011 (UTC)

- **Delete**. I'm sorry Paul but I'm not finding anything in google or google news that satisfies WP:GNG or WP:WEB. --Ron Ritzman (talk) 01:50, 6 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

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Wikipedia:Articles for deletion/Water and the environment

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **delete**. Like the similar AFD of Agriculture and the Environment, this is the rare case where notability is not the main argument in favor of deletion. It has been demonstrated that the subject is already covered in numerous other articles and that those articles do a much better, more thorough job of covering the topic. It is possible this could still be useful as a redirect, maybe to an as-yet-nonexistent list of all articles that fall under this general subject, but the current version is a poorly written content fork. While poor writing in and of itself is almost never a reason to delete, it is in the case of a content fork as nothing of value is lost. Again, no prejudice against recreation in another form that directs readers to the content we already have on this subject. Beeblebrox (talk) 03:09, 7 February 2011 (UTC)

Water and the environment

Water and the environment ⟨edit|talk|history|links|watch|logs|views⟩ – (View log)
(*Find sources:* "Water and the environment" (http://www.google.com/search?as_eq=wikipedia&q=%22Water+and+the+environment%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22Water+and+the+environment%22) · scholar (http://scholar.google.com/scholar?q=%22Water+and+the+environment%22) · JSTOR (http://www.jstor.org/action/doBasicSearch?Query=%22Water+and+the+environment%22&acc=on&wc=on) · free images (http://images.google.com/images?safe=off&tbm=isch&tbs=sur:fmc&q=%22Water+and+the+environment%22+-site:wikipedia.org+-site:wikimedia.org))

Deprodded with a WP:SOFIXIT rationale even though prod was 2 hours past the 7-day limit. Article is four sentences long, almost tautological and ridiculously incomplete. I think the title is far too vague to be of any use, not to mention that it just parrots stuff already at marine pollution, water pollution and other similar articles. Ten Pound Hammer, his otters and a clue-bat • (Otters want attention) 04:58, 29 January 2011 (UTC)

- **Keep**. ~~Agree with everything here, pointless article.~~ After reading Alan's comment I changed my mind. Bluefist talk 05:08, 29 January 2011 (UTC)
- **Note**: This debate has been included in the list of Environment-related deletion discussions. —-- Alan Liefting (talk) - 05:15, 29 January 2011 (UTC)
- **Strong keep**. It is a very notable topic. The article needs expanding not deleting. Contrary to what the nominator asserts the article topic is clearly defined - namely the intersection of water and the environment. A similar AfD by the nominator is at Wikipedia:Articles for deletion/Agriculture and the environment. -- Alan Liefting (talk) - 05:15, 29 January 2011 (UTC)

- - Yes, and Agriculture and the environment is a content fork just like this one, and looks like it is going to be deleted. What's your point? SNOTTYWONG talk 16:05, 29 January 2011 (UTC)

- **Keep**-The article is on a very important topic.It can be a good wiki article if expanded.--Poet009 (talk) 08:32, 29 January 2011 (UTC)

- **Note**: The article under discussion here has been {{rescue}} flagged by an editor for review by the Article Rescue Squadron. SNOTTYWONG prattle 16:00, 29 January 2011 (UTC)
- **Delete** - This article currently has just about zero content, aside from four blazingly obvious sentences and various links to other articles. If this article were to be expanded, it would be a content fork of all the articles it currently links to. There is nothing that could be said in this article that isn't already discussed at length in Water, Water pollution, Marine pollution, Water conservation, Peak water, and a myriad of other articles discussing various facets of this topic. Note to closing admin: I believe my !vote is the first such one that doesn't fall under WP:ITSNOTABLE or WP:ILIKEIT. SNOTTYWONG prattle 16:00, 29 January 2011 (UTC)
- **Delete:** unsourced and largely contentless WP:CFORK of Water (particularly Water#Effects on human civilization) and subsidiary articles (particularly Water pollution). *Hrafn$^{Talk}_{Stalk}$*(**P**) 16:53, 29 January 2011 (UTC)
- **Keep** Notable topic with ample coverage. Click on the Google news archive or Google book search at the top of the AFD. Thousands of results for each. Some of them are surely valid. And it isn't just about water pollution either. **Dream Focus 02:37, 30 January 2011 (UTC)**

  > The boilerplate WP:GHITS argument from Dream Focus is even less compelling than usual for this article. There's no doubt that if you google "water and the environment" you will get billions of results, but what does that prove? You seem to be trying to prove that the subject of water as it applies to environmentalism is notable, however no one is claiming that it is not notable. The nomination and most of the delete comments are based on the fact that the subject is discussed at great length in several other articles. In other words, this article is a useless content fork (that is, if it were updated to actually have *any* appreciable content, *then* it would become a content fork). I haven't heard any arguments yet which refute that point. SNOTTYWONG express 19:43, 31 January 2011 (UTC)

  > > In some nations they have a minister for Water and the Environment, calling it that. [1] (http://www.echonews.com.au/story/2010/10/14/murray-darling-still-plan-making-a-big-splash/). I see there are agencies dedicated to this as well, such as the Anglian Water and the Environment Agency [1]. Not every search result is about that, but there are plenty of them. This term is commonly used. **Dream Focus 16:35, 1 February 2011 (UTC)**

  > > > I'm fairly sure you'll find that the ministry in question covers the wikt:conjunction of water and the environment, not the wikt:intersection of the two, as the article does. *Hrafn$^{Talk}_{Stalk}$*(**P**) 16:53, 1 February 2011 (UTC)

