

Wikipedia, Critical Social Theory, and the Possibility of Rational Discourse¹

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Information systems researchers that apply critical social perspectives frequently emphasize the potential for information technology to serve as a mechanism for increased rationalization, domination, and control. Such theorists often overlook or discount the liberating aspects of information systems. In this study, we apply the ideal of rational discourse developed by Jürgen Habermas to the phenomenon of Wikipedia in an effort to explore empirically the emancipatory potential of information systems. We contend that Wikipedia embodies an approximation of the necessary conditions for rational discourse. While several challenges persist, the example of Wikipedia illustrates the positive potential of information systems in supporting the emergence of more emancipatory forms of communication. The corresponding implications for researchers and design professionals alike are discussed.

Keywords communicative action, critical social theory, discursive action, Habermas, rational discourse, social computing, Wikipedia

From the perspective of critical social theorists,¹ information systems are generally perceived as supporting the control and monitoring of human actors and consequently contributing to their oppression (Lyytinen & Klein, 1985). In this view, information systems reinforce instrumental reason, and thus tighten the “iron cage” of rationality (Lyytinen & Hirschheim, 1988). Furthermore, widely deployed information systems have broader overbearing effects due to the increased levels of surveillance and

associated disciplinary pressures that they enable, potentially resulting in “Foucault’s version of an Orwellian control society” (Klein & Huynh, 2004, p. 221). In this essay, we offer an alternative perspective to this critical understanding of information systems and illustrate how information technology may actually support the emancipatory principles of critical social theory, particularly as expounded in the work of Jürgen Habermas.

In his *Theory of Communicative Action*, Habermas (1976, 1984) describes discursive action through which progress toward emancipation from unwarranted societal control can occur. We refer to this form of action as “rational discourse.” Although a number of scholars have indicated that Habermas’s ideal of rational discourse is not practically attainable² (Lyytinen & Klein, 1985; Lyytinen & Ngwenyama, 1999; Sharrock & Button, 1997; Wilson, 1997), we join Lyytinen and Hirschheim (1988) in emphasizing the emancipatory potential of information systems under certain conditions and as a counterfactual ideal that is frequently assumed in our daily communications.

We leverage the case of Wikipedia—a popular “free content” online encyclopedia (www.wikipedia.com) and a prime example of a new stream of social computing applications (Parameswaran & Whinston, 2007a)—to illustrate the potential of information systems for supporting rational discourse. While Wikipedia embodies the promise of technology-enabled rational discourse, it also offers examples of the many pitfalls and impediments to effective communicative action that exist. In recent years, the potential benefits and challenges of the Wikipedia system have been widely debated in the broader public sphere, as individuals in academia, law, business, and other social sectors take up sides both for and against this emergent phenomenon.

This essay introduces the idea of Wikipedia as a platform for rational discourse by highlighting the power of the phenomenon and by drawing attention to its limitations. First, we briefly discuss selected examples of how critical social theorists have treated information systems, and then we present key concepts associated with

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Habermas's understanding of rational discourse. We then apply these concepts to examples drawn from the Wikipedia community. We conclude with a discussion of the limitations of Wikipedia with respect to rational discourse, as well as implications for social computing, Habermasian theory, and future research.

CRITICAL SOCIAL THEORY

The term "critical social theory" is commonly used to describe a variety of theoretical perspectives which share a unifying thread—questioning the conventional wisdom of prevailing schools of thought and institutional practices with a primary focus on issues related to justice and power (Alvesson & Willmott, 1996; Kincheloe & McLaren, 2003). Central concerns of critical social theorists involve the critique of systemic forms of domination and injustice that can be supported through institutionalized ideologies—such as scientism, managerialism, globalism, and consumerism. Beyond this critique, critical social theorists advocate radical social change for freedom from these forms of domination, largely through emancipatory discourse. Thus, a critical social agenda is in its essence comprised of two core principles: ideological critique and communicative action (Alvesson & Deetz, 2000).

Critical social theory is traditionally associated with the thought of the Frankfurt School and its leading members, such as Theodor Adorno, Max Horkheimer, and Herbert Marcuse (Brooke, 2002). Most contemporary applications of the perspective have built largely on the later phases of the Frankfurt School, principally the work of Jürgen Habermas (Lyytinen & Klein, 1985; Lyytinen, 1992). However, critical social theory is increasingly understood more broadly to include poststructuralist theorists such as Michel Foucault and deconstructionists in the tradition of Jacques Derrida (Alvesson & Deetz, 2000; Kincheloe & McLaren, 2003; Alvesson & Willmott, 2003; Klein & Huynh, 2004). This broader understanding reflects the shared emphasis of these diverse traditions on the exercise of power and domination in various forms, as well as efforts to provide paths to emancipation from domination (see Alvesson & Deetz, 2000; Kincheloe & McLaren, 2003; Alvesson & Willmott, 1996, 2003). For the present discussion, we address the applications of multiple perspectives on critical social theory within the domain of information systems, before applying a more focused Habermasian analysis of the Wikipedia platform.

Critical Social Theory and Information Systems

Information systems literature has an extensive tradition of leveraging critical social theory, often in the form of

prescriptions for information systems development processes (Hirschheim & Klein, 1994; Lyytinen & Klein, 1985; Wilson, 1997; Introna, 1996; Porra, 1999; Hirschheim et al., 1995). There is also a robust and growing body of theoretical analysis using critical social theory to assess specific information technologies (e.g., Markham, 2005; Ngwenyama & Lee, 1997; Ngwenyama & Lyytinen, 1997; Barton, 2005) as well as information systems in general (e.g., Lyytinen & Hirschheim, 1988; Introna, 1997; Klein & Huynh, 2004; Brooke, 2002; Doolin, 1998; Fitzpatrick, 2002). Finally, critical social theory has been leveraged in empirical research focusing on information technologies in particular contexts (e.g., Zuboff, 1988; Myers & Young, 1997; Elmes et al., 2005; Sia et al., 2002; Introna & Nissenbaum, 2000).

From our review of the literature, we note that Habermasian critical theory is primarily leveraged normatively, in that it offers guidelines for research and practice based on emancipatory ideals (Brooke, 2002). While there are some descriptive theoretical arguments for the emancipatory potential of certain forms of information systems, such as groupware (Ngwenyama & Lyytinen, 1997; Heng & de Moor, 2003) and e-mail (Ngwenyama & Lee, 1997), empirical analyses that draw upon Habermas are rare.³ Instead, much of the descriptive and empirical work related to critical social theory draws upon other critical traditions, such as post-structuralism and post-modernism. Empirical applications of critical social theory in organizational contexts generally emphasize the rationalization and disciplinary roles associated with information technologies (Doolin, 1998). For example, in their studies of Internet search engines, Introna and Nissenbaum (2000) and Mowshowitz and Kawaguchi (2002) argue that the Internet, with its existing search engine technology, reinforces prevailing power relations, rather than acting as a force for increased democratization and social justice.

Nowhere in information systems research is critical social theory more widely employed to illustrate the potential for rationalized control than in the analysis of enterprise information systems. Enterprise platforms are viewed from a variety of critical social perspectives as instruments of managerial control. Through a historical analysis of managerial ideologies and their impact on enterprise systems, Webster (1991) argues that enterprise systems inscribe work practices which incorporate layers of current and historical power relations. Kallinikos (2004) uses a deconstructionist approach to present enterprise systems as vehicles for the procedural control of organizational actors that discourage the emergence of more vibrant modes of human action. Ciborra and his colleagues (2000, 2002; Hanseth et al., 2001) have leveraged a variety of critical lenses to assert that the control-oriented rationality embodied by enterprise systems does not fully encompass all organizational activity, resulting

in cycles of greater emphasis on managerial control and increased rationalization.

In what is perhaps the seminal critical evaluation of organizational information systems, Zuboff (1988) highlights the fundamental tension associated with the disciplinary and emancipatory potentials of information systems. Through their widespread visibility, enterprise systems enforce and enable rationalization-oriented principles of automation and control at the same time as they support the emancipatory principles of personal empowerment. From both perspectives, however, techno-rational corporate objectives maintain primacy (Doolin, 1998). This view is echoed in recent critical studies of enterprise systems that leverage Foucault, where systems are viewed primarily as vehicles of panoptic managerial control (Sia et al., 2002). The empowerment of individuals in these contexts results in their reflective conformity, which reinforces existing power structures (Elmes et al., 2005).

The Habermasian perspective is not leveraged in any of these empirical treatments that we have identified—despite the observation that this perspective is one of the most common theoretical lenses leveraged in the information systems discipline (Klein & Huynh, 2004). Perhaps this can be explained by the observation that Foucault, for example, was largely concerned with describing the details of domination and power relations in real historical contexts, whereas Habermas has been more concerned with a normative framework for emancipating humans from forms of domination (Brooke, 2002). Therefore, it stands to reason that Foucault and other concrete social theorists are used to describe and explain information systems phenomena, whereas Habermas is leveraged when normative emancipatory prescriptions are in order. This conclusion, however, highlights the need for detailed empirical Habermasian analyses to inform the ongoing prescriptions and theoretical work. In the following section, we introduce portions of the Habermasian Theory of Communicative Action in order to inform our analysis of Wikipedia and to illustrate the broader emancipatory potential of information systems.

HABERMAS AND THE THEORY OF COMMUNICATIVE ACTION

In developing the Theory of Communicative Action, Habermas's (1976, 1984) primary concern was to understand under what conditions humans enjoy freedom “from unnecessary need deprivation and toil, ideological manipulation and other psychosocial compulsions, and liberation from fear” (Klein & Huynh, 2004, p. 167). While the purpose of this article is not to discuss Habermas's theory at length, we briefly summarize two key concepts for our analysis: (1) Habermas's typology of human so-

cial action, and (2) the associated principles of rational discourse.

Types of Social Action

Habermas distinguishes between three forms of social action: instrumental, strategic, and communicative. Instrumental and strategic actions are considered to be “purposive-rational,” which is a term Habermas borrows from Max Weber to describe teleological (i.e., goal-directed) behavior. Communicative action, on the other hand, is focused on achieving mutual understanding.

