Collaboration in Online Communities

Exploring Finnish Wikipedia

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Abstract

Online communities have risen to a great social and economic importance during the last two decades. Many online communities are oriented towards content production, and Wikipedia is one of the most prominent instances of these. These require both a front narrative for fulfilling their content-producing purpose and a back narrative for facilitating collaboration. Wikipedia has been the subject of an abundance of research, but collaboration has not been a popular research topic. Hence, the following research question will be addressed: *What characterizes collaboration in online communities?* This study explores Finnish Wikipedia in order to find out what types of collaboration occur in wiki activities, both within and beyond the wiki platform. Fourteen in-depth interviews were conducted with active participants. This data was analyzed in order to find out activities involving non-article content. The most usual non-article contents are article talk pages, user talk pages and various kinds of ”Wikipedia namespace” contents. Collaborative activities occurring outside the Wikipedia platform were also explored, and enactments, non-enactments, and conflicts were revealed. 10,000 ”Recent Changes” edits were collected and a genre analysis was conducted on the edits in the ”Wikipedia namespace”. Various community-level collaborative activities were identified, and were roughly categorized into established processes and emergent reflective discourse. The following contributions are proposed in this thesis. Collaboration is theorized through the framework of front and back narratives. The back narrative is divided into four types: collocated, user-centric, community-wide, and external. Five modes of collaboration are identified: planned, feedback, deliberative, stigmergic and vanguard. Finally, design implications and research limitations are discussed.

Keywords: online communities, collaboration, back narrative, genre, participation inequality, autonomy, deliberation, stigmergy

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1. Introduction

Internet and the World Wide Web (www) have become ubiquitous and embedded infrastructure for a rich spectrum of economic and social purposes. On one end of the spectrum you have hierarchical organizations seeking a competitive advantage using the internet, for example virtual teams within global corporations (Bjørn & Ngwenyama, 2009; Jarvenpaa & Leidner, 1999). These are, more or less, based on the idea that human beings are selfish (Dawkins, 1990), and will compete for the survival of the fittest (Gimeno, Folta, Cooper, & Woo, 1997). On the other end of the spectrum one has volunteering online crowds, egalitarian peer production (Andreev, Feller, Finnegan, & Moretz, 2010; Benkler, 2011), and online communities founded on the principles of deliberative democracy (Klemp & Forcehimes, 2010). These are, more or less, based on the idea that human beings are altruistic, and cooperate for the common good (Dubreuil, 2010; Dunbar, Gamble, & Gowlett, 2010). Activities in the former are characterized as 'work', while those in the latter are 'leisure' or 'non-work'. Membership formation in the former type is based on exclusive selection, while the latter is inclusive for "everyone". Even people who have not met each other are able to participate in egalitarian online technology-mediated collaborative efforts.

No value preference will be given for either type in this thesis. Both types have their strengths and weaknesses. In fact, these two types could rather be seen as ideal types (M. Weber, 1949). Instances occurring in reality are often, and possibly increasing, hybrids combining the elements from the two (e.g. Fish, Murillo, Nguyen, Panofsky, & Kelty, 2011; Humphreys & Grayson, 2008; Rehn, 2008; Watson, Wynn, & Boudreau, 2005). Blomberg & Karasti (2013) further argue that whether something is 'work' or 'non-work' is in the eye of the beholder:

> *"From the anthropological point of view of constructing the field site, the issue is not which stance is correct, but rather that the field site is defined as work or non-work or both depending on how the boundaries of the research are*

> *constructed. Assumptions about difference and similarity between work and non-work are influenced by the questions one is asking." (Blomberg & Karasti, 2013, p. 19)*

This present thesis focuses on collaboration occurring mostly on the egalitarian non-work side of the spectrum, where actions are based on voluntary commitment seeking no monetary compensation. Nevertheless, implications may be available for the work-side as well.

Web infrastructure has the potential to support interactions among and between crowds, communities and organizations, on global and local scales. The literature offers a multitude of examples of how the power of this potential has been harnessed. These include brainstorming new product ideas (Di Gangi, Wasko, & Hooker, 2010), engaging non-employees into product development processes (Flåten, 2011), and managing customer relationships (Gallaugher & Ransbotham, 2010). Technology-mediated social participation has been argued to offer potentially tremendous implications for a broad gamut of socioeconomic contexts, including health care (Bacigalupe, 2011), citizen participation in democratic processes (Hochheiser & Shneiderman, 2010) and public assistance in mass emergencies and disasters (Palen et al., 2010).

In 1938, H.G. Wells envisioned a *world brain* that would comprise "a vast interconnected communications network with distributed knowledge bases that functioned as an aid to 'human progress towards unity.'" (Coyne, 1999, p. 24) Peer production (Benkler, 2002), wisdom of the crowds (Surowiecki, 2005), smart mobs (Rheingold, 2003), and mass collaboration (Tapscott & Williams, 2006) are a variety of contemporary terms implying how information and knowledge can be produced and shared by random encounters of "everybody" (Shirky, 2008) who dedicate their cognitive surplus to common good (Shirky, 2010). However, an online community (OC) of volunteer participants is at the core of most instances of peer production. Devoted members invest significant amounts of time and effort into the creation of commons. This relates to the concept known as participation inequality (Kim, 2000;

Nielsen, 2006). Some users participate significantly more than others. In virtually any online community, the "elite" of the community produces the majority of the content. Other participants act as occasional contributors, while most people "participate" as readers, enjoying the fruits of another's labor.

Within an abundance of these internet platforms, Wikipedia is among the most famous and most successful. Wikipedia combines participation from both the crowd and the core community. As Loveland and Reagle (2013) have recently argued, "claiming Wikipedia is the work of either an 'elite' or a 'mob' is simplistic; it is both and more" (p. 5).

In addition to GNU/Linux, Wikipedia is the other frequent example when claims are made about internet-mediated volunteerism (Fish et al., 2011, p. 158). On the whole, even though the user-centric Web 2.0 phenomenon is enjoying massive popularity and media attention, the Wikipedia model has been found difficult to copy to other contexts. "Wikipedia's success is the exception and not the rule. For example, of the more than 6,000 wikis using the MediaWiki platform, fewer than half have even eight contributors." (Kraut et al., 2010, p. 23)

Jennifer Preece (2001) noted already more than a decade ago that plain technology cannot create community, despite how "social" the technology is. Many entrepreneurs and website administrators have found out the hard way that a static website does not turn into an active online community just by technically enabling user communication. "The hope is that customers will be attracted to the site [through] though *[sic]* social interactions with each other but this naïve view often produces cyber ghost towns because inadequate attention is paid to the social interactions needed to build a community." (p. 348). The fact is that many online communities fail to recruit members. Many communities that initially succeed in attracting users, later on fail in retaining an active user base. People who once visited are not returning. Sustainability is not achieved.

Online community practitioners and researchers are aware of the challenges related to initial participation and the sustainability of participation. Online participation does not just "happen" magically by introducing "social" technology. Instead, participation needs to be facilitated.

Wikimedia Foundation offers a simple framework that addresses this challenge (fig 1). First there has to be content of sufficient quality that reaches an audience. When this audience finds the content beneficial to them, a part of the audience may become attracted to join as participants to improve and create more content. This added content may reach more audiences, of which some percentage may also join the community. In this way, the cycle keeps on rolling: participants keep joining, more quality content is produced, and an ever greater audience is reached.

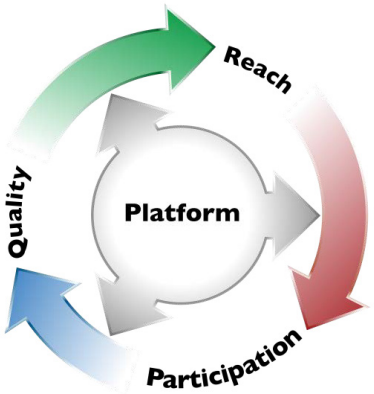

Fig 1 – The "virtuous circle" of quality, reach, and participation. Adapted from http://strategy.wikimedia.org/wiki/Strategic_Plan/Movement_Priorities (3.2.2013)

Of course, the circle in fig 1 is a simplification. In reality the arrow from participation to quality is not as straightforward as depicted here. While more participation might be the premise for the production of more quality content, correlation does not imply causation. Some participation might be harmful to the community and result in worse quality. Often it is not obvious what "quality" is, and

what it is not, and thus it needs to be negotiated. Participants may need to form social structures in order to collaboratively build content, instead of just working as sole individualist authors. Hence, *collaboration* is needed to link participation to quality.

How does this happen? How is the collaborative dimension integrated in between participation and quality? Faraj et al. (2011) offer the answer as *channeling of participation* – "identifying ways to keep interested participants informed of the current state of the OC's collaborative efforts" (p. 1323). They suggest it is achieved through providing narratives, "stories that describe how a collective of individuals acted", representing "a collective understanding of how individual behaviors interrelate over time" (ibid.). Further, they argue that "no single narrative is able to keep participants informed about the current state of the OC" (ibid.). Building on Erving Goffman's (1959) terminology of the front stage and back stage, they suggest the concepts of the front narrative and the back narrative. The front narrative is "the part of the community's work that the entire community sees", and thus "provides the viewer with an overall impression of the general state of the community." Back narratives, on the other hand, are "quite different from front narratives, referring to the preparation, dress rehearsal, and role negotiation that takes place away from the public." The back narrative "is likely to display paths taken but not completed, ideas started but not finished, contribution threads that appear to go nowhere, chaos rather than order" (p. 1233). Talk pages, discussion threads, and such, allow creating the back narrative, for "passionate people to disagree… to work out a temporary incomplete convergence, and provides a means to respond to the ambiguity in social identity by monitoring for deception" (ibid.).

The Reader-to-Leader (RtL) framework by Preece & Shneiderman (2009) conceptualizes participation levels as reader, contributor, collaborator and leader. Thus participation inequality is not only as a matter of *activity level*, but also about *activity type*. When participants become more engaged with the community, they not only contribute more, but they also start engaging in a variety of collaborative social activities, including planning and feedback. The Reader-to-Leader framework

suggests a qualitative difference between acts of contribution and acts of collaboration. The premise taken in this thesis is that contributors interact with the front narrative, while collaboration takes place in the back narrative. In Wikipedia, the front narrative is represented by encyclopedia articles, while the back narrative includes other content such as talk pages and discussion forums. As our aim is to study collaboration, we thus focus on exploring non-article content.

In this thesis, we are concentrating on the Finnish language edition of Wikipedia. A reader of this thesis should note that whenever I use 'I', the first person, I refer to myself as the single author of this study. Whenever I use "we", I refer to me and the reader, as we both progress along this thesis. This writing style is consciously taking influence from John Van Maanen, and his preference of "refusal to cloak a writing in anonymity" (Van Maanen, 1995b, p. 136). First person writing allows more precise scholarly communication, because then it is not necessary to obfuscate writing behind the anonymous third person or the passive voice (Evans, Gruba, & Zobel, 2011, pp. 39-41).

Next I present the main research question. The most important purpose of this thesis is to provide an answer to this question.

Main RQ: *What characterizes collaboration in online communities?*

This study concentrates on the Finnish language edition of Wikipedia. Just this and nothing else. However, very few, if any, of the readers of this thesis are interested in Finnish Wikipedia *per se*. Therefore, the goal of this study is to offer implications to the present understanding of collaboration in the context of online communities in general. Seddon & Scheepers (2012) state that "[al]though empirical researchers almost always study samples (as opposed to populations) from the real world, the information systems (IS) research community actually has very little interest in the samples studied, *per se*. Rather, the research community is normally interested in lessons that are *applicable in other settings*." (p. 6)

In order for this other-settings generalization to be possible, we need to characterize the kind of online community we are dealing with here. In total, the main research question is answered through six further operational research questions, of which the first three are focusing on the concept of online community. The research on online communities has shown that these come in different shapes and sizes (Howard, 2010; Preece, 2000), differing on various aspects such as member identity (Schwämmlein & Wodzicki, 2012) and the extent of autonomy (Jarvenpaa & Lang, 2011; West & O'Mahony, 2008). Hence, our first research question brings us an historical overview of what kind of an online community Finnish Wikipedia is at the point when this research is conducted.

RQ1: *What is the past and present of Finnish Wikipedia?*

Finnish Wikipedia is the Finnish language instantiation of the global Wikipedia franchise. This second research question aims to track the boundaries of how Finnish Wikipedians[1] participate within the multi-lingual Wikipedia. Possibilities can range all the way from Finnish Wikipedia being an independent and isolated online community having few if any interactions with other Wikipedias, to Finnish Wikipedia being a second-order importance of Wikipedians participating primarily in other language editions.

RQ2: *How exclusively do users participate in Finnish Wikipedia, do they also participate in other language editions?*

The following research question, RQ3, also focuses on the nature of online community. Its purpose is to assess the extent of *autonomy* in Finnish Wikipedia. How free is Finnish Wikipedia to behave differently from other Wikipedias? The question will be answered through interviews. Thus we will not know the "real autonomy", if there is such, but only the autonomy as perceived by this sample of

[1] 'Wikipedian' is a common term for participants in Wikipedia. See, for example, Bryant et al. (2005) and Panciera et al. (2009).

Finnish Wikipedians. Extant research has rather uncritically accepted the dichotomy of sponsored versus autonomous online communities (Jarvenpaa & Lang, 2011; West & O'Mahony, 2008). Autonomous communities allow their participants a relatively broad range of agency in doing otherwise, while sponsored communities need to adjust – to some extent – to the goals of the sponsor and not challenge the status quo. To my knowledge, however, no one has studied how participants in autonomous communities perceive autonomy, and what extent of autonomy this might be. This is a particularly fascinating topic in the context of the present study – the Finnish language edition of Wikipedia. This community is a 'franchise' of the Wikipedia concept, using the Mediawiki software and Wikimedia infrastructure. At the same time, the Finnish Wikipedia community, with no obvious necessity to conform to a standard way to do things, runs Finnish Wikipedia independently. I aim to understand the extent to which the participants perceive their power in shaping their communication practices mediated by the communication medium, and shaping the communication medium itself.

RQ3: *How do members perceive the autonomy of Finnish Wikipedia?*

Those three first research questions targeted the "online community" portion of the main research question. The following three research questions are oriented more specifically at exploring collaboration.

Content within Wikipedia is divided into several namespaces.[2] The premise of this study is that online communities require both a front narrative for fulfilling their content-producing purpose, and a back narrative for facilitating collaboration. As Wikipedia is an encyclopedia, encyclopedic article content is logical to consider as the front narrative. This namespace is known as the 'Main' or the 'Article' namespace. Other namespaces can thus be categorized as non-articles. In theoretical terms, we can call these non-article namespaces as the back narrative.

[2] http://en.wikipedia.org/wiki/Wikipedia:Namespace (28.2.2013)

RQ4 focuses on enactments of non-article content as reported by my interview informants. I approach this research question through interviews. Leonardi & Barley (2010, pp. 20-23) have investigated that the word 'enact' was introduced to organization studies by Karl Weick (1979). The concept of 'enactment' was more systematically formulated by Wanda Orlikowski (2000). Enactment concerns practices involving the use of technology. More specifically, the enactment view "starts with human action and examines how it enacts emergent structures through recurrent interaction with the technology at hand" (Orlikowski, 2000, p. 407). Research question four follows.

RQ4: *What types of non-article content have been enacted by collaborators?*

Wikipedia-oriented scholarly literature treats collaboration largely as a practice situated in contribution activity. For example, deliberation is often seen only as interaction between articles and their respective talk pages (e.g. Hansen, Berente, & Lyytinen, 2009). In rare cases when collaboration is examined on the whole community-level, the focus is usually on one policy page only (e.g. Black, Welser, Cosley, & DeGroot, 2011). Thus I conduct a genre analysis on all communication in the 'Wikipedia namespace'[3], which incorporates policy pages, discussion forums, and other various types of content for community-level collaboration. Genre analysis is a widely used interdisciplinary research approach to identifying recurring patterns of communication. When one understands communication, one understands the social setting. The conducted genre analysis was done in two different phases, in July 2009 and January 2011. The purpose was to examine whether the community-level communication practices change over time or stay the same.

RQ5: *What types of communication exist in the 'Wikipedia namespace'? Do these change over time?*

[3] In order to prevent confusion between Wikipedia the encyclopedia, and 'Wikipedia' the namespace, the latter is written in quotation marks throughout this thesis.

The final research question addresses the phenomenon that collaborative activities tend to grow outside the web platform, especially among the more progressed users. I aim to find out what media collaborators use for communicating with fellow Wikipedians. The hypothesis is that active participants have enacted mailing lists, IRC channels, and face-to-face meetings to their collaboration repertoire. In addition to investigating enactment, I also study perceptions of these external collaboration activities.

RQ6: *What collaboration exists outside the Wikipedia platform, and how is this collaboration enacted and perceived?*

These six research questions are summarized in Table 1.

RQ	**Research Question**	**Methods**
#	*What characterizes collaboration in online communities?*	
1	*What is the past and present of Finnish Wikipedia?*	Various
2	*How exclusively do users participate in Finnish Wikipedia, or do they also participate in other language editions?*	Interviews
3	*How do members perceive the autonomy of Finnish Wikipedia?*	Interviews
4	*What types of non-article content have been enacted by collaborators?*	Interviews
5	*What types of communication exist in the 'Wikipedia namespace'? Do these change over time?*	Genre analysis of edits

6	*What collaboration exists outside the Wikipedia platform, and how is this collaboration enacted and perceived?*	Interviews

Table 1 - Research questions posed in this thesis

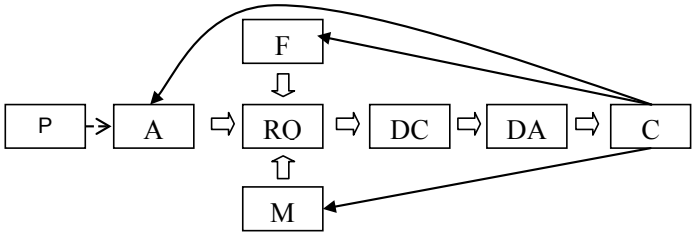

Fig 2 - Research elements (adapted from Mathiassen et al., 2012)

Letter	*Meaning*	*What is it in this study?*
P	Research Problem	Collaboration in Finnish Wikipedia as observed and analyzed during 2009-2011
A	Area of Concern	(Collaboration in) Online Communities
F	Theoretical Framework	The 'collaboration' category from the Reader-to-Leader Framework, Front and Back Narratives
M	Research Method	Genre analysis, Qualitative interviews
RQ	Research Question	What characterizes collaboration in online communities?
DC	Data Collection	'Recent changes' edits from Finnish Wikipedia from July 2009 and January 2011. 14 interviews with active participants of Finnish Wikipedia, conducted in early 2010

DA	Data Analysis	Genre analysis on the edits in the 'Wikipedia namespace', Qualitative data analysis

Table 2 - Research elements in this study

This thesis is structured by applying Myers' (2009) recommendations on how qualitative research should be written. Chapter Two presents philosophical assumptions and theoretical grounding. Research methodology is described in Chapter Three. Chapter Four reviews the extant knowledge base of Wikipedia research in light of *community* and *collaboration*. Chapter Five is the research findings chapter, followed by the chapter where those findings are discussed. Finally I offer the conclusion and directions for further research.

2. Theory

The theoretical backgrounds are described in this chapter. In the first subsection, I discuss the underlying philosophical assumptions. The second subsection is dedicated to the concept of the *back narrative*. The subsequent section presents the Reader to Leader Framework (RtL) (Preece & Shneiderman, 2009), and focuses particularly to its concept of *collaboration*. Finally, *genre* is offered as a theoretical concept to understanding social action.

2.1 Philosophical Assumptions

Before going into detailed elaboration on the applied theories, let us discuss more abstract issues first, namely the social science philosophy, the ontology, and the knowledge interest. The theories I have applied support understanding (Gregor, 2006), not featuring an explanatory or predictive component some positivist definitions require for a theory (e.g. Sutton & Staw, 1995). The stance taken in this thesis comes from the social science tradition which studies communication embedded in social practices. In natural sciences scientists take position of an outsider to the phenomenon of interest. Rather, I adopt the approach of social scientists who study the social world "from within and by methods different from those suited to the natural sciences" (Hollis, 1994, p. 142).

Hollis (1994) presents four social science characteristics of which all have "no obvious parallel in physics and little parallel in biology" (p. 144). Firstly, human actions have meaning that embody intentions, express emotions, are done for reasons and are influenced by ideas of value (p. 144). Meaning-in-action is possible by a stock of meanings to draw upon. Secondly, the distinction between meaning of an action and what people mean by that is of interest here. The stance taken here promotes that

"all social actions and interactions should be regarded as 'text'"[4] (p. 144). Thirdly, human practices are "imbued with normative expectations" (p. 145), such as rules, beliefs, ideals, and ethics. Failure to live up to preferred norms often leads to reinforcement of guilt and shame. Fourthly, human beings are unique to all other animals in the sense that we can hold theories about the nature of things (p. 145). Of course, a Pavlovian dog can learn the theory of classical conditioning, in its own way. Still, the way human beings are able to hold theories has no reference point in other biological forms. "The meaning of many actions depends on the model of the social world which is in the actors' heads" (p. 145).

Hollis describes that the vocabulary of natural sciences includes concepts such as behaviour, signs, signals, habits, and regularities. The vocabulary of social sciences is different. It includes concepts such as action, symbols, utterances, practices, and norms. The difference between these two are that of "natural adaptive responses to a changing environment", preferred in natural sciences, and "self-conscious theoretically-informed social interaction" in social sciences (p. 146).

The social science stance can be understood through the philosophical problem of Other Minds (Hollis, 1994, Chapter 7; M. Weber, 1949). This problem is defined as "how one mind can know what is in the mind of another" (p. 146). Therefore, understanding action involves an interpretation of an interpretation, a 'double hermeneutic.' "[T]here is a fundamental difference between understanding and explaining, since what happens in the social world depends on its meaning for the agents" (p. 147), unlike natural phenomena such as weather, light or planets.

As an information systems researcher building on the social science tradition (A. S. Lee, 2004), I am interested in studying social action. Max Weber defines social action as any human action "when and in so far as the acting individual attaches

[4] This does not mean that what people say and what people do would be the same thing. Early LAP (Language-Action Perspective) research tried to ride with that idea, but it never gained more than marginal success.

subjective meaning to it", "which takes account of the behaviour[5] of others and is therefore oriented in its course" (Hollis, 1994, p. 148; M. Weber, 1922). Furthermore, I consider communication genres as social action (Miller, 1984), a consensual perception in modern genre theory.

Jürgen Habermas (Habermas, 1976) has divided *knowledge interests* (Erkenntnisinteressen) into three types: technical, practical, and critical-emancipatory. This thesis is situated in the realm of the practical. The 'practicality' of the practical is derived from the need of people to interact together. Communication is the most important enabler of interaction. Communication allows people to make social contracts about shared actions. Social contracts require knowledge for people to understand each other, to negotiate, and to build a common ground for collective action. (Ronkainen, Pehkonen, Lindblom-Ylänne, & Paavilainen, 2011, pp. 23-24)

Anthony Giddens' structuration theory (Giddens, 1979, 1984) serves as an ontology in this study. Structuration theory has been described as probably the most influential social theory in the field of information systems (M. S. Poole & DeSanctis, 2004). The core of structuration theory describes the ontology of human society. Therefore, the most essential aspect of structuration theory concerns neither structuration, nor theory. It describes an ontological account of "what sort of things are out there in the world, not what is happening to, or between, them" (Craib, 1992, p. 108) (cited in (Jones & Karsten, 2008, p. 129)). Instead of a theory, Klein & Myers (1999) prefer to call it a "sensitizing device to view the world in a certain way" (p. 75).

Giddens is an extreme sceptic when it comes to 'universal laws' in social science. "Do universal laws exist in the social sciences?", he asks (Giddens, 1984, p. 344). His plain answer is that they do not:

[5] Weber uses the concept of 'behaviour' here, while we already claimed it belongs to the vocabulary of natural sciences, not social sciences. The word 'behaviour' in this sentence could be replaced by 'actions' to provide a consistent vocabulary.

> *"In social science – and I would include economics, as well as sociology within this judgement – there is not a single candidate which could be offered uncontentiously as an instance of such a law in the realm of human social conduct. As I have argued elsewhere, the social sciences are not latecomers as compared with natural science. The idea that with further research such laws will eventually be uncovered is at best markedly implausible. … That there are no known universal laws in social science is not just happenstance." (Giddens, 1984, pp. 344-345)*

Structuration theory introduces several concepts. Three central concepts are of value for this thesis: agency, structure, and change. Human agency is viewed as strongly voluntaristic in structuration theory (Jones & Karsten, 2008). Giddens writes that to be human "is to be a purposive agent, who both has reasons for his or her activities and is able, if asked, to elaborate discursively upon those reasons (including lying about them)" (Giddens, 1984, p. 3). He argues that "human agency can be defined only in terms of intentions" (1984, p. 8). Agency is not concerned with reactive response, but with actions that hold intention for the agent. This does not mean that performed actions would always lead to foreseeable results. Giddens, citing Robert K. Merton (1936), stresses that "the study of unintended consequences is fundamental to the sociological enterprise" (Giddens, 1984, p. 12). Intention is linked to the concept of power, "the capacity to achieve desired and intended outcomes" (p. 15). With the exception when human actors have been drugged or mishandled by others, all human beings are considered as knowledgeable agents (Giddens, 1984, p. 281) and they "always have the possibility of doing otherwise" (Giddens, 1989, p. 258). This view is compatible with what is acknowledged in genre theory. In *Writing Genres*, Amy Devitt (2004) emphasizes human agency, pointing out that "it is not genre that has agency, not genre that creates a social agenda" (p. 87).

Structure is a core concept in structuration theory. Giddens defines structure as "rules and resources, organized as properties of social systems" (Giddens, 1984, p. 25) (cited in (Jones & Karsten, 2008, p. 131)). The concept refers to "structuring

properties allowing the 'binding' of time-space in social systems, the properties which make it possible for discernibly similar social practices to exist across varying spans of time and space and which lend them 'systemic' form" (Giddens, 1984, p. 17). Social practices that are most time and space resistant are known as institutions (Ibid.).

Structuration, defined as "conditions governing the continuity or transmutation of structures, and therefore the reproduction of social systems" (Giddens, 1984, p. 25) is a continuous process (Jones & Karsten, 2008), not episodic. Change may be triggered by any instantiation of communication. Jones & Karsten state that theories promoting episodic change, such as that in punctuated equilibrium, are incompatible with structuration theory. The "punctuated view neglects the way in which gradual change may be happening all the time, perhaps never being sufficiently notable to be identified as a specific event" (p. 145).

What is perhaps the most commonly known aspect of structuration theory is what Giddens writes under a section titled 'Forms of Institution' (Giddens, 1984, p. 29): the dimensions of the duality of structure. The theorem of the duality of structure is "crucial to the idea of structuration" (p. 25).

> *"The constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represent a duality. According to the notion of the duality of structure, the structural properties of social systems are both medium and outcome of the practices they recursively organize. Structure is not 'external' to individuals: as memory traces, and as instantiated in social practices, it is in a certain sense more 'internal' than exterior to their activities in Durkheimian sense." (p. 25)*

"The communication of meaning in interaction, it should be stressed, is separable only analytically from the operation of normative sanctions" (Giddens, 1984, p. 28). Communicative intent, "what an actor 'means' to say or do" is in duality with communicative meaning.

> *"Some philosophers have tried to derive overall theories of meaning or communication from communicative intent; others, by contrast, have supposed that communicative intent is at best marginal to the constitution of the meaningful qualities of interaction, 'meaning' being governed by the structural ordering of sign systems. In the theory of structuration, however, these are regarded as of equivalent interest and importance, aspects of a duality rather than a mutually exclusive dualism." (pp. 29-30)*

Structuration theory is not easily summarized in a sentence or a paragraph. As the review by Jones & Karsten (2008) hints, Anthony Giddens' full bibliography, and then some, is required to be read in order to fully understand what structuration is and is not. The reason for this vagueness or complexity might be because Giddens develops his ideas *while* he is writing his books.[6] This way his definitions are never complete.

Bostrom et al. (2009) have critically pointed out that "structuration theory is not the best candidate for an IS meta-theory" (p. 24). Nevertheless, I think structuration theory is valuable for this research setting of voluntary wiki collaboration. Here, structuration theory is just not used as a theory of structuration, but as an ontological account. Additionally, while genre theory is based on structuration theory (Yates & Orlikowski, 1992), the structurational worldview applies to all theoretical frameworks in this thesis, not just genre theory.

In conclusion, these three premises – "from-within" social science, practical knowledge interest, and structuration theory – provide a fitting dualistic-voluntaristic basis for this study of technology-mediated social practices. The interest is neither on what technology prescribes people to do, nor on what people are expected to do. The focus is on what people *actually* do.

[6] I thank Peter Axel Nielsen for this interpretation.

2.2 Back Narrative

This section introduces the back narrative concept. This is derived from the proficient social scientist Erving Goffman's book *Presentation of Self in Everyday Life* (Goffman, 1959). The concept was further developed and adapted to the context of online communities by Samer Faraj, Sirkka Järvenpää and Ann Majchrzak in their 2011 *Organization Science* article titled *Knowledge Collaboration in Online Communities* (Faraj et al., 2011). This section is based mostly on these two authoritative sources.

Prolific online communities require defined purposes that the participant can orient their activities towards (Preece, 2000). As most online communities constitute a diverse mix of people – geographically distributed, demographically varied, attending in different times, and having a range of motivations – the directions and means often have to be negotiated. In a similar framing, Faraj, et al., (2011) conceptualize *back narrative* to the question of 'what is needed for increased participation to fulfill its promise in resulting in increased content quality'.

As an answer, Faraj, et al., (2011) argue that participation needs to be 'channeled' – "identifying ways to keep interested participants informed of the current state of the OC's collaborative efforts" (p. 1323). They suggest this is achieved through narratives, "stories that describe how a collective of individuals acted," representing "a collective understanding of how individual behaviors interrelate over time" (ibid.). Further, they argue that "no single narrative is able to keep participants informed about the current state of the OC […] These communities seem to develop two different types of narratives" (ibid.). Building on Goffman's (1959) terminology of the front stage and back stage, they suggest the concepts of the front narrative and the back narrative.

The "front narrative" is "the part of the community's work that the entire community sees," and thus "provides the viewer with an overall impression of the general state of the community." "Back narratives," on the other hand, are "quite

different from front narratives, referring to the preparation, dress rehearsal, and role negotiation that takes place away from the public". The back narrative "is likely to display paths taken but not completed, ideas started but not finished, contribution threads that appear to go nowhere, chaos rather than order" (p. 1233). Talk pages, discussion threads, and such, allow creating the back narrative, for "passionate people to disagree, … to work out a temporary incomplete convergence, and provides a means to respond to the ambiguity in social identity by monitoring for deception" (ibid.).

Erving Goffman derived his concepts from theatre, where the audience witnesses a staged performance. The back stage is beyond the audience's gaze, and all preparation and support tasks take place there. Goffman's main point is that all social life is 'dramaturgic' in a similar way to theatre.

> *"Within the walls of a social establishment we find a team of performers who cooperate to present to an audience a given definition of a situation. This will include the conception of own team and of audience and as[s]umptions concerning the ethos that is to be maintained by rules of politeness and decorum. We often find a division into back region, where the performance of a routine is prepared, and front region, where the performance is presented." (Goffman,1959, p. 231)*

In a similar line of thought, online communities involve "the front narrative [that] is the part of the community's work that the entire community sees. In Wikipedia, the front narrative is the current version of the article that the community has edited." (Faraj et al., p.1232) "Narratives occurring backstage provide an opportunity for the informal organization to assert itself and convey possibilities of various roles, abilities, attributes, and expertise that can be put to use. Similarly, the back narrative in an OC is substantially different from the its *[sic]* front page.[7] Just as role

[7] Here the authors must have made a mistake in typing or editing. I guess they mean that the back narrative is different from the front narrative.

negotiations, flaring tempers, alternative trials, and starts and stops occur backstage as actors prepare for a performance, so too the back narrative of an OC is likely to display paths taken but not completed, ideas started but not finished, contribution threads that appear to go nowhere, chaos rather than order. In Wikipedia, the 'talk pages' are likely to display the back narrative." (p. 1232-1233)

The approach taken in this thesis is that the talk pages do not represent *the* back narrative, but *a* back narrative. Wikipedia has several levels and types of back narratives. The back narrative where my genre analysis is targeted at is called the 'Wikipedia namespace,' a communication sphere which focuses on community-level issues.

2.3 The Reader-to-Leader Framework

This section presents the Reader-to-Leader framework (Preece & Shneiderman, 2009), hereafter to be called the RtL framework or the RtLf. This is one of many existing models that describe the different levels and types of participation that take place in OCs. The 'collaborator' type is of particular interest in this study.

Online communities are not generally based on autocratic leadership. As these communities thrive on voluntary participation, few users feel motivated to submit themselves to the will of a higher authority in the community. Neither do these communities form a bureaucratic organisation consisting of a pre-defined managerial hierarchy. As a matter of practice, these communities try to balance between two dynamics. On one hand, as the communities depend on voluntary participation and non-monetary rewarding mechanisms, new users' barrier for joining is tried to keep as low as possible. Every member, even a fresh newcomer, needs some degree of influence to have a comfortable feeling of belonging. On the other hand, the environment for existing members tries to be built as effectively and efficiently as possible. Some users, therefore, need and deserve more influence than others.