- **Keep** The nomination is too vague to be of any use as it offers no policy-based argument for deletion. Our actual editing policy is to retain and develop stubs on such evidently notable topics. Colonel Warden (talk) 08:56, 30 January 2011 (UTC)

  - "Vague" boilerplate references to WP:IMPERFECT likewise "offers no policy-based argument for" *keeping* an obvious (unsourced and largely contentless) WP:CFORK. *Hrafn$^{Talk}_{Stalk}$*(**P**) 09:25, 30 January 2011 (UTC)

- **Delete** As far as I can tell this article is nothing but a list of the phases of water followed by a list of some articles related to water. Plus, all possible additions to this page should already be covered in another, more fitting article (for example, erosion, or the section of the water page covering its effect on life.)--Yaksar (let's chat) 02:19, 5 February 2011 (UTC)
- **Delete** per nominator and Yaksar. Johnfos (talk) 02:24, 5 February 2011 (UTC)
- **Delete**. Very poor content fork of Water, especially Water#On_Earth and Water#Effects_on_life. An article of this sort should be developed organically as a split-off from Water per WP:SS, not simply created as a haphazard and unsourced stub. **Sandstein** 09:41, 6 February 2011 (UTC)
- **Delete**. This is all done elsewhere far better, just not worth rescuing such a vague concept. Szzuk (talk) 21:38, 6 February 2011 (UTC)

The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

Retrieved from "http://en.wikipedia.org/w/index.php?
title=Wikipedia:Articles_for_deletion/Water_and_the_environment&oldid=412465571"

- This page was last modified on 7 February 2011 at 03:09.
-

Wikipedia:Articles for deletion/William Vickers (fiddler)

From Wikipedia, the free encyclopedia
< Wikipedia:Articles for deletion

The following discussion is an archived debate of the proposed deletion of the article below. **Please do not modify it.** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

The result was **no consensus**. Ron Ritzman (talk) 02:03, 6 February 2011 (UTC)

William Vickers (fiddler)

William Vickers (fiddler) ⟨edit | talk | history | links | watch | logs | views⟩ – (View log) (*Find sources:* "William Vickers (fiddler)" (http://www.google.com/search? as_eq=wikipedia&q=%22William+Vickers+%28fiddler%29%22&num=50) – books (http://www.google.com/search?tbs=bks:1&q=%22William+Vickers+%28fiddler%29%22) · scholar (http://scholar.google.com/scholar?q=%22William+Vickers+%28fiddler%29%22) · JSTOR (http://www.jstor.org/action/doBasicSearch? Query=%22William+Vickers+%28fiddler%29%22&acc=on&wc=on) · free images (http://images.google.com/images? safe=off&tbm=isch&tbs=sur:fmc&q=%22William+Vickers+%28fiddler%29%22+- site:wikipedia.org+-site:wikimedia.org))

Paragraph 2: "*Little is known of the man*" / WP:N Choyoołʼįįhí:Seb az86556 ^{> haneʼ} 15:22, 15 January 2011 (UTC)

- **Note**: This debate has been included in the list of Bands and musicians-related deletion discussions. -- • Gene93k (talk) 16:41, 15 January 2011 (UTC)

*~~Delete Very little seems to known about this person which doesn't indicate notability. The manuscript he wrote may or may not be notable, if it is the info should be added on an article on that- Travelbird (talk) 16:52, 15 January 2011 (UTC)~~
I will amend the title if that is preferable - but the William Dixon (piper) article is in a similar situation - an important MS about whose author we know little beyod his name. — Preceding unsigned comment added by John Gibbons 3 (talk • contribs) 16:55, 15 January 2011 (UTC)

> Yes, I think it might be preferable to have the article on the manuscript rather than the man. The same may be true in the William Dixon case, but that could be discussed elsewhere. --Deskford (talk) 17:31, 15 January 2011 (UTC)

I have done this - William Vickers manuscript is the current version. — Preceding unsigned comment added by John Gibbons 3 (talk • contribs) 17:35, 15 January 2011 (UTC)

> **Neutral** After the page move I am now changing my vote to neutral. I really don't know enough about piping/Fiddling to decide whether or not this manuscript is particularly

notable, so I'll defer to the experts on this one. Ideally we would require a couple more source to establish notability more clearly. Travelbird (talk) 18:09, 15 January 2011 (UTC)

I can add a discography to the new page, of modern recordings including Vickers' tunes. The influence of this music, particularly in the folk revival in the NE from the 1960's to the present, is clear, and an article on the topic is necessary. Shifting the emphasis of the title from the man to the MS was correct however.John Gibbons 3 (talk) 13:22, 16 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 01:14, 22 January 2011 (UTC)

- **Note**: This debate has been included in the list of People-related deletion discussions. -- -- **Cirt** (talk) 09:26, 22 January 2011 (UTC)

Relisted to generate a more thorough discussion so a clearer consensus may be reached.
Please add new comments below this notice. Thanks, Ron Ritzman (talk) 00:59, 29 January 2011 (UTC)
The above discussion is preserved as an archive of the debate. ***Please do not modify it.*** *Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

Retrieved from "http://en.wikipedia.org/w/index.php?
title=Wikipedia:Articles_for_deletion/William_Vickers_(fiddler)&oldid=412270784"

- This page was last modified on 6 February 2011 at 02:31.
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Appendix F.