Instrumental action. With the idea of instrumental action, Habermas describes human behavior within an objectivist ontology that “is directed toward objects as though they were inanimate constraints, which can be manipulated in ways that serve the actor's needs” (Lyytinen & Klein, 1985, p. 7). Instrumental actions do not take into account the social nature of human interaction beyond the “technical rules” and “task elements” of social roles. Rather, they are used to achieve success as measured by effectiveness or the truth of causal assumptions (Habermas, 1984).

Strategic action. Purposive-rational action that is undertaken with a consideration for its social context can be called strategic. “We call an action oriented to success strategic when we consider it under the aspect of following rules of rational choice and assess the efficacy of influencing the decisions of a rational opponent” (Habermas, 1984, p. 285). Strategic action acknowledges the social context in which one is operating, but it is directed at achieving some advantage relative to another individual or group (Ngwenyama & Lyytinen, 1997). The essence of strategic action is captured by many forms of managerial decision research such as game theory (Lyytinen & Klein, 1985).

Communicative action. Habermas offers a third form of social action that is not purposive-rational in the sense of the other two. Instead, it refers to the situation in which “the actions of agents involved are coordinated not through egocentric calculations of success but through acts of reaching understanding” (Habermas, 1984, pp. 285–286). Communicative action is oriented toward the achievement and maintenance of mutual understanding between agents. As with the other forms of social action, social agents engaged in communicative action can be either individuals or groups. In order to exchange meaning and coordinate behavior, parties to communicative action must arrive at some level of intersubjectively-determined understanding with respect to the process of communication. When such mutual understanding is not readily accomplished, it must be negotiated by the communicative parties. In those situations where validity claims of either party are contested, they should be reconciled by civilized argumentation, or “rational discourse.”⁴

Rational Discourse

Rational discourse is fundamental to Habermas's theory of communicative action and to his critical theory in general. When communicative action reaches a point where the validity claims of a given utterance are contested, yet the participants sincerely desire to arrive at a mutual understanding collaboratively, then rational discourse can ensue.

Rational discourse assumptions. Habermas highlights assumptions that “every competent speaker must presuppose are sufficiently satisfied insofar as he intends to enter argumentation at all” (1984, p. 25). These presuppositions, or assumptions, include:

That the structure of their communication, by virtue of features that can be described in purely formal terms, excludes all force—whether it arises from the process of reaching understanding itself or influences it from the outside—except the force of the better argument (and thus it also excludes, on their part, all motives except that of a cooperative search for the truth). (Habermas, 1984, p. 25)

In order to enter into rational discourse, the competence and intentions of all parties to engage in such discourse must be assumed. In practice, this means there is a good faith assumption that all parties to the discourse are indeed desirous of mutual understanding, rather than the motivation to “win” an argument that is characteristic of the strategic mode of action. Rational discourse also depends on the assumption of Habermas's “ideal speech situation,” which brings with it the following rules (Habermas, 1990):

1. every actor has the ability to participate.
- 2a. Every actor can question any proposal.
- 2b. Every actor can introduce a proposal.
- 2c. Every actor can express himself or herself.
3. No actor can be subject to compulsion.

Thus, rational discourse (sometimes referred to as “discursive action” or simply “discourse”) describes an ideal form of interaction between actors. Habermas indicates that such an idealized discourse is in opposition to experienced reality, or “counterfactual,” and consequently can only exist in its pure form in principle. Rational discourse acts as a Weberian ideal type, or referential system, based on the “idealizing suppositions” that guide such discourse (Habermas, 2003). Habermas argues that cooperative interaction cannot fruitfully take place without these suppositions, and Edgar (2005) sums up this perspective as follows: “Put bluntly, I do not have to have the sincerity of my interlocutors demonstrated to me before I start talking to them. I assume they are sincere, open, and accountable unless I encounter evidence to the contrary” (p. 154).

Without these suppositions, the social interaction would lose its potential for mutual understanding. Habermas indicates that the use of such suppositions is “actually effective in ways that point beyond the limits of actual situations” (Habermas, 2003, p. 85; italics in original), with these limits including, of course, the often probable case that individuals are engaging in strategically motivated action. Thus, discourse rooted in these counterfactual, idealized presuppositions may eventually lead to clearer understanding without actually living up to the presuppositions themselves. In the imperfect situations of practical discourse, Habermas asserts that some approximation of the ideal condition could be achieved “if only the argumentation could be conducted openly enough and continued long enough” (Habermas, 1984, p. 42).

Types of discourse. Habermas indicates that five types of argumentation exist within such a discourse. These categories are distinguished by the basis upon which they make validity claims:

- *Theoretical discourse*—Claims to truth based on evidence and logic.
- *Practical discourse*—Based on social norms, claims to appropriateness, and social acceptability.
- *Aesthetic criticism*—Criticism based on good taste, “standards of value.”
- *Therapeutic critique*—Questioning sincerity or honesty.
- *Explicative discourse*—Expression of claims that are clearly formulated and intelligible.

The validity claim of a statement can be challenged on any of the preceding grounds, and that type of discourse would then ensue. For Habermas, a continuing discourse of one or more of these types, which is consistent with the assumptions just detailed, will approximate rational discourse. If such a discourse were enabled and entirely mediated through an information system, one could also argue that such an information system incorporates an emancipatory potential in terms of Habermas's critical theory (Lyytinen & Hirschheim, 1988).

Next, we apply these assumptions to a number of articles from Wikipedia. Reconsidering the prevailing view of information systems among critical social theorists—that information systems increase control and rationalization and therefore constrain freedom and work against emancipatory ideals—we illustrate how Wikipedia offers the possibility for an alternative perspective on the discursive affordances of information systems. We contend that Wikipedia can be considered an instance where discourse is not only allowed, but is enabled and fully mediated, by an information system. We argue that Wikipedia approaches the criteria for a rational discourse in several essential facets.

WIKIPEDIA

Wikipedia Fundamentals

Operated under the auspices of the Wikimedia Foundation, Wikipedia bills itself as “the largest reference website on the Internet.” It is an online encyclopedia where anyone using a standard web browser can create and edit articles. Since its introduction in 2001, Wikipedia has seen an explosion of popularity. As of the date of the current data collection effort,⁵ Wikipedia had over 64,000 active contributing editors across all languages.⁶ The English language version of the system has nearly 1.9 million articles, with approximately 1,900 new articles added on a daily basis.⁷ In addition, Wikipedia has articles written in 250 other languages.

As the name implies, Wikipedia is based on a wiki web environment (Leuf & Cunningham, 2001). First developed in the mid-1990s, *wiki* is open-source server software that allows all users to edit web page content using any type of web browser. A wiki environment maintains an archive of version changes that a single document/page has undergone since its inception and gives users the ability to rapidly develop new pages and crosslink them to existing sources. The predominance of non-hierarchical navigation through the use of multiple hyperlinks within the body of a document is one of the central characteristics of a wiki environment. While the wiki technology is quite simple, the functionality that it enables has made it a significant tool for collaborative writing and design, and has contributed to the broader development of the open-source philosophy.

Wikipedia itself was developed as an outgrowth of an earlier effort at free online encyclopedia creation, dubbed Nupedia (Wikipedia Contributors, 2007a). When the Nupedia leadership team recognized the potential advantages of a wiki for rapid development and the maintenance of free content, they launched the Wikipedia project. The articles on the system are kept free through the application of the GNU Free Documentation License, which ensures that content developed is open to use and modification by all editors and that all subsequent enhancement will not be subject to proprietary use (Wikipedia Contributors, 2007c).

Wikipedia is marketed as “the free encyclopedia that anyone can edit.” This statement underscores the decentralized organization of the project. Contributing editors are those who volunteer their time and choose to provide valuable input. These editors are responsible for nearly all changes to the content of the system. There is limited oversight of the project outside of the observation and efforts of the editorial volunteers. Wikipedia Administrators handle the majority of administrative functions for the site. Administrators represent a subset of the contributing editors who have been approved for administrator status

by members of the editorial community. However, the Administrator distinction is more than ceremonial. Administrators are given access to specific technical features of the system, including the protection of pages (i.e., blocking additional edits), the deletion of articles, and the ability to block other editors from further changes to the site’s pages.

One of the key challenges of the system involves the need for blocking selected editors, in order to minimize the potential for vandalism and bias. Because editorial rights are granted to any web user, the system frequently encounters editorial actions that are taken in a deliberate effort to degrade the quality of an article. Such vandalism may take the form of wholesale deletion of article content, the insertion of superfluous vulgar language, or the inclusion of intentionally erroneous information. The recognition of such acts can lead to censure by the broader editorial community through a series of warnings and, in extreme cases, by the blocking of editorial rights to the individual. While vandalism remains an acute challenge for the project, some evidence suggests that the community rapidly addresses and eliminates acts of vandalism through the system’s reversion controls (Viégas et al., 2004).

We next offer some examples of how the wiki system embodies Habermasian discursive action by approximating the conditions of an ideal speech situation. In this illustration we draw upon three disparate cases within the Wikipedia community.

Wikipedia as Rational Discourse

Before addressing any particular article, we first discuss how Wikipedia articles in general can be understood to meet key assumptions that are required for rational discourse.⁸ These key assumptions include: (1) Actors sincerely intend to engage in a cooperative search for truth; (2) through a formalized structure; (3) by excluding the use of force; (4) by meeting the rules of the ideal speech situation; (5) while engaging in a discourse that is open and continued for an extended period.

Cooperative search for truth. As Wikipedia is a widely used reference medium, it is fair to say that most users and editors of the system are generally engaged in the pursuit of accurate information. If they find what they read agreeable, users can be considered to engage in communicative action. If, however, a user does not agree with certain truth claims made in an article, that user may turn into a contributor and thus embark on discursive action.

While there is no way of determining with certainty whether or not a contributor acts with cooperative intent, it is clear that some portion of contributors do act strategically (i.e., with an agenda) and may not have appropriate

motives for their editorial activities. However, as noted earlier, blatant vandalism and politically motivated claims are quickly quashed by the broader editorial community. Therefore, although cooperative intent cannot be generalized to any specific instance of an article at a given time, over the entirety of the Wikipedia project, with an aggregate view of the articles as a whole, one can infer that cooperative argument in the interest of truth is a motivator for the bulk of contributions.