Online communities face an initial challenge of recruiting visitors from the crowd of billions of internet users. After they have managed to tempt someone to visit the website, the aim is to make the recruit stay. This is achieved by having interesting content, so the recruit will remain there as a reader. After some time, the person might write some contribution. Over time, some contributors also become interested in community aspects beyond the content, by forming collaborative bonds with other users. The most committed members are soon responsible for setting policies, goals, etc.

A theoretical conceptualisation which can be applied for the examples given above is the RtL framework (Preece & Shneiderman, 2009). This paper was published in the first issue of the AIS-affiliated Transactions on Human-Computer Interaction (AIS THCI) journal. The paper is the most cited paper published in that journal, and has long been among the most downloaded articles of all AIS journals in the AIS Electronic Library AISeL.[8] The core idea of this framework is that the "levels of social participation ... can roughly be categorized as *reading*, *contributing*, *collaborating*, and *leading*" (p. 16). The relations between these concepts are transitions from one type of participation to another. The framework emphasizes the most common path of progression from a reader to a leader. "The thickness of the green arrows and smaller shapes indicate the decreasing number of people who move from one form of participation to another" (Preece & Shneiderman, 2009, p. 16). However, there is no predestination to how a user commits to the community over time. Therefore the framework contains thin arrows as well, that "indicate how people can also move in a non-linear fashion to participate in different ways." (Ibid.)

[8] On April 30th, 2012, the article had 122 citations according to Google Scholar. The second most cited paper in the AIS THCI journal had a citation count of 12. The AISeL download statistics were derived from this page: http://aisel.aisnet.org/topdownloads.html. According to the AIS THCI website, the Reader-to-Leader Framework article was awarded as the 2009 Best Paper of the journal: http://aisel.aisnet.org/thci/.

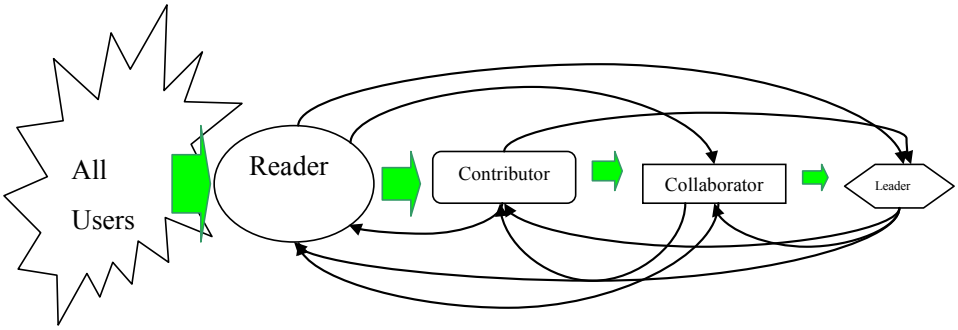

Fig 3 - The Reader-to-Leader Framework. Adapted from Preece & Shneiderman (2009, p. 16).

In addition to what these arrows depict in this framework, "many people terminate their participation for a variety of reasons. There is also a time dimension within the four activities. For each activity, there are the uncertain first steps, sometimes followed by repeat visits that can mature into a growing sense of confidence and increased activity as a reader, contributor, or leader. There are at least two paths to maturation: participants may become more active within one stage or may move on to begin another stage" (Preece & Shneiderman, 2009, p. 16).

A reader, or sometimes defined as a "lurker" (Preece, Nonnecke, & Andrews, 2004), is a consumer of content that is produced by other people. Readership involves venturing in, reading, browsing, searching, and returning activities. The term 'lurker' might have a slightly negative undertone, implying of unproductive "free rider" behaviour. This critical view has been challenged by some who consider readers as the pool of future contributors (Antin & Cheshire, 2010). Additionally, in for-profit websites readers are the main source of revenue. Readers are the product that attracts advertising money.

In order to make a reader to stay in the community, several aspects have to match. Interesting and relevant content should be presented in attractive, well-organized layout. Content should be frequently updated. Newcomers need support in the form of

"tutorials, animated demos, FAQs, help, mentors, contacts" (Preece & Shneiderman, 2009, p. 18). Users should feel mastery and control over navigation paths. Usability aspects should be generally considered for different stakeholders and settings: "novice/expert, small/large display, slow/fast network, multilingual, and users with disabilities" (p. 18). Sociability issues are similarly important. Encouragement from friends, family, or respected authorities may be needed. Repeated visibility in various media such as online, print or television, might be required to make the website known. The community must have clear norms or policies. A sense of belonging may be reached through recognition of familiar people and activities. Charismatic leaders might be needed to providing visionary goals the readers can get inspired of (Preece & Shneiderman, 2009).

When enough curiosity and attraction is present, readers progress to becoming contributors. They perform various activities, such as rating, tagging, reviewing, posting, and uploading. In the context of Wikipedia, contribution involves in most cases writing encyclopedia articles.

Collaboration "involves two or more contributors discussing, cooperating, and working together to create something or share information" (Denning & Yaholkovsky, 2008; Preece & Shneiderman, 2009, p. 20). Collaboration requires the development of a common ground – "mutual understanding, shared beliefs and assumptions" (Preece & Shneiderman, 2009, p. 21). Collaboration is a social activity by definition.

Leaders promote participation, they mentor novices, and they are responsible for setting and upholding policies. Leaders have authority within the community. (As leadership is not the focus theme of this thesis, I shall not elaborate on it further.)

The Reader-to-Leader framework is not the first model that differentiates between types of users in online communities. Howard (2010, p. 85) points out that "there are three popular classification systems available:

1. Li and Bernoff's social technographics ladder

2. Kim's five-stage membership life cycle

3. Wenger's five learning trajectories"

It is noticeable that all these models contain a relatively similar structure, but with different terminology and nuances. Li & Bernhoff (2008) have distinguished six categories of users, namely inactives, spectators, joiners, collectors, critics, and creators. Their study defines 'inactive' as a person almost completely peripheral to the community, who does not do anything. This is something in between "all users" and "reader": the only connecting link to the community that the person has been part of the site earlier, but now the connection is merely latent. The difference between a spectator and a joiner is the registration: a joiner has a user profile in the system, while a spectator has not.

Collectors, critics, and creators are different types of contributors. Creators produce new pieces of content. Critics react to the content that creators have initiated. Collectors' work consists of e.g. archiving, sharing, distributing, and categorizing of content. Li & Bernhoff's (2009) study is based on a Forrester Research survey of American adult online consumers (Li, 2007), which found out that only 13 per cent of users are actual content creators, and 19 per cent are critics. More than half of all users are inactives.

Kim's (2000) membership life cycle model consists of five stages of community involvement: visitors, novices, regulars, leaders, and elders. A visitor is an early-stage reader- someone without a persistent identity on the community. He comes and goes through the revolving doors often without leaving a memory trace for the core community. Novices can be advanced readers and/or starting contributors. They try to learn the practices, policies and rituals of the community, and become part of the day-to-day routines. Regulars are people who have adapted to these routines, and thus contribute their share to the community. Kim distinguishes leaders into seven possible sub-roles:

1. Support providers – answer questions and help members solve problems they are having with the system
2. Hosts – keep the key community activities running smoothly
3. Greeters – welcome newcomers, show them around, and teach them the ropes
4. Cops – remove disruptive members and/or inappropriate content
5. Event coordinators – plan, coordinate, and run one-time and regular events
6. Teachers – train community leaders, offer classes, or provide tutoring
7. Merchants – run shops, provide services, and fuel the community economy

The 'elder' in Kim's classification is an experienced leader, with a long history within the community. They are the "keepers of the community's stories, culture, and rituals", which "is critical to community success" (Howard, 2010, p. 96). Typically the community knows their elders, and respect the longer-term perspective elders can provide on community dynamics, conflict resolution, and different kinds of interventions. Both Kim and Howard emphasize the importance of keeping the elders in the community.

Wenger's (1998) Communities of Practice framework uses the concept of trajectory, "individual's position relative to the community over time", that "maps temporal relationship to the community's boundaries" (Howard, 2010, p. 99). Wenger names five trajectories: peripheral, inbound, insider, boundary, and outbound trajectories. A peripheral trajectory is an outsider to the community. Inbound being Kim's 'novice' user. Inbound trajectory is a position entering the community, turning from an outsider to an insider. Insider is a member – who might be a contributor, collaborator, or a leader. Boundary trajectory is mostly positioned in another community, but has additional connections to the present community. Outbound trajectory describes someone who is leaving or has left the community.

In addition, the RtL framework seems to echo the general idea of the '1% rule' (Arthur, 2006), also known as the '90:9:1 rule' (Nielsen, 2006). This rule-of-thumb suggests that in any social setting that takes place on the internet, a participation inequality will be evident. One per cent minority represent 'creators', who start new threads, initiate new content and activities. 9 per cent of users are 'editors', who interact with the existing content by replying to threads, and modifying the content. The 90% majority are 'the audience': people who observe, read, and "lurk", but do not contribute.

There are possibly many other similar models out there. For example, Fischer (2011) has recently proposed one. The important aspect is that these models describe participation inequality and division of labor. The type of 'labor' this thesis addresses is collaboration.

The next subsections are dedicated to framing the Reader to Leader framework in light of the front and the back narratives, and defining how collaboration can be studied in the context of Finnish Wikipedia.

2.4 Genre Theory

Many influential (social) scientists have considered communication as the basis of everything. Gregory Bateson, who contributed to the fields of cultural anthropology, psychology, sociology, cybernetics, language, and learning, emphasized the role of communication in all of these disciplines.

> *"A priori it can be argued that all perception and all response, all behaviour and all classes of behaviour, all learning and all genetic, all neurophysiology and endocrinology, all organization and all evolution – one entire subject matter – must be regarded as communicational in nature, and therefore subject to the great generalizations or "laws" which apply to communicative phenomena." (Bateson, 1972, pp. 282-283)*

The forefather of genre theory, Mikhail Bakhtin, shares a similar worldview concerning the role of communication. In his book “Problems of Dostoevsky's Poetics” (Bakhtin, 1984), largely considered as his primary work, he emphasized the central position of communication. A word is the most important tool for human interaction. Bakhtin’s understanding of language is that it is a very dynamic system. Language is an ever-changing, ever-creating process. Words are dialogically interconnected to each other. Individual words cannot be understood *per se*, but only in relation to other words, and to the contexts of language, history, and culture. A word has never just one meaning, but several meanings, as many as there are possible use-contexts.

Genres, defined as “typified rhetorical actions based in recurrent situations” (Devitt, 2004, p. 13; Miller, 1984, p. 159), are everywhere. We are aware of genres in literature (such as novels or poetry). When we are engaging ourselves into a process of buying a book of poetry, we already have some pre-understanding the content and the structure of the product, even before opening the book. When a poet writes a poem, the understanding of genre guides his creative process. We recognize distinct movie genres, including comedy, drama, action, thriller and porn. Genre sets our mind for expectations. Jazz, blues, hip hop and techno are familiar music genres to us. Genres are not only present in literature, movies and other fields of art and media. We witness genre in virtually any social context.

Our everyday life involves a plethora of instances of different genres: calendar, memo, presentation, grocery list, press release, newspaper editorial, tabloid headline, meeting, small talk, hotel reservation, and call for papers, just to mention a few. These genres might take different forms: oral, written, digital, analogue, synchronous, asynchronous, physical, virtual, predefined or emerging, et cetera. In any case, each genre plays a role in how we understand and construct social situations, and manage our way through them.

Genre is a concept that has existed for thousands of years. “Of all concepts fundamental to literary theory, none has more distinguished lineage than the question

of literary types, or genres." (Altman, 1999, p. 1) It has been described as "a set of conventional and highly organised constraints on the production and interpretation of meaning" (Frow, 2006, p. 10). Genre does not only help us understand the world, it is the precondition for the creation and the reading of texts. Meaning cannot happen without genre. With genre, it is possible to relate any new instance of "text" to our existing body of knowledge. Genre Theory therefore is concerned with "the ways in which different structures of meaning and truth are produced in and by the various kinds of writing, talking, painting, filming, and acting by which the universe of discourse is structured" (Frow, 2006). Also, in the middle of an abundance of texts and communication in our everyday life, "genre is a very powerful means of complexity reduction" (Giltrow & Stein, 2009, p. 6).

Genre also works as a lens in 'reading' any text. Genre "defines a set of expectations which guide our engagement with texts" (Frow, 2006, p. 104). If we know that we are now communicating within a 'hotel reservation' genre, we know how to adjust our own communication, and how to interpret others'.

The neo-rhetorical genre theory defines genre as "typified rhetorical actions based in recurrent situations" (Miller, 1984, p. 159). Caroline Miller's definition of genre as social action has been "taken up by nearly every rhetorical theorist of genre since then" (Giltrow & Stein, 2009, p. 4). The relationship between genre and situation is interactive and reciprocal (Devitt, 2004). "People construct situations through genres, but they also construct genres through situations" (p. 22). "Genre and situation are tightly interwoven, as genre theory has long recognized, but it is genre that determines situation as well as situation that determines genre. To say that genre *responds* to situation not only is deterministic but also oversimplifies their reciprocal relationship" (p. 23). The tight relation between genre and situation also means that genres expire when the situations expire (Giltrow & Stein, 2009).

Denying formalism, genre cannot be "equated with forms, though genres are often associated with formal features" (Devitt, 2004, p. 3). Devitt also emphasizes

that form is inseparable from content. (p. 5). Giltrow & Stein (2009, p. 3) stress that in genre analysis, "regularities in form alone will not tell you the genre".

While "the conventional conception considers genre as a classification system of texts based on shared formal characteristics" (Devitt, 2004, p. 6), genres "cannot be equated with classification, though genres do classify" (p. 3). "Grouping of complex items like texts are more like metaphors than equations: how texts are grouped depends on which features the classifier has selected to observe – common prosody, organization, tone, aim, or effect on the reader, for example" (Devitt, 2004, pp. 6-7).

JoAnne Yates has been among the most influential genre theorists in the information systems discipline. Her book *Control through Communication* (1989) was a historical investigation on how technology, genres, and management philosophies have developed together. As one of the pioneers in applying the concept of genre in organisational communication, she defined it as "a literary term for a generic form or type of discourse such as novels, plays, or poetry." She saw the possibilities in how the "term can be extended to non-literary discourse to refer to types of communication that have similar formats and purposes." (p. 288). Her work on genre together with Wanda J. Orlikowski (Orlikowski & Yates, 1994; Yates & Orlikowski, 1992; Yates, Orlikowski, & Okamura, 1999) has been very influential within and beyond the field of information systems. Early on, their work has been ontologically based on Giddens' structurational approach (Yates & Orlikowski, 1992), neglecting some literary genre theorists' attraction towards natural science - like theory development (e.g. Fishelov, 1993, p. 7).

Yates and Orlikowski (1992) defined a *genre of organizational communication* as a typified and recurrent communicative action, understood, used and shared within a community such as a workgroup. A genre can be identified primarily by its purpose and, to some extent, by its form. The purpose refers to the socially identifiable and enacted motives and tasks, which give an overall reason for communicative utterances of the type in question. The form includes issues related to the preferred media for the typified utterances, structural characteristics of how information and communication

content is organized and stylistic expectations for the language and other semantically meaningful expressions used. Moreover, identified genres also involve expectations about communities and roles, by which the communicative utterances in question are reproduced and utilized (Yates & Orlikowski, 1992).

The neo-rhetorical genre theory puts much emphasis on the discourse community which uses these particular genres. Amy Devitt promotes that genre should be (and thus, has already been) "redefined rhetorically according to the people who participate in genres" (Devitt, p. 3). Recognizing common genres within a group is the first step in recognizing a community. She explains that the "connection of genre to a group's activities and needs has been argued strongly in all major schools of genre theory" (p. 35). Genre knowledge is an indication of being an insider in a community (Giltrow & Stein, 2009). According to Valentin Volosinov (1986), genres which constitute groups, the language or the sign systems as a whole in a given society *are* that society.

Genre can be seen as convention. Donald Norman (1999) defines a convention as "a constraint in that it prohibits some activities and encourages others" (p. 41). Conventions are "not arbitrary: they evolve, they require a community of practice. They are slow to be adopted and, once adopted, slow to go away" (p. 41). Once conventions are learned, "they help us master the intricacies of daily life, whether they be conventions for courtesy, for writing style, or for operating a word processor" (Norman, 1999, p. 42).

Genres "reproduce … in the intersubjectivity of language users. Language users mutually remember and expect types of speech. People absorb and reinstantiate the types from their experience of doing things together" (Giltrow & Stein, 2009, p. 7) Established members of discourse communities "employ genres to realize communicatively the goals of their communities" (Swales, 1990, p. 52). Genre can also be studied by following novice users' language behaviour, and their difficulties (or success) in entering the circle of mutual knowledge. In general, "studying genre is studying how people use language to make their way in the world" (Devitt, 2004, p.

9). As genre "entails purposes, participants, and themes, so understanding genre entails understanding a rhetorical situation and its social context" (p. 13).

As people in a group "develop genres, genres reflect what the group believes and how it views the world" (Devitt, 2004, p. 59). Furthermore, genres do not only reflect, but "also reinforce the ideology of the group whose purposes they serve. In some significant ways, the group's beliefs constitute the genre and the genre constitutes the group's beliefs" (p. 60). The reciprocal relationship between the group's ideologies and its genres "is characterized well by Giddens' concept of duality of structure" (p. 61).

Giltrow & Stein argue that "only in the rarest cases will the participants have to use linguistic cues to work out in which genres they are engaged". They continue their argument with a newspaper example. "When you open a newspaper on a certain page you will know that you are up for reading, say, evaluative, subjective and directive comment – that is, "opinion" or "advice" genres" (2009, p. 5). As Bakhtin (1981, p. 79) has stated, "when hearing other's speech, we guess its genre from the first words".

However, while members of a discourse community share genre knowledge, it does not always happen automatically, or without conflict. The meaning of genres can be openly negotiated and disputed within the discourse community. McNeill (2009) describes 'genre wars,' which in her case include debates on what is the ancestry of the blog genre, and how blogs are related to diaries. She concludes that the form of diaries has stayed relatively similar throughout the centuries. However, what *has* changed "has been public perception of the genre, popular and critical ideas about what the diary genre is, what it should do, and to whom, raising a series of tightly interwoven issues that include privacy, authenticity, and audience" (p. 158).

Even though genres are shared within a discourse community, they need not be *fully* shared. Each member may have their own perception about the purpose of a genre. Genres are understood within a community – in this way they are conceptually

opposite to the notion of a boundary object, sense making-tools between different communities (Østerlund & Crowston, 2011). People may also purposely offer 'wrong' communicative cues in order to mislead others. For example, Cukier et al. (2008) studied "Nigerian letters," a common form of email hoax, or spam. They summarize that "spam exploits genre by conforming to known forms while at same time breaching those forms" (p. 69).

Typically, a discourse community needs many genres to perform its communications. "Rarely does a group accomplish all of its purposes with a single genre" (Devitt, 2004, p. 54). Any multitude of genres is known as a *genre set*. A *genre repertoire* (Orlikowski & Yates, 1994) is a "set of genre that a group owns, acting through which a group achieves all of its purposes, not just those connected to a particular activity" (Devitt, 2004, p. 57). Later, Devitt (2009) has emphasized the 'inter-genre-ality' in the use-contexts of genres. "Just as all texts are intertextual, so too are all genres 'inter-genre-al.' For the study of genre forms, that fact means that genres take up forms from other genres with which they inter-act." (p. 44)

Giltrow & Stein argue that "when the set of genres is open, the level of generality at which genres are named is lower than it would be for a closed set." It has been also noticed that nascent discourse communities have more open genre sets, while by time the genre set becomes more restricted (Im, Yates, & Orlikowski, 2005).

Im et al. (2005) describe how genres can be used for coordination between geographically distributed teams. By using three specific genres (status reports, bug/error notifications, and update notifications), and one genre system (phone meeting management), a software team coordinated their activities over time and space.

Internet and computer-mediated communication in general is "peculiarly inviting to discussions of genre" (Giltrow & Stein, 2009, p. 1). Compared to physical-world genres, digital Internet genres have "a greater fluidity and pragmatic openness." (p. 9). Giltrow & Stein offer two reasons for this. First, "norms are of a more 'local'

and of a less global nature with regard to Internet communities". Second, "no one would argue that Internet genres could be "recognized" by their linguistic characteristics". Emoticons such as "☺", and turn-taking strategies in chat, are not a property of one specific genre (p. 11). Genres that are functionality used in connection to digital documents can also characterize a "cybergenre" (Shepherd & Watters, 1999) to a certain extent.

Devitt (2004) proposes that the definition of genre should include two more elements than have existed earlier: culture and other genres. Culture is defined as "a shared set of material contexts and learned behaviors, values, beliefs, and templates" (p. 25). The context of other genres "includes all the existing genres in that society, the individual genres and sets of genres, the relatively stagnant and the changing genres, the genres commonly used and those not used" (p. 28).

Devitt locates genre in the nexus between the textual and the contextual.

> *"A genre constructs and is constructed by a notion of recurring situation, entailing participant roles, purposes, and uses of language. A genre constructs and is constructed by cultural values, beliefs and norms as well as by material culture. A genre constructs and is constructed by the set of existing genres surrounding it, genres used and not used by fellow participants in the society. These contexts of situation, culture, and genres act simultaneously and interactively within a genre, and genre sits at the nexus of such interactions" (p. 29).*

Genre "allows us to particularize context while generalizing individual action" (Devitt, 2004, p. 30).

Devitt proposes that genre should "be seen not as a response to a recurring situation but as a nexus between an individual's actions and a socially defined context". While "genre is visible is classification and form," genre exists through people's individual rhetorical actions at the nexus of the contexts of situation, culture, and genres." (Devitt, 2004, p. 31)

Genre fuses substance (semantics), form (syntactics), and action (pragmatics) (Miller, 1984). Devitt (2009) emphasizes that form, meaning, and action are practically inseparable in their "individual, social, and cultural context, of actual genres and genre-ness" (p. 46).

Finally, Devitt (2004) describes six principles of the social nature of genres. First, genres "develop through the actions of many people, in groups." These 'groups' can be communities – "people who share substantial amounts of time together in common endeavors," collectives – "people who gather around a single repeated interest, without the frequency or intensity of contact of a community", or social networks – "people who are connected once – or more – removed, through having common contact with another person or organization" (p. 46). Second, genres "do not exist independent of people." Also, "genre is a human construct, not a material tool nor an agent" (p. 50). Third, genres "function for groups, though those functions are typically multiple and ideological as well as situational" (p. 53). Fourth, a genre "commonly reveals its social functions with characteristic discourse features, but interpreting those features may require active participation with the genre and can never be complete" (Devitt, 2004, p. 54). Fifth, genres "interact with each other in the context of genres and in genre repertoires, genre sets, overlapping genres, call and response genres, supergenres, and other possible relationships" (pp. 58-59). The sixth and final principle tells us that genre "reflects, constructs, and reinforces the values, epistemology, and power relationships of the group from which it developed and for which it functions" (p. 63).

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3. Methods

This chapter describes the empirical research methods used in this study. Genre analysis is the method used for making sense of community-level collaboration within the 'Wikipedia namespace'. In addition, 14 in-depth interviews with collaborators were conducted. The supporting methods include participant observation and application of web statistics.

3.1 Genre analysis

This section describes how the edit-based genre analysis was conducted. While countless approaches to genre analysis exist (Ristola, 2008; Tardy, 2011), my approach was particularly guided by the "5W1H" framework offered by JoAnne Yates and Wanda Orlikowski (Orlikowski & Yates, 1994; Yates & Orlikowski, 2002). The framework helps in studying recurrent communication in a community, by focusing on six dimensions of communicative interactions: purposes (why), contents (what), participants (who/m), forms (how), time (when) and place (where). The current understanding of genre theory claims that a shared purpose is the most important aspect as to why some communication makes a genre. Additionally, similarities in content and form are of importance. Participants, time, and place are contextual factors that enable genre understanding. Changes in context might also change or force genres to expire.

The nature of my analysis technique as cross-sectional sample limits the treatment of the 'time' dimension. However, I have tried to compare the edits in the sample to previous and subsequent edits that occurred before and after the sample, in order to get contextual understanding.

The analysis was influenced by advice from Krippendorff's (2004) content analysis. In particular, the abductive nature of inquiry was adopted here. As the

procedure was to come up with genre definitions, which are "categories"[9] consisting of similar types of communication, the definitions were constructed iteratively. This was achieved by moving between the data and the categories, iteratively generalizing categories from the data, and revisiting the data to assess the generalizations. After the categories had been constructed, the data was revisited in order to verify the feasibility of generalizations. Essentially, the analysis process was executed iteratively, revisiting earlier steps when coding progressed and understanding increased.

Content analysis is often labelled as a quantitative research method (e.g. Lacity & Janson, 1994). Its classic definition paints it as "a research technique for the objective, systematic and quantitative description of the manifest content of communication" (Berelson, 1952; Herring, 2010). In addition to seeing content analysis as a quantitative research approach, qualitative content analysis methodology has been widely used (Altheide, 1987; Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). In Alan Bryman's book *Social Research Methods* (2008) both qualitative and quantitative approaches to content analysis are presented, in separate chapters.

In the middle of all these rather limited definitions, Klaus Krippendorff takes an effort to clarify the qualitative-quantitative division in content analysis. He goes against the strict division, while not being in favor of either one of them. Essentially, the purpose of content analysis is to analyze content and content is always qualitative. The results of the analysis can be in numerical form, but that is not mandatory.

"I question the validity and usefulness of the distinction between quantitative and qualitative content analyses. Ultimately, all reading of texts is qualitative, even when certain characteristics of text are later converted into numbers." (Krippendorff, 2004, p. 16)

[9] As Amy Devitt (2004, p. 3) puts it, genres "cannot be equated with classification, though genres do classify". With creation of 'categories' I refer to the process of generalizing from particulars. I am aware that a genre is not synonymous to a category.

In addition to the division between qualitative and quantitative, dividing inquiry into inductive and deductive approaches is popular in content analysis (Elo & Kyngäs, 2008; Rice & Ezzy, 1999). Deductive inferences proceed from generalizations to particulars. In textual coding, it means that you apply an *a priori* framework that is derived from a theory or as a synthesis of previous research. Inductive inferences proceed from generalizations to particulars. In textual coding it means that frameworks or categories rise from the text, not from previous research or theory.

According to Krippendorff (2004, p. 36) "deductive and inductive inferences are not central to content analysis." Instead, he defines content analysis inferences to be of the abductive kind.

> *"Content analysts are in a … position of having to draw inferences about phenomena that are not directly observable, and they are often equally resourceful in using a mixture of statistical knowledge, theory, experience, and intuition to answer their research questions from available texts. In this respect, the whole enterprise of content analysis may well be regarded as an argument to support of an analyst's abductive claims." (Krippendorff, 2004, p. 38)*

The word 'manifest' in the original definition of the method (Berelson, 1952) refers to the distinction of two types of content: manifest and latent content. Elo and Kyngäs (2008) describe that

> *"[t]he aim with latent content is also to notice silence, sighs, laughter, posture etc. (…) There has been some debate as to whether hidden meanings found in documents can be analysed, because their analysis usually involves interpretation." (p. 109)*

In addition, those content analysts who emphasize its possibility to provide statistically tested results claim that the method is applicable to texts where there is no hidden meaning. McNabb (2002) states that it is "most useful when the meaning of the text is relatively straightforward and obvious" (cited in Myers, 2009, p. 172).

Indeed, content analysts have traditionally been afraid to make any interpretations, as can also be seen from the word "objective" in the original definition. Krippendorff (2004) points out that the 'manifest' attribute "literally excludes 'reading between the lines'" (p. 20). Quantitative researchers have typically insisted on taking a positivist epistemology (Hassard, 1995). Often quantitative content analysts have taken the assumption that the meaning of texts is located inside the texts, while the researcher is an objective outsider. During the long history of content analysis, many efforts have been put into automatic analysis of *the* objective meaning of texts. For example, Krippendorff mentions a Rand Corporation paper on automatic content analysis (Hays, 1960).

Basden & Klein (2008) note that it is not of often possible to draw the meaning of a text-in-context from the semantic level of a text. They define this as the difference between text-meaning and life-meaning[10]. "Life-meaning depends on text-meaning, … though the way it does so is not always straightforward. Text-meaning is not some absolute property of the symbols but emerges over a period of time from life-meaning by intersubjective agreement. Thus the boundary of them is fuzzy" (p. 265). Basden & Klein give various practical examples of this, including this one:

> *"Suppose you live in Scotland or some 'cold' climate. "Were you born in a tunnel?" your mother asks as you enter the room. While you might be tempted to reply humorously, "No, in a hospital," you know what she means and you turn back and shut the door. Tunnels are draughty places." (p. 260)*

It is reasonable to conclude that content analysis needs to be an 'interpretivist' effort, because life meaning and text meaning are not the same thing. In the light of Beynon-Davies' model, interpretation is needed whenever one goes above the level of syntax. Further, it could be said that *data* can be analyzed 'objectively', but analysis of *information* requires interpretation.

[10] Life-meaning occurs of the level of pragmatics, while text-meaning is a semantic issue.

The interpretivist nature of content analysis has also opened room for methodological criticism, and questioning of rigour. According to Payne & Payne (2004, p. 54) "the most common objection to content analysis is researcher bias. The further the method moves from straightforward evidence like word counts, the greater the likelihood of this challenge." An obvious counter-argument to that claim is that researcher bias can be tackled by offering a transparent description of the process, and sharing the data openly.

Krippendorff (2004, pp. 21-25) defines six features that are essential for the epistemology of content analysis.

1. Texts have no objective – that is, no reader-independent – qualities.
2. Texts also do not have single meanings that can be "found," "identified" and "described."
3. The meanings invoked by texts need not be shared.
4. Meanings (contents) speak to something other than the given texts, even where convention suggests that messages "contain" them or texts "have" them.
5. Texts have meanings relative to particular contexts, discourses, or purposes.
6. The nature of text demands content analysts draw specific inferences from a body of texts to their chosen content.

Krippendorff redefines content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (p. 18). He points out that replicability is the most important form of reliability. Further, "for a process to be replicable, it must be governed by rules that are explicitly stated and applied equally to all units of analysis" (p. 19).

3.2 How to Study Collaboration in Wikipedia?

This section describes how- and where- to find collaboration in Wikipedia. The starting point is a combination of the RtL framework and the concepts of the front and the back narratives.

Different online communities, social media applications and open content platforms differ on how users progress to higher levels. Some sites are more meritocratic, others are more egalitarian. Some offer strict technologically-set user roles, while others are more free-form. In order to provide sound implications for the study of social participation in online communities, it is crucial to define how each concept relates to the study. Without conceptual clarity there is a risk of getting lost within the data. Finding exact definitions to what is meant with a "reader," a "contributor," a "collaborator" and a "leader," is a non-trivial problem.

The RtL framework (Preece & Shneiderman, 2009) has relatively rapidly become an influential framework. The article is well cited – clearly the most cited paper in the history of that particular journal. Despite the popularity, most references to this paper treat the framework rather superficially. Few or no studies have attempted to apply the categories to bring deeper understanding of readers, contributors, collaborators, or leaders.

One way to fit RtLf into Wikipedia research is to see how other Wikipedia-related studies have applied the framework. I used Google Scholar to locate articles citing Preece & Shneiderman's paper. At the time of the search (April 5th, 2011), there were 59 papers referencing that article. Of those 59, only two were studies about Wikipedia, namely Boukhelifa et al. (2010) and Kane (2011). Neither of these two studies applies the framework as a central guide for their research design. Rather, they mention it as a study that acknowledges contribution inequality and role division between users. So unfortunately no study could progress us in our goal to fit RtLf to the context of Wikipedia.

Luckily, the Preece & Shneiderman (2009) article guides us further. Many of the examples and references in the article are Wikipedia-related studies. In fact, the word 'Wikipedia' is mentioned 32 times throughout the article. Let us examine Preece & Shneiderman (2009) in more depth, in order to develop a definition of who is a reader, a contributor, a collaborator, or a leader in the context of Wikipedia. What are the characteristics of each role?

First of all, a reader seems to be the easiest role to define here. Anyone who is a consumer of Wikipedia content, but has never pushed the edit button, is a reader. Readers are consumers of encyclopedia articles, i.e. the front narrative. The purpose of Wikipedia is to provide interesting content for the broad audience.

Readers are primarily interested with the front narrative. This is almost tautologically obvious, as the definition of the front narrative depicts it as "the part of the play that is seen by the audience" (Faraj et al., 2011, p. 1232), and readers indeed are the audience. As Wikipedia is the most frequently represented website in the top results of all major search engines (Höchstötter & Lewandowski, 2009), millions of people end up reading Wikipedia articles simply by searching for a keyword of their interest. Alternatively, readers can find interesting content by just browsing around on the Wikipedia site and clicking through the links, going from one article to another.