Contributions during the Ph.D.

F.1. Earlier related work not described in the thesis

Our previous work on Wikipedia set the stage for our study, preparing us by introducing the social norms and suggesting community-relevant research questions around argumentation. At the beginning of the Ph.D. we focused on article discussion spaces in Wikipedia, conducting a content analysis (Schneider, Passant, and Breslin 2010a), producing a lightweight ontology and semantic bookmarklet for MediaWiki pages (Schneider, Passant, and Breslin 2010c), and describing the overall use case and outcomes of our proposed improvements (Schneider, Passant, and Breslin 2011). As Bernie Hogan pointed out in private conversation, our work on understanding and improving Wikipedia article discussion spaces would have higher impact on more contentious pages, leading to the case study described in this thesis.

We have gratefully received feedback from the Wikipedia community, in particular at WikiMania 2010, where we presented our content analysis (Schneider, Passant, and Breslin 2010b), summarized the state of Wikimedia scholarship 2009-2010 (Hill, Ortega, and Schneider 2010), and participated in an academic panel of Wikipedia researchers (organizer] 2010). Further, our work is periodically summarized in the Wikipedia research newsletter, to which we have also contributed summaries. For instance our SAC publication on Wikipedia article discussion pages ('Talk pages') was summarized in the research newsletter's inaugural issue in July 2011[1], and subsequently our WikiSym 2012[2] and CSCW 2013 papers have also been summarized by the community[3].

F.2. Collaborative and committee work in parallel with the thesis

We here record a summary of the major collaborative and committee work conducted in parallel with the thesis. These complemented our work on argumentation and the social semantic web by providing analogous case studies of argumentation in Amazon reviews and in the biosciences, enabling us to make advances in argument identification in the first case and in argumentation ontologies and Linked Data in the second case.

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[1]http://meta.wikimedia.org/wiki/Research:Newsletter/2011/July
[2]http://meta.wikimedia.org/wiki/Research:Newsletter/2012/September
[3]http://meta.wikimedia.org/wiki/Research:Newsletter/2013/May

A very fruitful collaboration was supported by COST and SFI travel grants to the University of Liverpool. In joint work in progress with Adam Wyner we focus on *finding arguments*. Our 'argumentation explorer' system (Schneider, Wyner, Atkinson, and Bench-Capon 2012; Wyner, Schneider, Atkinson, and Bench-Capon 2012; Schneider and Wyner 2012) annotates and highlights relevant elements in a document, to help a reader search through and skim opinions and arguments, addressing the problem: *How do we identify and locate arguments in social media?* It has two limitations. First, the difficulty of this task means that our current solution is semi-automated, providing cognitive support for a human. Second, our system is designed for and currently limited to reviews, and particularly takes English-language product reviews for a particular camera as its core use case. The review domain was chosen since arguing about products is commonplace, and it is desirable to reuse this information when making purchasing decisions; we owe interest in the topic to Stella Heras' work (Heras, Atkinson, Botti, Grasso, Julian, and McBurney 2010). The technology used also impacts the domain limitation: the gazetteers of our text mining system are most effective in a narrow domain. Our contributions to this joint work were analysis of the corpus and initial implementations of its gazetteers.

Several collaborations resulted from our participation in the W3C group on Rhetorical Structures. With Anita de Waard (Waard and Schneider 2012) we presented ORCA, an Ontology of Reasoning, Certainty and Attribution (ORCA), which was based on an earlier taxonomy. In another project, still ongoing, Richard Boyce is leading an interdisciplinary group to dynamically enhance drug product labels with linked data in order to support drug safety and effectiveness; among the outputs is a journal article describing the prototype (Boyce, Horn, Hassanzadeh, Waard, Schneider, Luciano, Rastegar-Mojarad, and Liakata 2013), to which we contributed argumentation expertise.

Abstracts for our work, and further details about other academic activities (such as reviewing for journals, serving on program committees, organizing a workshop) and awards are available in the appendices.

F.3. Contributions to standardization efforts

DERI's standing with the W3C allowed us to get involved in W3C activities from the first month of study. As the standards body for the Web, the W3C is a core organization for learning about and contributing to the future of the Web. Our efforts have involved Linked Data, one of the core technologies used in this thesis, and argumentation.

W3C's new approach to creating Community Groups has instigated numerous relevant groups. In addition to the W3C collaboration described above, we are participating in groups on Argumentation, Argument Representation, and Schema BibEx (for proposing a bibliographic exchange format to schema.org). As these groups are less than eighteen months old (and the Argument Representation group just three months old), their outcomes are still unknown.

We are, however, most delighted with the W3C Library Linked Data Incubator Group, which conducted its work from May 2010 to October 2011. We were active in determining use cases, collaborating with Uldis Bojārs to make a social use case cluster (since described further at (Schneider and Bojārs 2012)); these contributed to the (Suero 2011). We were a coauthor of the "Library Linked Data Incubator Group Final Report" (Baker, Bermès, Coyle, Dunsire, Isaac, Murray, Panzer, Schneider, Singer, Summers, Waites, Young, and Zeng 2011), since published into French, Spanish, Chinese, and Japanese. Our involvement with Library Linked Data has also informed our outreach to various international conferences including presentations at ELAG 2011, Realising the Opportunities of Digital Humanities 2012, and a tutorial we developed with Uldis Bojārs and Nuno Lopes for TPDL 2013.