Formalized structure. Habermas suggests that the structure of rational discourse must be explicit and be adhered to by competent actors. Such structure is a central component in the pursuit of desired quality in the Wikipedia community. While content development and site administration are almost entirely decentralized, the editors are bound together by a series of policies and guidelines that have been developed by the Wikimedia Foundation in collaboration with the project's editors. Currently, the Wikipedia project has 39 official policy statements addressing the development of content, the behavior of editors, the treatment of legal issues, and the processes for resolution of conflicts within the community.⁹ Foremost among these are the three content-guiding policies of the project: neutral point of view, verifiability, and the prohibition against original research.

First, the maintenance of a neutral point of view (NPOV) in the development and enhancement of Wikipedia articles is a central element of the system's discursive structure.¹⁰ This policy asserts that Wikipedia articles should present all significant facets or competing positions on a given subject in a way that is unbiased. Contributing editors should take efforts not to betray their personal preferences or opinions in presenting a topic. In addition to establishing a structure for the discourse that may ensue, this policy aligns with Habermas's assumption of the pursuit of common understanding, rather than the ideological competition observed in strategic action.

Second, the Wikipedia community requires that editors restrict themselves to the statement of facts, assertions, or theories that can be verified through reference to other published sources. As the policy itself states, "the threshold for inclusion in Wikipedia is verifiability, not truth" (Wikipedia Contributors, 2007e). That is not to say that truth is not a desired outcome, but that a premium is placed on the ability of other editors to externally verify a given statement. The importance of verifiability is reinforced by the third content-guiding position—the prohibition against original research. Wikipedia specifically states that it is not an outlet for the publication of theories or concepts not previously published elsewhere. Together, these three positions along with the 40 other policies and over 20 guideline documents provide significant structure for the discursive activity that takes place between editors.

Excludes use of force. Wikipedia contributions are entirely voluntary. Just as no use of force motivates people to engage in a Wikipedia-mediated discourse, neither can any force require individuals to accept any contribution. Further, contributors enjoy relative anonymity in their editorial activities. While editors and administrators can identify and communicate with a given contributor (i.e., page editing requires a login or the recording of the contributor's IP address), members of the Wikipedia community have little access to an individual's personal information. Accordingly, editors are closely constrained by the structure of the discourse in disputes over content. In the case of vandalism, steps can be taken to limit an individual's ability to participate on the site, but it is intended that this would only occur after efforts at open communication have been exhausted and an individual has revealed himself or herself to be in bad faith with respect to the pursuit of accuracy. Also, as an e-mail or IP address is all that is required to set up an account, vandals could conceivably continue to participate under different account names.

Ideal speech situation. If we view all Wikipedia users as the population of interest, then it appears that Wikipedia discourse approximates the conditions of the ideal speech situation. As access to a web browser and competency with simple text editing are all that is required to participate, it is reasonable to assert that most users have the ability to contribute if they see fit. Indeed, individual contributors have multiple avenues to question a proposal or to submit a novel proposal. If one questions the validity of a certain truth claim, he or she may edit the text of the relevant article in an effort to improve its accuracy. Conversely, a contributor may question the claim directly through the use of the "talk page" for that article.¹¹ If an editor wishes to introduce a topic or issue not yet represented on the Wikipedia site, he or she is encouraged to start a new page on that subject. Finally, as indicated in the preceding subsection, contributors are not subject to compulsion.

Lasting over time. Wikipedia offers an endless potential for page editing, and articles are always dynamic. This leaves the window open for improvement of any article over time as it becomes more refined and accurate in its statements. Indeed, similar to Habermas's assertion that sustained effort may be required for a discursive environment to approximate an ideal speech situation, the Wikipedia community emphasizes the importance of time in supporting the accuracy of articles. It is widely acknowledged by system contributors that many Wikipedia articles are of less-than-admirable quality when they are first developed. However, it is argued that the quality of the articles, in terms of accuracy, prose, and fairness, improves consistently as the article undergoes repeated revision by members of the community. As one of the pages about the system itself notes:

Articles are never ‘complete and final.’ Just as human knowledge evolves, so does our wiki coverage of it. Wiki articles are continually edited and improved over time, and in general this results in an upward trend of quality, and a growing consensus over a fair balanced representation of information. (Wikipedia Contributors, 2007b)

Thus, the Wikipedian community appears to have significant faith in the effects of time on the quality of the content that they collaboratively create.

RATIONAL DISCOURSE WITHIN WIKIPEDIA

The discursive action enabled by the Wikipedia environment can be assessed through the study of a subject around which one would expect there to be multiple challenges to truth claims, i.e., a topic of significant controversy. Several such subjects can be identified among the Wikipedia articles, including segments on abortion, U.S. immigration reform, and the notorious *Jyllands-Posten* Muhammad cartoons. Certainly, one would expect to see significant strategic action employed in general discussions of such issues. However, given its objective of a neutral point of view, the ideal treatment of such issues on Wikipedia is expected to be communicative in nature. To support the analysis of discursive action surrounding such controversial issues, we focus on the treatment of three such topics within the Wikipedia environment.

Since we are interested in exploring the potential for rational discourse within Wikipedia rather than specific causal relationships between features of the system and discursive outcomes, the research methodology employed is a qualitative multi-case analysis. Accordingly, we followed theoretical sampling to identify cases where the Habermasian conditions of rational discourse might be most likely to exist (Eisenhardt, 1989). Specifically, we sought cases where (1) contentious issues were not completely resolved, (2) serious cognitive content was involved, allowing for the introduction of competing truth claims, and (3) there was evidence of a significant thread of argument. In addition, we recognized that contested topics within Wikipedia could be subject to multiple bases for argumentation between discursive participants—e.g., cultural, scientific, political, and social, among others. Accordingly, in selecting cases for observation and analysis, we sought to identify topics which would reflect a broad range of discursive foundations. As a result, the cases selected are intentionally varied in their subject matter and bases for discursive support, including entries for the *Armenian Genocide*, the uses of *Ethanol Fuel* as a renewable energy source, and the subject of *Intellectual Property* (see Table 1 for a summary of the case topics).

In the qualitative multi-case method employed, we explored in detail the Wikipedia pages attached to each topic.

TABLE 1
Selected case topics

Armenian Genocide

We use the term *Armenian Genocide* to refer to the forced relocation and death of between 800,000 and 1.5 million ethnic Armenians at the hands of the Young Turks regime in the period from 1915 to 1917. The primary controversy over the events is the use of the term *genocide* itself. While most international scholars accept the application of the word, the government of Turkey and much of the Turkish population argue that the events were a case of interethnic conflict rather than a state-sponsored effort at extermination. In the present analysis, we take no position with respect to the relative validity of either set of claims, but consider instead the ways in which the discourse has developed in the Wikipedia context.

Ethanol Fuel

Ethanol, or ethyl alcohol (C₂H₆O), is a flammable liquid produced through the fermentation of grain. In recent years, ethanol has garnered a significant position in the public discourse as an alternative to non-renewable fossil fuels, such as petroleum. Currently, ethanol is used as an additive to gasoline and is noted for the fuel efficiency that it engenders (owing to its higher octane level than petroleum; Wyman, 1994). This additive application of ethanol fuel has occurred almost exclusively in the Western hemisphere—most notably, the United States, Canada, and Brazil (Wheals et al., 1999). The controversy that has arisen around ethanol concerns the overall impact on the environment that a shift to ethanol would create, with critics emphasizing the potential negative effects of increased use of fertilizers and pesticides.

Intellectual Property

While the term acts as an umbrella for a very wide range of created artifacts, *intellectual property* refers to “creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce” (World Intellectual Property Organization, 2007). Intellectual property is generally protected through the use of patents, trademarks, and copyrights in an effort to ensure that the relevant creators are able to enjoy the economic fruits of their creations for at least a limited period of time. Controversies around the treatment of intellectual property have exploded over the past decade with the emergence of peer-to-peer file sharing networks, the open source development phenomenon, and concerns over the absence of global standards for the protection of intangible creative goods.

First, we reviewed the content of the articles themselves to determine whether or not multiple perspectives were acknowledged, the degree to which the article reflected the neutral point of view expected of Wikipedia material, and the presence of supporting citations and links to additional sources of information. Next, a thorough review of the history of each article was completed. In this phase of the analysis, we documented the patterns of editorial change that the article had undergone (e.g., number of changes, temporal distribution of edits). In addition, the historical review included the identification of key milestones or events in the development of the articles (e.g., inclusion of formal citations and notes, changes to the external links for the topic, significant occurrences of vandalism). Finally, an analysis of the *Discussion* site for each article was conducted to determine the forms of discourse that emerged in the direct communication between contributing editors for the respective subjects. In this regard, we reviewed all discussion comments submitted by participants with an eye to the forms of rational discourse outlined by Habermas (e.g., theoretical discourse, explicative discourse, aesthetic critique) and the degree to which they were present in the discussions. In the following subsections, we illustrate how the controversies associated with each of the case topics areas have been addressed within the various components of the Wikipedia environment.

Wikipedia and the Selected Discourses

Wikipedia and the Armenian Genocide. A review of the history for the article on the Armenian Genocide reveals that, since its initial development in October of 2002, the page has undergone over 6,300 edits. In its first month, the article grew slowly from a brief statement exclusively reflecting the “genocide” perspective to a short article that acknowledges the Turkish position on the subject. Then, in early December 2002, the article was deleted and simply replaced with the statement: “The Armenian Genocide (also known as the Armenian Holocaust) was an event that, in the true meaning of the word ‘genocide’, never took place.” This statement in turn was promptly replaced by a strongly biased counterstatement. However, the article soon reverted to the version that had persisted before the blatant vandalism occurred.

In the ensuing months, we observed multiple actions that could be characterized as strategic (from both sides of the issue), including additional acts of unambiguous vandalism of the page. However, over the course of 2004 and 2005, additional hyperlink resources were added to support the verifiability of various claims, including links to web sites representing both points of view on the issue. In June 2004, the community added to the article a

Reference section that included the first scholarly reference. In January 2006, a *Notes* section was added with references to support specific truth claims made on the page.