Not only does Wikipedia's egalitarian, autonomic, and user-centric ethos promote easy transition from a reader to a contributor, it also enables readers to 'take a peek' at the back narrative. Taking a look at the article talk page, scrolling through the edit history, and browsing through nomination pages can improve a reader's understanding of not only what the content is, but how is has been created. Acknowledging points of tension and conflict can raise a reader's awareness of a topic beyond the front narrative. The extent of Wikipedia's openness and accessibility is also largely without equal on the web. Few sites provide access to the entire back narrative for *all* users.

Who is a contributor then, and what is contribution? Preece & Shneiderman (2010, pp. 18-19) define contribution as "an individual act that adds to a larger communal effort – for example, adding a picture or a comment to a website – when there may be no intention of collaborating, communicating, or forming a relationship. Contributors often start by making a correction on a wiki, tagging a photograph, or rating a film." Contributors produce the content that readers read.

Preece & Shneiderman argue that platforms should be designed in such a way that both a low threshold and a high ceiling are offered, allowing all ranges of contributions. Communities should show which contributions are of the preferred high quality, while protecting the community from malicious contributions.

Contributors are also most concerned with the front narrative, but as creators not as observers. But, in cases when contribution does not go straight-forward in consensus, there is a need to visit the back narrative. The contributor may seek help, or his actions may be questioned by other users. In this way, the activities may bounce between the front narrative and its collocated back narrative.

When a contributor has become more involved in the community, she might become a collaborator. As collaborators are interested in social interaction *and* community, their interest largely lies in the back narrative. The line between a contributor and collaborator is blurry, as demonstrated by this quote:

> *"Sometimes people shift quickly from contribution to collaboration and back again. For example, an ornithologist contributor to Wikipedia bird articles may be closely collaborating with a group of bird watchers in making sure that an entry about Greater Scaups on the Chesapeake Bay is correct. But she gets distracted by a friend's email to read an entry about a café in London, whose address is listed as 'Upper Road' in Islington, so she corrects it to 'Upper Street'. In the first instance, she is involved in a collaboration in which she learns who has a deep knowledge about wildlife on the Bay. In the second*

> *instance, she merely contributes the correct address but does not interact with anyone." (Preece & Shneiderman, 2009, p. 21)*

As that example describes, the difference between a contributor and a collaborator is not so much concerned with what type of *user* is in question, but what type of *communication.* Therefore, the difference is that a contributor interacts with content, while collaborators additionally interact with other community members. Another way to say this is that contributors primarily interact through the front narrative, and collaborators through the back narrative. Collaborators are engaged in the social side and "behind the scenes." They organize WikiProjects, take a central role in initiating new article production processes, categorize content and the like.

What are leaders, then? In addition to sharing the characteristics of collaborators, they take care of tasks that require special user privileges. These privileges are not inherited, but they are granted by trust acquired from a long history of participation. I suggest that leadership in Wikipedia involves two types of activities: policing and facilitating. Policing is the enforcement of policies, for example sanctioning a stubborn vandal with an IP-address block. Facilitating in this context can be compared to a trusted person who has "keys" to the "sports hall" of the website. A facilitator can open the doors for people who come to perform a particular activity. When the time is up, it is the facilitator's responsibility to make sure everyone has left the premises and the doors are locked.

I am aware that because of Wikipedia's egalitarian nature, some might disagree with the stance that 'leadership' is defined through 'promotion.' That is reflected strongly in founder Jimmy Wales' often-quoted statement from 2003, saying that being a sysop/admin is "not a big deal."

> *"I just wanted to say that becoming a sysop is *not a big deal*. I think perhaps I'll go through semi-willy-nilly and make a bunch of people who have been around for awhile sysops. I want to dispel the aura of "authority" around the position. It's merely a technical matter that the powers given to sysops are not*

> *given out to everyone. I don't like that there's the apparent feeling here that being granted sysop status is a really special thing." (http://lists.wikimedia.org/pipermail/wikien-l/2003-February/001149.html)*

That statement emphasizes "that administrators should never develop into a special subgroup. Rather, administrators should be a part of the community like other editors, with no special powers or privileges when acting as editors. Administrators are also expected to observe a high standard of conduct." (http://en.wikipedia.org/wiki/Wikipedia:NOBIGDEAL#History)

The most controversial claim in Wales' original "no big deal" statement is perhaps that a random 'anyone,' who just happens to be around, could be promoted as an administrator. It has been noted that during the history of Finnish Wikipedia, not once has a user been promoted to "adminship" randomly, just by "being around," but each promotion decision actually requires careful assessment and reflection.[11] It should also be noted that while the "no big deal" principle was originally translated to Finnish Wikipedia as-is, it has since been removed. This was resulted by a user who challenged the statement by Wales.

"When we take into account that fi-Wikipedia adminship promotion requires nowadays thousands of edits, a long history, and absolute trust in the person, adminship is in fact becoming a pretty big deal." (translated by me from Finnish into English)

Similar patterns have been found in English Wikipedia, as this quote from Chen (2010, p. 272-273) demonstrates:

> *"Editors who are more committed to the project, who spend more time editing, who make more significant contributions, and who conform to community norms and values may be entrusted with higher administrative powers. This*

[11] http://fi.wikipedia.org/wiki/Keskustelu_Wikipediasta:Yll%C3%A4pit%C3%A4j%C3%A4t#Poistin_Jimbon_kommentin

> *means that although Wikipedia permits users to edit without a user name, editing with a consistent identity—either real name or pseudonym—is an important factor when one wishes to participate in the internal governance structure of the community. Administrative positions are occupied by community members who voluntarily take on more responsibilities to maintain Wikipedia without any pecuniary remuneration. Although in the old days it might have been considered as 'not a big deal' for committed volunteers to be granted administrative positions, nowadays editors serving administrative positions are elected, and candidates have to go through strict public scrutiny."*

I follow the "Only Stick Your Neck into One Guillotine" principle proposed by Carsten Sørensen (2002, p. 4). He stresses the importance of keeping "the overall goal of arguing for your main point closely in mind", and thus "it is generally not a good idea to introduce marginal discussions that are not directly relevant for your position" (p. 5). For this reason I shall omit the RtL framework's leader-category from my considerations for this thesis. This omission is not because leadership would be a "marginal discussion" for Wikipedia, which it is not, but I'm focusing on collaboration instead. I acknowledge that leadership is a complex issue in such contexts as Wikipedia. This rises from several forces that are contested: from a power hierarchy of different user access levels, from the egalitarian ethos of participation, mixed with somewhat anti-elitist/anti-expert culture. Thus I will not put my head into the leadership guillotine, but I kindly encourage others to do this.

In conclusion, I define readers as the (passive) consumers of content. Contributors communicate in the front narrative, i.e. they perform their edits mainly on article pages. Collaborators communicate in back narratives, such as talk pages, and community discussion threads. Leaders are trusted privileged members taking care of policing, cleaning and facilitating.

This study is exclusively interested in the collaborator-category, which has been defined to reside largely in the back narratives. Thus studying Wikipedia collaboration is about studying back narratives.

	Reader	Contributor	Collaborator
Front narrative	X	X	
Back narrative			X

Table 3 - Collaboration is (mainly) a back narrative activity

I am confident that we can pronounce Wikipedia as a fruitful garden for textual analysis efforts. As all data[12] in Wikipedia is publicly available to everyone, the replicability requirement is relatively easy to fulfill. Also, it should be acknowledged that several scholars have argued for openness of data, data sharing, and reuse practices as key to the progression of the whole information systems discipline (Lyytinen, 2009; van Osch & Avital, 2010).

Finnish Wikipedia consists of following namespaces:

Namespaces in Finnish Wikipedia			
Basic namespaces		**Talk namespaces**	
0	Main (Pääavaruus)	1	Main Talk (Keskustelu)
2	User (Käyttäjä)	3	User Talk (Keskustelu käyttäjästä)
4	Wikipedia (Wikipedia)	5	Wikipedia Talk (Keskustelu Wikipediasta)
6	File (Tiedosto)	7	File Talk (Keskustelu tiedostosta)
8	MediaWiki	9	MediaWiki Talk (Keskustelu

[12] Wikipedia ran initially on UseModWiki software. After the first year, the software platform was changed to MediaWiki, which has been used since then. As an unintended consequence of the software transition, data from 2001 was lost. For a long time this early data was thought to have disappeared forever. However, in December 2010 this data was found from a backup file. Therefore, all data, every single edit made in the history of Wikipedia, is freely and publicly available.

	(Järjestelmäviesti)		järjestelmäviestistä)
10	Template (Malline)	11	Template Talk (Keskustelu mallineesta)
12	Help (Ohje)	13	Help Talk (Keskustelu ohjeesta)
14	Category (Luokka)	15	Category Talk (Keskustelu luokasta)
100	Portal (Teemasivu)	101	Portal Talk (Keskustelu teemasivusta)
	Metapage (Metasivu)		Metapage Talk (Keskustelu metasivusta)
108	Book (Kirja)	109	Book talk (Keskustelu kirjasta)
Virtual namespaces			
-1	Special (“Toiminnot”)		

Table 4 - Namespaces in Finnish Wikipedia. The color coding implies which namespaces represent front narratives (0) and back narratives (1, 3, and 4) in the applied theoretical framework. The other namespaces constitute less than 10 percent of edits in the sample, and those are not considered further.

Which of these should be labelled as front narrative activities and which as back narrative activities? I will not even attempt to map each namespace 1:1 under these two concepts. For the purposes of this thesis, focusing on four namespaces is sufficient. Namely, the ‘Main’ namespace is the place for all encyclopaedic content, i.e. the articles, and thus represents the front narrative. The ‘Talk:Main’ namespace contains discussion pages that are counterparts to each individual article pages in the Main namespace. Thus the Talk:Main namespace could be defined as a back narrative, but one that is collocated with the front narrative. Subsequently, the Talk:User namespace is dedicated to talking to, and between, particular users. Thus it can be categorized as a back narrative that is user-centered.

The ‘Wikipedia’ namespace, also known as the ‘Project’ namespace, contains **“**many types of pages connected with the Wikipedia project itself: information, policy, essays, processes, discussion, etc.” (http://en.wikipedia.org/wiki/Wikipedia:Namespace 3.8.2011). “Pages in this namespace will always have the prefix **Wikipedia:**. They can also be reached by alias **WP:** or the standard (for any MediaWiki site) prefix **Project:**.” (http://en.wikipedia.org/wiki/Wikipedia:Project_namespace 3.8.2011). The description of this namespace can be roughly summarized as “community-level collaboration.” For that reason, I chose the namespace as the focus on the genre analysis.

Together these four namespaces (Main, Talk:Main, Talk:User, and Wikipedia) constitute more than 90% of all edits in the collected sample. Thus it can be argued that the analysis of these four constitutes a representative view, and not much is left outside.

3.3 Interviews

This section describes the methodology for how the interviews were conducted. Interviews were planned according to the seven steps defined by Kvale & Brinkmann (2009): thematizing, designing, interview situation, transcription, analysis, verification and reporting. As semi-structured qualitative interviews, the focus is on knowledge expressed in normal language, without an aim at quantification. The interviews were planned in order to get to know the life world of the interviewees: what, how, and why do they collaborate within the Finnish Wikipedia community. As an interviewer, I attempted to register and interpret the meaning of what was said as well as *how* it is said. I tried to accomplish *deliberate naivité*, staying open to “new and unexpected phenomena, rather than having readymade and schemes of interpretation” (Kvale & Brinkmann, 2009, p. 28).

I have never "become a native" (Geertz, 1974) in the Wikipedia editor circles, especially when collaboration is considered.[13] I have been a registered Wikipedia member since July 2004, used Wikipedia as an information source for years, and having read many academic articles about Wikipedia. Therefore, the *deliberate naivité*[14] came out naturally, as I have some level of knowledge of Wikipedia. My commitment to Wikipedia was not too deep so I could easily ask intentionally 'stupid' questions. The interpersonal interview situations were offered as positive experiences, allowing new enriching insights arise, for both the interviewee and interviewer. The interviews bore similarities to what Schultze & Avital (2011) call "appreciative interviews," though I was not aware of this concept at the time I conducted them.

I used the 'top 100 list of Finnish Wikipedians by number of edits'[15] as a starting point to contact potential interviewees. I assumed that the users with the highest number of edits have the most in-depth knowledge about Wikipedia, being thus capable of reflecting on collaborative issues. (Most likely, many of them would also be the candidates to reflect on leadership issues. However, as stated earlier, leadership is not on the focus of this study.)

Those on the list who had enabled the emailing feature in Wikipedia settings were first contacted by email. 51 interview requests were sent during November and December 2009. 28 Wikipedians did not reply. 8 answered, but declined to participate. 16 Wikipedians accepted the request. The interviews with three of them could not be arranged, because of scheduling conflicts. One more interviewee was recruited by snowballing technique, i.e. one contact person had recommended that we should interview this person as well. In the end, a total of 14 interviews were conducted.

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[13] During my eight years as a registered Wikipedia user, I've contributed only 20 total edits in the 'Wikipedia' namespace. http://toolserver.org/~tparis/pcount/index.php?name=arrto&lang=fi&wiki=wikipedia 8.11.2012

[14] In qualitative interviews a certain degree of naïvity is considered good, so that the interviewer is sensitive to interviewees' answers. Lack of naïvity can lead to bias and reinforcement of interviewer's presuppositions.

The original plan was to conduct all interviews in face-to-face settings in Finland. Eventually, 11 of the interviews took place face-to-face in various restaurant locations around Finland. Six in Helsinki, two in Turku, three in other cities and towns around Finland, and one in Norway. One interview was planned to be in Jyväskylä, but because of scheduling challenges, it was organized later as a telephone interview. Additionally, one interview was done through videoconferencing, using Adobe Connect Pro software. These two non-face-to-face interviews were conducted similarly to other interviews. I was conscious that the use of a different medium may disturb the interview, causing some possible bias (Kazmer & Xie, 2008). However, I think all the interviews were conducted in a relatively similar manner. There should be no risk that the interview situation would have affected the results. All interviews were conducted by me in Finnish, which is the native language of everyone involved in these interviews.

The interviews lasted from 1,5 hours to 3 hours each. Every interview followed the same interview guide. The purpose was to let the interviewee speak openly about their Wikipedia membership and usages, without me as the interviewer pushing any kind of an agenda. This was achieved by starting with general-level introductory questions, added with follow-up questions and probing questions. In the later part of the interviews more direct and structured questions were asked (Kvale & Brinkmann, 2009, pp. 135-136). The interviews were tape-recorded and transcribed. After each transcription, a short summary about the interview was written, containing information that could not be read in the transcription; how the transcriber had experienced the transcription process and what the general perception was like about the content and validity of the interview. In addition to myself, three others were involved in the transcription part of the interview process. These transcriptions consist of about 300 pages of data in total.

[15] http://fi.wikipedia.org/wiki/Wikipedia:Luettelo_käyttäjistä_muokkausmäärän_mukaan 1.11.2009

Five of the fourteen interviewees were Wikipedia administrators at the point of the interviews. One of the interviewees had previously been an administrator, but had quit because he found it restricting. Later, in 2010, one interviewee gave away his administrator privileges voluntarily.

4. Literature Review on Wikipedia Research

This chapter offers a review of the extant knowledge base. This review is exclusively focused on studies concerning community and collaboration in Wikipedia. One might ask if there are relevant studies in other areas, for example in open source software development or other types of online communities. My answer is that it is possible that there are, but there are also four strong reasons to limit the review exclusively to Wikipedia studies. First of all, the body of scholarly research on Wikipedia is more than sufficient to be used as a basis for a literature review (Okoli, et al. 2012). The amount of academic Wikipedia-related studies is counted in thousands. Thus the number of studies is sufficient enough for the purposes of a doctoral thesis (Okoli & Schabram, 2010, p. 4). Second, while Wikipedia is one instance of wiki technology application, it should not be taken for granted that the experiences from Wikipedia apply to other cases of wikis, or vice versa. For example, Poole & Grudin (2010) have reported how various issues in Wikipedia "do not generalize to enterprise settings" (p. 4). Third, Wikipedia research has found its home in various conferences that originate in the areas of Computer Supported Cooperative Work (i.e. the CSCW conference), office automation (i.e. the GROUP conference) and human-computer interaction (i.e. the CHI conference). It is not clear, at least not to me, which part of the history of CSCW, office automation, and human-computer interaction is relevant in the contemporary setting of Wikipedia. Grudin (2010) describes that when the CSCW term was coined in 1985, "systems capable of supporting groups were mainly affordable in corporate work settings." (p. 38). Grudin adds that the North American CSCW communities have already accepted research about "social uses of technology outside of workplaces", while "many Europeans are reluctant to move away from the 'big W' work focus" (p. 40). Fourth, while Wikipedia is based on a form of voluntarism, user-contributed content and self-organization, it is not all that clear whether experiences from other similarly "ideologized" projects translate to Wikipedia. Even if they do, each project has special characteristics of its own, which do not necessarily exist in Wikipedia editing.

For example, the special nature of open source software development is here pointed out by Paul Duguid:

> *"My underlying argument is that the social processes of Open Source software production may transfer to other fields of peer production, but, with regard to quality, software production remains a special case. As Weber (2004) has argued, Open Source software development itself is not the self-organizing system it is sometimes imagined to be. Not only is it controlled from below by the chip on which code must run, but projects are also organized from above by developers and maintainers whose control and authority is important to the quality of the outcome."*[16] *(Duguid, 2006)*

This review is conducted using the RtL framework (Preece & Shneiderman, 2009) as the organizing framework. More specifically, the *collaborator* category of framework is applied to narrow down the essential studies from the abundant pool of Wikipedia research. The first subsection discusses studies that touch the Wikipedia community, and thus concern my research questions 1-3. The second subsection involves studies that focus on collaboration, and therefore deal with my research questions 4-6.

4.1 Wikipedia as an online community

The name Wikipedia is derived from two words: wiki and encyclopedia. Wiki is a technology and a type of website that, as defined by Encyclopaedia Britannica, "can be modified and contributed to by its users."[17] However, "Wikipedia is not just an encyclopedia but can be viewed as anything from a corpus, taxonomy, thesaurus, hierarchy of knowledge topics to a full-blown ontology" (Medelyan, Milne, Legg, & Witten, 2009, p. 750). Wikipedia can be used and studied from many angles. A

[16] There is no page number for this direct quote, because the article was published in an online journal.

[17] http://www.britannica.com/EBchecked/topic/1192819/wiki (28.2.2013)

forthcoming review I am involved in (Okoli et al., 2012) categorizes Wikipedia research into six major orientations: general, participation, content, readership, infrastructure, and corpus. The current review is much narrower in scope. Here I shall inspect what kind of community Wikipedia is.

The people who regularly contribute to Wikipedia are often seen to form a community (Hara & Shachaf, 2009). In addition, Wikipedia has been depicted as a fluid online collective (Gerald C. Kane, Majchrzak, Johnson, & Chenisern, 2009) and as a social movement (Konieczny, 2009b). In this thesis, we are happy with the label 'online community.' Pentzold (2011) defines Wikipedia as an ethos-action community: one that is "formed by individuals sharing basic views on aims, values, and norms. These attitudes become apparent and assessable in their performances." (p. 9) Royal & Kapila (2009) also note that "Wikipedia is more a socially produced document than a value-free information source. It reflects the viewpoints, interests, and emphases of the people who use it" (p. 146).

The content-production model has also been depicted as 'good faith collaboration' (Reagle, 2010b), one that is based on a set of shared norms supporting productive and enjoyable collaboration. According to Matei & Dobrescu (2011), the culture of Wikipedia is based on pluralist and non-hierarchical values, and ambiguity is a central ingredient. They describe that the community's ambiguous nature is also a source of disagreement and interpersonal clashes. The wiki technology is seen as particularly suitable to the norm/ethos-based collaboration. Wikis "are capable of supporting a broader range of structures and activities than other collaborative platforms" (Butler, Joyce, & Pike, 2008, p. 1101).

It is debatable whether Wikipedia is (just) an online community, but it is unquestionable that there is an online community within.

4.2 Collaboration in Wikipedia

Early Wikipedia research articles emphasized the role of Wikipedia founders in actual "wikiwork" and as role models to other Wikipedians (Reagle, 2007). While there is still some authority-based governance, especially concerning the public role of Jimmy Wales and other Wikimedia Foundation personnel,[18] recent research has pointed out decentralization of governance practices as the userbase has grown (Forte, Larco, & Bruckman, 2009).

By analyzing the longitudinal actions of Wikipedia members, Panciera et al. (2009) propose that power users "are born not made" (p. 51). That is, already the initial commitment to the community will predict a particular user's future activity level and type in the long run. However, Kittur et al.'s (2006) study suggests that "although Wikipedia was driven by the influence of 'elite' users early on, more recently there has been a dramatic shift in workload to the 'common' user" (p. 1). Subsequently, Kittur et al. (2007) demonstrated that administrators in English Wikipedia used to contribute more than half of all content edits, but as the community has grown, their contribution level has declined to around ten per cent.

Welser et al. (2011) studied the division of four kinds of roles among users: substantive experts, technical editors, vandal fighters, and social networkers. They compared "two samples of Wikipedians: a collection of long term dedicated editors, and a cohort of editors from a one month window of new arrivals" (p. 122). They concluded that the role divisions in these two samples were "similar". Thus, despite the growth and the change of the website, the sustainability of the community is ensured by the sustainability of role divisions. Similarly, Arazy et al. (2011) stated that "groups should maintain a balance of both administrative and content-oriented members, as both contribute to the collaborative process." (p. 73)

[18] The influence of the founding father(s) is most apparent in English Wikipedia. Jimmy Wales never participated in other language Wikipedias, and thus his power on these is indirect, at best.

Kittur & Kraut (2008) make a distinction between explicit coordination, "in which editors plan the article through communication," and implicit coordination, "in which a subset of editors set direction by doing the majority of the work." They found out that both types of "coordination improved quality more when an article was in a formative stage" (p. 1). In the terminology of this thesis, explicit coordination takes place in the back narratives, while implicit coordination is located within the front narrative.

Several studies have focused on deliberative, dialogic (or even trialogic (Paavola & Hakkarainen, 2007)) collaboration. Wikipedia is observed to challenge traditional 'monologic' expertise, "by facilitating an ongoing chain of interdependent and multivocal 'utterances'" (Hartelius, 2010, p. 505). Benkler & Nissenbaum (2006) appreciate the "self-conscious use of open discourse, usually aimed at consensus, and heavy reliance on social norms and user-run quasi-formal mediation and arbitration, rather than on mechanical control of behavior." (p. 379) In addition, Benkler & Nissenbaum (p. 398) note that "Wikipedia requires much more than mere mechanical cooperation among participants. It requires a commitment to a particular approach to conceiving of one's task, and a style of writing and describing concepts, that are far from intuitive or natural." Cimini (2010) points out the beauty of this potential for dialogic knowledge construction, in Wikipedia and other platforms that facilitate the production of user generated content.

> *"Online deliberation has the capacity to accentuate that which is normally implicit in the construction of 'truth' and social meaning: namely, the dialogicality of the word (the open-ended processes of conflict, struggle, and change over linguistic interpretation.) Almost every article on Wikipedia (indeed, almost every opinion, 'fact,' and image) is the product of widespread dialogue and knowledge aggregation or suppression. Web 2.0 applications, therefore, signal a rebellion against exclusivity in knowledge construction and, in so doing, may bring to the fore the inner workings of debate and discussion on any given topic." (p. 410)*

Hansen et al. (2009) introduce how "the discussion pages are the site where the true discursive action between Wikipedia editors emerges" (p. 46). This article concludes that Wikipedia "illustrates the positive potential of information systems in supporting the emergence of more emancipatory forms of communication" (p. 38). In addition, "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" (p. 53).

Norms are defined as "specific but tacit standards of what is socially and individually acceptable" (Vickers, 1973, p. 103). In contrast, policies are explicit standards for the same purpose. Reagle (2010a) surveyed the English Wikipedia policy pages, and found a total of 686 different pages related to policy. Of these, 104 pages were in an imperative mode, germane to one's interactions with Wikipedia contributors and were comprehensible. "The multiple voices that contribute to shaping Wikipedia policies are in a state of latent conflict, which is partially offset by ambiguity" (Matei & Dobrescu, 2011, p. 49). Policies are "employed as contributors work towards consensus", to "help build a stronger community" (Kriplean, Beschastnikh, McDonald, & Golder, 2007, p. 167). However, "ambiguities in policies give rise to power plays" (Ibid). In the middle of such abundance of policies it is no wonder that some users feel there is too much bureaucracy (Müller-Seitz & Reger, 2010). However, while policies are important to the ethos-action community, they are not strict 'laws.' It is generally preferred to follow the 'spirit' of the norm instead of the 'form' of the policy, whenever there is a conflict between the two. For example McGrady (2009) studied a policy called "gaming the system," which means "using Wikipedia policies and guidelines in bad faith, to deliberately thwart the aims of Wikipedia and the process of communal editorship."[19] Forte et al.'s study (2009) also points out that Wikipedia policy pages are as editable wiki pages as any other pages in

[19] http://en.wikipedia.org/wiki/Wikipedia:Gaming_the_system

Wikipedia. This allows the policy pages to be changed, or even vandalized. In the words of an ArbCom member they interviewed, policies "cannot really reflect exactly what is right" (p. 57).

Part of the ethos of Wikipedia is to show signs of appreciation to other participants from valued work. One form of this is a "barnstar" – a "diploma" that is attached to the user page. This valued work is not only given for article editing, but also for social support, administrative actions, and types of articulation work (Kriplean, Beschastnikh, & McDonald, 2008). In addition, Ashton (2011) discussed self-awarding through 'service awards,' a sign on a user's profile page denoting time served and number of edits made. Goldspink (2010) studied the "discussive" editing styles of Wikipedians. He found that despite the fact that mutual encouragement is clearly supported by the Wikipedia etiquette, that it rarely happens in communicative interactions. Instead, the style of communication is most often non-collegial. This shows that, despite the presence of policies and guidelines, it is not guaranteed that users adjust their behaviour accordingly.

Stvilia et al. (2008) note that non-encyclopedic content has taken a greater percentual share of all communication. New information quality tools and

> *"artifacts (bots, Wikiprojects, templates, best practice guides) are continually created to promote consistency in the content, structure, and presentation of articles. Indeed, although the article share in Wikipedia pages decreased from 53% in March 2005 to 28% in September 2007, the shares of templates, projects, and, especially, user discussion pages grew significantly" (p. 1000*).

This demonstrates the emerged importance of back narratives.

Kostakis (2010) discusses two "political parties" within Wikipedia: "inclusionists" and "deletionists." Inclusionists support a broad and varying selection of article themes, while deletionists emphasize quality of articles, and thus a more careful filter for content. Kostakis argues that inclusionism fits better to the peer

governance model, because the characteristics of the model are “equipotentiality, heterarchy, holoptism, openness, networking, and transparency.”

In January 2011, The New York Times reported how Wikipedia was suffering from a major gender imbalance, with a dominantly male contributor crowd (Cohen, 2011). Lam et al. (2011) took a scholarly look at Wikipedia in light of this statement, and confirmed this as a factual claim. The authors concluded that "there is a substantial male-skewed gender imbalance in English Wikipedia editors that does not appear to be closing at any appreciable rate" (p. 9). They also found some hints of "a culture that may be resistant to female participation" (Ibid.). Applying Preece & Shneiderman’s (2009) RtL categories, Lam et al. looked at how gender balance differed in different levels of engagement. Lam et al. did not look at readership, but referred to a Pew Internet study where the male-female readership division was found to be roughly 53% to 47% (Zickuhr & Rainie, 2011). Interestingly, “Wikipedia is much less successful in ‘converting’ female readers than male readers,” with only 16 per cent share of female contributors (Lam et al., 2011, p. 9). What is particularly enlightening for the current thesis, female contributors “edit more in the User and User Talk namespaces, indicating a potential interest in collaboration,” while they also “stop editing Wikipedia sooner than males” (Ibid.).

Some topics are more likely to invite bellicose behavior than others. For example, Biographies of Living Persons (BLP) can be “flammable materials,” i.e. editing BLP articles leads easily to user conflicts (Joyce, Butler, & Pike, 2011). Therefore, the “Wikipedia community is faced with the complex problem of creating systems of policies and procedures that apply risk minimization, reduction, and containment strategies in order to keep the risk and consequences of these contentious objects at an acceptable level” (p. 30). In a similar line of though, Yasseri et al.’s (2012) study showed how “conflicts and editorial wars … consume considerable amounts of editorial resources” (p. 11). However, they also “demonstrated that, even in the controversial articles, often a consensus can be achieved in a reasonable time,

and that those articles which do not achieve consensus are driven by an influx of newly arriving editors and external events" (p. 11).

Shachaf (2009) studied a question-and-answer forum within Wikipedia known as the Reference Desk. She compared the quality of answers to those of professional librarians. She concluded that the quality "is similar to that of traditional reference service. Wikipedia volunteers outperformed librarians or performed at the same level on most quality measures. The similarity in quality levels between the two services instantiates the paradox of expertise; the amateur crowds provide answers that are as good and even better than librarians do." (p. 989) Hoffman & Mehra (2009) studied the dispute resolution process by assessing over 250 arbitration opinions in English Wikipedia. They concluded that "Wikipedia's dispute resolution ignores the content of user disputes, and focuses on user conduct instead. (…) In effect, the system functions not so much to resolve disputes and make peace between conflicting users, but to weed out problematic users while weeding potentially productive users back in to participate." (p. 151).

In a study conducted within the Simple English version of Wikipedia[20], Den Besten & Dalle (2008) took a look at how the community keep the articles "simple." They found that "the labeling of pages as 'unsimple' by core members of the community plays a significant but seemingly insufficient role" (p. 169). They suggest that "relatively simple metrics could go a relatively long way to help the community analyze and monitor the process of tagging" and "that it would be feasible to build appropriate bots, and perhaps a community companion as an editorial assistant for the management and maintenance of collections of this kind." (p. 177)

Wiki collaboration is not just human activity, but also largely socio-material interaction. Indeed, non-human agents, software tools and bots are also an important part of what makes Wikipedia tick. Niederer & van Dijk (2010) argue that Wikipedia

[20] http://simple.wikipedia.org

is not only based on so-called "wisdom of the crowd," but it is also a product of fully automatic software programs taking care of different tasks. Generally speaking, the smaller a Wikipedia language edition is, the greater percentage of content is produced by bots (Niederer & van Dijck, 2010, pp. 1381-1382). Geiger & Ribes (2010) also noted that "technological tools like bots and assisted editing programs have a significant social effect on the kinds of activities that are made possible in Wikipedia" (p. 9). In particular, they demonstrated how a vandalism-prevention process takes place not only between human agents, but also between human agents and software bots. In addition, bots can suggest suitable tasks that fit each contributor's interests (Cosley, Frankowski, Terveen, & Riedl, 2007).

Bryant et al.'s (2005) study explored how participation changes when members progress from Wikipedia novices to experts. They found that talk pages play the most central role in interaction between users. "Although the study participants said that they had occasionally emailed other Wikipedians, they all stated that talk pages were their primary communication medium. Beyond discussion pages for articles, Wikipedia offers discussion pages linked to individual user pages and the Village Pump, the community area where Wikipedians discuss policies, general Wikipedia issues, and user help." (p. 6).

Few studies have focused on Wikipedia-related activities occurring outside the Wikipedia website. While Antin's (2011) study is not one of face-to-face Wikipedia collaboration, it provides us useful insight on why there might be a high barrier for face-to-face interactions to occur. He interviewed potential Wikipedia contributors from the San Francisco Bay Area in order to study assumptions about active Wikipedia contributors. Few of the study informants knew personally any contributors, but all had an idea about what kind of people Wikipedians are. The perception was often a negative 'geek' stereotype. The interviewees "either could not identify as an active contributor or would not want to" (p. 3419).

McCully et al. (2011) focused on offline-online participation dynamics in the "wiki-like" site Everything2.com. They found out that participation in offline

meetings has a negative effect on online participation. The authors were not exactly sure how to explain this finding. They speculated that offline-event participants "may have taken on more serious governance and administration roles" instead of content contribution, or that "finding long-term friends… at the events … could be considered as an even more positive outcome of the site than the content on it" (p. 47).

Almost no publications have looked at the role of mailing lists, email, or IRC, in supporting wiki collaboration. In a case of extra-Wikipedia data collection, such as Pentzold's (2011) article which analyzed discussions of the Wikipedia-L mailing list, the interest is not on collaboration but on something entirely different.

So what does the extant knowledge base contain about collaboration, in total? As a synthesis, a lot is known about collaborators. We know about policies needed in collaboration and contributions. Similarly, much is known about deliberative practices, but those are currently limited to article talk pages. What *is* missing is an analysis about deliberative practices that are not collocated with individual articles. More generally, the current studies are taking collaboration largely for granted. Thus, there is a research gap in mapping out what collaboration actually is, especially in areas other than article talk pages.

Almost no research has been conducted thus far on wiki collaboration outside of the Wikipedia platform. There are no studies concerning the use of IRC, mailing lists, email, etc., in support of wiki collaboration. As this is a completely unmapped territory, it opens us opportunities to explore.

5. Findings

The findings of this study are presented in this chapter. The section 6.4 is based on the genre analysis. The other sections are based on the interview data. Each research question is mapped in each section in table 5 below.