F.4. Abstracts of publications during the Ph.D.

Journal Articles

Richard D. Boyce, John Horn, Oktie Hassanzadeh, Anita de Waard, Jodi Schneider, Joanne S. Luciano, Majid Rastegar-Mojarad, Maria Liakata, "Dynamic Enhancement of Drug Product Labels to Support Drug Safety, Efficacy, and Effectiveness". *Journal of Biomedical Semantics*,4(5), 2013. doi:10.1186/2041-1480-4-5

Out-of-date or incomplete drug product labeling information may increase the risk of otherwise preventable adverse drug events. In recognition of these concerns, the United States Federal Drug Administration (FDA) requires drug product labels to include specific information. Unfortunately, several studies have found that drug product labeling fails to keep current with the scientific literature. We present a novel approach to addressing this issue. The primary goal of this novel approach is to better meet the information needs of persons who consult the drug product label for information on a drug's efficacy, effectiveness, and safety. Using FDA product label

regulations as a guide, the approach links drug claims present in drug information sources available on the Semantic Web with specific product label sections. Here we report on pilot work that establishes the baseline performance characteristics of a proof-of-concept system implementing the novel approach. Claims from three drug information sources were linked to the Clinical Studies, Drug Interactions, and Clinical Pharmacology sections of the labels for drug products that contain one of 29 psychotropic drugs. The resulting Linked Data set maps 409 efficacy/effectiveness study results, 784 drug-drug interactions, and 112 metabolic pathway assertions derived from three clinically-oriented drug information sources (ClinicalTrials.gov, the National Drug File Reference Terminology, and the Drug Interaction Knowledge Base) to the sections of 1,102 product labels. Proof-of-concept web pages were created for all 1,102 drug product labels that demonstrate one possible approach to presenting information that dynamically enhances drug product labeling. We found that approximately one in five efficacy/effectiveness claims were relevant to the Clinical Studies section of a psychotropic drug product, with most relevant claims providing new information. We also identified several cases where all of the drug-drug interaction claims linked to the Drug Interactions section for a drug were potentially novel. The baseline performance characteristics of the proof-of-concept will enable further technical and user-centered research on robust methods for scaling the approach to the many thousands of product labels currently on the market.

Jodi Schneider, Tudor Groza, Alexandre Passant, "A Review of Argumentation for the Social Semantic Web". *Semantic Web Journal—Interoperability, Usability, Applicability.* 4(2), 159-218. doi:10.3233/SW-2012-0073 IOS Press.

Argumentation represents the study of views and opinions expressed by humans with the goal of reaching a conclusion through logical reasoning. Beginning with the 1950's, several models were proposed to capture the essence of informal argumentation in different settings. With the emergence of the Web, and then the Semantic Web, this modeling shifted towards ontologies, while from the development perspective, we witnessed an important increase in Web 2.0 human-centered collaborative deliberation tools. Through a review of more than 150 scholarly papers, this article provides a comprehensive and comparative overview of the argumentation domain for the Social Semantic Web. We start from theoretical foundational models and investigate how they have influenced Social Web tools. We also look into Semantic

Web argumentation models. Finally we end with Social Web tools for argumentation, including online applications combining Web 2.0 and Semantic Web technologies, following the path to a global World Wide Argument Web.

Refereed Conference Publications

Jodi Schneider, Krystian Samp, Alexandre Passant, Stefan Decker, "Arguments about Deletion: Guiding New Wikipedians in Making Good Arguments". *16th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2013)*, San Antonio, TX, February 2013.

Increasingly, ad-hoc online task groups must make decisions about jointly created artifacts such as open source software and Wikipedia articles. Time-consuming and laborious attention to textual discussions is needed to make such decisions, for which computer support would be beneficial. Yet there has been little study of the argumentation patterns that distributed ad-hoc online task groups use in evaluation and decision-making. In a corpus of English Wikipedia deletion discussions, we investigate the argumentation schemes used, the role of the arguer's experience, and which arguments are acceptable to the audience. We report three main results: First, the most prevalent patterns are the *Rules* and *Evidence* schemes from Walton's catalog of argumentation schemes, which comprise 36% of arguments. Second, we find that familiarity with community norms correlates with the novices' ability to craft persuasive arguments. Third, acceptable arguments use community-appropriate rhetoric that demonstrate knowledge of policies and community values while problematic arguments are based on personal preference and inappropriate analogy to other cases.

Jodi Schneider, Adam Wyner, "Arguing from a Point of View". *First International Conference on Agreement Technologies (AT 2010)*. Dubrovnik, Croatia, October 2012.

Evaluative statements, where some entity has a qualitative attribute, appear widespread in blogs, political discussions, and consumer websites. Such expressions can occur in *argumentative settings*, where they are the conclusion of an argument. Whether the argument holds depends on the premises that express a

user's point of view. Where different users disagree, arguments may arise. There are several ways to represent users, e.g. by values and other parameters. The paper proposes models and argumentation schemes for evaluative expressions, where the arguments and attacks between arguments are relative to a user's model.

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Jodi Schneider, Brian Davis, Adam Wyner, "Dimensions of Argumentation in Social Media". In *18th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2012)*. Galway, Ireland, October 2012.