At the time of the current analysis, the article on the Armenian Genocide includes more than 9,800 words and provides broad coverage of the subject. While the bulk of the article focuses on the majority interpretation of the historical events, the page includes extensive discussion of the alternative perspectives on the issue and significant attention to the controversy itself. The *Bibliography* section on the page has expanded to include 17 sources, and the *References* section has grown to include 82 citations and corresponding comments supporting claims made within the body of the article. In addition, the page includes 10 external links, including sources both supporting and refuting the conjecture of genocide and direction to 3 independent studies on the subject, and 11 links to related articles within the Wikipedia system. All of these links are in addition to the nonlinear links embedded in the document itself.

Wikipedia and Ethanol Fuel. Wikipedia contributors exhibited less overtly strategic behavior in their treatment of ethanol fuel compared with the Armenian Genocide article. The initial entry for *Ethanol Fuel* was established in April 2004. In contrast to the entry on the Armenian Genocide, the Ethanol Fuel topic was introduced in a fairly well-developed state and matured very rapidly. While there were a number of grammatical and spelling errors to be observed, the initial entry included information on the fundamental science of ethanol fuel, its role as an alternate energy source, and the experiments in the use of ethanol that had emerged in Brazil and the United States. From these beginnings, contributors quickly augmented the page. In less than 2 months from its inception, the content had swelled from roughly 1,800 words to over 4,500. Perhaps most noteworthy is that by June 2004, the article included a section entitled “Arguments and Criticisms,” which highlighted some of the positions both for and against the use of ethanol as an alternative fuel.

Despite the relatively mature state in which the ethanol fuel article was introduced, the page has undergone significant revision and enhancement in the subsequent years. The page has undergone more than 2,200 edits between 2004 and 2007. As with the genocide piece, editors augmented the ethanol article with a section of external links to other sources of information and extensive internal links to other relevant subjects within Wikipedia. In May 2006, a *Notes* section was added to provide support and reference for a specific statement made within the article. At present, the *Notes* section has grown to include 63 references, in many cases providing links to accessible PDF versions of the referenced sources.

Importantly, the page has been subject to significant contention over the arguments presented. In February 2006, administrators added a notice to the page stating that the content of the article was under dispute on the bases of neutrality and factual accuracy. Some contributors argued that the article contained several statements of questionable validity which had been inserted in an effort to discredit or downplay the positive potential of ethanol fuel. In large part, the debate around this issue has played itself out in the article's Discussion site (see later discussion for more detail on the role of Discussion pages).

Wikipedia and Intellectual Property. The Wikipedia article on *Intellectual Property* was a relatively early entry to the system. The first version of the piece appeared in December of 2001, less than a year from the launch of the project. In the first few months of its existence, it garnered little attention from the nascent contributor community, experiencing less than one edit per month. The rate of editorial input began to pick up in the summer of 2002, and has since accelerated consistently. To date, the article has experienced 1,204 edits, with 191 since the start of 2007.

The current version of the article contains over 7,400 words and includes sections on the history of intellectual property, economic views of the subject, mechanisms for the valuation of intellectual property, and critiques of the very concept. As with the other two articles reviewed, *Intellectual Property* has experienced significant structural enhancement since its inception. While internal links to related Wikipedia topics have been present since the article's introduction, these have expanded greatly over time, from less than 10 to 37. In September 2003, a Bibliography section was added to direct readers to relevant books on the subject. References to support specific statements were not added until August 2006. This last point remains a point of contention around the *Intellectual Property* article, because some Wikipedians have claimed that contributors to the piece (especially the section of "Controversy" in *Intellectual Property*) have not provided adequate references in support of their statements or claims.

Within the article itself, the acknowledgment of significant differences of opinion on the subject of intellectual property was present from the beginning. An explicit section focusing on "Arguments against the term 'Intellectual Property'" emerged in January of 2003. This was augmented with a "Controversy" section in January 2005, and the two areas were grouped under a broader "Critique" heading by March of the same year. At present, the section on critiques of the intellectual property concept makes up over half the content of the entire article (at over 4,000 of the 7,400 word total).

Rational Discourse and the Wikipedia "Discussion" Pages

Much of actual discourse between Wikipedians holding different perspectives on a given subject emerges in the *Talk* or *Discussion* page of the relevant articles. This is where parties to the discourse can address each other directly to state a specific position, to challenge the positions or statements of another, or to offer critiques of a contributor's behavior with respect to the guidelines for Wikipedia content. Over time, these discussions can become very lengthy and elaborate. In the case of the Armenian genocide, a reader can now access over 10 distinct archives of editorial discussion regarding the article, dating back to October of 2004. These archives even include one page dedicated solely to the discourse between a few of the most active editors of the page. While the discussions between contributors have been more subdued in the cases of *Ethanol Fuel* and *Intellectual Property*, significant discourse has occurred here as well. Three archives of discussion have been created for the *Ethanol Fuel* article, with 69 topical threads and over 185 distinct posts. For *Intellectual Property*, the contributors have archived the discussion page once and 32 threads have been initiated, representing 130 individual posts. Ultimately, it could be argued that the discussion pages are the site where the true discursive action between Wikipedia editors emerges. While much of the interaction observed in an article's discussion page is patently strategic (this is especially true in the case of the Armenian Genocide example), each of the forms of discourse outlined by Habermas can be distinctly observed.

Theoretical Discourse. On the talk page, theoretical discourse predominates, with editors presenting the evidence and logic for the changes that they have made to the page. In such cases, the contributors frequently employ external sources in an effort to support their claims. The following exchanges offer an illustration:

Armenian Genocide. A: "Genocide is a term in international law. An event can only be called a genocide after it has been approved by an international court."

B: "Your claim that the use of 'genocide' to describe this or any other historical event requires some international court to pass a verdict is unsupportable and faulty."

Ethanol Fuel. A: "It's not about production, it's about refining. It takes more energy to refine ethanol than it generates in an ICE engine—[external source] 67 percent more, to be specific. That energy is coming from the electricity network which is generated from a number of sources including via coal and oil burning, among cleaner methods."

B: "As pointed out in 'ethanol fuel in Brazil', the process there burns part of the sugarcane plant to provide energy to

run the refining process, and actually produces an electrical surplus, which is sold back to the grid. I still don't see the point. Brazil cannot simply be playing a shell game with the real costs of producing ethanol; they're energy-independent."

Intellectual Property. "... as a Canadian lawyer who practices exclusively in this area, I can assure you that the term 'Intellectual Property' is considered the correct legal term in Canada. I can also tell you that our firm communicates with lawyers in numerous jurisdictions throughout the world and they all use the term as well. Also, the existence of the international non-governmental body known as the World Intellectual Property Organization, which manages numerous international treaties dealing with this area of law, would seem to indicate that the term is fairly well entrenched on an international level."

Editors also employ theoretical discourse when they justify a reversion of the page to an early iteration, e.g. "I have gone back to what appears to be the most complete recent version of the article."

Practical Discourse The editors repeatedly engage in practical discourse when they invoke the guiding foundations of the Wikipedia project. In a very real sense, the policies and guidelines of Wikipedia (especially NPOV and Verifiability) represent the social norms and thresholds for propriety within the community. In discussing the desirability or undesirability of a given change, contributors will base their arguments on adherence to the policies of the system:

Armenian Genocide. "Writing it the NPOV way is the way to go. I don't make the rules. I try to respect them. If you enter a country and really want to work there and you don't want to leave it, and there are laws which you don't agree with, will you stop respecting them? Rules are imposed—they are called guidelines and policies."

"I again recommend 'Wikipedia: Verifiability' and 'Wikipedia: Reliable Source' [i.e., the policy statements on Wikipedia]. We don't do pick and mix citations."

Ethanol Fuel. "Um... links aren't banned on NPOV grounds. Don't forget, we don't achieve NPOV by avoiding POV, we achieve it by including all notable POVs."

"It was when I read this paragraph that I realised a POV tag would need to be added to this article. Apart from giving us a lesson in basic economics, [Specific Contributor] is clearly intent of pushing a POV, as illustrated by the four citations added to this point in the text. The principle of Neutral Point of View requires that we describe competing views without endorsing any one in particular."

Intellectual Property. "From my reading, the entire Intellectual Property article does not reflect a neutral point of view. If I had no prior knowledge of the subject, I might be left by the article with the opinion that intellectual property laws are generally a bad thing or obsolete. To achieve a neutral point of view, I would suggest that the 'Controversy',

'Critique', and 'Arguments against the term' subheads might better be consolidated under 'Controversy', made more concise, and moved to the end of the article."

"None of the four sites currently in the External Links section comply with WP:EL [i.e., the Wikipedia policy guideline on External Links]. I've deleted the entire section; it was restored with a reference to the talk page, but the talk page makes no attempt to justify it with reference to the Wikipedia policies."

Aesthetic Criticism. The articles themselves are repeatedly subject to formatting and organizational issues that indicate significant aesthetic criticism. On the discussion pages, there is less of an emphasis on the aesthetic, although one can certainly find it represented in the discussions:

Armenian Genocide. "However, considering the article lacks all of the sufficient descriptive elements of the how, why, where, when and by whom and to whom information that I think is relevant and necessary—I would argue that there is undue emphasis on clearly secondary issues as 'art' etc."

Ethanol Fuel. [Regarding a 'Good Article' Nomination]: "Although this article has covered quite a lot of ground, I cannot pass it due to the many issues evident. The most obvious would be the cleanup and neutrality tags, but also there are many unsourced statements and one or two sentence paragraphs. Lists should be converted into prose where possible, and the external links and 'see also' sections need some serious slimming down in size."

Intellectual Property. "The article's layout is strange. There is a section, 'Critique,' with subsections, 'Arguments against the term' etc. . . . This is a bit bizarre . . . In my view, there needs to be a separate section or sub-section that is devoted to arguments pro and con for whether IP law and rights are justified, or legitimate."

Therapeutic Critique. Given the presence of strategic dialogues, it should come as no surprise that therapeutic critiques (i.e., questioning the sincerity of other editors) are common. Again, this form of discourse involves the invocation of a Wikipedia policy, namely, the assumption of good faith.¹² By challenging the degree to which a fellow contributor adheres to the ideal of good faith, an editor will effectively challenge the sincerity of that individual. For example:

Armenian Genocide. "I have every right to be suspicious, assume good faith doesn't mean to stop reasoning [sic]. I have my doubts about you and for a reason. L____ too like other users have come here claiming to be neutral users."