RQ	Research Question	Chapter
#	*What characterizes collaboration in online communities?*	
1	*What is the past and present of Finnish Wikipedia?*	5.1
2	*How exclusively do users participate in Finnish Wikipedia, or do they also participate in other language editions?*	5.2.
3	*How do members perceive the autonomy of Finnish Wikipedia?*	5.3
4	*What types of non-article content have been enacted by collaborators?*	5.4
5	*What types of communication exist in the 'Wikipedia namespace'? Do these change over time?*	5.5
6	*What collaboration exists outside the Wikipedia platform, and how is this collaboration enacted and perceived?*	5.6

Table 5 - Research questions posed in this thesis

In this chapter, Finnish Wikipedia is presented as an instantiation of the Wikipedia franchise, and as the context of this study. The first section presents Wikipedia in general, and the subsequent section presents key characteristics of its Finnish language edition.

5.1 The Past and Present of Finnish Wikipedia (RQ1)

In this section I present key aspects of the history and the current status of Finnish Wikipedia. As Finnish Wikipedia is an instantiation of the global Wikipedia franchise, first we take a more general look at the history of Wikipedia, the biggest encyclopedia in world history. After that, we proceed to analysing Finnish Wikipedia.

"Encyclopedias have been the traditional print attempts to cover all knowledge." (Snyder, 1997, p. 21). One representative example of a classic encyclopaedia is *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers* (Diderot & d'Alembert, 1751-1765). It was the first jointly-authored broad-content encyclopedia, and an important instrument in the French Revolution. The *Encyclopédie* contributors featured dozens of noted figures of the French enlightenment era, such as Voltaire, Rousseau and Montesquieu. (Blom, 2005)

Since at least the mid-nineteenth century, there have been attempts to create a hypertext-based encyclopedia that would overcome the limits of plain alphabetical ordering of information (Coleridge, 1849). With the popularization of internet-based services during the last two decades, it is not surprising that digital encyclopedias have become more popular than their traditional paper counterparts. The creation, presentation, distribution, organization, and editing of information is much more cost-effective and practical on computer-based platforms. Already in late 80s the first digital encyclopedias, such as Grolier's, started to emerge. These first digital encyclopedias did not take full benefit of the digital media's capabilities, but were mere transformations of paper books (Snyder, 1997, p. 22). During the 90s computer-based encyclopedias started to make larger use of hypertext, eventually displacing

paper books. Hypertext is seen to fit better to the contemporary view that reality is not a hierarchy but "a network of interdependent species and systems" (Bolter, 1991, p. 92).

The Web 2.0 movement – also labelled as "collaborative web," "participatory web," " mass collaboration" (Tapscott & Williams, 2006), and "peer production" (Benkler, 2007) – has revolutionized the encyclopedia market. Wikipedia – "the free encyclopedia that anyone can edit" – has become almost synonymous to the modern encyclopedia. While being a source to various types of criticisms and doubt, Wikipedia has proven to be a sustainable open content production concept. Now in 2013, Wikipedia has moved well into its second decade.

During its first decade, Wikipedia achieved a spot among the top ten most popular websites in the world[21], and become the most successful implementation of the wiki concept (Kozinets, 2010, p. 86). It is one of the rare instances among the top 100 most popular websites that is run by a non-profit organisation. Most impressively, Wikipedia has become the biggest encyclopaedia in world history. If Wikipedia would be a private venture, its market value would be around $5 billion, according to some estimates (Burrell, 2010). Driven by one of the world's biggest online communities, it has achieved almost a monopolistic position on the encyclopedia market (East, 2010). According to January 2009 statistics from online intelligence company Hitwise, Wikipedia has 97% of all online encyclopedia visits on the web (Hopkins, 2009). While the progress has been astounding in terms of size, popularity and other numeric aspects, Wikipedia has also been noted for its quality. Already in 2005 a group of experts validated articles in the English Wikipedia to be of comparable quality to articles in Encyclopaedia Britannica (Giles, 2005).

Wikipedia emerged as a successor to another online encyclopedia project, Nupedia, in early 2001. Nupedia was launched as an expert peer review encyclopedia,

[21] On July 28, 2010, Wikipedia was ranked globally the 7th most popular site by Alexa: http://www.alexa.com/topsites. In Finland, Wikipedia was 6th: http://www.alexa.com/topsites/countries/FI.

but failed to gain popularity. Something had to be done to improve the concept, and the transition to wiki technology played a significant role in this. To understand the decisions Wikipedia pioneers took in the early stages, we must remember the macro-economic environment of that time. Just a couple of years earlier virtually any internet-related business idea gained easy venture capital financing, but by 2001 the internet bubble had burst. It was a period where building a successful web service meant finding non-monetary means of problem solving. In a November 2010 episode of the BBC technology programme Click, Wikipedia founder Jimmy Wales described the origins:

> *"Wikipedia was born out of the dot-com crash. And, there were points in time when we had some problem on the website, where the natural instinct… had we had 10 millions dollars in funding, would had been 'Oh, we need to hire some moderators, we are gonna have to have a team of moderators.' And so, you could easily imagine going on a path where after a few years, we end up with a system that requires 500 paid moderators monitoring everything. But instead, we did not have that. We said that we have these problems, so we have to figure out how do we develop social systems and community-based systems to resolve these issues. What are the rules that you need? Well, we need administrators. How do we make sure they are not tyrants? Oh well, there have to be some rules, and those rules have to be enforceable in some way, and there has to be openness and dialogue of those things." (BBCNews, 2010)*

While the economic turmoil played a significant role in Wikipedia's decision-making in the early years, there were several other aspects that shaped the site into what it is today. One of these aspects is known as "The Spanish Fork." Forking means splitting an open source or open content development project into independent parallel projects (Cheliotis, 2009). Forking is attributed to "ego-related infighting," which at worst case might "cause the death of both initial and forked projects" (Bezroukov, 1999). In 2002, Wikipedia founders Jimmy Wales and Larry Sanger were openly discussing the possibility of generating income through advertising in

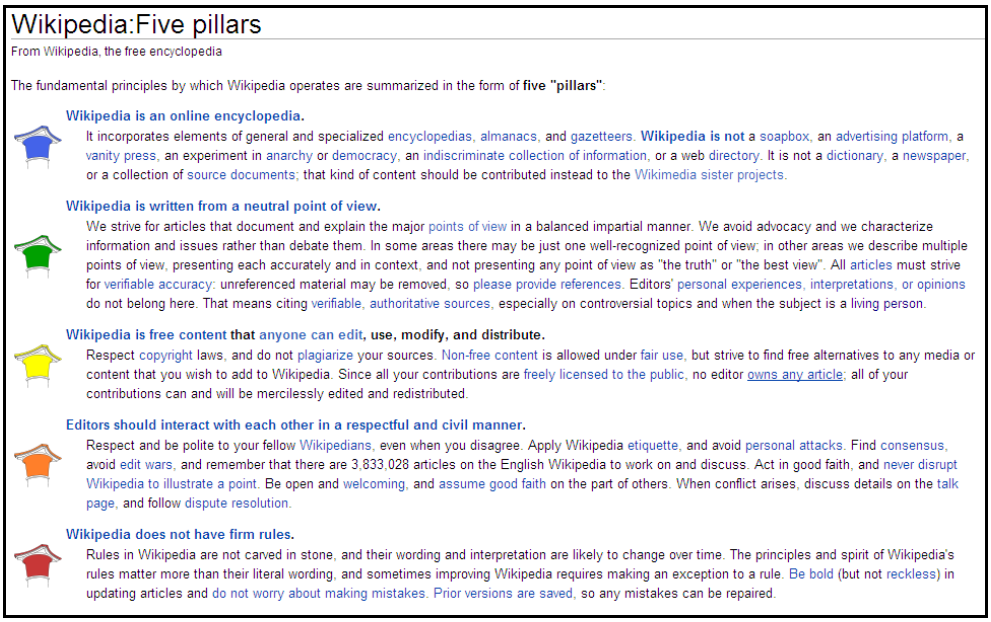
Wikipedia. This, among some other issues, frustrated the core Spanish Wikipedia contributors to the extent that they quit Wikipedia in order to found a competing encyclopedia website Enciclopedia Libre Universal, ELU (Tkacz, 2011b). The open licence of Wikipedia allows anyone to start a competing website at any given time, using Wikipedia content. While eventually the Spanish Wikipedia revitalized itself and has become much larger than ELU, The Spanish Fork was nevertheless a warning sign that the community might suffer if value-incompatible decisions were made. After this forking event, neither major forks occurred, nor advertising been considered as a feasible way to fund Wikipedia. (Gehl, 2010)

After Wikipedia grew beyond the initial English instantiation of the concept, other language Wikipedias were explicitly given autonomy of their own. When Wikipedia started in 2001, the idea was already to become multilingual. "Even back in the first month, some contributions were filed in languages other than English, though the community didn't really know what to do with them." (Lih, 2009, p. 139) Some months later, German, French, and Spanish Wikipedias were established as independent but interlinked entities.

> *"A common misconception in the world is of an Interwiki-linked Wikipedia where hopping from language to language for a given article necessarily brings up the same translated content. A decision was made early on to allow for different language communities to decide on their own flavour of neutral point of view, and also to allow the language culture to come through. Sometimes articles in German Wikipedia were translations of English ones, sometimes vice versa, but sometimes articles on the same subject were quite different." (Lih, 2009, p. 140)*

While all Wikipedia instantiations are autonomous and different from each other, there are commonalities beyond the shared web domain and wiki software. All Wikipedia instantiations share the basic principles of what Wikipedia is and what it should be. These are summarized as the Five Pillars: 1) Wikipedia is an online encyclopedia; 2) Wikipedia is written from a neutral point of view; 3) Wikipedia is

free content that anyone can edit, use, modify, and distribute; 4) Editors should interact with each other in a respectful and civil manner; and 5) Wikipedia does not have firm rules. (See Fig 4).



Wikipedia:Five pillars

From Wikipedia, the free encyclopedia

The fundamental principles by which Wikipedia operates are summarized in the form of **five "pillars"**:

Wikipedia is an online encyclopedia.

It incorporates elements of general and specialized encyclopedias, almanacs, and gazetteers. **Wikipedia is not** a soapbox, an advertising platform, a vanity press, an experiment in anarchy or democracy, an indiscriminate collection of information, or a web directory. It is not a dictionary, a newspaper, or a collection of source documents; that kind of content should be contributed instead to the Wikimedia sister projects.

Wikipedia is written from a neutral point of view.

We strive for articles that document and explain the major points of view in a balanced impartial manner. We avoid advocacy and we characterize information and issues rather than debate them. In some areas there may be just one well-recognized point of view; in other areas we describe multiple points of view, presenting each accurately and in context, and not presenting any point of view as "the truth" or "the best view". All articles must strive for verifiable accuracy: unreferenced material may be removed, so please provide references. Editors' personal experiences, interpretations, or opinions do not belong here. That means citing verifiable, authoritative sources, especially on controversial topics and when the subject is a living person.

Wikipedia is free content that anyone can edit, use, modify, and distribute.

Respect copyright laws, and do not plagiarize your sources. Non-free content is allowed under fair use, but strive to find free alternatives to any media or content that you wish to add to Wikipedia. Since all your contributions are freely licensed to the public, no editor owns any article; all of your contributions can and will be mercilessly edited and redistributed.

Editors should interact with each other in a respectful and civil manner.

Respect and be polite to your fellow Wikipedians, even when you disagree. Apply Wikipedia etiquette, and avoid personal attacks. Find consensus, avoid edit wars, and remember that there are 3,833,028 articles on the English Wikipedia to work on and discuss. Act in good faith, and never disrupt Wikipedia to illustrate a point. Be open and welcoming, and assume good faith on the part of others. When conflict arises, discuss details on the talk page, and follow dispute resolution.

Wikipedia does not have firm rules.

Rules in Wikipedia are not carved in stone, and their wording and interpretation are likely to change over time. The principles and spirit of Wikipedia's rules matter more than their literal wording, and sometimes improving Wikipedia requires making an exception to a rule. Be bold (but not reckless) in updating articles and do not worry about making mistakes. Prior versions are saved, so any mistakes can be repaired.

Fig 4 - The fundamantal principles by which Wikipedia operates are summarized in the 'five pillars' http://en.wikipedia.org/wiki/Wikipedia:Five_pillars (22. December, 2011)

Today the English Wikipedia remains by far the biggest language edition, consisting of around two times as many articles as the German, the number two Wikipedia,. Nevertheless, English Wikipedia contributes currently to just 20 % of articles, and 42 % of edits, of all the 279 language editions.[22]

[22] On 4th of February, 2011, English Wikipedia had 3,548,111 articles and 442,261,750 edits. In comparison, German Wikipedia had 1,184,736 articles and 88,072,249 edits. All 279 language editions consisted of 17,818,921 articles and more than 1.06 billion edits in total. http://meta.wikimedia.org/wiki/List_of_Wikipedias (4.2.2011)

A famous quote from a pre-Socratic Greek philosopher Heraclitus states that "you cannot step twice into the same river." One can replace 'river' with 'Wikipedia,' and the sentence still remains true. Wikipedia, taglined as "the free encyclopedia that anyone can edit," is under constant change. New articles are created every second, while existing articles are also continuously edited. While Wikipedia consists of a large body of *content*, it is also *communication*. Wikipedia is at the same time the end and the means, representing dualistically the *product* and the *process*.

In addition to the abundance of front narrative content, Wikipedia has a dynamic back narrative. The site is "suffused with coexisting web of practices, discussion, and policy pages" (Reagle, 2010b, p. 10). Among the multitude of different kinds of online communities that exist on the internet, Wikipedia is considered as "extraordinarily self-reflective" (Ibid.).

On his website Booktwo(.org), blogger James Bridle has presented what he calls a Wikipedia historiography: a documentation of the edit process behind an individual Wikipedia page (Bridle, 2010). He printed the edit-log of the English Wikipedia article 'Iraq war' into multi-volume book format. This content totalled to 12,000 edits, and 7,000 book pages. In this way, it is said, Wikipedia offers two different perspectives for a reader: "one that is front-facing to the reader and one that reveals the behind-the-scenes editing, writing and creative process" (Bilton, 2010).

We now move further to analyzing the Finnish language edition of Wikipedia as an instantiation within the global multilingual online encyclopedia. There are several reasons why I selected Finnish Wikipedia, instead of the English version, as the study subject. First, I wanted to widen the scope of Wikipedia research to other language editions. Virtually every academic study of Wikipedia so far is about the English version, with few exceptions (Okoli et al., 2012). To my knowledge, I am the first scholar to do a PhD thesis based on Finnish Wikipedia. Second, Finnish Wikipedia has been the most familiar instantiation of Wikipedia to me. I have been a registered member of Finnish Wikipedia since July 2004. I have used Wikipedia – both Finnish and English versions – as a reader on daily basis since maybe 2003.

However, I have not been an active contributor. By July 2010, I had done a total of about 500 edits. About half of my edits have been done in 2004, and the other half during 2009-2010. Nevertheless, Finnish Wikipedia is the most familiar version to me. Third, there are between five and six million Finnish-speakers in the world. It is beneficial to study Finnish Wikipedia as an example of an online community where participants are drawn from such a relatively limited pool of human resources. The fourth reason is a practical one. I wanted to interview Wikipedians face-to-face in order to explore how they collaborate. The most convinient way for me to do this was to do it in my native Finnish language, in Finland.

The Finnish Wikipedia is one of the 281[23] different language instances of the Wikipedia concept. Each Wikipedia language edition is a highly autonomous community, having the power to decide on policies and content independent of the Wikimedia Foundation or any other external organizational bodies. More than 90% of people who speak Finnish live in Finland. Due to this, most participants of Finnish Wikipedia also live in Finland (see figure 5).

[23] http://meta.wikimedia.org/wiki/List_of_Wikipedias 9.5.2011

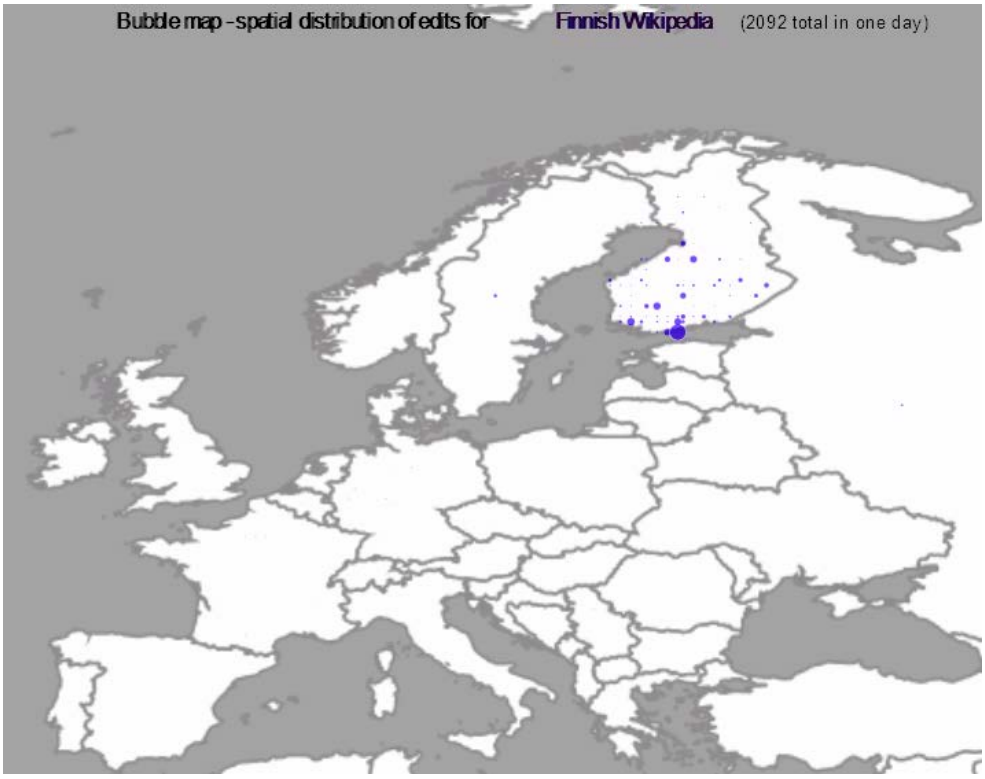


Figure 5 - Bubble map -spatial distribution of edits for Finnish Wikipedia. Screenshot taken from Erik Zachte's visualization tool, which is available at http://stats.wikimedia.org/wikimedia/animations/requests/AnimationEditsOneDayWp.html. I have slightly adjusted the colors to make it more printer-friendly.

The Finnish Wikipedia was initiated one year after the original English version24 in 2002 as an entity separate from the Wikipedia.org domain. During the first year, there was not much development. The following year the site merged under

[24] The official launch day of (the English) Wikipedia is January 15th, 2001. It is annually celebrated among wikipedians as the Wikipedia Day (http://en.wikipedia.org/wiki/Wikipedia:Wikipedia_Day). For detailed descriptions about Wikipedia's early history, see Lih (2009) and Sanger (2006).

the official Wikipedia.org domain.[25] In 2004 the site gained its first growth boost. In February 2004 the site had reached the milestone of 10,000 article edits.

The Finnish media used Finnish Wikipedia as a source for the first time in March 2004. This was a case when the tabloid *Iltalehti* cited the article *Pullamössösukupolvi*[26] in a news piece. During 2004 Finnish Wikipedia got very mild media recognition. The first notable media event occurred in April 2005 when Iltalehti reported an edit war that had occurred on the page of the Finnish politician Jari Vilén.

The policy of featured articles was introduced during the first half of 2004, named as "suositellut artikkelit" (literally: "recommended articles"). The first article to gain that status was Euroopan unioni (European Union) in the end of 2004. The policy of good articles (hyvät artikkelit) was introduced much later, in spring 2007.

The first critical evaluation of the Finnish Wikipedia was reported in December 2005 in a weekly information technology newspaper, *IT-viikko*. In the newspaper piece titled "Älä luota Wikipediaan" ("Do not trust Wikipedia") a group of experts dismissed the quality of almost every article they investigated.

In February 2006 the Finnish Wikipedia reached the milestone of 50,000 articles. This was the first time that a press release written by the Finnish Wikipedia community was widely reported by the Finnish media. Earlier milestones of 10,000 and 25,000 were also reported as press releases, but the media was not yet interested.

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[25] The first version of the fi.wikipedia.org front page was created on October 30th, 2003: http://fi.wikipedia.org/w/index.php?title=Wikipedia:Etusivu&oldid=240

[26] The term 'pullamössösukupolvi' (http://fi.wikipedia.org/wiki/Pullamössösukupolvi) is literally translated as 'dipped pulla generation'. Pulla is a "mildly-sweet Finnish dessert bread flavored with crushed cardamom seeds and occasionally raisins or sliced almonds" (http://en.wikipedia.org/wiki/Pulla). One gets *pullamössö* by dipping pieces of pulla into coffee, milk or other beverage. The term pullamössösukupolvi refers to a generation who has got everything very easily, when compared to the efforts of previous generations. Related terms include "curling generation" and "helicopter parenting". The Iltalehti citation is referred in http://fi.wikipedia.org/wiki/Wikipedia:Aikajana (7.6.2010).

In April 2006, for the first time, an article reached past the number of 1,000 edits. This article was 'Suomen sisällissota' (Finnish civil war). Later in that month *Kymmenen uutiset* ("Ten o'clock news," a daily evening news program on the Finnish television channel MTV3) had a news piece about the Finnish Wikipedia, for the first time in Finnish television.

The milestone of 100,000 unique articles was reached in February 2007. Following achievements of 150,000 and 200,000 were reached in February 2008 and April 2009, respectively.

Currently the Finnish version is ranked as the 15th biggest Wikipedia by the amount of articles[27], 14th by edits[28], 18th by users[29], 16th by active users[30], 12th by images and 19th by depth[31]. The Finnish version is also ranked 17th on the list of Wikipedias by sample of articles[32] and 4th on the list of Wikipedias by speakers per article[33].

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[27] On June 7th 2010 the Finnish Wikipedia had 240,380 articles. The top five are English (3,316,014), German (1,077,729), French (955,990), Polish (705,556) and Italian (694,954). http://meta.wikimedia.org/wiki/List_of_Wikipedias. The Finnish Wikipedia lost its 14th spot to the Catalan Wikipedia in April 2010. http://en.wikipedia.org/wiki/Wikipedia:Wikipedia_Signpost/2010-04-26/Sister_projects

[28] An edit occurs when a user pushes the "save" button anywhere in Wikipedia after making a change, whether it is a minor or a major one. Currently the Finnish version has witnessed 8,812,423 edits. The top five Wikipedias by edits are English (392,111,664), German (78,321,702), French (57,411,430), Spanish (40,236,784) and Italian (36,034,713). http://meta.wikimedia.org/wiki/List_of_Wikipedias (7.6.2010).

[29] 149,960 users. http://meta.wikimedia.org/wiki/List_of_Wikipedias (7.6.2010)

[30] 2,227 active users. http://meta.wikimedia.org/wiki/List_of_Wikipedias (7.6.2010)

[31] Depth is an indicator counted using the formula (Edits/Articles × Non-Articles/Articles × Stub-ratio). According to http://meta.wikimedia.org/wiki/List_of_Wikipedias (7.6.2010) it is "a rough indicator of a Wikipedia's quality, showing how frequently its articles are updated. It does not refer to *academic* quality, which cannot be computed, but to *Wikipedian* quality, i.e. the depth of collaborativeness—a descriptor that is highly relevant for a Wikipedia." Currently the Finnish Wikipedia's depth value is 39. Top five in depth ranking are English (516), Hebrew (206), Arabic (193), Spanish (181) and Turkish (175).

[32] http://meta.wikimedia.org/wiki/List_of_Wikipedias_by_sample_of_articles (7.6.2010). The list is based on a selection of articles every Wikipedia should have: http://meta.wikimedia.org/wiki/List_of_articles_every_Wikipedia_should_have.

[33] http://meta.wikimedia.org/wiki/List_of_Wikipedias_by_speakers_per_article (7.6.2010). This ranking is calculated simply by dividing the (estimated) number of speakers of a language in the world by the amount of articles in that language Wikipedia. The top five is Volapük, Esperanto, Norwegian (bokmål), Finnish and Swedish.

There are currently about ninety wikipedians who have contributed more than 10,000 edits to the Finnish Wikipedia. Seven members have done more than 50,000 edits.[34] Total of 7,6 million article edits have been done, of which 82% are made by registered users. There are a total of 49,402 registered users who have done at least one edit, and 10,700 users who have done more than ten edits. These numbers reflect strong participation inequality (Nielsen, 2006), and are summarized in table 6.

Edits >=	**Wikipedians**		**Edits total**	
1	49402	100.0%	4165049	100.0%
3	20670	41.8%	4119330	98.9%
10	10744	21.7%	4061686	97.5%
32	4644	9.4%	3958516	95.0%
100	2113	4.3%	3821098	91.7%
316	1061	2.1%	3640413	87.4%
1000	533	1.1%	3345221	80.3%
3162	260	0.5%	2859053	68.6%
10000	90	0.2%	1909501	45.8%
31623	21	0.0%	852570	20.5%

Table 6 - Participation Inequality in Finnish Wikipedia. Adapted from http://stats.wikimedia.org/EN/TablesWikipediaFI.htm (9.5.2011)

[34] http://fi.wikipedia.org/wiki/Wikipedia:Luettelo_käyttäjistä_muokkausmäärän_mukaan (7.6.2010)

5.2 Participation in Finnish Wikipedia: Exclusive or Inter-Wiki? (RQ2)

In this section I explore the community boundaries of the Finnish Wikipedia community. The goal is to find out whether collaboration occurs across different Wikipedia language editions, or whether it is limited exclusively within Finnish Wikipedia. The research question is answered through interviews.

Id	Edits	Edited Articles	Privileges	Percentage of Article Edits of All Edits
#1	42 334	19 321	Arbcom	86,60
#2	28 970	20 479	Sysop	80,74
#3	47 535	21 902	Arbcom, Rollbacker	66,25
#4	56 265	15 573	-	63,23
#5	20 300	6 743	-	75,99
#6	31 434	14 105	Bureaucrat, Checkuser, Oversight, Sysop	27,51
#7	15 586	2 307	-	79,11
#8	53 002	34 052	Arbcom, Sysop	51,84
#9	16 720	8 095	-	85,14
#10	21 307	11 208	-	76,61
#11	32 913	13 522	Rollbacker	61,57
#12	162	76	-	91,93

#13	18 307	3 940	Arbcom, Rollbacker	68,80
#14	14 778	4 072	-	65,57

Table 7 - Interviewees' edit activity in Finnish Wikipedia. (17.11.2010)

Based on this small sample, Finnish Wikipedians seem to be dedicated rather exclusively to the Finnish language instantiation of Wikipedia. In most cases when participants had edited something in English Wikipedia, they reported it was in connection to some content in Finnish Wikipedia. Two participants did not have an account in the English Wikipedia. One who had an account, had never done a single edit there. Four had edited less than one hundred times, another four between one hundred and one thousand times. None had user privileges in the English Wikipedia.

Two participants (#3 and #5) had performed more than one thousand English Wikipedia edits, and only one (#5) had more than ten thousand edits: the number of his total edits was over 32 thousand. Interviewee #5 was also the only one who had more edits in English Wikipedia than in its Finnish counterpart. This participant had contributed to controversial article topics in the English Wikipedia. Those contributions had often developed into conflicts with other users. His most active editing periods in Finnish Wikipedia have occurred when he was restricted from editing in English Wikipedia.

> *#5: "The first time I started to write in the Finnish language Wikipedia three years ago, was when I was banned from English Wikipedia. And recently I've become active in the Finnish language edition again, just because of my English Wikipedia account is banned… (laughs)… for one-year."*

Id	Edits	Edited Unique Pages	Privileges	Percentage of Article Edits of All Edits

#1	-	-	-	-
#2	0	0	-	-
#3	1 195	1 052	-	94,05
#4	1 422	878	-	91,11
#5	32 070	13 121	-	78,23
#6	214	193	-	38,76
#7	-	-	-	-
#8	375	276	-	87,78
#9	960	624	-	91,27
#10	88	72	-	85,54
#11	302	250	-	69,58
#12	2	1	-	100
#13	52	27	-	88,46
#14	70	53	-	88,41

Table 8 - Interviewees' edit activity in English Wikipedia. (17.11.2010)

In the interviews it was apparent that most collaborators were largely satisfied with the size and quality of Finnish Wikipedia. This was often stated in the form of 'all things considered, Finnish Wikipedia is pretty good.' This satisfaction also reflected some level of pride of own language, and dedication to their own project. Finnish language does not belong to the group of Indo-European languages unlike most European languages. Instead, it belongs to Finno-Ugric languages (Pereltsvaig, 2012, pp. 39-45). Some answers reflected the importance to contribute content on

your own language, especially when your own language is so distinct from the main stream.

> *#2: "This [Finnish language] belongs to one of the smallest language groups, but it [Finnish Wikipedia] is still one of the most active ones. [...] But then again, English, German, French, all these big languages are in the league of their own – more people, more articles, more pretty much everything. But in my opinion we [Finnish Wikipedia] are doing fine, considering we're such a small population."*

> *#9: "I haven't edited English Wikipedia all that much. Just a little bit. But more than that I've been just reading [it], if I've felt like it. Usually they have longer and better articles [than Finnish Wikipedia has]. That's just how it is."*

The quality of the articles of Finnish Wikipedia was seen to vary. Of course, this is the case with Wikipedia in general, not just a feature of Finnish Wikipedia. However, in some limited topics Finnish Wikipedia was regarded to offer rather a comprehensive content, to the extent that it was worthwhile keeping Finnish Wikipedia as the first information source.

> *#5: "There are pretty good articles in Finnish Wikipedia, at least within a limited scope. Finnish Wikipedia is on the quality level where it pays off to check it out first, every time you need to know about some concept."*

> *#1: "Generally I feel that in my own topics of interest, Finnish Wikipedia articles are by far more comprehensive than in Swedish Wikipedia. And often more comprehensive than in English Wikipedia."*

> *#8: "[Finnish Wikipedia] is of a pretty good quality, when compared to the size. For example, Swedish Wikipedia is pretty bad, even though they have more articles than we do."*

As the two quotes above from interviewees #1 and #8 portray, the "goodness" of Wikipedia was often compared that of the neighboring country Sweden, and the Swedish-language instantiation of Wikipedia.

Nowadays the user account management of all Wikipedia language editions and other Wikimedia services are integrated. This means that anyone can use the same login name and password in all Wikimedia services. This was different prior to WikiMedia introduced the 'Unified login' in May 2008.[35] One needed separate user accounts if you wanted to register to, for example, English, German and Finnish Wikipedia. Interviewee #2 described that she had taken the effort to register herself in Swedish and Norwegian language editions. However, she stated that she does not contribute much in other editions than the Finnish. The only activity she might do is adding interwiki-links, which are connections between articles in different language editions.

#2: "I have accounts on Swedish and Norwegian Wikipedias, but I don't really... Several months may pass before I visit these again. So, I don't really [participate in other Wikipedias than the Finnish]… [I] only add some interwiki-links, if anything."

In a similar storyline, informant #1 stated that her inter-wiki links are her only contributions to English Wikipedia. She mentioned that she had contributed some articles in Norwegian and Swedish Wikipedias, but only a few times.

#1: "I've written maybe three or four articles to Swedish Wikipedia. I've started one article in Norwegian Wikipedia. And like, in English Wikipedia my contributions have mainly been about adding links to my articles in Finnish Wikipedia."

#4 told me that he does not contribute so much to English Wikipedia, but he regularly uses it as a tool to support his writing in Finnish Wikipedia. Mostly this tool offers reference sources for his articles. There has been an interplay between the two

[35] http://meta.wikimedia.org/wiki/Help:Unified_login (26.1.2013)

language editions. A version of an article has been used as a basis to write an improved version for another language edition, which again has been used as a basis to write an even better version to the original language edition.

> *#4: "I've written to the English Wikipedia a little bit. For example, the article on Afrikaner nationalism. I first wrote that in Finnish. Then I wrote an extended version for the English [edition]. Then I switched back to the Finnish and wrote an even more extended version that is now more comprehensive than the English article. But mostly I use English Wikipedia just to get references for the articles I write in Finnish [Wikipedia]. So English Wikipedia is a tool that helps me when writing articles."*

Occasionally, some interviewees reported their participation in other Wikimedia projects. At least two participants contribute to Wikimedia Commons[36], which is a media file repository of public domain and freely licensed content. Wikimedia Commons is mostly known for images (photographs), but it also hosts sound files and video clips.

> *#8: "I've contributed something to English Wikipedia… [but] very little actually. But more I've been contributing to [Wikimedia] Commons. But that's a separate project."*

Several respondents noted Finnish Wikipedia's small amount of participants to be an aspect that keeps the community together. There is a higher barrier to kick anyone out when expulsion of a member has visible consequences as a decline in contributions.

> *#6: "English Wikipedia won't miss one expert of religious studies, who has written 76 articles on religion. … There are still 1200 other experts left if this*

[36] http://commons.wikimedia.org/wiki/Main_Page

one leaves. But if you ban the Finnish expert of religious studies, then there's possibly no one else [left] to contribute on that topic."