Mining social media for opinions is important to governments and businesses. Current approaches focus on sentiment and opinion detection. Yet, people also justify their views, giving arguments. Understanding arguments in social media would yield richer knowledge about the views of individuals and collectives. Extracting arguments from social media is difficult. Messages appear to lack indicators for argument, document structure, or inter-document relationships. In social media, lexical variety, alternative spellings, multiple languages, and alternative punctuation are common. Social media also encompasses numerous genres. These aspects can confound the extraction of well-formed knowledge bases of argument. We chart out the various aspects in order to isolate them for further analysis and processing.

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Adam Wyner, Jodi Schneider, Katie Atkinson, Trevor Bench-Capon, "Semi-Automated Argumentative Analysis of Online Product Reviews". In *Fourth International Conference on Computational Models of Argument (COMMA 2012)*. Vienna, Austria, September 2012.

Argumentation is key to understanding and evaluating many texts. The arguments in the texts must be identified; using current tools, this requires substantial work from human analysts. With a rule-based tool for semi-automatic text analysis support, we facilitate argument identification. The tool highlights potential argumentative sections of a text according to terms indicative of arguments (e.g. 'suppose' or 'therefore') and domain terminology (e.g. camera names and properties). The information can be used by an analyst to instantiate argumentation schemes and build arguments for and against a proposal. The resulting argumentation framework can then be passed to argument evaluation tools.

Jodi Schneider, Alexandre Passant, Stefan Decker, "Deletion Discussions in Wikipedia: Decision Factors and Outcomes". In *8th International Symposium on Wikis and Open Collaboration (WikiSym 2012)*. Linz, Austria, August 2012.

Deletion of articles is a common process in Wikipedia, in order to ensure the overall quality of the encyclopedia. Yet, there is a need to better understand the procedures in order to promote the best decisions without unnecessary community work. In this paper, we study deletion in Wikipedia, drawing from factor analysis, and taking an in-depth, content-analysis-based approach. We address three research questions: First, what factors contribute to the decision about whether to delete a given article? Second, when multiple factors are given, what is the relative importance of those factors? Third, what are the outcomes of deletion discussions, both for articles and for the community? We find that multiple factors contribute to the assessment of an article, and we discuss their relative frequency. Further, we show how the assessment timeline focuses attention on improving borderline articles that have the potential to meet Wikipedia's content inclusion policies, and we highlight the role of novice contributors in this improvement process.

Jodi Schneider, Alexandre Passant, John G. Breslin, "Understanding and Improving Wikipedia Article Discussion Spaces". In *26th ACM Symposium On Applied Computing (SAC 2011)*. TaiChung, Taiwan, March 2011.

Wikipedia's article discussion spaces ("Talk pages") form a large and growing proportion of the encyclopedia, used for collaboration and article improvement. So far there is no in-depth account of how article Talk pages are used, what is wrong with them, and how they can be improved. This paper reports on three contributions promoting the understanding of and improvement of these spaces: (1) Wikipedia editor interviews provide an increased understanding of readers' and editors' needs, (2) a large-scale comparative content analysis adds to knowledge of what kinds of discussions and coordination occur on Talk pages, (3) a prototype bookmarklet-based system, which we test in a formative user-based evaluation, integrates lightweight semantics.

Jodi Schneider, Alexandre Passant, Tudor Groza, John G. Breslin, "Argumentation 3.0: How Semantic Web Technologies Can Improve Argumentation Modeling in Web 2.0 Environments". In *Third International Conference on Computational Models of Argument (COMMA 2010)*. Desenzano del Garda, Italy, September 2010.

Argumentative discussions are common in Web 2.0 applications, but the social Web still offers limited or no explicit support for argumentation. As Web 2.0 applications become more popular, modeling argumentation happening in these systems becomes important, to enable reuse and further understanding of online discussions. After reviewing four genres of online conversations—Web bulletin boards, Wiki talk pages, blog comments, and microblogs—and four current Web 2.0 argumentation systems, the paper suggests how Semantic Web technologies can be used to provide an interoperability layer for argumentation modeling across applications.

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Alexandre Passant, Antoine Zimmermann, Jodi Schneider, John G. Breslin, "A Semantic Framework for Modelling Quotes in Email Conversations". In *The 2010 International Conference on Intelligent Semantic Web–Services and Applications (ISWSA 2010)*. Amman, Jordan, June 2010.

Quoting is a common practice in online conversations, notably in email discussions and bulletin boards. Despite many applications that offer special functionalities to handle them, there is no agreement on how to semantically represent these quotes, so that they could be queried and analysed uniformly whatever the original application is. While various Semantic Web models, notably SIOC, have become popular for interlinking, exporting and exchanging information about online communities and their conversations, they do not provide means to model such quotes. In this paper, we present (i) an OWL2 extension of SIOC for representing quotes and (ii) a framework for automated quotes extraction from email archives. In addition, we demonstrate the utility of such formal representation for querying email archives with finergrained queries and for mining social networks based on the argumentative structure of email conversations.

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Jodi Schneider, Alexandre Passant, John G. Breslin, "A Content Analysis: How Wikipedia Talk Pages Are Used". In *Web Science Conference (WebSci 2010)*. Raleigh, NC, April 2010. (no abstract; extract from the introduction)

Coordination and decision-making in Wikipedia happens, in part, at the article level, through discussions on an article's Talk page. While other studies have examined Talk pages, their scope has been limited. We report on a larger, in-progress study of Talk pages, consisting, in part, of a manual content analysis of 100 Talk pages. Analysis has been completed to date on three categories (comprising 60 articles, and 58 unique articles), making our pilot already comparable in size to Stvilia's [7] analysis. Further, we use this analysis to discuss how structured and meaningful annotations, based on dedicated ontologies and Semantic Web technologies and added to Talk pages with a lightweight annotation process, could help to better classify the type of edits that happen in these pages. Consequently, decision-making and page management based on Talk page edits could potentially be streamlined.