"I hope you're not believing in what you're saying . . . I have nothing to say if you're saying this as a part of the propaganda, but if you're believing in it, then I suggest doing some more research before forming an opinion."

Ethanol Fuel. “I removed the following paragraph due to its advertisement-like qualities, lack of sources, poor grammar, abysmal punctuation and many typos: [Referenced paragraph] . . . Likely the above writing was the deceptive work of a petroleum industry executive, trying to make ethanol supporters look overly uneducated. Nice trick, but you’re not fooling these highly educated ethanol supporters!”

Intellectual Property. “I object to any comment whatsoever about the article having a copyright notice. There is no purpose whatsoever to mention this except as some kind of non-neutral commentary . . . It is not news, or useful information, or even particularly noteworthy, that a given publication has a copyright notice. Nor is it news to say, ‘the article is printed in black print on paper.’ So calling attention to it is obviously done for the sole purpose of trying to make a subtle point that there is some kind of hypocrisy or inconsistency going on.”

Explicative Discourse. Throughout the discussions that unfold on the Discussion pages, editors take great efforts to present their ideas in a well-formulated and intelligible manner. Unlike the average Internet discussion page, terse responses with multiple grammatical or spelling errors are comparatively rare, outnumbered by more extensive and apparently thoughtful comments. At times, the value placed on clarity is discussed overtly.

Armenian Genocide. “I highly recommend that a veteran Wikipedian clean this article up a bit, making the mode of communication a bit more intelligent and a bit less like a rant. I’m not debating how true it is. I’m just saying it’s presented in an ugly way.”

Ethanol Fuel. “What is the argument that the ‘Cost’ section is making? If it’s arguing that you need to burn gasoline in order to produce ethanol, that’s not strictly true; there’s no conceptual reason why farm equipment can’t itself run on ethanol . . . I don’t understand that point that’s being made. It’s either nonsense or poorly explained, and I’m not sure which.”

Intellectual Property. “IMHO, any significant discussion on controversy at the beginning is at best inappropriate, especially with regard to the term itself. Basic information on the subject matter must always be presented first and in detail, before any significant discussion on issues of controversy.”

One of the reasons for such clarity may lie in the process for resolving disputes that has been established. While intervention by an Administrator or the Wikimedia Arbitration Committee is an extreme option, these avenues take into consideration the previous efforts at resolution pursued by the parties to a conflict. Thus, if disputes escalate to necessitate third-party engagement, the clarity and commitment to dialogue reflected in previous discussions can have a bearing on the outcome of the dispute.

Wikipedia Page Editing Over Time

In all three of the articles considered, the majority of the contemporary edits reflect minor reworking of the grammar or structure of text. However, in some cases, acts of vandalism continue to occur. For the article on *Intellectual Property*, editors reverted to earlier versions to correct acts of vandalism a total of 14 times from July 2006 through June 2007. In the case of *the Armenian Genocide*, throughout most of the “life” of the article, the page has included an administrative notice indicating that the neutrality of the article is in dispute. Due to the occurrences of vandalism, the article has periodically been locked from editing by system administrators pending the resolution of specific disputes. The contested neutrality indicator has also been periodically posted on the *Ethanol Fuel* page over its history.

Despite lingering concerns over the degree to which these articles adhere to Wikipedia’s editorial policies and guidelines, the evidence from these disparate cases suggests that Wikipedia’s claim to improved accuracy and balance over time is warranted. For all three topics, few truth claims have been uncritically accepted, and most significant truth claims have multiple sources of support. It is reasonable to propose that the confidence of the reader in the validity of claims made on each page has likely increased over the past couple years as the effort to provide sources for external verification of claims has increased. While the articles on both the Armenian Genocide and ethanol fuel currently have posted notices regarding challenges to the neutrality of the page, all three articles do provide substantive information on the varied perspectives adopted with respect to the topics.

Due to page limitations, a comprehensive analysis of these articles cannot be presented here. However, our analysis does show that early in the life of each article, significant theoretical discourse occurred. As these truth claims were addressed over the life of the respective articles, practical discourse became more prevalent (as evidenced by the rapid elimination of vandal activity), as did therapeutic discourse in the discussion pages (as editors question each others’ intentions). In all three cases, the foreground discursive activity focuses on explicative discourse, addressing questions such as grammar, phrasing correction, and the organization of the article.

Questioning Wikipedia

While the Wikipedia environment approximates features of the ideal speech situation articulated by Habermas, several concerns remain. Wikipedia has been criticized over the accuracy of articles, the motivations of editors, the rigor of its verifiability, and a perception of anti-elitism within the community (Denning et al., 2005; Sanger,

2004). In giving all users a free hand to edit the text, Wikipedia exposes itself to the inclusion of inaccurate information. Even if one accepts that acts of vandalism are rapidly corrected (Viégas et al., 2004), there is little way of protecting against more mundane errors inserted by editors with no malicious intent. At any given moment in time, it is nearly impossible to determine whether or not a given article includes substantive inaccuracies. While a hotly contested study published in the journal *Nature* suggested that Wikipedia articles have error rates similar to those of the highly regarded *Encyclopaedia Britannica* (Giles, 2005), any casual user of the Wikipedia system can identify a range of minor errors (e.g., spelling, grammar) simply by browsing through a few articles. Thus, one is left to question whether or not a *theoretical discourse* (i.e., based on evidence and logic) will be undermined by the potential inaccuracies of the evidence presented.

A second key challenge involves the intentions of the contributors to the systems. As Denning et al. (2005) note: “You cannot know the motives of the contributors to an article. They may be altruists, political or commercial opportunists, practical jokers, or even vandals” (p. 152). Despite the issues that Wikipedia encounters with vandalism, the last of these possibilities may be the least problematic in the long run. While blatant vandalism is relatively easy to address, the impact on the quality of an article from individuals who fail to adhere to the assumption of good faith may prove far more incendiary. One cannot ascertain with confidence the sincerity of inquiry by other editors that is advised by Wikipedia and Habermas alike.¹³

Furthermore, while Habermasian rational discourse holds competent actors accountable for meeting the discursive criteria relating to accepted forms of argumentation, this accountability is concerned primarily with the utterances of individuals. Good faith is necessarily assumed through the very willingness of the individual to participate in an argumentative form. Therefore, “safeguard” practices within Wikipedia, such as freezing edits on a controversial page or blocking specific editors from contributing to a page, on the surface appear akin to stopping the discourse or excluding competent actors—which is inconsistent with the fundamental tenets of rational discourse. However, if these measures are viewed as an operationalization of the enforcement of assumed good faith (i.e., only “good faith” contributors are allowed), then we are not faced with a fundamental inconsistency as much as a traversal of a pragmatic boundary between an ideal system and its real-life approximation.

One of the strongest critiques of the Wikipedia model comes from one of the pioneers of the project. Wikipedia co-founder Larry Sanger left the project in 2002 after experiencing dissatisfaction with the trajectory that the system was taking. Sanger (2004) has expressed concern

with the anti-elitist attitude that has come to prevail within the community. In contrast to the use of expert authors common in most traditional encyclopedias, prior training or education does not convey a priority status to contributions in Wikipedia. From Sanger’s point of view, this creates substantial challenges to the system’s credibility in public perception and the tolerance of uncivil participants. To counter these trends, Sanger and his new collaborators have set up a competing online reference system. The *Citizendium* platform was introduced in November 2006 and is marketed as an effort to create “an enormous, free, and *reliable* encyclopedia” (italics in original). Like Wikipedia, Citizendium is based on a wiki format, but it differs from the older system in that editors work under the direction of recognized experts. In addition, contributors to Citizendium are required to use their real names with the intention of reducing the antisocial behavior that can accompany anonymity.

Interestingly, in juxtaposing the conditions favored by Sanger with Habermas’s ideal speech situation, it is not clear that the changes embodied within the Citizendium project are an improvement on Wikipedia with respect to the objectives of rational discourse. Indeed, Wikipedia’s anti-elitist tendencies seem quite consistent with Habermas’s insistence that rational discourse demands that every participant can question the proposals of another and can introduce proposals as he or she sees fit. For Habermas, truth claims should be mediated by the force of the argument, rather than by the credentials of the individual. In the newer system, the expert editors effectively act as filters of the truth claims and challenges of other contributors. Of course, it is important to note that these two differing perspectives on the features of the Wikipedia system similarly reflect the challenges of normative approaches to knowledge creation.¹⁴ To borrow a phrase from Pickering (1992), both Sanger’s design and Habermasian perspectives reflect “the traditional philosophical desire to tell people what to do” (p. 22).

DISCUSSION

Based on our observations, we assert that Wikipedia approximates features of a Habermasian rational discourse. Following Habermas, we acknowledge that an ideal form of communicative action may never be realized as it is counterfactual in its purest form, but we contend that the combination of technical capabilities and social norms that have emerged in Wikipedia do support a more emancipatory discursive environment. When Habermas wrote the bulk of his corpus, the Internet was inchoate and a Wikipedia-type discourse was simply inconceivable. Now, with the emergence of Wikipedia and other forms of social computing, the question may be whether such discourse remains a truly counterfactual “ideal.” In the

following discussion, we reconsider the nature of rational discourse, the emancipatory potential of Wikipedia, and their implications for social computing, information systems design, and information systems research.

Wikipedia as Rational Discourse?

Common criticisms of the Habermasian ideal speech situation emphasize the empirical impossibility of what are seen as Habermas's prescriptions for communicative action. Human beings are simply not the "paragons of human patience, self-awareness, sensitivity and consideration" that would be necessary to enable such communicative action (Sharrock & Button, 1997, p. 375). However, such criticisms miss a fundamental point in Habermas's argument. His goal is not to *achieve* the idealized form of discourse in empirical reality; rather, he argues that the "idealizations" must be *acknowledged* for any form of rational argumentation to take place (Habermas, 2003). For rational discourse to be observed, participants need not adhere perfectly to the ideal state in all of their actions and intentions. Rather, participants must use the idealizations as a guide to their communication *in practice*—even if the content of a specific utterance is "motivated by things other than good reasons" (Habermas, 2003, p. 96). The empirical possibility of discursive action, therefore, may be most prevalent in the "practical discourse" of a dialog, where the parties appeal to the rules in critiquing the statements of the other party.