#5: "No single user is crucial for English Wikipedia. You can throw anyone out, and it doesn't suffer at all. Whereas Finnish Wikipedia is such a tiny group of users, and some of the most active users are vital to the community. Well, not vital, but pretty important anyway."

While few interviewees had seriously contributed to other language editions than the Finnish, all seemed to have read Wikipedias in other languages. English Wikipedia was perceived as the most comprehensive language edition. Even though other Wikipedias are read by Finnish Wikipedians, the respondents did not seem to have in-depth knowledge of other Wikipedias' community dynamics. Several interviewees stated they could not answer the questions concerning other Wikipedias' practices related to decision-making, collaboration, and the like.

#8: "I don't know [how much different Finnish Wikipedia is from other Wikipedias]. I am not familiar with other language editions."

While most interviewees agreed that English Wikipedia is on the league of its own in terms of the quality and quantity of articles, the interviewees seemed to value the way the Finnish Wikipedia was progressing. Generally, they seemed to be proud of the relatively good Finnish Wikipedia. One interviewee (#1) thought that Finnish Wikipedia had better information quality than some other Wikipedias of the same size.

#1: "We might have more pride [than other similar size Wikipedias] in the way that we do not just accept any goofy stuff. For example, we should not allow one-liner articles of unimportant topics. We are more critical to that kind of content. Of course some people prefer quantity over quality, but here [in Finnish Wikipedia] it is not as bad as is in some other Wikipedias. And it may be more of an early-stage phenomenon, that people want to get the first one

hundred thousand articles produced by any means. Once that milestone is achieved, it's easier to concentrate on quality."

All in all, the clear majority of the interviewees were focusing rather exclusively on Finnish Wikipedia. Participation in other language editions was generally just occasional.

5.3 Perceived Autonomy in Finnish Wikipedia (RQ3)

This section discusses how participants perceive the autonomy of Finnish Wikipedia. Online communities are often categorized in a black-and-white manner into either "sponsored" or "autonomous." Wikipedia is an example of the latter. Thus it is interesting to find out exactly *how* autonomous Finnish Wikipedia is, especially as a cultural-linguistic representation of the global Wikipedia franchise.

Autonomy is, in some sense, related to the agency-structure dilemma, which is one of the core debates in social sciences (Archer, 2003). This dilemma deals with the extent of human agents' free will versus being constrained by structural determinism. Highly autonomous entities are able to exhibit their agency, their capacity for using free will and acting independently. Autonomy is required for an online community to self-organize. Non-autonomous entities, in contrast, are limited by the recurrent patterned arrangements, i.e. the existing structure. Non-autonomous entities are dictated by others to follow a determined path.

Not all participants had even thought about the idea of autonomy. This shows that many Wikipedians are more interested in what they themselves usually do. As long as they are not restricted from doing what they want to do, those kinds of ideas do not usually come into their minds.

#12: "I cannot say anything at all about decision-making autonomy, because I am not familiar with this topic."

#11: "I do not even know [whether we are autonomous or not]. I guess we are. (laughs) No one has ever restricted my editing, so it seems we are pretty autonomous then."

Generally, most interviewees agreed that Finnish Wikipedia is highly autonomous in community decision making. Autonomy was seen as independence in relation to Wikimedia Foundation and English Wikipedia, as the ability to do otherwise.

> *#13: "[Finnish Wikipedia is] completely autonomous. Those Yankees [Wikimedia Foundation or English Wikipedia] have neither interest nor resources to intervene in this in any way. [...] During the last three years we've had a clear vision that we should not copy the policies of English Wikipedia as they are, but we can make in our own way. And this has been done."*
>
> *#9: "When it comes to policies, those are all decided in Finnish Wikipedia. We agree among ourselves how things are going to be done. Or, that's how I've understood so far. I have never seen that someone from outside would had tried to decide something on behalf of us."*

As these two excerpts from interviewees #9 and #13 show, the policies are a central aspect of autonomy. It is the policies that describe what an individual can or cannot do. The policies normatively decide what kinds of actions are preferred and which are not tolerated at all.

The questions of autonomy lead the interviewees to ponder on the special characteristics of Finnish Wikipedia in contrast to Wikipedias in other languages. After all, the discourse of autonomy is often tied to unique characteristics of people in relation to "the other." Autonomy is built from differentiation of language, culture, history, currency, and so on, in relation to the surrounding polito-cultural-economic environment.

#9: "I do not know [whether Finnish Wikipedia differs from other Wikipedias]. Some policies may be somewhat different from other Wikipedias. However, I don't have enough information about the policies of other Wikipedias."

One interviewee (#5) was critical towards any policies beyond those that have been approved by the English Wikipedia community, which he considered to be more powerful in its community-decision mechanisms than the Finnish one. He argued that Finnish Wikipedia should simply adopt the "wise principles" of English Wikipedia. He thought English Wikipedia has much greater possibilities to introduce and test different things than Finnish Wikipedia is able to, because English Wikipedia is so much bigger in every way.

#5: "Some people believe that we should have autonomy here. My view is that it is worthless to be autonomous. The wise principles have already been defined in the English Wikipedia, and it is better to follow them than to invent those of our own."

However, interviewee #5 seemed to be in minority with his views. Generally, the autonomy of Finnish Wikipedia was perceived to be a positive thing.

Are the policies of Finnish Wikipedia different from other Wikipedias, then? Or are these a carbon copy of a given set of principles? Some policies are highly universal in Wikipedia, they can be regarded as fundamental policies. Interviewee #4 defined that there are three types of policies in Finnish Wikipedia: 1) de facto policies, 2) policies accepted through community consensus, and 3) the core pillars. The core pillars are largely the same in all Wikipedias[37], while the two other types may differ between various language editions. The core pillars cannot be changed.

#4: "Wikipedia's policy-policy describes that policies can be born in three ways- one approach is to write up the de facto policy, meaning the way how the community has usually dealt with particular types of situations. Another is to initiate

[37] It is beyond the current study to validate whether this actually is true in all of the almost 300 different language editions. However, the spirit of the Five Pillars is that these are the grounding principles that are just needed to be accepted.

discussion and try to find consensus through that. If consensus is not achieved through discussion, then it is possible to vote. The principle is that there has to be 70-80 % support so that a policy change to be approved. The third alternative is the 'holy writings carved-in-stone' type of policy, such as the Neutral Point Of View. Those are derived from above, and cannot be changed. So even though many kinds of changes can be made in Wikipedia, you cannot change NPOV. You just take it as given. So these are the three alternatives."

> *#2: "No matter what language edition is in case, there are always a set of policies that are derived from the En-Wiki. These basic policies are directly translated to any Wikipedia at the point when the wiki is started. But in every wiki, it's the users who collectively determine what the policies are like. For example what are the criteria to delete an article, and through what kind of a process an article reaches the status of the Featured Article. Our policies are not the same as in English Wikipedia. Once in a while, some users try to argue that just because things are done in some way in English Wikipedia, we should do the same way in Finnish Wikipedia. But… In principle, we are very autonomous. At least as long as our policies are not in a terrible conflict with the universal idea of Wikipedia."*

#4: "The Neutral Point of View policy and such core policies are inherited 'from above'.[38] *Otherwise the language editions are completely free to do what they want. So that's how it is, yes, Finnish Wikipedia is autonomous."*

All Wikipedias are run on the same Wikipedia software platform, which is an application of the MediaWiki software. This has its influence on the extent to what Finnish Wikipedia can and cannot do. Being a software-enabled encyclopedia, all

[38] With 'core policies', the interviewee refers to Wikipedia's Five Pillars, which are "fundamental principles by which Wikipedia operates": 1) Wikipedia is an online encyclopedia; 2) Wikipedia is written from a neutral point of view; 3) Wikipedia is free content that anyone can edit, use, modify, and distribute; 4) Editors should interact with each other in a respectful and civil manner; and 5) Wikipedia does not have firm rules. http://en.wikipedia.org/wiki/Wikipedia:Five_pillars (22. December, 2011).

possibilities and limitations are set by the degree of flexibility allowed by the software.

> *#9: "Yes, it [Finnish Wikipedia] works quite autonomously. I do not think anyone [from outside] can come to give orders here, like something would need to be done in a certain way. The only exception that comes to my mind right now could be the wiki database engine. That, of course, is updated every now and then. And I guess new software updates bring some new things [that Finnish Wikipedia needs to adapt to]."*

#4: "MediaWiki is of course one issue. If the software does not support something, then that thing cannot be done, despite the autonomy."

One interviewee (#6) also brought up Meta, which is the "auxiliary for coordination of all the Wikimedia Foundation projects"[39]. He stated that Meta decides on one per cent of things related to the otherwise "99 per cent autonomous" Finnish Wikipedia.

#6: "Finnish Wikipedia is 99 per cent autonomous. And that remaining one percent is decided by Meta[40], not English Wikipedia."

Despite autonomy, the "99 per cent autonomous" Finnish Wikipedia is largely influenced by other Wikipedias. More importantly it is influenced by English Wikipedia, but also to some extent by German Wikipedia. In any case, the other Wikipedias do not determine the decision-making of Finnish Wikipedia.

> *#10: "When creating policies we use English- and German-language Wikipedias as benchmarks. [When introducing a new policy,] we look at how others have implemented [it]. Then we ponder how it would fit to Finnish Wikipedia. We always do this when some new features are proposed."*

[39] http://en.wikipedia.org/wiki/Wikipedia:Meta (29.11.2012)

#6: "Yes, lots of ideas are taken from English Wikipedia. Just like [the government of] Finland sometimes looks at how things are done in Sweden, and then we'll [the Finnish government] do in the same way. That's the mentality here. Though it works much faster in Wikipedia. If some new feature has worked well in English Wikipedia for two weeks, we might also adopt it. But nothing can be forced, everything has to be approved by the community. It's the community that decides what is good and what is bad."

These two above quotes show how larger Wikipedias offer "best practices" to Finnish Wikipedia. One could talk about the concept of "a role model". Just as human role models offer a set of virtues for an individual to follow, larger Wikipedias show the tested-in-practice set of practices that Finnish Wikipedia may also adopt.

#9: "I guess we've inherited pretty much from English Wikipedia. I don't know how much we have unique [policies etc.]. I guess the system is the same, and most of the policies are the same as in English Wikipedia. Of course, there is no coercion to inherit anything. But usually those things are well-tried, so why not."

#3:" It is possible to adopt policies directly from English Wikipedia, but there are also policies that we in Finnish Wikipedia don't find useful for us. At least not now. Generally all language editions [i.e. Wikipedias in different languages] can relatively freely decide how they want to do these things".

Interviewee #11 describes that he has brought in one policy from English Wikipedia. He translated it first as-is. Later on the policy was accepted in Finnish Wikipedia.

 # 11: "Yes, most policies and other things originate from the English-language Wikipedia. For most things we have [in Finnish Wikipedia], there is a counterpart in English Wikipedia. One policy I wrote to Finnish Wikipedia, I

[40] http://meta.wikimedia.org/wiki/Main_Page

translated it first from the English-language Wikipedia. But I guess in principle no one can prevent us from doing completely otherwise if we wish to do so. And it has to be remembered that we do not adopt everything that is in English Wikipedia. After all, there are cultural differences, for example in how things are expressed."

The interviewees offered several examples of policy differences between Finnish and other Wikipedias. Two of these examples are presented here. First, the policy of *Biographies of Living Persons* was said to be much more comprehensive and more "lawyer-oriented" in English Wikipedia. Second, German Wikipedia has implemented the policy and technical limitation of Stable Versions. This restricts a non-registered user's ability to edit an article. The aim of Stable Versions is to better ensure the quality of articles, and to prevent random mischiefs.

#2: "The English-language Wikipedia has approached some of the issues in a stricter way. For example, the Biographies of Living Persons policy there[41]*, that's a pretty serious thing. So they have more stringent policies [than Finnish Wikipedia has]. That's because it's much easier to file lawsuits in the United States. [...] Of course it's the same here [in Finnish Wikipedia] too that no person should deliberately be offended, no matter if she's a celebrity who has a Wikipedia article. Articles should be written in good faith and general common sense should always be applied."*

#3: "In German Wikipedia they have restricted the editing rights of unregistered users by bringing so-called Approved Article Revisions [also known as Stable Versions]. Even though this might prevent vandalism a little bit, it might generally reduce interest in editing articles. After all, the majority of unregistered users' edits are of reasonable quality. […] We [in Finnish

[41] http://en.wikipedia.org/wiki/Wikipedia:Biographies_of_living_persons

Wikipedia] have discussed this, but it has never progressed to the decision-making level."

While Finnish Wikipedia has its own policies, the policies of other Wikipedias are sometimes referred to, in case of a disagreement. Actions are defended and attacked using English Wikipedia as a reference point.

#1: "The decision-making, in my view, is very autonomous [in Finnish Wikipedia]. English Wikipedia affects the decision-making indirectly in cases when someone wants to write about some really stupid or very niche subjects, such as of a Brazilian ice hockey player. Then others will say that 'Come on, we do not need that kind of content here'. Then the argumentation for or against allowing the thing to happen is often based on how other language Wikipedias have decided to do."

Even though English Wikipedia is a role model to Finnish Wikipedia, it does not limit decision-making in Finnish Wikipedia. There are examples when Finnish Wikipedia has taken a line that deviates from that of English Wikipedia.

#14: "Often we compare how things are done in the English Wikipedia [in case of a relevance dispute, for example]. But sometimes we make own decisions despite what the line in the English Wikipedia was. Let's take this James Perse article as an example.[42] It was deleted from the English, while we considered it relevant [enough to be kept]. We kept it because we found the person relevant, the fashion designer named James Perse. Although this was also a pretty funny article simply by its name. So, yes, we in the Finnish Wikipedia make decisions independent of other Wikipedias. But how often such things happen, that I'm not able to say."

[42] The Finnish Wikipedia has an article about a fashion designer James Perse (http://fi.wikipedia.org/wiki/James_Perse), while the corresponding article in English Wikipedia has been deleted (http://en.wikipedia.org/wiki/James_Perse). 'Perse' means 'ass' in Finnish language. That was probably an important reason why some Finnish Wikipedians wanted to make this article good enough so that it would remain there after its relevance was questioned.

An interviewee (#8) emphasized that while Finnish Wikipedia is autonomous, it is still relatively similar to larger Wikipedias. Not only are the core policies similar, but also the content has often been translated from the English Wikipedia. Translation is seen as an effective strategy to use to get the basics of an article right.

> *#8: "Despite our autonomy, we do have a lot of translated content. A great percentage of articles are translated from other languages. Some people like to translate and imitate others' example. Translating is a simple way to get the structure and the content of an article quickly in order. When you have translated the article, you may then improve it with new material. Of course, we do have a lot of completely unique productions as well. There are people who like to write articles from scratch."*

However, translation did not seem to be a popular approach, in general. Most interviewees were more interested in doing projects of their own, filling gaps of existing information instead of translating already existing content.

#4: "But… some people translate articles from English Wikipedia, and I don't really do that. I don't understand what the point is in doing so."

The concept of autonomy led some interviewees to consider forking. After all, the possibility to forking is often considered to be a core aspect of open projects such as Wikipedia and FLOSS (Tkacz, 2011a). Interviewee #14 remembered that there have been some discussions in Finnish Wikipedia where the advantages and the disadvantages of forking were weighed.

#14:"Sometimes there have been discussions on whether Finns should take Finnish Wikipedia to a dedicated server that would be in full control of Finns."

Finnish Wikipedia remains a part of the global Wikipedia system, and no hint of any serious attempt of forking was shown in these interviews. However, the possibility of forking, and the example of the Spanish Fork, show that the issue of online autonomy resembles that of the typical discourse on territorial autonomy. The

considerations of the autonomy of a Wikipedia language edition as an autonomous unit under the Wikimedia Foundation and the shared Wikipedia concept, bears similarities to considerations of territorial autonomy. Some of the points of reference could be Åland's relation to Finland, and Zanzibar's relation to Tanzania.

5.4 Non-article Content in Finnish Wikipedia (RQ4)

In this section we shall examine what kinds of non-article content there are in Finnish Wikipedia. The data collection in this section is based on interviews. The interviewees talked about three main types of non-article content: article talk pages, user talk pages, and various kinds of pages in the 'Wikipedia namespace'. Additionally some other types of non-article content were mentioned, and they are discussed in the section 5.4.4.

> *#11: "On the article talk pages I speak about the article, naturally. On user talk pages I talk about the projects going on, like 'do you know what this is, could you please help me.' Then on the Wikipedia namespace there are mostly general issues related to the project, like 'I think this system is bad/good/stupid.' Sometimes there is some gossiping going on, on the user talk page, among the closest Wikipedia acquaintances."*

A common ideal, which was revealed in the interviews, is that the amount of non-encyclopedia content is preferred to be as minimal as possible. Even interviewee #11, who considered Wikipedia to be a social media, thought there was too much non-article content. He attributed this to the threat of bureaucratization of Wikipedia, and the flooding of rules and regulations that raise the barrier to create articles. This is in line with what Butler et al. (2008) noted in their article titled *"Don't Look Now, But We've Created a Bureaucracy: The Nature and Roles of Policies and Rules in Wikipedia."*

> *#11: "Of course, the purpose is to create an encyclopedia, and in that sense there is too much of all this metaconversation. Well, some people enjoy that, initiating more voting processes, voting about everything, discussing about everything, trying to get comments to all possible issues. Some people are just fond of bureaucracy. They get higher self-esteem out of that, they try to prove their proficiency that way. I think there's too much of all this. In order to be able to create what you're supposed to, which is the encyclopedia, you don't need many rules. You only need some minor guiding, mostly related to the layout. But any rules aiming to regulate behavior… it's pretty useless, because people don't change. Idiots will stay idiots, no matter what rules you've got. No rules can prevent this kind of negative behavior."*

The purest variant of the anti non-article content viewpoint was stated by interviewee #10 who opined that an "optimum is reached when there is no need to discuss anything."

> *#10: "Wikipedia is an encyclopedia. The main focus should be on the [encyclopedia article] content, not on the discussion. An optimum is reached when there is no need to discuss anything. Everybody would know the ground rules, so discussion would not be needed at all."*

The interviewees however seemed to acknowledge that it is highly unlikely to reach a situation where no conflict would occur, when no discussions were needed, and when everybody would keep focused on contributing articles. That seems more like a utopian version of Wikipedia, not a possible reality. Interviewee #11 stated that the "social aspect" is one reason why Wikipedia works. This means that people get when users' actions are noticed and appreciated they tend to keep on contributing.

#11: "But yes… then again, you need some metaconversation, definitely. It is the kind of social aspect that induces people to contribute. That you get feedback from the work you've done. That aspect is needed, of course."

The interviewees mentioned some strategies on how to help the community to keep the focus on creating content for the encyclopedia content, instead of just debating, arguing and gossiping. For example, #1 stated that whenever she notices a strong non-article content bias, she initiates several new articles in hope that the focus of the community would turn away from the non-article content to the encyclopedia itself.

> *#1: "It's not only about Wikipedia, but all online communication involves conflicts. All signals have some noise. Then the only possibility is to keep the signal-to-noise ratio as good as possible. If there is some major conflict going on, and I see that the Recent Changes page is full of talk pages, I might start editing several new articles of interesting topics. In such cases I might initiate articles of, say, the kings of Scotland."*

Generally, all the three main non-article content types were mentioned by the interviewees. For instance, interviewee #6 describes his usual day in Wikipedia in the following quote. He stated how he visited the Wikipedia website regularly during his work day, starting before noon. He first scanned the 'Recent Changes' page to spot any vandalized articles. In case of vandalism, he reverted those pages back to the proper version, and possibly took some actions to prevent the root of vandalism: blocking of the vandal itself. Next, he read the recent postings in the Coffee Room threads (in the 'Wikipedia namespace') to see what topics the community was involved in. Furthermore, he would check his talk:user page and reply any new messages.

> *#6: "[When I still was more active in Wikipedia], I usually went to Wikipedia at work first time before noon. I checked out the Recent Changes page, and if I spotted any attempts for vandalism I corrected them. Then I took a look at the Coffee Room discussions, what kind of initiatives were going on there. And of course I checked my user-talk page if there were any new messages."*

In this study, the three main non-article content types are categorized as representations of the back narrative. Particularly, the article talk pages are

categorized as collocated back narrative, the user talk pages and user-centric back narrative, and the pages in the 'Wikipedia namespace' as community-wide back narratives. The concepts are summarized below, in table 8.

First-order concept (observed reality)	***Second-order concept (theory)***
Article talk pages	Collocated back narrative
User talk pages	User-centric back narrative
Pages in the 'Wikipedia namespace'	Community-wide back narrative

Table 9 - Conceptual development

5.4.1 Article talk pages

The article talk pages serve as a place where the contributors can ask for help. Interviewee #1 told me how in the beginning of her Wikipedia participation she used the article talk page to request assistance. One example of these requests was how to add an image file to the article. Naturally, as her capabilities with the wiki software have increased throughout years, the need to request has lowered.

#1: "[Early on] if I didn't know how to do something, I even added a comment to the article talk page that I'd like to add a photo into this article but I don't know how it's done."

The quality of Wikipedia was largely seen to be rising from the so-called Linus' Law: "Given enough eyeballs, all bugs are shallow" (Raymond, 1998). In the case of Finnish Wikipedia, the preference seems to be that the one who finds the error corrects the error. But in the spirit of Linus' Law, the one who locates an error and the one who provides a solution to the error need not be the same person. In such case, the article talk page is the place where an error notification is placed.

#3: "The most important aspect of quality is that the users themselves skim through articles and edit whenever they see anything wrong there. Usually that works out pretty good (...) Or, you may add a comment on the article talk page."

#2: "Sometimes I write on the talk page about how I see the article should be extended."

It was also reported that before committing to article contribution, users may take a look at the article talk page first. This brings the users up to the extant behind-the-scenes issues of the article.

#2: "Usually I glance at the talk page before I start editing an article."

Enactment of talk pages seemed to vary in volume. For example, #9 stated that he rarely if ever initiates any discussion, on article talk pages or otherwise. His engagements on Wikipedia talk pages have usually been when others have asked him about something. He did not have anything against discussing; he just did not do it much.

> *#9: "I don't discuss much. What I have discussed had usually been through the discussion page, the article comment page. It's usually the other way around, that someone else has asked me why something is how it is, or how I have done something, and so on."*

Other opinions existed as well. Some did not favor discussion at all, and saw chatting as unnecessary behavior. Interviewee #5 perceived article talk pages as the preferred place whenever there is a need to discuss. This was because he perceived discussion on article talk pages to be the most on-topic of all possible Wikipedia venues of discussion.

#5: "I try to avoid all kinds of futile chatting. Even though I'd have something to say to another person, I prefer to have that discussion on the article talk page."

In general, an article talk page was seen as a suitable forum for discussion whenever there was no consensus of the direction for the current article development. In some sense, article talk pages can serve as pressure valves for the heated-up article boilers. Often, if the development in an article gets too quarrelsome and scattered, it may be better to find a common ground first through discussion and only after that continue the development. The interviewees also told that some topics invite differences of opinion, and lead to fighting more easily than others. This is in line of what Joyce et al. (2011) label as "flammable materials." For example, topics such as civil war and language politics have lead to long-lasting verbal battles and edit wars.

> *#8: "If there is no consensus on how to develop an article further. Then the development should be put on hold and slowly discuss and find consensus that way. For example, [the Finnish] Civil War has been a topic which divides contributors, that how that article should be developed."*

#2: "Some article talk pages have crazy fights going on. For example, pages such as 'mandatory Swedish' and 'negro.' I try to avoid these fights, because these are very nerve-wracking."

> *#11: "[The need for a talk page] depends on how controversial the topic is. Anyone can write who's the Mayor of the Turku city, and that's trustworthy information. But any topic that is more controversial… or a topic that a layman cannot fully comprehend… that's more problematic then."*

A participation balance between the article page and its talk page is not always reached without enforcement. Then a user with administrator privileges steps in and locks the article, forcing contributors to focus on consensus-building on the talk page. In case some users are not participating 'in good will,' they can be blocked temporarily or permanently, by an administrator.

#3: "An admin can lock an article [if there is an edit war going on]. Then the purpose is to reach consensus through discussion [on the article talk page.] Admins can also block particular users from participating in an edit war."

5.4.2 User talk pages

User talk pages are used when one wants to address another user specifically. User talk pages are used in cases such as giving feedback to another user, commenting on edits, or on references. The comments can vary between everything from positive ("you have done a great job!") to negative ("you should stop what you're doing!"), and all shades of gray in between.

#3: "Sometimes I've received feedback on the user talk page. I've also might have asked about some edits, references, and other things."

#8: "On the own user:talk page I discuss something. Not particularly of some topics, but general remarks are made about other's actions."

It was mentioned in the interviews that a user perceived user talk pages as an unfamiliar form of communication at first. Indeed, the format of user talk pages is different from that of email, instant messaging, and other digital media that are used for person-to-person communication. However, users have gotten used to the format, and user talk pages are used in a high volume.

#9: "These user talk pages, yes, people do use these. First I thought it was a weird way to communicate (laughs), I mean on a public wall, kind of. But I got used to it."

People not only slowly get used to communicate on user talk pages, because of its format. Increasing use of user talk pages was also – and perhaps more importantly – attributed to deeper involvement in the community. When users get to know who are the other participants and what are each users' area of expertise, users start to address others more directly. Nevertheless, every interviewee more or less agreed that participation in Wikipedia happens usually very spontaneously without much coordination involved.

> *#1: "[Working together on an article] happens pretty spontaneously, and mostly randomly. But I've been there for such a long time, and I've been so active there, that I've come to know some people there. These are people who*

> *have different kind of expertise than I have. So I can ask them that 'could you please take a look this as you're a physician, or that this is the kind of terminology of biology that I don't understand'. There's this user talk page, so that's where these requests for help mostly happen."*

In the interviews, the topic of user pages and user talk pages lead the interviewees to reflect on the nature of discussion *to* a user. Should users talk *to* a user, or should they talk *about* a topic? While article talk pages facilitate discussion primarily *about* a topic and secondarily *to* a user, on user talk pages these priorities are the other way around. This lead the interviewees ponder on the subject of social identity in Wikipedia. The following two quotes demonstrate two extremes to the continuum of opinions. Informant #11 argued that "in some sense Wikipedia is an equally social media as, like, Facebook." He described that he sees Finnish Wikipedia rather similarly as he sees any social networking service: you have your "friends" who you interact with, and then you have a lot of "not-friends" who you don't interact with. In contrast, #12 strictly opposed any user-to-user discussion whenever it is not directly related to the tasks of encyclopedia creation. He saw user-to-user discussion largely as "prattling," mere *panem et circenses* distractions away from the core purpose.

> *#11: "I've used the Wikibreak[43] template a couple of times [on the user page.] I don't know if it's of any interest to anyone, but I've done it anyway. I think it's for the people who I'm mostly interacting with. You could divide the community to your close acquaintanceship, and the rest. Even though it's an encyclopedia… In some sense Wikipedia's an equally social media as, like, Facebook, or anything else. Similarly as I could put a status update on Facebook that I'm away for a couple of weeks, that's the same idea why I've marked myself to be on a Wikibreak."*

[43] Finnish version: http://fi.wikipedia.org/wiki/Malline:Wikiloma. English version: http://en.wikipedia.org/wiki/Template:Wikibreak.

#12: "There's too much of non-encyclopedia content [in Finnish Wikipedia]. Some users seem to think that their user pages are their personal home pages, and that talk pages are for prattling. But all communication should be focused on the creation of Wikipedia itself. More focused, definitely not broaden from the current state. I don't want any circuses in Wikipedia."

Interviewee #11 also compared Wikipedia writing to scholarly writing. He stated that as it is purposeful in scholarly writing to establish contact and cooperation with others with similar interests, the same applies to Wikipedia. Therefore, in his reasoning, it is natural that people discuss with other Wikipedia users, on their user talk pages and elsewhere.

#11: "I write articles to increase my understanding. And to write about things I'm interested about. While I'm doing this, it's pretty natural that I'm establishing and maintaining contact with other users. It's a peer activity. You use Wikipedia as a network of peers. It takes a community to be able to write, to share opinions and viewpoints. I think you know what I'm talking about."

5.4.3 'Wikipedia namespace'

The namespace 'Wikipedia' contains several types of pages where things are usually discussed on the level of the whole community. In this section's storyline, we first follow the interviewees' activities generally related to this namespace. Subsequently, we look at how participants have enacted the discussion threads, which as entitled Coffee Rooms in Finnish Wikipedia. Then we discuss article quality processes, which originate from articles and end up to be processed in the 'Wikipedia namespace.' Then we turn to policies, which make a significant part of the activities in the 'Wikipedia namespace'. After that, we discuss voting, and then the Arbitration Committee, which is the "last resort" of Wikipedia decision-making. We end this section with the discussion on WikiProjects, which are coordinated attempts to focus the community's attention on particular types of articles. There are not many

successful examples of WikiProjects in Finnish Wikipedia, and the reason for this is also discussed at the end of this section.

The 'Wikipedia namespace' content seemed to be among what every active Wikipedian look at regularly. In this way, the idea promoted by the RtLf (Preece & Shneiderman, 2009) seemed to be valid in this context as well, that community-level collaborative issues are taken care of by the most involved and experienced community members.

> *#2: "[In my typical day in Wikipedia] I first refresh the Recent Changes page a couple of times. I see if there's anything of interest. Then I see if there are any article deletion votes going on. Then it depends on how much time I have... I might see if there are any Featured Article nominations. Or I might see what people are discussing in the Coffee Room[s]."*

#4: "[I find things to do] by checking out the Recent Change page, [and] by following discussion threads."

The small size of Wikipedia was mostly seen as a positive issue also here (see section 6.1. for more elaborations about the community size). Following all community-level discussions is still relatively easy in an online community the size of Finnish Wikipedia. I doubt there are many people who are following all English Wikipedia's community-level discussions, because there is just such a high volume of that content. That is an impossible mission. Thus English Wikipedia has become more fragmented into niche interests. Finnish Wikipedia, however, is still a manageable entity to follow as a whole.

> *#11: "One thing that is great about the Finnish Wikipedia, is that we are small. Thus everyone who is interested can participate in all discussions considering our community. The size is still manageable. The smallness of the community is (...) actually an advantage when all active members know each other. It's a manageable entity. It doesn't divide into separate cliques. The amount of all metaconversation, in Coffee Room[s] and elsewhere, one can*

follow it all and participate in it all. If the community would be ten times this current size, no one could possibly have the spare time to follow this all, to be everywhere at the same time, participate in all voting, discuss all policies, and meanwhile keep on writing articles."

The interviewees were eager to ponder about the dynamics between contribution of article content, and collaborative non-article content. Largely, these dynamics were attributed to the nature of Wikipedia as a self-organizing voluntary project. For example, interviewee #12 drew similarities in Wikipedia's deliberative community dynamics and his experiences as a resident in a housing collective. He stated that such self-organization is "surprisingly difficult," and requires the learning of argumentative skills.

#12: "I've been thinking about the community aspect quite a bit. I've been living in a collective for a long time, and been deeply engaged in that. It seems that people are afraid of so-called wrangling [in such self-organizing contexts]. People are not capable of arguing properly, and it leads to over-reactions. The nature of a community is something worth pondering upon. Like, how it's different from some other social forms, and how people should act in online communities. I mean, in terms of how to argue, and how to deal with different issues. The principle of Wikipedia is to find consensus through discussion. And in my own residential collective it's exactly the same. And that is a surprisingly difficult thing in practice."

While Wikipedia is generally seen as a self-organizing project, it is not a democracy.44 This means that Wikipedia is more based on *discussion* leading to consensus than democratic *voting*. Despite this, there are several types of voting going on all the time, because dialogue doesn't often end up in a consensual solution.

#2: "Basically, Wikipedia's line is that voting is bad. That everything should be solved through dialogue. But often you need to have a vote because discussion won't end up in a consensus."

Voting is involved in many types of processes of quality improvement and quality assurance. For example, in order to an article receive the certificate or a Featured/Recommended Article[45] or a Good Article[46], it must go through the process of both discussion and voting. If there is a dissensus on whether an article should be deleted or not, the deletion process also involves voting. Interviewee #10 noted that the article deletion vote has lead into the emergence of two opposing parties: the deletionists and the inclusionists. This is a similar development that has occurred in other language editions of Wikipedia (Kostakis, 2010).

> *#10: "Featured Articles is a process that involves voting. And Good Articles as well, which was introduced last year [2009]. Then we have deletion voting. I was participating in that quite actively when it started. I brought some articles to be deleted, and the community voted on those. During the last year I've been… I haven't been voting there anymore. This deletion vote is pretty interesting, how it's divided the community into two camps. Deletionists and what's the other one – inclusionists. Those who generally want articles to be deleted, and those who generally want to keep articles there."*

Interviewee #11 told that when he was earlier contributing with articles of more general interest – biology, for instance – he tended to follow a more deletionist voting pattern. Recently he has moved to contributing more niche topics such as local history of some rural towns from South-Western Finland. He observed that since

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[44] http://en.wikipedia.org/wiki/Wikipedia:What_Wikipedia_is_not

[45] http://fi.wikipedia.org/wiki/Wikipedia:Suositellut_artikkelit

[46] http://fi.wikipedia.org/wiki/Wikipedia:Hyv%C3%A4t_artikkelit

moving to more "obscure" topics, he has become a more tolerant and inclusionist in his voting behaviour.