Referreed Workshop Papers

Anita de Waard & Jodi Schneider. "Formalising Uncertainty: An Ontology of Reasoning, Certainty and Attribution (ORCA)". In *Joint Workshop on Semantic Technologies Applied to Biomedical Informatics and Individualized Medicine (SATBI+SWIM 2012). In conjunction with International Semantic Web Conference (ISWC 2012)*, Boston, MA, November 2012. Volume 930 of CEUR Workshop Proceedings.

To enable better representations of biomedical argumentation over collections of research papers, we propose a model and a lightweight ontology to represent interpersonal, discourse-based, data-driven reasoning. This model is applied to a collection of scientific documents, to show how it can be applied in practice. We present three biomedical applications for this work, and suggest connections with other, existing, ontologies and reasoning tools. Specifically, this model offers a lightweight way to connect nanopublication-like formal representations to scientific papers written in natural language.

Jodi Schneider & Alexandre Passant, "Envisioning a Discussion Dashboard for Collective Intelligence of Web Conversations". In Collective Intelligence as Community Discourse and Action [Workshop] at CSCW2012. Seattle, Washington, February 11, 2012.

Collective Intelligence for wicked problems is urgently needed. To integrate relevant information from discussions across the Web, we need summarization and visualization tools. To show an at-a-glance view of a debate, we envision a discussion dashboard, using automatic information, supplemented where possible, by manual analysis. To make the dashboard easy to conceptualize, we organize it around a simple conceptual model: the Five W's—who, what, when, where, why. Our proposed discussion dashboard would present a full, yet digestible, picture of an argumentative Web discussion.

Jodi Schneider & Adam Wyner, "Identifying Consumers' Arguments in Text". In *SWAIE 2012: Semantic Web and Information Extraction at the 18th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2012)*, Galway, Ireland, October 2012. Volume 925 of CEUR Workshop Proceedings.

Product reviews are a corpus of textual data on consumer opinions. While reviews can be sorted by rating, there is limited support to search in the corpus for statements about particular topics, e.g. properties of a product. Moreover, where opinions are justified or criticised, statements in the corpus indicate arguments and counterarguments. Explicitly structuring these statements into arguments could help better understand customers' disposition towards a product. We present a semi-automated, rule-based information extraction tool to support the identification of statements and arguments in a corpus, using: argumentation schemes; user, domain, and sentiment terminology; and discourse indicators.

Jodi Schneider, Alexandre Passant, John G. Breslin, "Enhancing MediaWiki Talk pages with Semantics for Better Coordination –A Proposal". In *The Fifth Workshop on Semantic Wikis: Linking Data and People Workshop at the 7th Extended Semantic Web Conference (ESWC 2010)*, Crete, Greece, May 2010.

This paper presents a 15-item classification for MediaWiki Talk pages comments, associated with a new lightweight ontology that extends SIOC to represent these categories. We discuss how this ontology can enhance MediaWiki Talk pages, with RDFa, making content of such pages easier to parse and to understand.

Refereed Presentations

"Envisioning Social Applications of Library Linked Data". With Uldis Bojārs (presenter). Talk at *European Library Automation Group (ELAG)*, Palma, Spain, May 2012.

This talk discusses two streams of innovation on the Web—the Social Web and Linked Data—and explains how bringing them together can move library services to the 21st century. Long a mainstay of social networking sites, social features such as user-contributed content and crowd curation are becoming more important for libraries, since they help to build communities (which is one of the functions of libraries) as well as to provide users with better and more relevant services. Linked Data has been widely adopted by businesses and media organizations, as well as by large libraries, in order to facilitate data interoperability on the Web.

Combining the two provides an opportunity to create new applications of library data. In particular, we are interested in applying linked data in order to create novel, social uses of library-related information—uses that might support collaboration or that depend on information contributed by a large number of people.

The presentation will consist of a short introduction to Library Linked Data and social features related to library data, followed by an overview of use cases collected by the Social Uses cluster of the W3C Library Linked Data (W3C LLD) Incubator Group.

The core of the presentation will provide an in-depth look at a few of these envisioned use cases: social annotation, peer-to-peer bookswapping and social recommendations. The goal is to create interest in combining new technologies and to start a discussion about how to bring these and similar use cases to fruition.

The presentation is based on authors' work in the W3C LLD Incubator Group and the output of its Social Uses cluster in particular.

"Identifying Arguments for Evaluation using an Argument Explorer". With Adam Wyner, Katie Atkinson, and Trevor Bench-Capon. *London Argumentation Forum.* London, UK, April 2012.

Argumentation is key to understanding and evaluating many texts, such as opinionated reviews, scientific articles, and persuasive blog posts. However, first the arguments in the texts must be identified, and so far, identifying and diagramming arguments with current tools (e.g. Araucaria or Rationale) has required substantial work from human analysts. With automatic text analysis, we can save time, make argument identification more objective, and speed the work of human analysts by highlighting potential argumentative sections of a text according to indicative generic argument terms (e.g. 'suppose' or 'therefore') or specific terms found in argumentation schemes (e.g. 'expert' or 'fairness'). In addition, domain terminology may be used to localise topical argument elements, that is, what the argument is about. From a corpus of Amazon camera reviews, we are developing a tool—an Argument Explorer—using the General Architecture for Text Engineering system, which supports a user in identifying and extracting the arguments about products from product reviews. By helping analysts to more quickly parse arguments out of texts, we would thus enable more arguments to be extracted, abstracted, and passed downstream to argument evaluation tools such as ASPARTIX or Carneades for evaluation.