In the Wikipedia context, we can take the policy of *neutral point of view* (NPOV) as a relevant example. In each of the cases considered, we identified several practical critiques that invoked the NPOV guideline. While it is clear that a given participant holds a distinct point of view, the structure of the medium requires that any argumentation be presented through NPOV. The participant does not have to be neutral, but his argument must be presented so as to maintain the appearance of adherence to the policy. The result is that every given addition to the page may have its origin in a strategic inclination, yet the overall outcome, due to the structure of the discourse, can be considered rational discourse. The explicit argumentation at any point in time reflects the assumptions embodied in the guidelines, not the strategic intent of the participants. Thus, NPOV is a counterfactual idealization, as many participants certainly do not edit articles for strictly communicative purposes (Barton, 2005), but the argumentation actively appeals to this idealization.

In addition to the pursuit of idealized conditions, the role of time is critical in the emergence of the discursive context. As Habermas points out, it is important that rational discourse remain open-ended (Habermas, 2003), as vital, critical argumentation requires time to emerge (Habermas, 1984). The leaders of the Wikipedia project

have echoed Habermas in their assertion that the quality of the discourse in the system demands patience and sustained effort in the pursuit of an ideal state. Wikipedia articles are rarely marked by an appropriately neutral point of view and balanced treatment when they are introduced, but it is hoped (and believed) that such characteristics will emerge as the community hones its efforts. Also, as Wikipedia articles are continuously subject to scrutiny, they may actually be more trustworthy over time than information obtained from commercial publishers (Barton, 2005). If we accept that Wikipedia provides an approximation of the ideal speech situation because of its open-ended structure and the incorporation of communicative ideals, the question then turns to the system's emancipatory potential. Is the rational discourse that we see in Wikipedia truly emancipatory?

Wikipedia as Emancipatory?

Criticisms of the theory of communicative action often focus on the primacy of communicative forms that it reflects (Rasmussen, 1990). For Habermas's perspective on emancipation through discourse to hold, communicative reason must be "embedded in language" (Rasmussen, 1990, p. 28), and therefore take precedence over purposive rationality. Thus, Habermas is criticized for having a naive view of power by those who see all action, including linguistic, as fundamentally enabled and constrained by existing power relations (Flyvbjerg, 2001). Under such a view, in certain contexts, Habermasian discourse can itself become a vehicle for domination. If communicative action is not the foundational form of action, then Habermas's notion of the emancipatory potential of discursive action may be groundless (Rasmussen 1990). One possible manifestation of this tension within the context of Wikipedia is the persistent institutional influence associated with truth claims made in the system.

While the cases that we have considered illustrate the potential for discursive progress within Wikipedia, they also illustrate the medium's continued dependence on legitimized, institutional forms of authority. In the Wikipedia venue, the force of the argument is a driver of acceptance by the editorial community, but the force of the argument is largely derived from the sources that it brings to bear—sources that in turn derive their authority from some institutional legitimacy. For example, in its guideline on reliable sources (Wikipedia Contributors, 2007d), Wikipedia advises contributors in the evaluation of sources, including an emphasis on reviews by scholarly publications. This indicates that often the crux of any article can be influenced by factors that are inconsistent with the spirit of critical social theory. From the perspective of the critical theorist, an inevitable weakness of a social computing medium such as Wikipedia is its

continued dependence on the same institutions that rationalize and often oppress humanity.

Such an argument has been made in the information systems (IS) development literature. While a number of methodologies claim to be emancipatory at various levels, Wilson (1997) argues that such methodologies are really no different from the traditional control-oriented practices they seek to replace. But just as IS development methodologies may not be *entirely emancipatory* in line with the ideals of critical theorists, we assert that they are *more emancipatory* than prevailing methods. Emancipatory practices such as a sociotechnical systems focus (Mumford, 2003) and participatory design (Floyd et al., 1989) promote greater discourse and control for users over their own destiny relative to engineering-oriented life-cycle methods. In much the same way, Wikipedia offers an example of a reference medium that is *more emancipatory* than prevailing monolithic institutionally sponsored systems of inquiry. This is illustrated by all three cases in our analysis, where the prevailing understandings as well as alternative interpretations of the relevant issues or events are presented. What is of particular interest is not how close Wikipedia comes to the ideal, but the freedom it grants to its users relative to prevailing forms of communication in allowing participants to be convinced through presentations of multiple, often conflicting viewpoints in an open format.

We do not hold that Wikipedia is by necessity emancipatory in a universal sense. As we have indicated, there is a definite tension between valid truth claims and institutional domination. But we suggest that Wikipedia is *more emancipatory* than many alternative media, because a variety of conflicting institutions can be leveraged and presented in a “free” dialogue. Interestingly, with the proliferation of Internet technologies, other forms of information systems with potentially emancipatory implications may also be emerging. These include the broader social computing phenomenon (Parameswaran & Whinston, 2007a, 2007b; Barton, 2005) and the open-source software community (Raymond, 2001).

Social Computing, Wikipedia, and Information Systems

Social computing is an overarching designation for many of the distributed, web-based technologies that have gained momentum in recent years (Parameswaran & Whinston, 2007a, 2007b; Barton, 2005). Parameswaran and Whinston (2007a) characterize social computing as generally decentralized, dynamic, and loosely structured applications based on Web 2.0 technology and incorporating dynamic content, peer-based quality assurance, and a high level of ease-of-use. Examples of social computing platforms include popular names such as Wikipedia, YouTube,

and MySpace; more esoteric systems names such as BitTorrent and Slashdot; as well as generic concepts such as blogs (Parameswaran & Whinston 2007b).

While commentators generally assess and group these technologies together based on their similarities (e.g., bottom-up organizing, loose structure, dynamic content), our analysis of Wikipedia suggests the need for a more fine-grained view of social computing. We contend that the platforms grouped as social computing differ significantly with respect to the structures and conditions of a rational discourse. The relative anonymity that enables evaluation based on the force of an argument rather than the identity of an individual in Wikipedia contrasts with the sophisticated reputation mechanisms of Slashdot, or the almost intimate personal exposure associated with MySpace. Similarly, the traceability and visibility of content that enables the virtually boundless surveillance (if not personal association) associated with Wikipedia contrasts sharply with the complete lack of traceability associated with the many-to-many distribution paradigm of BitTorrent’s file sharing structure (Parameswaran & Whinston 2007b). These examples point to multidimensional, differentiated views of social computing that emphasize alternative aspects of social action. Rather than referring to social computing as a blunt, undifferentiated set of practices and technologies, it may be fruitful to “open the black box” of social computing for an in-depth analysis of system affordances and the social phenomena they enable.

Implications for the Design of Emancipatory Information Systems

The current analysis of Wikipedia offers several implications for the design of emancipatory information systems. While it remains to be seen how enduring Wikipedia will be, the ways in which the social structure and technical features of the system have been combined to engender novel modes of discourse offer a number of principles for system designs intended to foster communicative action. These key considerations include the interplay of anonymity and accountability for participants, the role of transparency in fostering participation and creating trust, the importance of the broader social and institutional context, and the rule of minimalism in a priori design efforts.

The case of Wikipedia calls attention to the need for balancing the benefits of anonymity with the necessary constraints of accountability. Past research in the area of group decision support systems (GDSS) has revealed that anonymity for participants in computer mediated group discussions is important for the emergence of critical and universal engagement (Connolly, et al., 1990; Jessup et al., 1990; Trauth & Jessup, 2000). In terms of the Habermasian view, anonymity serves to promote the conditions of an ideal speech situation (e.g., every participant can

question any proposal) by minimizing indicators of primacy for one participant's views with respect to that of another. Thus, Wikipedia's anti-elitism is worn as a badge of honor by the system's advocates who persistently assert equal discursive footing for all.

As a counterpoint to these benefits, research has also shown that increased anonymity can lead to unproductive and hostile communications (Sproull & Kiesler, 1986). The vandalism observed on Wikipedia pages is a prime example of such destructive behavior. Accountability must be maintained at some level; vandals must be subject to censure if they repeatedly abuse their rights. Additionally, the system should provide a mechanism for rewarding those who have shown themselves to be good-faith participants and effective members of the community (e.g., the activation of Wikipedia administrative rights). The challenge then for designers is finding ways to balance these countervailing forces—ensuring accountability without inhibiting participation.

A second design insight flowing from the present analysis is the importance of transparency. The ability for any participant to look back over the history and evolution of a topic and the corresponding discussions of contributors is one of the key strengths of Wikipedia. This capability enhances the trust of participants in the process. Indeed, since the transparency is applied to the process itself (e.g., as the editorial guidelines of the community have evolved), contributors can determine for themselves whether or not progress is being made. For truly emancipatory systems to emerge, participants must be confident that they are privy to design decisions that shape the artifact. Accordingly, designers seeking to pursue emancipatory outcomes should design for transparency with respect to their own efforts.

This observation regarding the role of transparency leads us to a third implication for design—the need for an understanding of the social and institutional context within which an artifact will be employed and the potential for its adaptation. As with any sociotechnical system, the strengths (and weaknesses) of Wikipedia result from the combination of its social and technological features. While the wiki technology enables relatively novel discursive capabilities, the social norms that guide the behavior of contributors have been just as important in creating the phenomenon. In this regard, the current study reinforces the lessons of the structural approach (Orlikowski, 1992) by calling attention to the question of interpretive flexibility of a design artifact. Flowing from the field of science and technology studies (STS), *interpretive flexibility* refers to the idea that scientific phenomena and technological artifacts are always open to multiple interpretations by distinct social groups when they are initially observed or introduced (Collins, 1981; Pinch & Bijker, 1984). Importantly, interpretive flexibility can be ob-

served not simply in artifacts' adoption or use, but also in their design (Pinch & Bijker, 1984). Designers must sincerely assess the social facets of the intended application domain and determine the degree of flexibility they wish to enable in the way the artifact can be applied.