> *#11: "Even though I've usually voted for article deletion in these voting processes… On the other hand, I don't care if there is an article about an irrelevant topic, as long as it's done well. … The more I've started to write about obscure topics myself, the less I've been bothered about others' obscure articles."*

An interesting viewpoint was also stated by interviewee #8. He stated that he doesn't "influence the community that much" through participation in community-level discussions. Curiously, while Wikipedia is not a democracy, interviewee #8's standpoint reflected that of representative democracy: stating your opinion in a vote when an opinion is requested – otherwise minding your own business.

#8: "I don't influence the community that much, other than with how I'm voting. Generally I just like to work on my own, doing my own projects."

Involvement in article quality processes seemed to vary heavily between interviewees. For example, #8 perceived the status of a Featured Article as the desired goal he often wants to target when he is developing articles. On the contrary, #5 stated that he has "never participated" in such processes, and those do not "interest [him] at all."

> *#8: "It takes over a month for an article to pass through the Featured Article process. First, the Peer Review is two weeks. Then the voting is another two weeks. And of course it takes time to do the article itself. It all depends on how much time you want to use. I've developed some articles carefully, little by little. It's been taking easily half a year before I've put an article into the Peer Review. But then again, I've got some Good Articles that I've created in one day and immediately put them into the voting process. And after one week that's a Good Article."*

> *#5: "I write about topics that I don't know about. So the writing process is part of the exploration process. If I come across a concept, a term, a person, or a theme, that I don't know about, and there's no article about in English Wikipedia, then I start creating that. I've never participated in Featured Article development. That doesn't interest me at all."*

The discussion forums in the 'Wikipedia namespace' are named 'Coffee Rooms' (Kahvihuone)[47] in Finnish Wikipedia. In English Wikipedia these are called the 'Community Pump. ' These were seen as rather inclusive discussion fora, and also relatively emotionally neutral.

#9: "These Coffee Rooms, I guess they're pretty good. They're for everybody. Those are common pages where anyone can discuss with each other."

> *#10: "We have the Coffee Room(s) there. People can write their own opinions and problems there. It's pretty active. I've also discussed there. Little something. I've seen discussions on Finnish language, like how some words should be written. We have also proposals for new ways to do things. These are taken from other languages [i.e. other Wikipedias], and then we start discussing how that would suit us. Usually it doesn't involve a voting process, at least not in the start. It's initial discussion, testing whether the community would support something new or not."*

Coffee Rooms' relative "emotional-neutralness" was mentioned by several interviewees. In contrast to article talk pages, where things can get nasty with participants disagreeing about issues dear to their heart, community-level discussions are generally more neutral. Possibly this is also due to the situation that on article talk pages you may need to defend your own work against those who do not value it. On Coffee Rooms one can take a more neutral and objective stance, and try to see Wikipedia more from the birds-eye perspective.

#2: "I like to follow the Coffee Room discussions. I prefer to participate in these [over the heated article talk pages]."

While the Coffee Rooms seemed to be inclusive for all, and commonly shared throughout the core community, one possible sub-community was revealed in the interviews. Especially interviewee #6 was heavily involvement in template programming and the technical side of Wikipedia. He stated that people involved in such topics usually discuss in the Technology Coffee Room48. Another interviewee (#3) perceived the Technology Coffee Room as a place where technical problems can be reported.

> *#6: "In the Technology Coffee Room we discuss pretty actively about what templates are needed, and what functionalities those should have. We also review new features, and functionalities, if there are any new templates. Of course my head is full of ideas, though most [of these ideas] are unworkable. 2-3 of these ideas might be pearls. So a lot of ideas, but very few of them are viable. But there are always some worthwhile ideas to build upon, at least."*

#3: "Sometimes when there is a technical problem, one can start a discussion thread in the [Technology] Coffee Room."

Coffee Room also facilitates discussion on content presentation issues: what content is presented, how, and where. For instance, what information is presented in the Finnish Wikipedia front page – and which portion and location is dedicated to each piece of content. Interviewee #8 reported that the community had considered whether or not a "Picture of the Day" feature would be added on the front page. As this initiative did not get much enthusiasm in the Coffee Room, it did not progress further to a decision-making process.

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[47] http://fi.wikipedia.org/wiki/Wikipedia:Kahvihuone

[48] http://fi.wikipedia.org/wiki/Wikipedia:Kahvihuone_(tekniikka)

#8: "Just recently we talked in the Coffee Room that we'd like to have a 'Picture of the Day' feature on the front page. Or we just talked how that could be done. But I don't think it will be implemented because the community was against it."

While the 'Wikipedia namespace' was seen as a relatively neutral region to deal with community-level issues, it was not been free of battles. For instance, interviewee #5 mentioned the situation when there is a dispute in the article, while that same article is under the deletion process in the 'Wikipedia namespace.' Some users may "game the system"(McGrady, 2009) by deliberately weakening the article while at the same time arguing that the article should be deleted because it is weak. This shows that not all collaboration happens "in good faith" (Reagle, 2010b).

> *#5: "Edit wars are often related to… well, let's take [username removed] as an example. She sees an article she doesn't like. Then she initiates the article deletion process. At the same time she attacks the article by removing references and other content. And then those [users] who defend the article try to restore it. So that's what an edit war is, a duel about if some content has the right to exist or not. I've tried to initiate a policy that states that you should not touch the article while you're participating in the deletion process."*

In case there is a long lasting conflict in the community, one that just seems to go on and on with no end, it is possible to initiate the arbitration process. The Arbitration Committee then enters the stage, weighs all possible sides of the story, and eventually comes up with a solution.

> *#12: "The Arbitration Committee is the final stage… or how'd I put it. I don't want to use the term 'court of justice'. I mean, any dispute is first tried to be solved through discussion. The discussion takes quite a long time, usually very long (smiles). If no solution comes out of it, one can initiate Request for Comments. Then there's more discussion on that. Sometimes many Requests for Comments are needed. The last resort is then the Arbitration Committee. The committee can then decide what to do with this issue."*

> *#1: "I'm a member of this... Arbitration Committee. I hope the committee doesn't need to do anything. But whenever there is an unreasonable dispute going on for too long, then this arbitration process can take place. The committee carefully examines the case and then gives guidelines how to solve the situation. Luckily there have been no arbitration cases during my tenure."*

The Arbitration Committee consists of members that have a proven track record as neutral members participating in good faith. This is seen to contribute to fair decision-making in the arbitration processes.

> *#3: "The Arbitration Committee has members who have been known to be trusted and moderate. The committee aims to solve conflicted relationships between users. For example, there was a dispute between two users in one article, then the dispute spread to other articles as well. When it escalated, it wasn't any more about Wikipedia [but about a personal 'revenge']. So then the Arbitration Committee had to come up with a solution to this."*

Despite the good intentions of the arbitration process, its results have varied. Interviewee #3 had observed that a win-win solution is rarely achieved. Users involved in such processes may feel they have received an unfair treatment during the hearing, and that they may become "a marked man" who other users start to avoid, or they may quit their membership in Wikipedia altogether with sour feelings.

> *#3: "Practically, the arbitration process is quite difficult. Even though the committee has come up with a suggestion, the people involved in the dispute have not changed their behavior. Even though the arbitration is aimed to be as fair as possible, the people involved feel they have not received a respectful treatment. Unfortunately these disputes often end up with resignation of some user, or getting stigmatized as a troublemaker."*

Wikipedia is largely self-organized through the guiding lens of social norms (Black et al., 2011; Forte et al., 2009). These norms are explicitly presented on policy pages (Reagle, 2010a) that are located in the 'Wikipedia namespace'. One aspect of

policies is that what is the extent of policies that a new user should be aware of before engaging in Wikipedia contribution. The interviewees had chosen very different strategies in this. At one end of the spectrum are interviewees #1 and #5 who stated they did not read any policies before they started their Wikipedia career. Instead, they said imitation was a more effective strategy for them.

#5: "I don't remember [if I read policies or guidelines when I started editing]. I guess I didn't. Following what others do is the most important way to learn things. By imitating others."

#1: "[When I started] I didn't read the policies at all. In the beginning I just started editing. Others then notified me when I had done something wrong. So I didn't read any guidelines or policies at all, I just imitated how other articles had been written."

A more extreme variant of this same approach was stated by the interviewee #10, who said he had not read any policy pages in the start, and he still has not read any of them after several years of participation. He argued that "using common sense gets you a long way."

#10: "I didn't read any guidelines [when I joined Wikipedia]. I just started editing. Using common sense gets you a long way. I don't think I've still read any of those."

Interviewee #11 is located at the other end of the continuum. He told that he carefully investigated "all policy pages" before he dared to contribute anything. He stated that there was a high barrier for him to start his Wikipedia career, because of a fear of failure.

#11: "When I started, I read all these policy pages, and all related information. Too much, I think. I had a high barrier to start contributing. I was afraid if I'd do something wrong."

A practical and persistent issue with the enforcement of policies is how newcomers should be treated in case they have violated a policy. On one hand, a direct warning may frighten newcomers from participating, and will raise the barrier

of member recruitment. On the other hand, a violation is violation, and violators should know when they have broken the rules.

> *#2: "Sometimes you see people complaining that we're too rude to newcomers. Then again, if you approach newcomers with a huge amount of policies, they don't usually want to stay editing. They are afraid that they make a mistake, or they don't want to read through all that [text]. Sometimes it may happen that the old-timers do not have enough patience for the newcomers. People may just say something like 'learn to have some manners'"*

One central aspect of policies is what the policies are, how they are created and how they can be changed. Interviewees' involvement in policy-making was also an issue with much variety. On one end of the spectrum, the interviewee perceived policy-making as an activity that is done by an "inner circle" he didn't feel he was part of. He said he hadn't put much thought to how policies are created.

#9: "I haven't participated in any so-called inner circle activities. Somehow I feel like there is a core community who ponder on these policies and so forth. I haven't been thinking about these issues."

One grade into more involvement in policy-making is demonstrated by the following quote from the interviewee #2. She describes that she has not initiated any policies, and was not able to name any policies she has participated in shaping. She thought that the shaping of policies requires much effort, when you need to carefully set the phrasing correctly. Thus she stated that she has commented on some policy-processes, but has not taken a leading role in any of those.

> *#2: "I don't remember [if there are any policies I have helped to create]. Or yeah, I have participated in some policy discussions. But it's quite little what I've done [there]… You'd need to think in so much detail how those policies should be written. So I haven't been focusing on that."*

In the more active engagement end of the policy-making continuum, #4 and #11 named the exact policies they had had a central role in introducing:

#11: "I might be the one who brought in the 'Don't bite newcomers' policy, or is it a guideline, translated from English Wikipedia. At least I was among the most active ones to work on that. And I've adjusted some other policies as well."

> *#4: "Yes. For example the Arbitration Committee related policy is basically written by me. I wrote the proposal. There was then some discussion based on that, but 99% of the policy is written by me. And well… there are some other policies that I've helped to shape. I've also written up some policies, like what we've already adopted [in action] but what didn't yet exist in a written form. So I've written that in 'this is how we've always done things here' principle (laughs)."*

Interviewee #4 also elaborated in more detail on the three categories of policies in Finnish Wikipedia. These types can be labelled as 1) *de facto* policy , 2) policy-by-discussion, and 3) the constitution (i.e. The Five Pillars, see section 3.1 for more information.)

> *#4: "Wikipedia's policy-policy describes that policies can be born in three ways. One approach is to write up the de facto policy, meaning the way how the community has usually dealt with particular types of situations. Another approach is to initiate discussion and try to find consensus through that. If consensus is not achieved through discussion, then it's possible to vote. The principle is that 70-80% support has to be in place for a policy change to be approved. The third alternative is the 'carved-in-stone holy writings' type of policy, such as the Neutral Point Of View. Those are derived from the above, and cannot be changed. So even though much can be shaped in Wikipedia, you cannot shape NPOV. You just take it as given. So these are the three alternatives."*

Again, the topic of how much non-article content/communication is optimal, emerged during the interviews. For instance, #8 argued that discussion about policies is counter-productive, or at least of secondary importance to article development.

> *#8: "I think that the less there is discussion, the better. People should concentrate on creating an encyclopedia, and not chat, or do any political activities there. Of course there has to be some policies, so that the articles become stylistically similar. But anything over that, that's unnecessary. So, as I said, there should be as little discussion as possible. That's what I try to do, discuss as little as possible, and edit articles as much as possible. (…) Okay I agree [that there should be some social mechanisms, e.g. how policies can be shaped]. But it should require minimal effort. So that most of the work should be focused on what is the main purpose – not on any support activities."*

Finally, we arrive at our last topic in 'Wikipedia namespace,' namely the WikiProjects. These are attempts to recruit Wikipedians to participate in a common cause, within some narrow topic of interest. Practically, few WikiProjects have been successful. There are not many WikiProjects and those that exist are rather inactive.

> *#11: "I've participated in some WikiProjects, or at least put my name on some of them, and I keep my eye on how these projects progress. But… Finnish Wikipedia is terribly small. Just small. The amount of active participants is small. It's all about volunteering, which means that everybody's doing pretty much only what they feel like doing at the time. This means that all projects are more or less dead. The amount of people who would be interested in the same topic at the same time… Not many. I'm not even talking about the same day, but the same year."*

It was also mentioned that the idea of WikiProject – as attempts to coordinate activities – is not well compatible with "the idea of Wikipedia". Wikipedia is a voluntary project that people do mostly for fun. Few people want to get chained to

assigned tasks of what types of content, at what times, and at what volume, they need to contribute.

> *#9: "I don't really coordinate anything. It's more like, I just do things. That's kind-of the idea of Wikipedia that people should just do things and not think too much how to do it. The result may be good or bad. Someone else might have done that in some other way. But yes, there are also these Projects [for the coordination of activities]. Some users have played with those, but I'm not aware how well it has worked out."*

#11 argued that there is a limited set of WikiProjects that may be successful. In his opinion the project should have a clear-stated goal, one that is possible to reach within a relatively short period. He did not see much potential for anything more complex than that.

> *#11: "The only types of projects which may succeed are the short ones. Let's say we have a project, and we have a clearly defined start, and a clearly defined end. We need to attract motivated users to join from the early start. For example, we have 100 articles that all have a wrong background, and all of these need to be changed. Once these are changed, the project is done. I guess these kinds of projects work out fine. But otherwise, it's not possible to command others, like 'you cannot do what you think is fun, but you need to follow these orders instead'. That would work out only if you'd get paid to do it."*

#1's opinion was in line with this. She argued that volunteerism and control are not easily put together. She generalized this beyond Wikipedia, also to other kinds of voluntary projects.

> *#1: "I might be wrong, but currently I think that... it's very difficult to combine volunteerism with strict control. There can be no top management team in voluntary projects. Everybody knows that there is no way to force people to do something they don't themselves want to do."*

5.4.4 Anomalies?

In light of these interviews, some comments were difficult to categorize according to the guiding framework. With the guiding framework, I refer to the premise that online communities require both a front narrative for fulfilling their content-producing purpose, and a back narrative for facilitating collaboration. Some comments reflected collaborative activities in the front narrative, i.e. within articles. There were not many instances of these, but still enough that these could not go unnoticed.

The unifying feature for these few hard-to-categorize comments was that they were all focused on the main article namespace, i.e. the front narrative, but they do not seem to be what I would consider as article content. The first instance of these anomalies is visible in the following comment by interviewee #2. She narrates how she does not current write article content, but instead she is oriented into 'support content.' She names "playing around with templates" and "classifying content" as these kinds of support activities. Both of these activities aim at grouping of articles, and the creation of information classification/taxonomy. These help users to navigate between articles by using the hypertextual link networks.

> *#2: "Most things what I do nowadays are that I play around with templates, or fix typing errors, or classify some content. I mean, earlier I had the energy to write new articles and extend articles, but now I'm too tired to do that anymore. But I'm waiting for the inspiration to do that again."*

Another similar yet separate finding is the "note-making" users do for articles, whenever they see an unreferenced knowledge claim, or a vague statement. In such cases, a "Citation needed" text can be added to the claim. All this happens within the article, in the main/article namespace.

> *#3: "When someone sees anything strange in an article, you may add a Request for References, or a Request for Clarification."*

Interviewee #11 elaborated on how he used to draw motivation from advancement of his position on the editor ranking list. He even stated that this motivation developed into addiction for a while.

> *#11: "[Being a top-ranked contributor] used to be extremely important for me. It's not important anymore. I've noticed that it goes in cycles, in general... maybe... This is a stereotype, but I feel that younger people tend to appreciate these rankings. How many articles they have initiated and how many edits they have done in total. Well, I don't know if it's just young people, but some kind of people. I've just turned 30 myself so I'm not all that old either. But at some point of time, I didn't care how often I visited or how much I edited. It didn't matter to me. Then it changed when I became aware of how many edits I had done, and... An addiction started to develop. Awareness of my ranking started to grow. 'Hey, I'm on this list of Wikipedians with more than 10000 edits! And only two more edits and I'd be one rank higher!' I was stuck into that mindset for a while. But then a backlash struck me. I realized that 'Oh my god, I'm on this kind of list, is this the way I want to live my life?' So on one hand these ranking are like 'wow, look at me, this is how much I've worked here', but on the other hand those are compilations of the biggest losers. [It's a proof] that these people have no life. When they come home from work, they turn their computer on, and they are stuck in there for the rest of the day. I did have that phase in my own life. I have realized that in my private life, as in other parts of life, I tend to get very enthusiastic about some hobby or work, or something, and it soon develops into manic devotion, at least for a while."*

On the contrary, interviewee #1 stated that such ranking lists have no role on how and what she edits in Wikipedia. She found these ranking lists "embarrassing." She compared these to highscore lists of video games, stating that few people would publicly want to brag or tell about their video game achievements.

> *#1: "I'm OK with the fact that I'm ranked on the top editor list. [On my user page] I have a counter which shows how many articles I've initiated. I update*

that a couple of times a year. Maybe you could call this curiosity. So... I'm aware of how much I've edited. But on the other hand... all this is just embarrassing. (...) In some sense I understand people who'd like to stay away from all these ranking lists. (...) I mean, how many people would tell publicly what's their Tetris highscore? Seriously. I have Playstation at home, and I've completed Little Big Planet. There are some people I'd tell about this, but I definitely wouldn't tell everyone."

Nevertheless, #1 stated that she gets motivated when she is able to complete something she notices in a state of incompleteness. In the interview, she presented the list of Nobel Prize winners in Literature as an example. She had contributed the five missing articles of "Nobelists" just to make the list complete.

#1: "These rankings or any quantitative information have never affected how and what I edit. But sometimes it has happened with... (...) Yes, it was the Nobel Prize winners in Literature. The list of all Nobel Prize winners had 95 blue links and five red links. Then I wanted this topic to be complete and I wrote five more articles [which turned these red links into blue links]. So that way it has happened, yes. Numbers don't motivate me, but [in]completeness does."

If red links[49] inspire some participants to completionist activities, then adding those red links might count its collaborative counterpart. A red link leads to nowhere other than an non-existing page, but it has a metacommunicative purpose of 'this article does not exist yet but it is hoped that someone would write up this page.'

[49] http://en.wikipedia.org/wiki/Wikipedia:Red_link

5.5 Genre Analysis of Edits in the 'Wikipedia namespace' (RQ5)

The results of genre analysis are presented in this chapter. The genre analysis was targeted on 'Recent Changes' edits in the 'Wikipedia namespace' in Finnish Wikipedia, as described in the section 3.1.

The primary data for this study consists of two samples totalling 10,000 "recent changes" edits in the Finnish Wikipedia collected during July 2009 and January 2011. The Recent Changes[50] page of Finnish Wikipedia was accessed once a day at varying times of the day. Recent Changes is an automatically generated page, which lists the most recent edits done in Wikipedia. The page can be accessed from anywhere in Wikipedia, using the left-hand side menu.

Main	7549
Talk:Main	407
User	284
Talk:User	740
Wikipedia	378
Talk:Wikipedia	26
File	37
Template	51
Talk:Template	2

[50] http://fi.wikipedia.org/wiki/Toiminnot:Tuoreet_muutokset

Category	144
Talk:Category	16
Portal	5
Special	392
TOTAL EDITS	About 10,000

Of these edits, about 400 edits in the 'Wikipedia' namespace were coded. The process is described here in a linear way, but it is only so because of simplicity and readability.

The goal of genre analysis is to identify recurring types of communication in order to understand how a community operates. Therefore it was necessary to collect a broad enough sample of edits. The criteria for 'broadness' here means that the sample should represent the typical collaboration activities that take place in online communities. I collected two samples in different time periods in order to make sure that the genres I have noticed really represent recurring, and shared ways to communicate.

I accessed the 'recent changes' page once a day for ten days at a random time of the day. I saved a copy of 500 edit summaries each time. This part of the data collection was conducted in July 2009, and resulted in 5,000 edits.

I repeated the data collection in January 2011, in an identical manner. This resulted in another 5,000 edit summaries.

Now we have two samples of 5,000 edit summaries, with one and a half year in between the two. The total sample consists of 10,000 edits then in total.

Wikipedia edits are located in various name spaces such as ‘Main,’ ‘Talk:Main,’ ‘User,’ and ‘Wikipedia.’ For example, all encyclopedia articles are located in ‘Main,’while user “home pages” are located in ‘User.’ The next step was to categorize each edit according to its name space. This part resulted in a count summarized in table 1. In other words, roughly three fourths of all edits are encyclopaedia article edits, while the rest are various kinds of metacommunications, collaboration activities and maintenance.

As the ‘Wikipedia’ name space of Wikipedia appears to contain communication that serves collaboration at the community level, I started coding each edit in this name space. I analyzed each edit-in-context (i.e. I did not only analyze the one-liner edit summary, but the page where each edit had taken place.) The goal was to define the purpose of each edit using natural language. For example, if someone had voted against an article deletion, I defined its purpose as “voting against article deletion.” The edits-in-context were thus incrementally coded according to a system of categories that emerged as coding progressed through several iterations.

After all edits were analyzed, I proceeded to group each communicative act according to their similarities to larger categories. For example, all voting-related activities were categorized as ‘voting,’ whether voting against or for something, or voting about an article or a user. As the edits were defined using natural language, terminology had to be unified. In some cases, it was necessary to revisit the actual page in order to re-categorize the edit. Eventually, this stage resulted in 22 categories: testing, listing, voting, arguing, explaining, questioning, initiating/introducing, suggesting, supporting/agreeing, correcting/fixing, discussing/commenting, asking/requesting, resolving, interpreting, reporting, informing/helping, announcing, assigning/de-assigning, updating/improving policy statements, technical intervention, enabling/disabling, and disqualifying.

I applied the following procedure in data collection:

Phase	Document(s') name(s)	Process
#1	10 recent changes pages from 10 different days	Access the recent changes page in Finnish Wikipedia once a day for ten days. Make sure that the page shows 500 most recent changes (a.k.a. edits) at a time, with bot-edits filtered out. Save a copy of the page each time. Access time should be different each time, to avoid timely or habitual bias.
#2	Categorized list of daily edit types	Categorize edits from each collected Recent Changes page according to which namespaces and page types these edits represent.
#3	Summary table of edit amounts	Numerically summarize edit amounts in each namespace and page type.
#4	Edit-by-edit analysis of purposes	Define the purpose of each edit using a couple of words. Answer the questions: "What is this edit?", "Why was this edit done?"
#5	Combination of edit purposes with user data	

#6	Summary of typified purposes	Re-analyze 'edit-by-edit analysis of purposes' by grouping the purposes in broader categories.

The accessed version of the page was saved on the researcher's computer each time. Every saved version contains 500 of the most recent edits. Therefore twenty days adds up to 10,000 edits. Then the 5,000 edits were analyzed and grouped based on similarities.

The following table shows how many edits were in each namespace, in the collected sample:

	07/2009	**01/2011**	**Total**	**Change**
Main (Article)	3803	3746	7549 (75,49%)	-57 (-1,5%)
Talk:Main	141	266	407 (4,07%)	+125 (+88,7%)
User	163	121	284 (2,84%)	-42 (-25,8%)
Talk:User	364	376	740 (7,4%)	+12 (+3,3%)
Wikipedia	189	189	378 (3,78%)	0
Talk:Wikipedia	13	13	26 (0,26%)	0
File	25	12	37 (0,37%)	-13 (-52,0%)
Talk:File	0	0	0	0
MediaWiki	0	0	0	0

Talk:MediaWiki	0	0	0	0
Template	31	20	51 (0,51%)	-11 (-35,5%)
Talk:Template	2	0	2	-2
Help	0	0	0	0
Talk:Help	0	0	0	0
Category	61	53	114 (1,14%)	-8 (-13,1%)
Talk:Category	11	4	16 (0,16%)	-7 (-63,6%)
Portal	0	5	5 (0,05%)	+5
Talk:Portal	0	0	0	0
Book	0	0	0	0
Talk:Book	0	0	0	0
Special	197	195	392 (3,92%)	-2 (-1,0%)
TOTAL:	5000	5000	10000	

The following table summarizes to which page type each of the 'Wikipedia' namespace edit belongs to:

Pagetypes in the 'Wikipedia' namespace	**07/2009**	**01/2011**
Wikipedia: Articles for deletion	54	57

Wikipedia: Sandbox	11	17
Wikipedia: Requested articles	9	2
Wikipedia: Recommended articles	3	0
Wikipedia: Vote to remove 'recommended article' status	2	0
Wikipedia: Recommended article candidate/Article	2	1
Wikipedia: Catalog of catalogs	0	1
Wikipedia: Recent additions (Wikipedia: Did you know…)	3	9
Wikipedia: Collaboration of the week	1	0
Wikipedia: Collaboration of the week/suggestions	2	0
Wikipedia: Links to disambiguating pages	1	4
Wikipedia: Good articles	2	2
Wikipedia: Good article nominations	5	22
Wikipedia: Promising articles	0	1
Wikipedia: List of Wikipedia users by edits	0	2

Wikipedia: English Wikipedia (*Wikipedia:kieliversiot*)	0	1
Wikipedia: Problems of articles	1	0
Wikipedia: Coffee room (news)	2	0
Wikipedia: Coffee room (policy)	26	9
Wikipedia: Coffee room (language improvement)	13	2
Wikipedia: Coffee room (miscellanous)	16	17
Wikipedia: Coffee room (Wikipedia use tutoring)	0	2
Wikipedia: Coffee room (ask freely)	0	7
Wikipedia: Coffee room (technology)	0	1
Wikipedia: Peer review	5	6
Wikipedia: Reference desk	6	0
Wikipedia: Edit summary legend	1	0
Wikipedia: Welcoming committee/Welcome to Wikipedia	1	1
Wikipedia: News archive (Portal:Current events)	1	1
Wikipedia: Press coverage	1	0

Wikipedia: WikiProject/Instance	14	2
Wikipedia: Bots	0	4
Wikipedia: WikiGnome	2	0
Wikipedia: Do not bite the newcomers	1	0
Wikipedia: Administrators' noticeboard	1	5
Wikipedia: Removal of adminship/User	2	0
Wikipedia: Requests for Comments/User	1	11
Wikipedia: Book references	0	1
Wikipedia: Administrators/User	0	1
TOTAL EDITS:	**189**	**189**
TOTAL PAGETYPES:	**29**	**27**
(40 page types in both combined)		

After collecting data, and sorting and coding the edits, I proceeded to group each generalized purpose of each utterance according to their similarities to larger categories. For example, all voting-related activities were categorized as ‘voting,’ whether voting against or for something. As the edits were defined using natural language, terminology had to be unified. In some cases it was necessary to revisit the

actual page and its context in order to recategorize the edit. Eventually, this stage resulted in 22 initial categories: testing, listing, voting, arguing, explaining, questioning, initiating/introducing, suggesting, supporting/agreeing, correcting/fixing, discussing/commenting, asking/requesting, resolving, interpreting, reporting, informing/helping, announcing, assigning/de-assigning, updating/improving policy statements, technical intervention, enabling/disabling, and disqualifying.

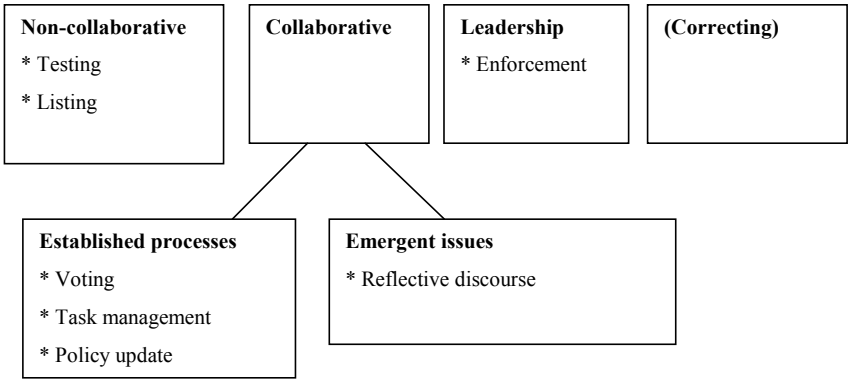
After all communicative acts were grouped, I analyzed similarities between the groups in order to produce fewer categories and create a categorical hierarchy. In doing this, it was again necessary to revisit some of the actual edits, to make sure the purpose similarities were real. This step resulted in seven top-level categories: testing, listing, decision-making, reflective discourse, task management, policy update, and enforcement.

While I had assumed that researching the Wikipedia namespace would result in exclusively collaborative genres, it was not the case. Three genres in total I did not consider collaborative: 'testing', 'listing' and 'enforcement.' Two genres I define as non-collaborative, namely 'testing' and 'listing.' 'Testing' is a way to try out the wiki platform in a transition to proceed from a reader to a contributor. 'Listing' is on the borderline of contribution and collaboration. On the other hand, a list is content in the same way as an encyclopedia article is content. Meanwhile, a list might have collaborative purposes, for example by drawing participants' attention towards some content, or by collecting a comprehensive selection related to a particular theme.

The four other genres are collaboration genres. However, my interpretive analysis shows that collaboration genres divide into two distinct types. One type offers established ways to deal with recurring issues. For example, the "voting" genre seems to follow a very well established pattern to reach community consensus to an on going conflict. These open conflicts could be related to article notability or user promotion, among other topics.

Please note that the screenshots in this chapter are translated from Finnish using Google Translate. No corrections are made to the machine translation, so the resulting translation may be inconsistent. Sometimes even the names of Wikipedians are translated. This does not matter because for the purposes of this thesis it is all the same what the users are called.

Another collaboration type consists of emergent issues. Here, unplanned issues rise from, for example, interactions between users, from an external world event, or from a commitment to new a challenge. These issues are dealt mostly on thematic discussion fora, labelled as 'coffee rooms' in Finnish Wikipedia. In English Wikipedia these fora are labelled as 'village pump.'



5.5.1 Structural changes between the two samples

The usefulness of the concept of genre derives from that genres tend to be relatively stable (Bakhtin, 1981). Stability helps community members develop shared understanding in communicating and interpreting communication. When researchers analyze genres, they come to understand how a community works. However, what is this relative genre stability, in fact? What is this relativity, and to what?

Recent genre research has questioned this stability. More precisely, genres might be stable, but as well they might expire, or change. New genres may also

emerge at any given time. Genres "are in constant state of emergence: always coming, never completely relying on former associations between texts and their genre classifications" (Nieminen, 2010, p. 276).

The two samples (July 2009 and January 2011) were surprisingly similar in terms of both the communication volume and the distribution of communication to various page types. In the following example, I will present how one structural change happened. Namely, this change involved the transition of the 'Reference Desk' question-and-answer forum as a separate instance into an integrated forum among the other 'coffee rooms.'

Wikipedia:Neuvonta, an equivalent to that of '**Wikipedia:Reference Desk**' in the English Wikipedia (Shachaf, 2009), is a forum where anyone can ask about anything that is not directly related to Wikipedia. The format is a continuous discussion thread, where a new reply is always added below the previous one, indented one step to the right. For instance, on July 8th, 2009, a user asked if anyone knew where were the 1953 Nordic swimming championships were held. He was also curious to know if anyone happens to have results of this event. The first reply arrived 18 minutes later, where another user provided the piece of information that this event was held in Varberg, Sweden. The next day another user included also information about the Finnish competitors' results.

It should be noted that while Wikipedia:Neuvonta serves the same purpose as its English Wikipedia equivalent, the form of these two differ significantly. In the English Wikipedia, Reference Desk is split into various themes: Computers and IT, Entertainment, Humanities, Language, Mathematics, Science, Miscellaneous and Archives. Meanwhile, the Finnish implementation has just one page where any possible topic can be discussed.

Between the 2009 and 2011 samples, the name of this category was changed, and it has been moved under the other discussion forums (e.g. under 'Kahvihuone',

engl. “Coffee room” or Village pump). It is now called ‘Wikipedia:Kahvihuone (kysy vapaasti)’, ‘Wikipedia:Coffee room (ask freely)’ translated in English.

5.5.2 Non-collaborative genres

Testing

Testing refers to trying out the editing features of the wiki, in a riskless way.

Through testing, users learn the principles of how to contribute. Essentially, a user first presses the ‘Edit’ button to access the edit mode. Then she writes whatever additions she wants, and finally presses the ‘Save Page’ button to return to the update page in the read mode. However, testing is not supposed to result in meaningful new content.