"Dynamic Enhancement of Drug Product Labels Through Semantic Web Technologies". With Richard D. Boyce (presenter), Michael Taylor, Maria Liakata, and Anita De Waard. *Conference on Semantics in Healthcare and Life Sciences (CSHALS 2012).* Boston, MA, February 2012.

FDA-approved drug product labeling (packages insert or PI) is a major source of information intended to help clinicians prescribe drugs in a safe and effective manner. Unfortunately, drug PIs have been identified as often lagging behind the drug knowledge expressed in the scientific literature, especially when it has been several years since a drug has been released to the market. Out-of-date or incomplete PI information can increase the risk of otherwise preventable adverse drug events. This can occur directly if the PI fails to provide information that is

needed for safe dosing or to properly manage drugs known to interact. Clinicians might also be indirectly affected if they depend on third party drug information sources, and these sources fail to add information that is available in the scientific literature but not present in the PI. We are creating a Linked Data store that will enable the drug PI to be expanding as new information becomes available in the scientific literature. The goal of the Linked Data store will be to provide clinicians, patients, and the maintainers of drug information resources with the most complete and up-to-date information on particular claims made within a PI. We are focusing on 25 currently-marketed psychotropic medications (nine antipsychotics, twelve antidepressants, and four sedative hypnotics). To construct this Linked Data repository, we aim to use Natural Language Processing (NLP) technologies identify core claims in the scientific literature and various web-based data sources that pertain to pharmacokinetic drug-drug interactions, age-related changes in clearance, metabolic clearance pathways, and genetic polymorphisms that can affect metabolism. This work aligns with the CSHAL themes "Linked Data", "Text Analysis, NLP, Question Answering", "Data Modeling: Ontologies, Taxonomies", and "Clinical Applications." Method We will identify the core rhetorical components of the content sources using a basic Scientific Discourse ontology constructed (and compatible with) biomedical discourse ontologies (i.e., SWAN, OAC and AO) and discourse annotation metadata (specifically CoreSC). The ensuing discourse annotations will distinguish between facts, hypotheses, and evidence statements, and will be automatically recognised in text following an information extraction approach similar to conceptualisation zoning. The expected result is a Linked Open Data Node, a Triple store and a SPARQL endpoint available for use by different patient, clinician, and pharmacoepidemiology-centered data sources. Human readable summaries will also be generated to expand on existing PI information. Results: While we are in the early planning phases of the project, we have built a prototype system that demonstrates the concept by identifying how claims on metabolic clearance and drug-drug interactions could be updated in two drug PIs with evidence from the scientific literature. Conclusions: We envision using the resulting Linked Data store as the back end for a system that provides pharmacokinetic information on age-related clearance changes, metabolic clearance pathways, pharmacokinetic drug-drug interactions, and genetic polymorphisms. After developing a demonstrator for the 25 psychotropics, we anticipate that it will be feasible to subsequently deploy our system for any given drug.

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"Supporting Reading". *Beyond the PDF*. San Diego, CA, January 2011.

I'd like to contribute to use cases and examples in our Beyond the PDF discussions. Reading is an activity that has been heavily studied in the library & information science and usability communities. It's also key to our preference for the scientific paper over other forms (i.e. the fact-based database, the oral presentation). My goal is to translate these findings into ideas for future prototypes.

At the moment, three main topics stand out in my mind: active reading, just-in-time reading, and reading avoidance. By "active reading", I mean purposeful often non-linear reading, often accompanied by skimming, scanning, highlighting, and note-taking. By "just-in-time" reading, I mean delving into the literature at the end-stages of the writing process, to scan for omitted literature or new findings. "Reading avoidance" means assessing and exploiting content with as little actual reading as possible.

Renear & Palmer call for ontologies to be used not only for retrieval, but also for "ontology-aware reading tools". In order to envision the reading tools of the future, we need to look at what is known about what scientists actually do when they read, their underlying reasons for reading, and the ways in which the PDF (and other forms of the scientific paper) are meeting and falling short of their needs.

"Dynamics of Wikipedia Talk pages". *WikiMania 2010*. Gdańsk, Poland, July 2010.

Talk pages have interesting dynamics, which can help foster community and connect people to each other and to information. But Talk pages don't always live up to their potential, and tangled discussions can sometimes hinder, rather than help, their purpose of improving the article. Can Talk pages become an even more effective tool to help improve articles? This presentation will be based on my recent study of 100 Talk pages from English Wikipedia, my own experience as an editor, and existing research on Talk pages. Its goals are to bring the community and research closer together —to help focus research questions on topics that might better serve the community, thus audience participation and feedback is expected and encouraged. This is part of my Ph.D. research on collaboration, online discussions and arguments, and Semantic Web tools for the Social Web.

Demos

Jodi Schneider & Krystian Samp "Alternative Interfaces for Deletion Discussions in Wikipedia: Some Proposals Using Decision Factors. [Demo]". In *8th International Symposium on Wikis and Open Collaboration (WikiSym2012)*. Linz, Austria, August 2012.