The issue of interpretive flexibility suggests a final key insight for design professionals. While we highlight the emancipatory potential of the Wikipedia environment, it is important to note that Wikipedia and other open source development innovations were generally not designed with an emancipatory agenda in mind. Rather, their emancipatory features have emerged with their adaptation and use by building upon a small set of guiding ideals. Thus, the case of Wikipedia suggests that future development of emancipatory information systems should maintain a minimalist focus on a limited number of principles. Just as the profound impact of the Internet as an information infrastructure was achieved through focusing on a small number of core concepts (e.g., communication on a best effort basis, absence of global operational control; packet switching; Leiner et al., 2003), so too the development of emancipatory information systems may be served through an emphasis on a minimal set of guiding conditions, rather than a massive body of detailed design requirements.

Having outlined a number of design insights that we see in the present study, it may be worth asking whether or not it is possible to actually design for emancipatory outcomes in the first place. Winner (2005) observes that it is common for technological artifacts to be imbued with political qualities, either as the result of the intentional actions of their designers or through the compatibility of design features with specific political structures. The examples that Winner offers to illustrate this political potential of artifacts tend to emphasize the negative exercise of power (e.g., institutional racism in the design of Long Island parkways), but the premise is equally applicable to technologies that would necessitate or engender more emancipatory social systems. As we have noted, in his own writing, Habermas consistently portrays the ideal speech situation as a counterfactual condition. However, the normative impulse of his theory implies that a more equitable speech condition is possible and subject to creation, even if it is not currently observable:

No matter how the intersubjectivity of mutual understanding may be deformed, the design of an ideal speech situation is necessarily implied with the structure of potential speech; for every speech, even that of intentional deception, is oriented towards the idea of truth. . . . In so far as we master the means for the construction of the ideal speech situation, we can conceive the ideas of truth, freedom, and justice, which interpenetrate each other, although of course as ideas. On the strength of communicative competence alone, however, and independent of the empirical structures of the social system to which we belong, we are quite unable to realize the ideal

speech situation, we can only anticipate it. (Habermas, 1970, p. 144)

While Habermas himself does not dedicate attention to the active design of ideal speech environments, others have drawn upon his theoretical framework in their own arguments for emancipatory design (e.g., Hirschheim & Klein, 1994; Ngwenyama & Lyytinen, 1997; Heng & de Moor, 2003).

Future Research and Limitations

In considering future research, there is a pressing follow-up question—*for whom* are such systems emancipatory? The illustrations we have offered are about information systems that support the Habermasian conditions for rational discourse and thereby emancipate participants by mitigating power relationships and giving precedence to the force of the better argument. However, we acknowledge that there may be detrimental outcomes from the rise of such systems. As with any significant infrastructure, when a shift occurs in the platforms through which inquiry is conducted and truth claims are asserted, there are certain to be losers as well as winners (Edwards et al., 2007). The losers are those who are displaced or otherwise excluded in the process of infrastructural emergence or transformation—those that Star (forthcoming) has referred to as the “orphans of infrastructure.”

In the case of Wikipedia, a number of “orphaned” groups might be considered. First, the prevailing sources of authority in reference domains—e.g., the editors and authors of traditional encyclopedias—will certainly lose some of their standing if platforms like Wikipedia gain credibility and range. From the perspective of emancipatory discourse, such a loss is necessary to overcome the limitations of power structures. More problematically, those who have limited access to the expanded discourse may also be excluded. The past decade’s debate over the “digital divide” and limited access to contemporary information technologies among the nation’s poor captures these concerns (Hammond, 1997; Irving, 1999).

A third possible category of orphans relates more to the possession of certain attributes involving the education, disposition, and discernment that often accompany privileged positions in economic classes and social relations. These powerful cross sections of society may more effectively articulate their arguments—even without explicitly invoking the legitimacy of “elite” institutions—and may be more apt critically to assess immature or questionable content. Those with less education and without the social conditioning related to persuasive argumentation are more likely to have their voices silenced through discourse. While Habermas (1984) indicated that a precondition for rational discourse involves assumptions relating to communicative competence, he did acknowledge that

certain forms of rhetoric, such as “institutionally bound speech acts,” can enable persuasion beyond that of solely rational forms of rhetoric. Essentially, while all actors engaged in rational discourse are necessarily assumed to be competent, some may be “more competent” than others. Therefore, although certain groups may have access to Wikipedia as well as the motivation to engage in rational discourse on a given topic, the lack of relative privilege may put these groups at a disadvantage in rational discourse with regard to discernment, critique, and argumentation, thus reinforcing existing power structures.

Based on this brief consideration of possible “losers” in the emergence of this new discursive platform, it should be apparent that an argument can be made for many different types of individuals who may be harmed, marginalized, or excluded from the discourse; others could undoubtedly be identified or suggested. The essential point is that a thorough assessment of potential adverse consequences from such novel elements of information infrastructure remains to be conducted. In addition, the discussion highlights the importance of asking the question of “for whom” in the exploration of potentially emancipatory systems.

CONCLUSION

In this essay, we argue that Wikipedia offers an example of an information system that supports the emancipatory objectives of critical social theory. Specifically, by approximating the conditions for a Habermasian rational discourse, Wikipedia represents a system of inquiry that overcomes much of the influence of relations of power and domination. While we acknowledge that the Wikipedian discourse is not quite ideal in meeting the requirements for discursive action, we believe that the consistencies with Habermasian theory are evident. In particular, the rational discourse of the Wikipedia environment has benefited significantly from the combination of technical allowances of a wiki environment, the emergence of social norms within the project, and the temporal persistence of argumentation. We have drawn upon an analysis of three cases to illustrate the degree to which this form of rational discourse persists across cultural, social, scientific, and political areas of contention. Ultimately, the broader societal impact of Wikipedia and other emergent computing platforms remains to be seen and opportunities for further research abound, but the current analysis provides an illustration that information systems may yet play a positive role in countering systems of human oppression.

NOTES

1. This article extends research presented at the Hawaiian International Conference of Systems Sciences in January 2007 (Hansen, Berente, & Lyytinen, 2007).

2. Habermas himself indicates that his notion of rational discourse is based on “counterfactual” assumptions.

3. One notable exception is a study by Kanungo (2004) focusing on the implementation of IT kiosks in a small town in India.

4. While Habermas treats discursive process as a facet of communicative action, some subsequent scholars have chosen to isolate *discursive action* as a distinct form of social action (e.g., Ngwenyama & Lyytinen, 1997; Klein & Huynh, 2004).

5. All Wikipedia statistics were gathered on July 12, 2007.

6. An “Active Wikipedian” is defined as an individual who has contributed content five times or more during a 1-month period.

7. For a consideration of volume, this compares to roughly 120,000 articles available through Britannica Online.

8. In the present analysis, we are attempting to highlight points of resonance between the features of Wikipedia and the ideal speech situation outlined by Habermas. However, we are not adopting a normative position with respect to the desirability or undesirability of such features, nor are we suggesting that the design of the Wikipedia platform has been normatively directed through an effort to achieve rational discourse. In the fifth section of this article (fourth subsection) we discuss some of the critiques that have been leveled against Wikipedia.

9. Refer to the Appendix for a summary of the official policy statements maintained at the time of publication.

10. This policy has been described as “absolute and nonnegotiable” by Wikipedia founder and Wikimedia Foundation President, Jimmy Wales.

11. Each Wikipedia article has an associated discussion page labeled “Talk” or “Discussion.”

12. In one of their formal policies, the Wikipedia community urges contributors to assume good faith on the part of other participants.

13. While the intentions of contributors cannot be determined definitively, a recent innovation has shed some light on this issue. In August 2007, Virgil Griffith, a CalTech graduate student, introduced the WikiScanner, a searchable database that links Wikipedia edits to their IP address of origin. In many cases, this linkage enables the identification of a specific organization (but not an individual contributor) as the source of edits to the Wikipedia content for that institution. See E. Biuso (2007). WikiScanning. *The New York Times Magazine*, December 9.

14. The fundamental tensions between neutrality and normativity in knowledge creation have been extensively explored within the sociology of scientific knowledge (SSK) and the related field of science and technology studies (STS). A special edition of *Social Studies of Science* provides an excellent summary of differing positions in this regard (Richards & Ashmore, 1996).

APPENDIX

Wikipedia Policies

The Wikipedia platform has a relatively small number of official policy statements that have been developed by Wikipedia contributors and the Wikimedia Foundation. These are policies that have been identified as particularly useful to the maintenance and development of the systems. However, the policies are not set in stone. Indeed, they are constantly subject to amendment, revision, or deletion based on the will of the community. As the Wikipedia

Policy page notes: “Policy at Wikipedia is a matter of consensus, tradition, and practice.”

The following is a brief summary of system policies at the time of publication. To remain true to the understanding of the Wikipedia community, the summary text is gleaned from the policy statements themselves.

Central Article Standards

1. Neutral Point of View

All Wikipedia articles and other encyclopedic content must be written from a neutral point of view (NPOV), representing fairly and, as much as possible, without bias all significant views (that have been published by reliable sources). This is non-negotiable and expected on all articles, and of all article editors.

2. Verifiability

The threshold for inclusion in Wikipedia is verifiability, not truth. “Verifiable” in this context means that readers should be able to check that material added to Wikipedia has already been published by a reliable source. Editors should provide a reliable source for quotations and for any material that is challenged or is likely to be challenged, or it may be removed.

3. No Original Research

Wikipedia does not publish original research (OR) or original thought. This includes unpublished facts, arguments, speculation, and ideas; and any unpublished analysis or synthesis of published material that serves to advance a position. Citing sources and avoiding original research are inextricably linked: to demonstrate that you are not presenting original research, you must cite reliable sources that provide information directly related to the topic of the article, and that directly support the information as it is presented.

Behavioral Policies

4. Bot Policy Automated or partially automated editing processes, known as “bots,” must be harmless and useful, have approval, use separate user accounts and be operated responsibly.

5. Civility

Civility is a code for the conduct of editing and writing edit summaries, comments, and talk page discussions on all of Wikipedia. Wikipedians define *incivility* roughly as *personally targeted behavior that causes an atmosphere of greater conflict and stress*. Our code of civility states plainly that *people must act with civility toward one another*.