These edits take place in a restricted pageset. The ‘Wikipedia’ namespace contains two page types that allow testing: Wikipedia:Sandbox and Wikipedia:Welcoming committee/Welcome to Wikipedia 2. The Sandbox page is significantly more popular of these two, and the primary forum for testing. Virtually any kind of edit is acceptable in Sandbox. Edits that would be normally categorized as “vandalism” are accepted in Sandbox.

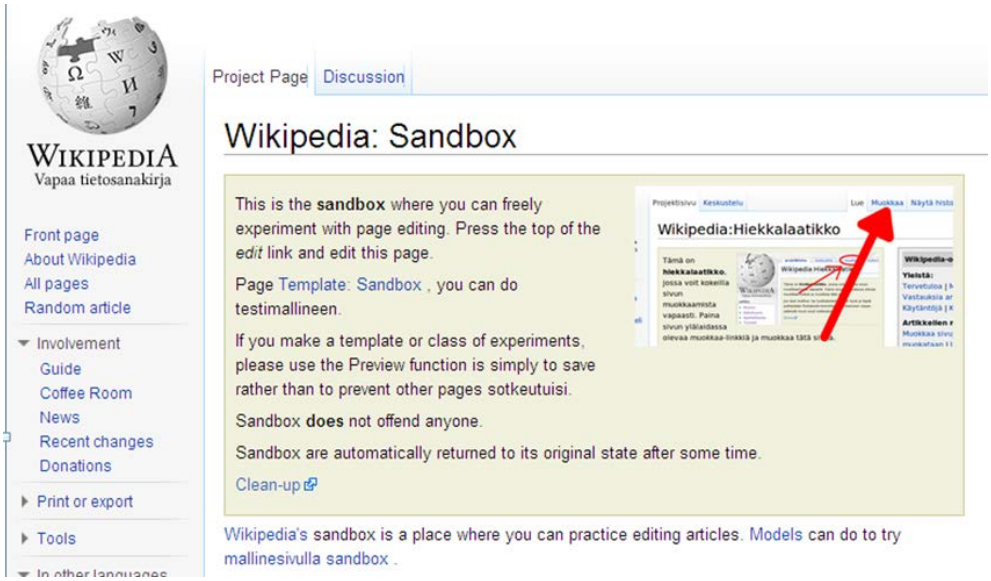


Fig 4 - Screenshot of the Sandbox page

'Welcoming committee/Welcome to Wikipedia' is best understood as a "wizard," a step-by-step introductory guide familiar from software installation. In the similar way as installation programs offer a wizard-procedure for easy configuring of settings, 'Welcome to Wikipedia' offers a step-by-step approach to learning the basics of Wikipedia. One of these steps includes a possibility to try out editing the page.

Testing differs from all other types of editing activities in the way that these pages are cleared, periodically and automatically. Thus testing is not supposed to result in sustainable and meaningful new content. The Sandbox mainpage clearly explains that here it is possible to experiment and that the page is "automatically returned to its original state after some time".

Here is one example of an edit at the Sandbox:

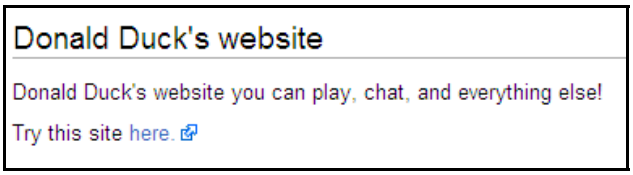


Fig 5 - A user has tested how Wikipedia editing works. He/she has added a title, some text underneath and an external link. Partial screen capture is taken from http://fi.wikipedia.org/w/index.php?title=Wikipedia%3AHiekkalaatikko&action=historysubmit&diff=7015993&oldid=7015983 and translated with Google Translate.

Here is another example, this time from the 'Welcome to Wikipedia' page:

Fig 6 - A user has tested Wikipedia editing on the 'Welcome to Wikipedia' page. Partial capture from http://fi.wikipedia.org/w/index.php?title=Wikipedia%3ATervetuloa_Wikipediaan_2&action=historysubmit&diff=9679770&oldid=9649722 and translated with Google Translate.

Even though these are located in the 'Wikipedia' namespace that I have characterized as a communication arena for collaboration, testing is done mainly by anonymous, unregistered, novice users. This is very different from every other genre of communication in the sample. In other genres, participants are registered 'established' users, with extremely few exceptions. This is also in conflict with RtL framework's (Preece & Shneiderman, 2009) understanding of collaboration. Thus testing is not to be categorized as collaboration, and most probably not even as contribution, as testing activities leave no permanent mark to the site.

I argue that because of the playful nature of these testing edits, the purpose is mainly in offering an easy transition from a reader to a contributor. Testing allows many kinds of creative and random bursts, such as writing about Donald Duck's

website or wishing people happy new year. In the general context of the Wikipedia front narrative, this kind of content would be considered unacceptable.

Faraj et al. (2011, p. 1234) argue that "the use of technology to encourage participants to try out novel ideas," help the community "respond to a range of tensions. Passion for ideas can be expressed through a passionate plea as well as demonstrated via a prototype with the sandbox." Wikipedia sandbox is not used much as a prototype demonstration platform. The sandbox is more used for individual testing, probably mostly because the content is erased automatically. According to my observations, Wikipedia prototyping takes place mostly under user pages, not in the Wikipedia namespace.

Purpose (why)	Content (What)	Participants (who)	Timing (when)	Location (where)	Form (how)
The overt purpose is to try out the editing functionality of MediaWiki. Covert purposes might be to learn Wikipedia editing through play, and gain confidence to proceed to actual contributions.	Anything, usually short and "silly" content	Mostly non-registered novice users		Exclusively on two Wiki page types, namely 'Sandbox' and 'Welcome to Wikipedia'. Both of these page types are non-permanent, i.e. content is periodically erased.	

Listing

Listing refers to adding or removing content to a list. A list contains thematically organized content. Typically, these lists consist of hypertext links to encyclopedia articles. A body of content within a theme can be combined to one list page. Thus, a list supports reader navigation in an abundance of content.

While most article-related listing involves collections of existing pages, sometimes lists include articles that do not exist. With these kind of 'red links' it is possible to communicate a gap in content. A red link is a request to the community to contribute something new. Let us take a look at one particular 'listing' edit that occurred on 10th of July, 2009:

This edit took place at the 'Wikipedia:Good articles' page, which is a hyperlinked list of Wikipedia articles that the community has approved to represent high quality by the community. The user has added one line under the 'Sports' headline of this page. Apparently, the Wikipedia page of 'Anthony Parker' has been approved as a good article, and thus it is now added among other articles of same quality level, such as 'BMW Sauber' and 'José Raúl Capablanca.'

It is clear that the purpose here is to add one entry to a list, but why does this edit take place? What is the intention behind this action? I would argue that a key reason is comprehensiveness. The page of 'Wikipedia:Good articles' should list all 'good' articles, but none of the 'non-good.' The aim is thus to maintain a

comprehensive and updated collection of good articles. This also supports easier access to higher quality content, in order to distinguish the quality from a plethora of ministubs, stubs, and unreferenced articles.

The timing of this edit is also meaningful. It occurred on the July 10th, 2009, which is the same day when the article 'Anthony Parker' received its 'good article' status. Thus, listing can often be part of established processes such as quality approval.

In addition to content-oriented lists, another type of listing directs to on-going processes. Let us take an example of this kind of edit:

This edit takes place on the 'Wikipedia:Articles_for_deletion' page. Here the user Sts has added one more hyperlinked entry to the list of articles that are currently under the deletion voting process. The user has added 'Lööppijulkkis', which is here translated as 'Headline celebrity'. In addition to 'Lööppijulkkis', there are two other deletion votes going on, namely 'Axel Ringström' and 'Matti Pohjola (cellist)'. Notice that this link does lead to the article 'Lööppijulkkis', but to the removal vote page related to that article.

'Lööppijulkkis' is a song by a Finnish gossip celebrity Johanna Tukiainen, who is best known for her affilitation in the "SMS scandal" that led to former Finnish foreign minister Ilkka Kanerva's resignation in 2008. The deletion vote here deals with whether the 'Lööppijulkkis' song is notable enough to have its own Wikipedia page. While the 'Articles_for_deletion' page attempts to comprehensively present all

open deletion voting processes, I would argue its primary purpose is to draw users' attention to participate in voting.

As simple as it might sound, the purpose for an act of listing is to result in a (more comprehensive) list. When you are listing, you create a list. Several deeper or more covert purposes might exist. A list may draw other participants' attention to a particular type of content. An act of listing can thus support at least the purposes of comprehensiveness and attention.

5.5.3 Collaborative genres

Collaborative genres can be roughly divided into two types. The first type we shall call "established processes." Characteristically, these are always done in a relatively similar manner; they follow an established pattern. Voting, task management and policy update are the three established collaborative genres I recognized from the sample.

The other type is called "emergent issues and reflective discourse." This consists of newly occurring things the community needs to respond to. With reflective discourse, I refer to the rhetorical actions on Wikipedia discussion forums where both new issues and established practices are reflected upon.

Established processes

Voting

An act of voting is a statement of an opinion for or against an issue in a community decision making process. While voting could generally take various forms involving several candidates, all instances of voting in this sample were about "yes" or "no" on one particular issue.

Here is an example of a vote:

Version 12 July 2009, at 14.41 (edit) (undo)
Jisis (Talk | contribs)
(→ I support the removal)
Diff →

Row 41:

#"Is available for purchase only Tuija Järvinen personally"- [[User: Albval | albval]] <small> <tt> ([[User talk: Albval | Talk]])</ tt> </ small> 12 . July 2009, at 12.18 (CEST)

[[User: Samulili | Samulili]] 12 July 2009, at 13.17 (CEST)

\+ # As Albval - [[User: Jisis | Jisis]] <small> ([[User talk: Jisis | Talk]])</ small> 12 July 2009, at 15.41 (CEST)

I support the removal of

1. It's not just a publicity storage base. It is also true that major singles have been agreed, but it does not always forced to be in the same way. So I do not like singles so important that they should have their own articles. - Velma 11 July 2009, at 14.51 (CEST)
2. Fri Velma. - Mixed Berry 11 July 2009, at 14.52 (CEST)
3. Singles combined into albums. qWerk 11 July 2009, at 15:01 (CEST)
4. I do not really realize the significance of each and every single. At least not this the perfect irrelevant "artist" in the case. - Quinn, 11, July 2009, at 15.21 (CEST)
5. Yhdestetään Johanna's article. Single and it's not important, but who has sung it, yes. - Kslotte 11 July 2009, at 16:22 (CEST)
6. Eetvartti (Comment) 11 July 2009 19:57 (CEST)
7. - A333 11 July 2009, at 21:58 (CEST)
8. Connecting to the mediah *** an article. - Crimson Cherry Blossom ™ 11 July 2009, at 22.02 (CEST)
9. Wow, can no longer be turhempaa? - ML 11 July 2009, at 23.25 (CEST)
10. Oh, ny ... - Vnnen 11 July 2009, at 23:26 (CEST)
11. - Crash 11 July 2009, at 23.34 (CEST)
12. **None syndicate.'s** Edition, which does not even exist. Oh yeah, heard of may be ~~ordered~~ to buy in person 20 euro for a single factor. It is not a CD but the CD-ROM -aihiolle fired from illicitly distilled bungle. - Petri Krohn 12 July 2009, at 06.04 (CEST)
13. - MiPe (wikinät) 12 July 2009, at 11:00 (CEST)
14. *It is available for purchase only Tuija Järvinen personally* - albval (Talk) 12 July 2009, at 12.18 (CEST)
15. Samulili 12 July 2009, at 13.17 (CEST)
16. As Albval - Jisis (Talk) 12 July 2009, at 15.41 (CEST)

I am opposed to removal of

1. "Single-majority voting has ended for storage." This differs from the majority of the vote yet, the fact that, as the initiator said: "The publicity it has received a yes." When the initiator says that, "Significance was questioned, and the article combined with Johanna Tukiainen.," Indicating that he himself questioned the significance of the article was "UO Fri Talk" single, Johanna Tukiainen, or the discussion page of this debate is certainly not over. - Mpadowadierf 11 July 2009, at 13:12 (CEST)
2. I liked the retention of it for granted that I did not even bother to comment on the significance of its being questioned. - Otrfan 11 July 2009, at 13.14 (CEST)
3. Although Tuksu is annoying ... - Ville Siliämaa 11 July 2009, at 13:55 (CEST)

The user Jisis has placed his argument under the 'I support the removal of' headline, which makes it a vote for article deletion. In addition, he comments 'As Albval,' which refers to the reasoning user albval stated in his vote. Therefore, I have coded the purpose of this edit-in-context as "Voting for article deletion and supporting another user's argument."

As can be seen from the screenshot, each instance is signed with a timestamp. Typically, voting takes place after an issue has not been solved through discussion.

Task management

Task management includes informing and distribution of activities between participants. Members agree together which tasks each member is willing to perform, what tasks they are working on or have already completed, and what tasks should be done. Additionally, users help each other solve tasks. According to this sample, task management can be divided into emergent task management, thematic task management and helping.

Task management activities occur mostly on various discussion fora. In the usual wiki discussion forum style, these instances of task management are signed by the users themselves. What characterizes all task management activities in this sample is that they are of self-assignment type. Not once was a task assigned to someone else, but rather those were reported as completed by the reporter.

Emergent task management

An act of emergent task management is defined as informing other participants of a completed task, or of a task that the user has started to work on. These take place on a discussion forum. Usually some user brings up a need that should be dealt with. Emergent task management is a response to this, stating that the user has completed an "unlisted" task.

Version 13 january 2011 at 11.07 (edit) (undo)
Jafeluv (Talk | contribs)
(→ Oscar-winning songs: I put the "Academy Award winning songs")
Diff →

Line 217:

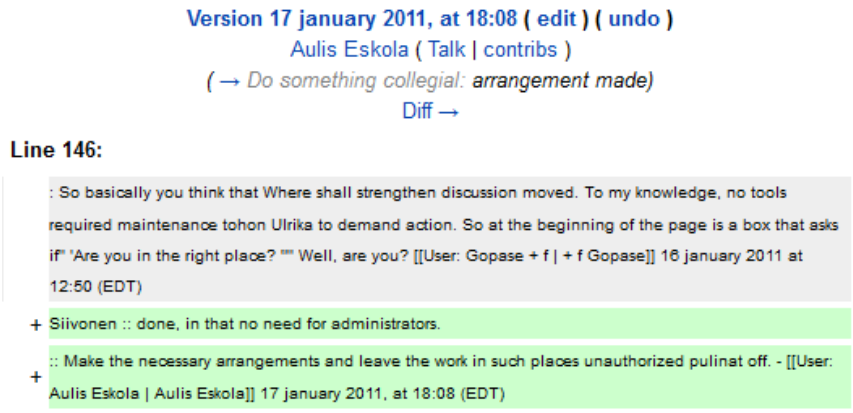
: As long as they can not appoint a Finnish winners. It is not about running the competition, but at least the companies have some kind of cultural prize. - [[User: Ulrika | Ulrika]] 13 january 2011 at 11.01 (EET)

+

+ I put :: [[: Category: Academy Award winning songs | Academy Award winning songs]], the same way as movies. [[User: Jafeluv | Jafeluv]] 13 january 2011 at 11.07 (EET)

The first example of emergent task management is related to content categorizing. A discussion thread was started to discuss that Academy Award winning songs are not

categorized, but they should be. The user Jafeluv took this task and then announced he had created a category "Academy Award winning songs" using the example of the already existing category of "Academy Award winning movies."



Version 17 january 2011, at 18:08 (edit) (undo)
Aulis Eskola (Talk | contribs)
(→ Do something collegial: arrangement made)
Diff →

Line 146:

: So basically you think that Where shall strengthen discussion moved. To my knowledge, no tools required maintenance tohon Ulrika to demand action. So at the beginning of the page is a box that asks if" 'Are you in the right place? "" Well, are you? [[User: Gopase + f | + f Gopase]] 16 january 2011 at 12:50 (EDT)

\+ Siivonen :: done, in that no need for administrators.

\+ :: Make the necessary arrangements and leave the work in such places unauthorized pulinat off. - [[User: Aulis Eskola | Aulis Eskola]] 17 january 2011, at 18:08 (EDT)

The second example is part of a discussion thread where administrators were called to do some cleaning. The user Aulis Eskola responded that he has done the cleaning, and there was no need for administrator rights in the process. Additionally, he offers a recommendation for the future: users should "make the necessary arrangements" by themselves and stop nagging about administrators.

Version 13 january 2011 at 18:00 (edit) (undo)
Liquorice (Talk | contribs)
(→ Margaret Sandemo: COM)
Diff →

Line 106:

I would suggest at least the laws of life and career into separate partitions. Relationship with the supernatural section sopiis I think better subjects for books and inspirations section, because it has had a significant impact on his production. Bibliography for almost half of the article - maybe your own artikel would be in place? By the way, those articles in the book series could copy text from this article, so that there would be little more than just a book list. - [[User: Nedergard | Nedergard]] 12 january 2011 at 12.14 (EET)

: I think that might make their very own article, and to transfer all of their general knowledge, such as the SS-musicians have a discography. Illemmasta'm doing at a later time. - [[User: Liquorice | Liquorice]] 13 january 2011 at 07.39 (EET)

+ I did that :: editorial features. - [[User: Liquorice | Liquorice]] 13 january 2011 at 18:00 (EDT)

The third example is concerns contemplating the structure of Norwegian writer Margit Sandemo's Wikipedia article. The users are discussing how Sandemo's bibliography takes such a large portion of the whole page, pondering whether the bibliography should be separated into its dedicated article. The user 'Liquorice' answered first, in the morning of January 13th, that he will split the article later in the evening. The user 'Liquorice' later (18:00 the same day) replies that he has completed the task: created a dedicate page for Margit Sandemo's bibliography: http://fi.wikipedia.org/wiki/Margit_Sandemon_bibliografia.

Version 18 january 2011 at 20.05 (edit) (undo)
Olli (Talk | contribs)
(→ WYSIFTW editor)
Diff →

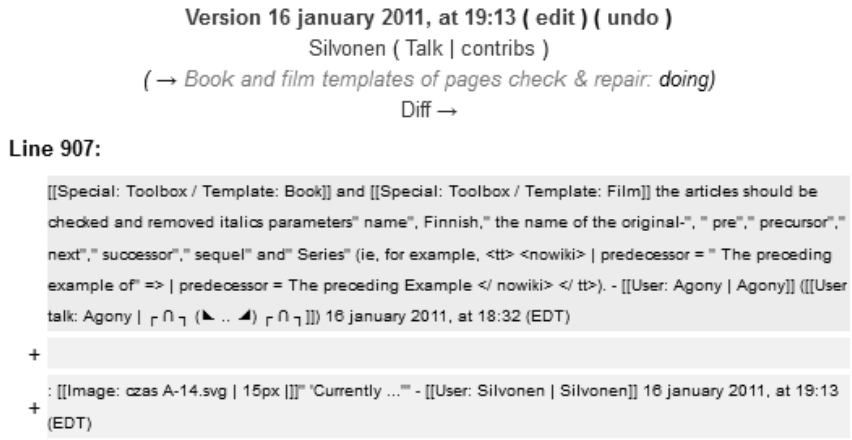
Line 151:

- [[User: Zache | Zache]] 8 january 2011 at 11.02 (EET)

+

+ : I put that in the experiment. - [[User: Olli | Olli]] <sup> [[User talk: Olli | talk]] </ sup> 18 january 2011 at 20.05 (EET)

The fourth example is related to a Wikipedia editing tool called WYSIFTW[51]. After some discussion, the user 'Olli' says that he has taken that software into use, for trying it out, experimenting with it.



The fifth example took place at the Wikipedia:Bots/requests page. Here the user Agony brings to the audience's attention that a set of articles should be checked and italics parameters should be removed. The user Silvonen answers that he is currently working on this task.

Thematic task management

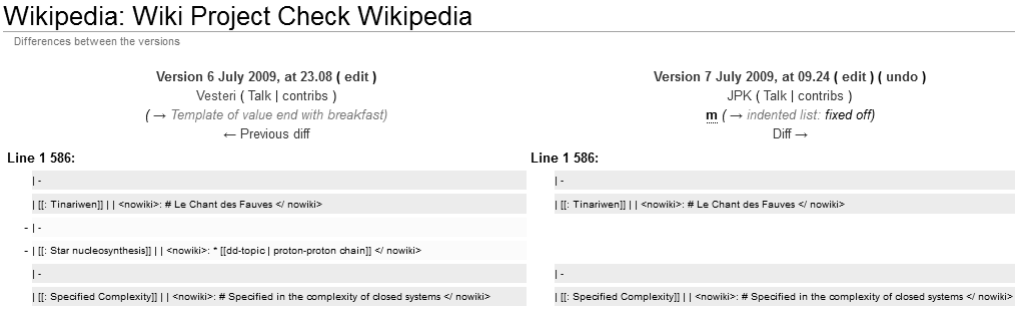
An act of thematic task assignment is defined as committing to a task, or several tasks, related to a particular theme.

Thematic task management happens on Wikiprojects pages that are focused on a theme of interest. These involve collaborative efforts focused on article improvement around a specific theme. Instances related to two Wikiprojects pages were caught in the sample: namely "Pseudoscience" and "Check Wikipedia." The

[51] This name combines two acronyms: *What You See Is What You Get* and *For The Win*.

project page for “Pseudoscience” lists various tasks that participants can assign themselves into. These tasks include “writing a new article, redirecting synonyms, language improvement, expanding, and rewriting” (http://fi.wikipedia.org/wiki/Wikipedia:Wikiprojekti_N%C3%A4enn%C3%A4istiede).

“Check Wikipedia” is an automatically generated page which points out invalid syntax on Wikipedia pages. These syntaxes can include ISBN numbering, missing picture text, or invalid HTML syntax.



Wikipedia: Wiki Project Check Wikipedia

Differences between the versions

Version 6 July 2009, at 23.08 (edit)	Version 7 July 2009, at 09.24 (edit) (undo)
Vesteri (Talk | contribs)	JPK (Talk | contribs)
(→ *Template of value end with breakfast)*	**m** (→ *indented list: fixed off)*
← Previous diff	Diff →
Line 1 586:	**Line 1 586:**
| -	| -
| [[: Tinariwen]] | | <nowiki>: # Le Chant des Fauves </ nowiki>	| [[: Tinariwen]] | | <nowiki>: # Le Chant des Fauves </ nowiki>
- | -	
- | [[: Star nucleosynthesis]] | | <nowiki>: * [[dd-topic | proton-proton chain]] </ nowiki>	
| -	| -
| [[: Specified Complexity]] | | <nowiki>: # Specified in the complexity of closed systems </ nowiki>	| [[: Specified Complexity]] | | <nowiki>: # Specified in the complexity of closed systems </ nowiki>

Here in the Wikiproject page “Check Wikipedia”, the user JPK removed one entry “Star nucleosynthesis” from a list. Apparently, the user JPK has checked the article for inconsistencies. After the syntax was corrected, the user JPK removed the entry from the list.

Helping

An act of helping concerns providing an answer or a solution to another user's request.

Let us take a look at a couple of 'helping' examples. The first example takes place on the "Coffee room (ask freely)" discussion thread, which is a page type dedicated to various kinds of discussions not necessarily related to Wikipedia.

Version 8 July 2009, at 17:00 (edit) (undo)
Crimson Cherry Blossom (Talk | contribs)
(→ DVD movie soundtrack)
Diff →

Line 741:

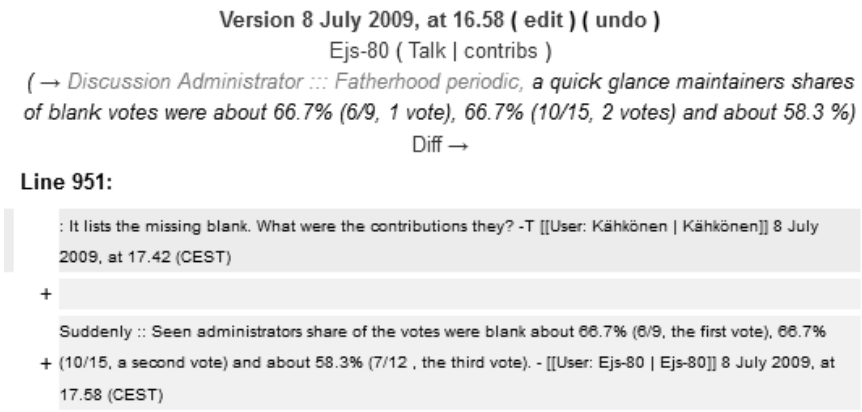
:: The sound quality is poor, or crackling. Below I guess just be the desired sound. I wonder if those media players with voice recorders will be available? - [[User: Jarmo Turunen | Jarmo Turunen]] 8 July 2009, at 12:12 (CEST)

\+

::: Have you tried to set the sound card again? It may be also possible that the speakers are out of order. A trivago a voice the adapter does not be no longer stationary of these Nor experiments, following that of of its compared a multi-complex,, these Electronic Equipment sector are the fact that what the any time,
\+ bring to happen, even though the actual wrong with hardware system should be at all. [[User: Crimson Cherry Blossom | -" 'Crimson Cherry Blossom ™"" </ span>]] </ span> 8 July 2009, at 18:00 (CEST)

Here, a user Jarmo Turunen has asked about a sound card problem. The user Crimson Cherry Blossom provides help to the issue at hand.

Let's look at the next example:



Version 8 July 2009, at 16.58 (edit) (undo)
Ejs-80 (Talk | contribs)
(→ Discussion Administrator ::: Fatherhood periodic, a quick glance maintainers shares of blank votes were about 66.7% (6/9, 1 vote), 66.7% (10/15, 2 votes) and about 58.3 %)
Diff →

Line 951:

: It lists the missing blank. What were the contributions they? -T [[User: Kähkönen | Kähkönen]] 8 July 2009, at 17.42 (CEST)

\+

Suddenly :: Seen administrators share of the votes were blank about 66.7% (6/9, the first vote), 66.7%
\+ (10/15, a second vote) and about 58.3% (7/12 , the third vote). - [[User: Ejs-80 | Ejs-80]] 8 July 2009, at 17.58 (CEST)

The user Kähkönen requests details concerning the amount of administrators in blank votes. The user Ejs-80 provides an answer to this question by telling this ratio was 66.7% in the first round, 66.7 in the second round, and 58.3% in the third round.

All instances of helping are located at coffee room discussion pages.

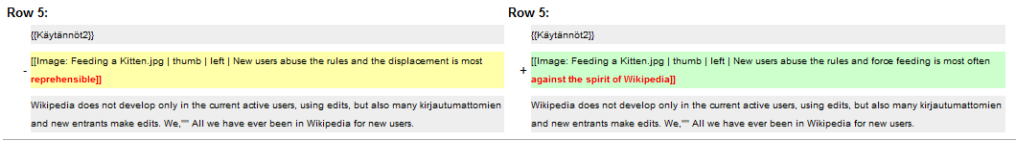
Policy update

Wikipedia is an ethos-action community where social norms play an important role (Pentzold, 2011). Social norms, which are written down on policy pages, guide the preferred behavior. Wikipedia's "constitutional law" contains five pillars, of which number five states that "Wikipedia does not have firm rules" (http://en.wikipedia.org/wiki/Wikipedia:Five_pillars). Furthermore, it describes that "Rules in Wikipedia are not carved in stone, as their wording and interpretation are likely to change over time. The principles and spirit of Wikipedia's rules matter more than their literal wording, and sometimes improving Wikipedia requires making an exception to a rule."

As it is generally accepted that written policies can never perfectly reflect the ideas behind the words, it is natural that the written policies tend to be improved and rewritten over time. Policies define the normative standards of the Wikipedia community.

An act of policy update considers editing a policy page. Technically this is similar to an article edit, in such way that the edits are not signed by users. Thus, just by looking at a policy statement it is not possible to see who has contributed what. The difference between an article edit and a policy update edit is, of course, that the target is a Wikipedia policy page, not an encyclopedia article. The spark to updating a policy page is can originate from a community decision that something should be done in a particular way from now on. Also, policies get updated so that the written statement would better reflect the idea behind the words.

Each policy has its dedicated page. ‘Neutral Point of View’ has its own page. ‘Do not bite newcomers’ has its own page. ‘No original research’ has its own page.



Here the user has updated a policy description. What earlier was defined as “reprehensible,” is from now on articulated as “against the spirit of Wikipedia”. This is an example of how users may improve the phrasing of a policy description.

Version 12 July 2009, at 12.13 (edit) (undo)
August-54 (Talk | contribs)
Diff →

Line 7:

The article is transferred to" '[[Wikipedia: Peer review | peer review]] at least two weeks"' and then vote on the status of the elimination is possible to start. The vote for a resolution must be done within two weeks after the end of peer review. Voting will last" 'two weeks"' and to remain the preferred page is a candidate to be over with" normal" '80% of the vote '. The vote is therefore recommended a new site-vote.

If the article is less than during the" '{{Percent Limit | recommended page}} per cent"' support for the SS - to preserve the status (counted votes in favor the proposal if the proposer is a [[Wikipedia: Vote # Who can vote? | Right to vote]]) and proposal in addition to four votes in favor, it is transferred to [[Wikipedia: Featured sites | recommended sites on the list]] to "pages, which have previously been
+ recommended for this site" and an indication of the advisability added to the article at the top mallineella {{M | Ssmenetetty}} and Talk model in to add it to { {M | Article history}} using an appropriate {{M | Main Event}}. If you vote, the article maintained the SS-status, will the page the talk page to add it to {{M | Article history}} using an appropriate {{M | Main Event}}, or by increasing the model {{M the | Sssäilyi}}. In any event, might also like:

Here is another example. This time the edit does not only improve the phrasing of a policy, but it makes several additions to it.

Version 4 April 2009 at 11:30 am (view source)
Crt (Talk | contribs)
(Nospam)
← Previous diff

Line 1:

- {{Note |" '[[Wikipedia: Disclaimers | Wikipedia does not guarantee the accuracy of the information]]. Any user can at any time to edit and add material from Wikipedia. This page lists the ways in which to submit corrections to the articles or by removal of material." ']}
- <table cellspacing= 10 border=0 width=100%>
- <tr> width=50% valign=top style="border-right:1px solid black; padding-right:2em;">
- == False, misleading or questionable data? ==

Version 12 July 2009, at 13:56 (view source)
Str4nd (Talk | contribs)
m *(Template, the Wikimedia Foundation, contact details as a shortcut for a flat page, kh)*
Diff →

Line 1:

+ {{Template | content =" '[[Wikipedia: Disclaimers | Wikipedia does not guarantee the accuracy of the information]]. Any user can at any time to edit and add material from Wikipedia. This page lists the ways in which to submit corrections to the articles or by removal of material." ']}
+ <table cellspacing= "0" border= the "0" width= "100%">
+ <tr> width= "50%" valign= "top" solid style="border-right:1px #555; padding-right:2em;">
+ == A false, misleading or questionable data? ==

A third example of policy update. Here on the left we have an old version, and on the right a new. As you can see on the time stamps, there is more than three months in between their two edits. The user Str4nd has updated the syntax of the page, such as quotation marks to values and a hex color code instead of a color name.

1.1.1 Emergent issues

Reflective discourse

Wikipedia is based on voluntary contributions from geographically distributed amateurs, who mostly do not know each other in person. This independency from expert authority has proven to be successful.Wikipedia has lived through a decade, dominating over all other encyclopedias on the market. The nature of Wikipedia's content production model, however, opens several coordination challenges. As content production is more often ad hoc than planned, individual pieces of content might become disintegrated. In addition, how content represents the existing reality often too needs be discussed to prevent any bias. Thus there need to be fora to reflect on these issues.

For example, in a realization that Finnish geographical content are inconsistently categorized at times according to historical provinces and at times according to current Finnish regions, what should be done so that this content would be presented in a coherent way? Should "Ostrobothnia" refer to the historical province of Ostrobothnia, or to the current region around the city of Vaasa? Additionally, how should articles be categorized, those that are related to the Tunisian events that started in December 2010? Should it be called "uprising," "protest," or "revolution?" All these questions are issues that cannot be forced by any single authority, but these need to be discussed and decided by the community.

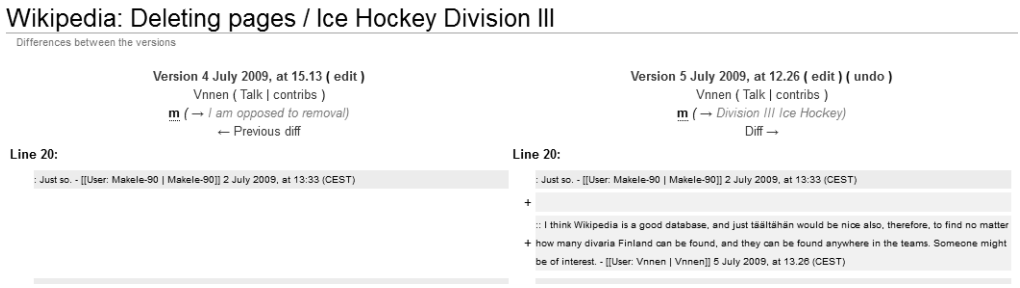
Reflective discourse refers to acts of deliberation, discussion and consideration of different sides of an issue. Both emergent issues and established processes can be discussed.