Content deletion is an important mechanism for maintaining quality in online communities. We are currently experimenting with alternative interfaces for deletion debates. Our goals are threefold. For newcomers, we would like to support and scaffold increased, and informed participation. For debate closers, we would like to provide summaries and overviews, to aid decision-making. For archived debates, so far, only text archives and visualizations of vote sequencing are available; we would like to show the key issues that need to be addressed before the article is recreated.

Our ideas include asking editors to indicate which issues are important in the discussion; we could also to determine factors discussed in a comment without human effort, for instance based on machine learning trained on our annotated dataset. Discussions could then be summarized by decision factor. An overview could show the topics discussed, and comments could be sorted by decision factor.

Research Agendas

"Arguments about Deletion: Guiding New Users in Making Good Arguments". With Alexandre Passant. *ACM Web Science Conference (WebSci 2011)*. Koblenz, Germany, June 2011. (extract from extended abstract below)

Peer production systems such as Wikipedia depend on users to not only produce content but also to evaluate and maintain it, including deleting inappropriate content. Our work has three goals: first, to understand the arguments made in deletion discussions; and second, to develop argument templates elaborating the structure of good arguments both for keeping and for deleting content. Third and most importantly, we provide guidance and support for new users in properly structuring their arguments according to Wikipedia's rhetorical standards. We plan, first, to examine (both by hand content analysis and then automatically with language technology) a corpus of AfD discussions. Second, we will develop specialized argumentation schemes appropriate to the context of Wikipedia AfD

discussions. Third, we will test these argumentation schemes in the form of checklists of critical questions, aimed at newcomers to AfD discussions. If the intervention proves successful, we will subsequently develop a more sophisticated argumentation assistance interface.

Jodi Schneider "Building a Standpoints Web to Support Decision-Making in Wikipedia". In Doctoral Colloquium, *2012 ACM Conference on Computer Supported Cooperative Work (CSCW 2012)*. Seattle, WA, February 2012. Although the Web enables large-scale collaboration, its potential to support group decision-making has not been fully exploited. My research aims to analyze, extract, and represent disagreement in purposeful social web conversations. This supports decision-making in distributed groups by representing individuals' claims and their justifications in a "Standpoints Web", a hypertext web interlinking the claims and justifications made throughout the social web. The two main contributions of my dissertation are an architecture for the Standpoints Web and a case study implementing the Standpoints Web for Wikipedia's deletion discussions.

Edited Proceedings

Jodi Schneider & Alison Callahan, editors. *Proceedings of the 1st Workshop on Semantic Web Technologies for Libraries and Readers (STLR), at the ACM/IEEE Joint Conference on Digital Libraries (JCDL)*. Ottawa, Ontario, Canada, June 2011. *Bulletin of IEEE Technical Committee on Digital Libraries*, Volume 9, Number 1, July 2013.

World Wide Web Consortium documents

Thomas Baker, Emmanuelle Bermès, Karen Coyle, Gordon Dunsire, Antoine Isaac, Peter Murray, Michael Panzer, Jodi Schneider, Ross Singer, Ed Summers, William Waites, Jeff Young and Marcia Zeng "Library Linked Data Incubator Group Final Report," W3C Incubator Group Report, 2011-10-25.

Contributor. Daniel Vila Suero (editor), "Library Linked Data Incubator Group: Use Cases," W3C Incubator Group Report, 2011-10-25.

Tutorials

Jodi Schneider and Uldis Bojārs and Nuno Lopes "Linked Data for Digital Libraries." Tutorial at Theory and Practice of Digital Libraries (TPDL), Valletta, Malta, 2013-09-22.

Jodi Schneider, Michael Hausenblas, Nuno Lopes, and Stefan Decker. "Linked Data in the Digital Humanities." Skills Workshop at Realising the Opportunities of Digital Humanities, Dublin, Ireland, 2012-10-25.

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This thesis was made in LaTeX 2_ε using the "hepthesis" class.[4] Thanks to LaTeX geeks at StackExchange[5] for many tips.

Diagrams were produced and edited with OmniGraffle 5,[6] Photoshop Adobe Elements 11, Paintbrush,[7] and XMind,[8] as well as the Mac screenshot system. We used OmniGraffle templates and examples from Maciej Dabrowski, Siegfried Handshuh, and Alexandre Passant as well as the UX Activities and Documents stencil[9] and the Non-techie Process Diagram / Flowchart stencil.[10] We gratefully acknowledge VOWL Photoshop sources from Stefan Negru, as well as customizations of these sources by Stephen Linhart. Stephen Linhart provided extensive guidance and advice on using Photoshop Adobe Elements, as well as with graphical touch ups on our Photoshop and OmniGraffle images. Uncredited images are original to the thesis.

Analyses were run with the statistical package R (R Core Team 2013) using the Rstudio IDE.[11] Data was reviewed and munged with Microsoft Excel and TextWrangler.[12]

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[4] http://www.ctan.org/tex-archive/macros/latex/contrib/hepthesis/
[5] http://tex.stackexchange.com/
[6] http://www.omnigroup.com/products/omnigraffle/
[7] http://paintbrush.sourceforge.net/
[8] http://www.xmind.net/
[9] http://www.graffletopia.com/stencils/37
[10] http://www.graffletopia.com/stencils/497
[11] http://www.rstudio.com
[12] http://www.barebones.com/products/textwrangler/

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