6. Edit Warring

Edit warring occurs when individual editors or groups of editors repeatedly revert content edits to a page or subject area. Such hostile behavior is prohibited, and considered a breach of Wikiquette [i.e., Wikipedia etiquette]. Since it is an attempt to win a content dispute through brute

force, edit warring undermines the consensus-building process that underlies the ideal wiki collaborative spirit. If someone challenges your edits, discuss it with them and seek a compromise, or seek dispute resolution. Don't just fight over competing views and versions.

7. Editing Policy

Improve pages wherever you can, and do not worry about leaving them imperfect. One of the great advantages of the Wiki system is that incomplete or poorly written first drafts of articles can evolve into polished, presentable masterpieces through the process of collaborative editing. This gives our approach an advantage over other ways of producing similar end-products. Hence, the submission of rough drafts should also be encouraged as much as possible.

8. No Legal Threats

Do not make legal threats on Wikipedia. You should always first attempt to resolve disputes using Wikipedia's dispute resolution procedures. If you must take legal action, we cannot prevent you from doing so. However, we require that you do not edit Wikipedia *until the legal matter has been resolved* to ensure that all legal processes happen via proper legal channels.

9. No Personal Attacks

Do not make personal attacks anywhere in Wikipedia. Comment on content, not on the contributor. Personal attacks will not help you make a point. They hurt the Wikipedia community and deter users from helping to create a good encyclopedia.

10. Ownership of Articles

If you create or edit an article, know that others will edit it, and within reason you should not prevent them from doing so. Since working on an article does not entitle you to "own" the article, it is still important to respect the work of your fellow contributors. When making large scale removals of content, particularly content contributed by one editor, it is important to consider whether a desirable result could be obtained by working with the editor, instead of against him or her

11. Sock-Puppetry

The general rule is: one editor, one account. Do not use multiple accounts to create the illusion of greater support for an issue, to mislead others, to artificially stir up controversy, to aid in disruption, or to circumvent a block. Do not ask your friends to create accounts to support you or anyone else. Multiple accounts are not for collusion, evasion, disruption, or other misuse.

12. Three-revert Rule

An editor must not perform more than three reverts, *in whole or in part*, on a single page within a 24-hour period. A revert means undoing the actions of another editor, whether involving the same or different material each time. Any editor who breaches the rule may be blocked from editing for up to 24 hours in the first instance, and longer for repeated or aggravated violations.

13. Username Policy

When choosing an account name, avoid names which may be offensive, confusing or promotional, and use only one account unless there is a genuine need to do otherwise.

14. Vandalism

Repetitively and intentionally making unconstructive edits to Wikipedia will result in a block or permanent ban. *Vandalism* is any addition, removal, or change of content made in a *deliberate* attempt to compromise the integrity of Wikipedia. The most common types of vandalism include the addition of obscenities or crude humor, page blanking, or the insertion of nonsense into articles.

15. Wheel War

A *wheel war* is a struggle between two or more administrators in which they undo another's administrative actions—specifically, unblocking and reblocking a user; undeleting and re deleting; or unprotecting and reprotecting a page. Do not repeat an administrative action when you know that another administrator opposes it. Do not continue a chain of administrative reversals without discussion.

Content and Style Policies

16. Attack Page

An attack page is a Wikipedia article, page, template, category, redirect, or image created for the sole purpose of disparaging its subject. Under the criteria for speedy deletion, these pages are subject to being deleted by any administrator at any time.

17. Biographies of Living Persons

Biographies of living persons (BLPs) must be written conservatively, with regard for the subject's privacy. Wikipedia is an encyclopedia, not a tabloid; it is not our job to be sensationalist, or to be the primary vehicle for the spread of titillating claims about people's lives. An important rule of thumb when writing biographical material about living persons is "do no harm". This policy applies equally to biographies of living persons and to biographical material about living persons in other articles.

18. Naming Conventions

Generally, article naming should prefer what the greatest number of English speakers would most easily recognize, with a reasonable minimum of ambiguity, while at the same time making linking to those articles easy and second nature.

19. What Wikipedia is Not

To reinforce the idea that Wikipedia is intended solely as an online encyclopedia, this policy identifies a number of things as which Wikipedia is *not* properly characterized. These include the following: including: dictionary, publisher of original thought, directory, manual, guidebook, textbook, soapbox, blog, webspace provider, social networking site, memorial site, and a repository of links, images, or media files.

Deletion Policies

20. Category Deletion

Categories that have been listed for more than five days are eligible for deletion, renaming or merging when a rough consensus to do so has been reached or no objections to the nomination have been raised.

21. Criteria for Speedy Deletion

Criteria for speedy deletion specify the limited cases where administrators may delete Wikipedia pages or media without discussion. Non-administrators can request speedy deletion by adding an appropriate template. In this context, “*speedy*” refers to the simple decision-making process, not the length of time since the article was created.

22. Deletion Policy

Deletion and undeletion are performed by administrators based on policy and guidelines, not personal likes and dislikes. There are four processes for deleting items and one post-deletion review process. Pages that can be improved should be edited or tagged, not nominated for deletion.

23. Office Actions

Office actions are official changes made to content done under the authority of the Wikimedia Foundation, by members of the Foundation’s office. These are removals of questionable or illegal Wikimedia content following complaints from people. Office actions are performed so that the end result is a legal, compliant article on the subject. Neither this policy nor actions taken under it override core policies, such as neutrality.

24. Oversight

A user can be assigned the ‘oversight’ permission on Wikimedia projects, which can be used to semi-permanently remove individual edits from an article’s history. This feature is approved for use in three cases: removal of nonpublic personal information, removal of potentially libelous information, and removal of copyright infringement on the advice of Wikimedia Foundation counsel.

25. Proposed Deletion

Proposed deletion is the way to suggest that an article is uncontroversially a deletion candidate, but that it does not meet the more stringent criteria for speedy deletion. An article can be *proposed for deletion* once only. If no one contests the proposal within five days, the article may be deleted by an administrator.

Enforcing Policies

26. Appealing a Block

In the course of daily operations, substantial numbers of users and IP addresses are blocked, mainly due to persistent vandalism and edit warring. Such users frequently wish to be unblocked. Instructions for requesting an unblock are given on your block page. When a block is

appealed, other editors—most of whom probably have no involvement in the matter—will review your editing history, which has been logged, as well as the reason for the block and the history leading up to it.

27. Arbitration Policy

Acts as a guideline for the workings of the Arbitration Committee (ArbCom). The Committee will decide cases according to the following guidelines, which they will apply with common sense and discretion, and an eye to the expectations of the community: 1. Established Wikipedia customs and common practices; 2. Wikipedia’s “laws”: terms of use, submission standards, bylaws, general disclaimer, and copyright license; 3. Sensible “real world” laws. Former decisions will not be binding on the Committee.

28. Banning Policy

The Wikipedia ban is a formal revocation of editing privileges on all or part of Wikipedia. A ban may be temporary and of fixed duration, or indefinite and potentially permanent. The standard invitation Wikipedia extends to “edit this page” does not apply to banned users. Users may be banned as a result of the dispute resolution process.

29. Blocking Policy

Users may be blocked from editing by an administrator to protect Wikipedia and its editors from harm. Blocking is the method by which administrators may technically prevent users from editing Wikipedia. Blocks are used to prevent damage or disruption to Wikipedia, not to punish users. http://en.wikipedia.org/wiki/Wikipedia:Blocking_policy_-_note-0

30. Consensus

Wikipedia works by building consensus. Consensus is typically reached as a natural product of the editing process; generally someone makes a change or addition to a page, and then everyone who reads the page has an opportunity to either leave the page as it is or change it. In essence, silence implies consent if there is adequate exposure to the community.

31. Dispute Resolution

Specific action steps for the resolution of disputes between editors have been developed by the Wikimedia Foundation and the Wikipedia community. These points of advice include the following: focusing on article content, determining the urgency of the dispute or point of disagreement, maintaining a dispassionate stance, engaging in direct discussion with the other party through the ‘Talk’ page, attempting to negotiate a “truce” with the other party, seeking the assistance of other community participants, and finally seeking arbitration through the mediation of Arbitration Committee.

32. Open Proxies

Open or anonymizing proxies may be blocked from editing for any period at any time to deal with editing abuse. While this may affect legitimate users, they

are not the intended targets and may freely use proxies until those are blocked. No restrictions are placed on reading Wikipedia through an open or anonymous proxy.

33. Protection Policy

Editing or moving of a page can be restricted by administrators. As Wikipedia is built around the principle that anyone can edit it, this should only be done in certain situations. Administrators can protect a page to restrict editing or moving of that page, and remove such protection. Such protection may be indefinite, or expire after a specified time.

Legal and Copyright

34. Copyright

The license Wikipedia uses grants free access to our content in the same sense as free software is licensed freely. This principle is known as *copyleft*. That is to say, Wikipedia content can be copied, modified, and redistributed so long as the new version grants the same freedoms to others and acknowledges the authors of the Wikipedia article used (a direct link back to the article satisfies our author credit requirement). Wikipedia articles therefore will remain free under the GNU Free Documentation License (GFDL) and can be used by anybody subject to certain restrictions, most of which serve to ensure that freedom.

35. Copyrights Violations

Do not add content to Wikipedia if you think that doing so may be a copyright violation. Contributors should take steps to remove any copyright violations that they find. One of the most important aspects of Wikipedia is that its text (not media; see below) may be freely redistributed, reused and built upon by anyone, under the terms of the GNU Free Documentation License. This means it is essential that all text added to Wikipedia is compatible with this license.

36. Image Use Policy

Be very careful when uploading copyrighted images. Fully describe images' sources and copyright details on their description pages, and try to make images as useful and reusable as possible.

37. Libel

All contributors should recognize that it is their responsibility to ensure that material posted on Wikipedia is not defamatory. It is Wikipedia policy to delete libelous material when it has been identified.

38. Non-Free Content

Policy sets out the conditions under which non-free content may be used on Wikipedia. *Non-free content* means all copyrighted images and other media files that lack a free content license.

39. Reusing Wikipedia Content

Individuals are encouraged to reuse Wikipedia's content in their own work provided that the resulting books/art

icles/web sites or other publications follow the GNU Free Documentation License (GFDL).

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