Five varieties of reflective discourse were distinguished from the data, namely: questioning, suggesting, discussing, asking, resolving/interpreting.

Arguing

I define an act of arguing as a statement in support of an agenda, or an expression of an opinion. As an instance, a user can express her opinion against an article's notability. This expression might contribute to the deletion of this article.

Let us take a look of several examples of arguing in Wikipedia.



Wikipedia: Deleting pages / Ice Hockey Division III

Differences between the versions

Version 4 July 2009, at 15.13 (edit)	Version 5 July 2009, at 12.26 (edit) (undo)
Vnnen (Talk | contribs)	Vnnen (Talk | contribs)
m (→ *I am opposed to removal)*	m (→ *Division III Ice Hockey)*
← Previous diff	Diff →
Line 20:	**Line 20:**
: Just so. - [[User: Makele-90 | Makele-90]] 2 July 2009, at 13:33 (CEST)	: Just so. - [[User: Makele-90 | Makele-90]] 2 July 2009, at 13:33 (CEST)
	+
	+ :: I think Wikipedia is a good database, and just täältähän would be nice also, therefore, to find no matter how many divaria Finland can be found, and they can be found anywhere in the teams. Someone might be of interest. - [[User: Vnnen | Vnnen]] 5 July 2009, at 13.26 (CEST)

This discussion is about whether the article about Ice Hockey Division III is notable enough to be retained in Wikipedia. The user Vnnen argues that in his opinion the article should not be deleted. He thinks that Wikipedia is "a good database" and that it would be useful to find out how many ice hockey divisions are in Finland, and which teams belong to each of these.

Version 7 July 2009, at 07:35 (edit) (undo)
Jm00 (Talk | contribs)
(→ Why is a stub / Ostrobothnia?: arms of)
Diff →

Line 550:

At least ::::: historical province of Ostrobothnia, Häme, or the mention of it is misleading, however, because the adjacent provinces of the model to comply with the current provincial boundaries. The current distribution region is of course also possible, and perhaps for a better clarity. So one wants a more appropriate size stub class or stub class a more narrow definition, is really a matter of choice, but the historical provinces of explicit mention in this context, only a confused (as derived Ostrobothnians, south-east and south of the Tampere Region and most of Central Finland and other very able to detect). - [[User: Urjanhai | Urjanhai]] 5 July 2009, at 14.32 (CEST)

+

+ ::::: If those templates Stub / Ostrobothnia, Stub / Häme, Stub / Karelia, etc. have been consigned to the current level, I find the historical coat of arms of provinces should be deleted from them. They are also at odds with what is apparently intended for classes, because the coat of arms refers to the now, in many cases in different areas ([[Finnish historical provinces]]) than tynkämallineen text (the current provinces). Further, I would find it easiest to use existing county-specific jaotusta. - [[User: Jm00 | Jm00]] 7 July 2009, at 08:35 (CEST)

This argument is part of a discussion thread dealing with how historical Finnish provinces and current Finnish regions should be represented in Wikipedia. This discussion, taking place on the 'Coffee room / Policies' page, originated from the revelation of how stub classes should be named, and to which content should they be associated with. At the time stub classes followed inconsistently both the current and the historical naming. Thus a discussion was initiated to unify the stub practices. Here, the user Jm00 argues that the current Finnish regions should be the default categorization. He also states that coats-of-arms should be used more carefully on these pages.

Version 9 january 2011 at 17.19 (edit) (undo)
Vesteri (Talk | contribs)
m *(→ Kerjuukirje photo-archives?: fix)*
Diff →

ersions is one of the edit.)

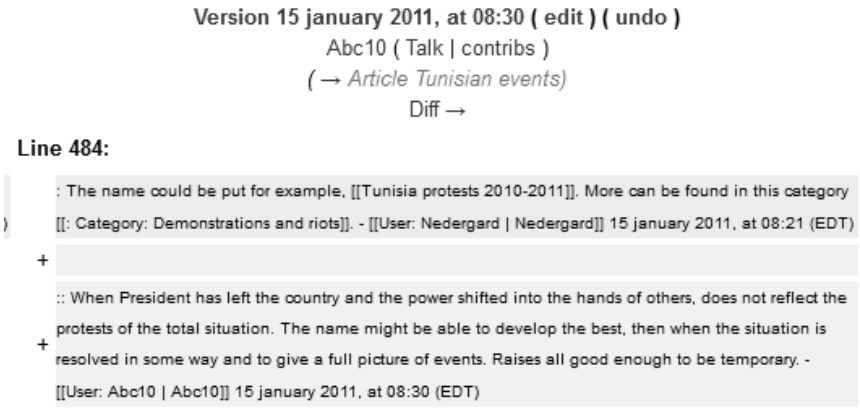
Row 97:

I wondered about this [[Mika Waltari]] in articles related to writing, that the man was born in 1908 he could be, in principle, no matter how much pre-1966 picked photos that do not exceed the threshold for the work, and would thus be free. He was dealing with such books also feature, so in principle they could be used to scan and we do. But when the majority of these images is an indication that they are derived from a photo-archive, so would not it be possible to contact the repository and request that they would give copyright-free images for use in Wikipedia. Such recording is probably no matter how much, for example, WSOY archive, Otava archives, the Central Art Archives, the Finnish Film Archive, the Finnish Literature Society, etc. Has anyone knowledge of such image archives, and the principle of operation, whether it is realistic ask anything from there? And would it be around to want to go together to form kerjuukirjettä? - [[User: Tanár | Tanár]] 9 january 2011 at 16.23 (EET)

: I have been pondering the same when I have looked on the German-archive Commons project. Quite a cultural achievement, which soisi an example to others. The request could just refer to this German project. - [[User: Gwafton | Gwafton]] 9 january 2011 at 17.10 (EET)

+ Certainly :: puuhaillaan any kind, if it can be found in the financial or good will (voluntary). Otherwise, things hardly nytkähtävät in any direction, or I would not be so sure that the community or the company would hire staff to work in unprofitable. [[User: Vesteri | Vesteri]] 9 january 2011, at 17:18 (EDT)

This discussion occurred on the 'Coffee room / various' page. The thread deals with copyright expiration of photographs. In particular, it deals with whether it would be a good idea to contact photo archives in order to get public domain photographs for the benefit of Wikipedia. The user Vesteri states "realism" for these kind of pursuits. He argues that unless the organizations who own the photo archives have a business case in providing the old photographs, it will be unlikely that they will cooperate with Wikipedia.



Version 15 january 2011, at 08:30 (edit) (undo)
Abc10 (Talk | contribs)
(→ Article Tunisian events)
Diff →

Line 484:

: The name could be put for example, [[Tunisia protests 2010-2011]]. More can be found in this category [[: Category: Demonstrations and riots]]. - [[User: Nedergard | Nedergard]] 15 january 2011, at 08:21 (EDT)

+

:: When President has left the country and the power shifted into the hands of others, does not reflect the protests of the total situation. The name might be able to develop the best, then when the situation is resolved in some way and to give a full picture of events. Raises all good enough to be temporary. - [[User: Abc10 | Abc10]] 15 january 2011, at 08:30 (EDT)

This discussion, which took place on the 'Coffee room / ask freely' page in mid-January 2011, ponders how the recent Tunisian events should be named. A previous user reported he had created an article about Mohamed Bouazizi, a Tunisian street vendor who set himself in fire in mid-December 2010 as a protest. The discussion here contemplates how this act of self-immolation relates to the bigger picture, and how those should be defined in Wikipedia. Is it "Tunisian protests 2010-2011"? The user Abc10 here argues that because the president Ben Ali had left the country (one day earlier,) the bigger picture is something more than just protests. However, Abc10 ends his argument that for now the protest-terminology is acceptable, because the events are still going on. He says that only after there has been some sort of resolution to these events, can the article be named in a proper way.

Questioning

An act of questioning contains a challenge to the status quo of how things are done. An example of questioning can be challenging how policies are put into action. Here is an example:

Version 12 July 2009, at 11.51 (edit) (undo)
Jupera (Talk | contribs)
(→ Discussion)
Diff →

Row 11:

: Can such a soundtrack called [[single]] as last? Sources tell us that Tukiainen is a recording studio, recording a single [[song]] ca Nothing about the fact that the yield would have been some sort of a physical copy does not exist. With modern technology, of course, everyone has a home computer can burn your digital audio tracks [[CD-ROM]] aihiolle disc that is compatible with [[CD-ROM]] players. The most important distribution channel for this tekeleellä shows, however, the [[YouTube]]. The significance of the subject gave the best comment on [http://www.youtube.com/watch?v=awneO0RHduo YouTube video], the first to comment:"Is not it just sound awful oo already enough when you had to put kuviaki yet?! FUCK !!!" - [[User: Petri Krohn | Petri Krohn]] 12 July 2009, at 06.45 (CEST)

:: Äänestyskommentissa wrote, "It is not a CD but the CD-ROM aihiolle fired from illicitly distilled bungle."
+ Where might you tell me this sounds convincing argument is based on? If it is based on only a guess, based on the arguments in the case of lying. - [[User: Jupera | Jupera]] 12 July 2009, at 12:51 (CEST)

The user Jupera questions another user's claim that the discussed music album 'Lööppijulkkis' is not an actual published audio CD, but only a burned CD-R(OM). Jupera wants to see evidence to this claim; otherwise he states that the other user has expressed a lie.

Version 15 january 2011 at 15:48

Table of contents [piilota]
1 Iran
1.1 I
I am opposed to 1.2
1.3 Discussion

Iran

Peer review, improved quite a large article on the state in which there is a lot. - Tappin 15 january 2011, at 13:30 (EDT)

Voting will close on 22 january 2011, at 13:30 (EDT).

I support the

I am opposed to

Discussion

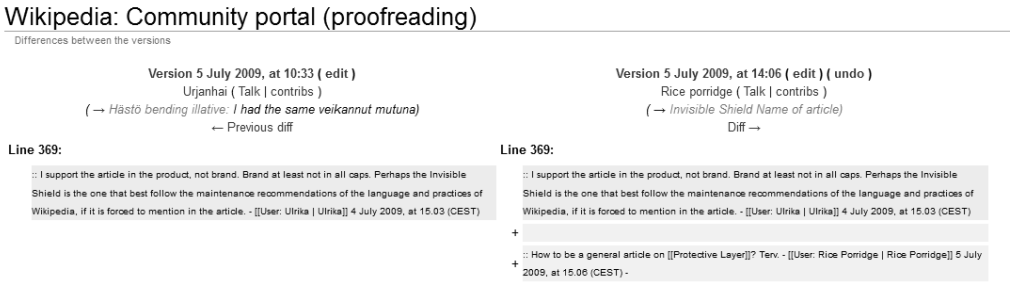
What could bring the reference practice has been here? They are identified as the time oddly. JK Nakkila 15 january 2011, at 15:48 (EDT)

Here, the user JK Nakkila questions how the ‘Iran’ article has been referenced. Unlike many other instances of reflective discourse, this one does not occur in a ‘Coffee room’, but in the discussion section of a ‘Good article candidate’ page.

Suggesting

Suggesting is an act of offering other participants a direction for action, while not taking actions on their own.

Here is the first example of suggesting:


Wikipedia: Community portal (proofreading)

Differences between the versions

Version 5 July 2009, at 10:33 (edit)
Urjanhai (Talk | contribs)
(→ Hästö bending illative: I had the same veikannut mutuna)
← Previous diff

Line 369:

:: I support the article in the product, not brand. Brand at least not in all caps. Perhaps the Invisible Shield is the one that best follow the maintenance recommendations of the language and practices of Wikipedia, if it is forced to mention in the article. - [[User: Ulrika | Ulrika]] 4 July 2009, at 15.03 (CEST)

Version 5 July 2009, at 14:06 (edit) (undo)
Rice porridge (Talk | contribs)
(→ Invisible Shield Name of article)
Diff →

Line 369:

:: I support the article in the product, not brand. Brand at least not in all caps. Perhaps the Invisible Shield is the one that best follow the maintenance recommendations of the language and practices of Wikipedia, if it is forced to mention in the article. - [[User: Ulrika | Ulrika]] 4 July 2009, at 15.03 (CEST)

+

+ :: How to be a general article on [[Protective Layer]]? Terv. - [[User: Rice Porridge | Rice Porridge]] 5 July 2009, at 15.06 (CEST) -

In this translated screenshot a user has requested help naming an article about Invisible Shield products, such as those that are used to protect a smart phone touch screen. The user «Rice porridge» suggests to name the article as ‘protective layer,’ instead of Invisible Shield, so that the article is not limited to one specific brand.

Version 11 january 2011 at 12.11 (edit) (undo)
Olimar (Talk | contribs)
(→ Discussion)
Diff →

Line 15:

When the peace agreement is about, so whether it would be reasonable to require that all signatories should be the articles? At least the members of the Estonian delegation to the articles on the wiki and sang mostly in Estonian [[: ru: Иоффе, Адольф Абрамович | Adolf Joffesta]] and [[: ru: Гуковский, Исидор Эммануилович | Isidor Gukovskista]] is a ru-wiki. - [[User: Tanár | Tanár]] 8 january 2011, at 19:06 (EDT)

: Each voter must decide for themselves what needs to be reasonable customs. I myself do not now have time to do those articles. [[User: JK Nakkila | JK Nakkila]] 8 january 2011 at 22.32 (EET)

\+ Would that the list of signatories to integrate text, not as many different names from that list would be justified. - [[User: Olimar | Olimar]] 11 january 2011 at 12.11 (EET)

The user Olimar suggests here that the article containing the list of Tartu Treaty signatories should be merged with the article of Tartu Treaty.

Version 11 July 2009, at 10.43 (edit) (undo)
SpaceAce (Talk | contribs)
(→ Afrikaanerinationalismi)
Diff →

Row 42:

=== [[Afrikaanerinationalismi]] ===

Originally en-wiki article I wrote on the basis of en-wiki article written by a Finnish translation and revision. It would be good to get feedback, at least on how the article could serve to clarify and / or make helppolukuisemmaksi perhaps South Africa's history of the uninitiated a. - [[User: Joonasl | Joonasl]] ([[User talk: Joonasl | talk]]) 9 July 2009, at 11.09 (CEST)

\+

: At least once in the definition one could drop the plot, if you do not know what the Afrikaner means, so
\+ it vosi to explain the definition. Otherwise, a pretty good article. - [[User talk: SpaceAce | ○]] [[User: SpaceAce | SpaceAce]] [[Special: Modification / SpaceAce | ○]] 11 July 2009, at 11:43 (CEST)

User SpaceAce suggests to the user Joonasl that the concept of *Afrikaner* should be defined within the article on Afrikaner nationalism.

Supporting

An act of supporting is taking a side for another user's argument or action. In case of a conflict of opinions, it is useful to give and receive support from other users.

Version 20 january 2011, at 10:51 (edit) (undo)
JMK (Talk | contribs)
(→ Before the fall-born and the time period of decline since the start of the dead ages: a clear story)
Diff →

Line 320:

::: It is very likely that if the year 63 BC to be marked -62, at least I will not remember the instructions and schedule it wrong. Logical, at least in my aivoilleni would be that 63 BC -63 = - [[User: Albval | albval]] <small> <tt> ([[User talk: Albval | talk]]) </ tt> </ small> 18 . january 2011, at 20:36 (EDT)

:::: Yeah, I suspect also that it would become just a mess. The best solution would be that if the kipsipää BC 63 is created. such a model is to put a -63. The recipe should then be smart enough to calculate the + 1, ie to convert earthly time this astronomical bill. But which is precisely what I understand is now being pretty much in agreement. - [[User: Tanár | Tanár]] 18 january 2011, at 22:43 (EDT)

+

+ A strong consensus ::::::. Template is hoped, therefore, be amended to provide that the BC-the period marked by changing only the year minus sign in Nature (eg, 63 BC. Labeled "-63"). The term "0" is then used at all, and it can display an error message. - The recipe changes while waiting for the articles is not worth doing anything "väliaikaiskorjauksia" (ie, 63 BC. Change -62: conversion of a temporary order to the age now printed correctly), because they would have to return, however, once a model has been modified. - [[User: JMK | JMK]] 20 january 2011, at 10:51 (EDT)

This discussion takes place in a thread discussing people who were born before the common era, but died after. Of particular interest to the discussants is which numbers should be put into the template that calculates the person's age of death. The problem is that since year zero did not exist, the template currently generates a wrong result. The participants ponder which would be a better solution: that people who are born in 63BC should be marked as "-62," or if the template should be adjusted to produce the right result when it is marked as "-63." Here, the user JMK is in a "strong consensus" with the user Tanár's suggestion, that 63BC should be written in the template as "-63."

Discussing/commenting

An act of discussing refers to enganging in a conversation without explicitly pushing an agenda.

Version 17 May 2011, at 14:08 (edit) (undo)
Gwafton (Talk | contribs)
(→ acceptable?)
Diff →

Line 327:

: And that when the women would say, so let's again be required to inhibitions. - [[User: Otrfan | Otrfan]] 17 May 2011, at 14:55 (CEST)

+

+ : I do not think I'm not here to mention sex. ;) But when the time Pipa Middleton peffasta slandered, he has every right and reason to be offended. Ulrika's appearance, or its individual elements, however, has not commented arvailtu any more negative than positive light. If this is done, I understand the injury. However, it takes a little over myötäloukkaantuminen. At least I do not have the conditions specified by Ulrika to understand why on that as such inappropriate comments should neither be indignant. - [[User: Gwafton | Gwafton]] 17 May 2011 at 15.08 (CEST)

This discussion thread ponders whether one user's remark about Pippa Middleton's butt was sexist or not. Here the user Gwafton discusses this issue by saying that Pippa Middleton herself might be offended by this comment, but others should not feel offended.

Version 8 July 2009, at 15.33 (edit) (undo)
Watsamies (Talk | contribs)
(→ Discussion)
Diff →

Line 10:

The time point of view I think the crucial importance is the ratio of Ryteihin: According to an article Gerda Ryti was as high as Ringström" control". Text can be understood in many ways. I wonder what Turtola is actually a saying? Terv. - [[User: Rice Porridge | Rice Porridge]] 5 July 2009, at 21:06 (EDT) -

+

+ Petri Krohn: What are the [[Wikipedia: Avoid personalities | pellet]]? If you know the source of useful information, so why do not you bring it to an article? Kindly - [[User: Watsamies | Watsamies]] 8 July 2009, at 16.33 (CEST)

The user Watsamies addresses a question to the user Petri Krohn. As Krohn has previously stated that useful sources should be used, Watsamies requests Krohn to provide these sources himself.

Asking/requesting

An act of requesting involves the person turning to other participants in need of help or support

Version 6 July 2009, at 13:52 (edit) (undo)
Kallerna (Talk | contribs)
(→ *Can I present a representative of Wikipedia?: new section)*
Diff →

Line 197:

: August could turn a bit to calm down. - [[User: Otrfan | Otrfan]] 6 July 2009, at 11:15 (CEST)

+

+ Can I == occur Wikipedia Representative? ==

+

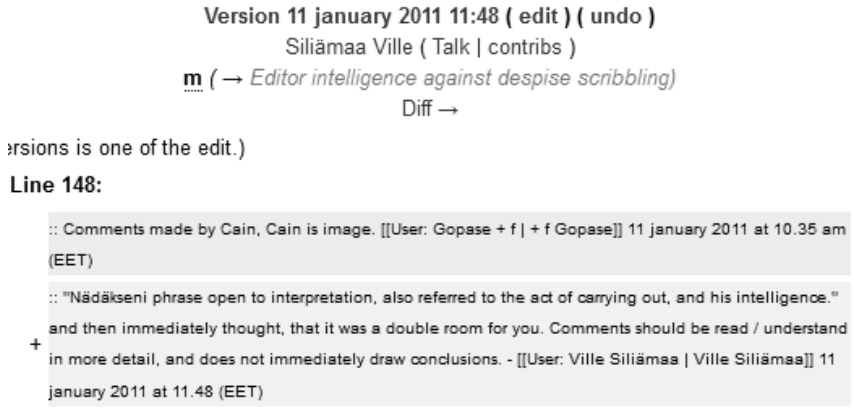
+ I'm going to [[Sonisphere]], and I thought to describe the event there. The event is not permitted to take pictures without pressikorttia ("Photography as professional cameras are not allowed. Unauthorized recording of performances is prohibited (The Copyright Act § 2 and 45)"), so may I present in Wikipedia / Commons' representative and send a request to a description of the permit? <small> (Commons, this should have been put, but I would much appreciate a reply täältäkin) </ small>. [[User: Kallerna | -" 'kallerna"" </ span>]] [[User talk: Kallerna | <font color="olive"> ™ </ font>]] </ span> 6 July 2009, at 14.52 (CEST)

Here, the user Kallerna describes that he is planning to participate in the Sonisphere rock festival. He would like to go there as a photographer in order to contribute photographic material to Wikimedia Commons and Wikipedia. Thus he requests whether the community would approve to have him represent the Finnish Wikipedia community.

Resolving/Interpreting

Acts of resolving and interpreting attempt to offer a proper interpretation to a user's previous statement. This occurs when interactions get heated – when a content-related criticism is taken as a personal attack. An act of interpreting provides a possibility to understanding an issue or action.

Originally, I had categorized these as separate acts. Closer investigation revealed that these two are actually collocated, and serve a similar purpose: to offer a resolution to a heated conflict through neutral interpretation of previous statements.



Version 11 january 2011 11:48 (edit) (undo)
Siliämaa Ville (Talk | contribs)
m *(→ Editor intelligence against despise scribbling)*
Diff →

ersions is one of the edit.)

Line 148:

:: Comments made by Cain, Cain is image. [[User: Gopase + f | + f Gopase]] 11 january 2011 at 10.35 am (EET)

\+ :: "Nädäkseni phrase open to interpretation, also referred to the act of carrying out, and his intelligence." and then immediately thought, that it was a double room for you. Comments should be read / understand in more detail, and does not immediately draw conclusions. - [[User: Ville Siliämaa | Ville Siliämaa]] 11 january 2011 at 11.48 (EET)

Here, on a discussion on Wikipedia:Administrators' Noticeboard, there is a debate going on whether one user has hurt another user by stating that "a Cain reference is dumb." The user Ville Siliämaa offers here a way to resolve the dispute. He states that when looking at the comment in its broader context, it appears not a personal attack, but as a rather neutral comment.

Version 11 january 2011, at 10:20 (edit) (undo)
Λ (Talk | contribs)
(→ Editor intelligence against despise writing: Everything is open to interpretation)
Diff →

Line 142:

: I believe that there is not characterized as users, but editing, which is common practice and allowed. You take things too personally. It is unfortunate that you have created an interesting article was sharp reception time, but this is Wikipedia's stock. As soon as you release the article from your hands, it's fair game to criticism and questioning. I suggest that you are not wasting dwell on this issue. The article goes probably the removal of the vote, and may very well survive. - [[User: Ochs | Ochs]] 11 january 2011 at 10.01 (EET)

+

+ : If albval would have written an article or picture of the nature of space, I think the matter should be clear. Nädäkseni phrase open to interpretation, also referred to the act of carrying out, and his intelligence.

+ : Well, the article milling and confused debate on their own and the other side of the course is completed. Consistency of action, then administrators can not find. In my view, the discussion was, however, with albvalin effective.

+ : I have to think about it. Such I think is very depressing and hard ordeal, huih awful. - (" "[[User:% CE% 9B | λ]]"" (" [[Keskustelu_k% C3% A4ytt% C3% A4j% C3% A4st% C3% A4% CE% 9B |?]]") (" [[Special: Modification /% CE% 9B |!]]")) 11 january 2011, at 10:20 (EDT)

Here, the user /\ argues that he was hurt by another user's criticism. He also seems to appreciate user Ochs' argument that /\ might have taken this too personally. However, he states the criticism was "open to interpretation" – whether it was a personal attack or content-targeted critique.

1.1.2 Leadership genre(s)

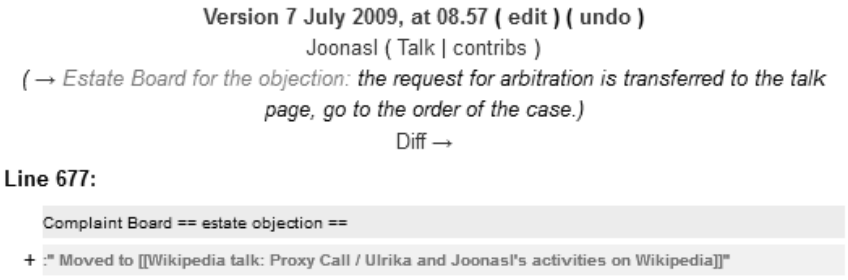
Enforcement

Within the collaboration activities, there is sometimes a need to enforce a policy. Similarly, to a trusted man helping to unlock the door to a building before an event, or locking the doors after the event, collaboration sometimes requires intervention from members in trusted positions. These acts are defined as technical intervention, disabling and disqualifying.

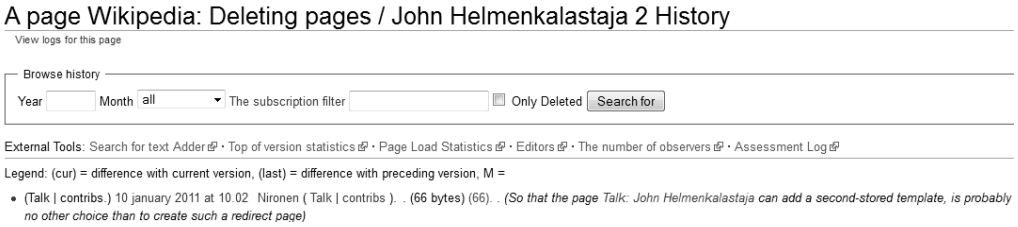
Acts of enforcement were rare in this sample. Of the total of about 400 Wikipedia namespace edits, only three acts of technical intervention, one act of disabling and one act of disqualifying were found.

Technical intervention

A technical intervention is any technical non-dialogic action, one that requires higher user privileges to execute.



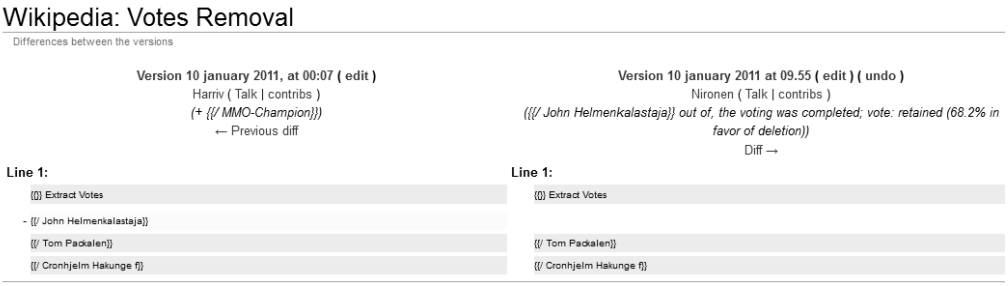
http://fi.wikipedia.org/w/index.php?title=Wikipedia%3AKahvihuone_%28k%C3%A4yt%C3%A4nn%C3%B6t%29&action=historysubmit&diff=6995534&oldid=6995513



User Nironen added a redirect here for technical reasons. The notability of the Wikipedia article of 'Juhana Helmenkalastaja,' a Finnish semi-celebrity, was questioned first in 2008 and again in 2011. Both times the article was voted notable enough to be kept in Wikipedia. Normally in Wikipedia's practices, a "Kept"-template is added to a talk page after the article has survived though an "Article for Deletion" process. In this case, adding two "Kept"-templates to the same page seemed problematic. This was solved by creating a new page just for the sake of a redirect, allowing two "Kept"-templates to be added on the article talk page.

Disabling

An act that allow specific kinds or interactions to take place. Some activities, such as voting, require administrators to enable the process. After a period of activities, an administrator needs to disable the feature. After disabling, users cannot vote anymore.


Wikipedia: Votes Removal

Differences between the versions

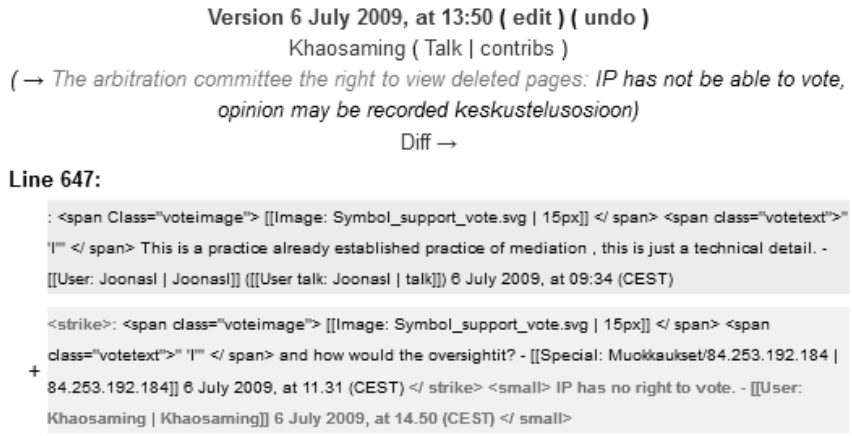
Version 10 january 2011, at 00:07 (edit)	Version 10 january 2011 at 09.55 (edit) (undo)
Harriv (Talk | contribs)	Nironen (Talk | contribs)
(+ {{/ MMO-Champion}})	*({{/ John Helmenkalastaja}} out of, the voting was completed; vote: retained (68.2% in favor of deletion))*
← Previous diff	Diff →

Line 1:	Line 1:
{{}} Extract Votes	{{}} Extract Votes
- {{/ John Helmenkalastaja}}	
{{/ Tom Packalen}}	{{/ Tom Packalen}}
{{/ Cronhjelm Hakunge f}}	{{/ Cronhjelm Hakunge f}}

Here it can be seen that the user Nironen removes the voting link for the article "Juhana Helmenkalastaja" from the Wikipedia:Articles for Removal page. The act of removing the link means also that the vote is now disabled, the voting time has expired. Nironen has added in the edit summary information that "the voting was completed; result: article retained."

Disqualifying

Disqualifying occurs after, or during, a voting process. This happens in case a voter does not fulfill the eligibility criteria. For example, a user might be required to be registered, i.e. to participate with a user name, not with an IP number. Additionally voters may be required to have at least one hundred edits on his record.



Version 6 July 2009, at 13:50 (edit) (undo)
Khaosaming (Talk | contribs)
(→ The arbitration committee the right to view deleted pages: IP has not be able to vote, opinion may be recorded keskustelusosioon)
Diff →

Line 647:

: [[Image: Symbol_support_vote.svg | 15px]] </ span> " 'I'" </ span> This is a practice already established practice of mediation , this is just a technical detail. - [[User: Joonasl | Joonasl]] ([[User talk: Joonasl | talk]]) 6 July 2009, at 09:34 (CEST)

\+ <strike>: [[Image: Symbol_support_vote.svg | 15px]] </ span> " 'I'" </ span> and how would the oversightit? - [[Special: Muokkaukset/84.253.192.184 | 84.253.192.184]] 6 July 2009, at 11.31 (CEST) </ strike> <small> IP has no right to vote. - [[User: Khaosaming | Khaosaming]] 6 July 2009, at 14.50 (CEST) </ small>

This is a only case of disqualifying a vote that was found in the sample. Here, the user Khaosaming overstrikes a vote by an unregistered user, stating that "IP has no right to vote."

1.1.3 Correcting/fixing

Correcting or fixing is defined as re-editing own or other's text in order to fix a typing error, incorrect syntax, or outdated information.

Version 12 january 2011 at 18.54 (edit) (undo)
Höyhens (Talk | contribs)
m *(→ People who disagree with this view: ASH)*
Diff →

Row 74:

Zache I do not think this issue is not guilty of anything, but I can not accept the American view of the model to the other for the subsequent discharge. Comment The request concerns only Zachea and release of the other without treatment is not appropriate. Do we want to prevent this provosoijien action settlement, so if someone would like?. - [[User: Phiitola | Phiitola]] 10 january 2011 at 10:40 (EDT)

Significant - [[User: Mpadowadierf | Mpadowadierf]] 10 january 2011 at 18.54 (EET)

\+ # This could have set here in peace, this is in fact the only marketplace meeting the right place, unlike for example, user discussion pages. Comment The applicant, however, could now be closed without a solution, because the Arbitration Committee has apparently decided to work on this issue and give its opinion on a request for comment after. I am not calling for any sanctions because of that. <strike> - [[Special: Muokkaukset/85.29.76.58 | 85.29.76.58]] 12 january 2011 at 17.52 (EET) </ strike> <small> Damn, I forgot to log on. I'll take that nimiini. </ Small> - [[User: Höyhens | Höyhens]] 12 january 2011 at 17.54 (EET)

In this instance, the user Höyhens had made a comment while not logged on. He corrected the previous comment and said that he "forgot to log on," and that he "takes responsibility" for this particular comment.

Versio 18. tammikuuta 2011 kello 19.36 (muokkaa) (kumoa)
PeeKoo (keskustelu | muokkaukset)
(→Suomi: Pirkanmaan kirjastoilla on uusi PIKI-järjestelmä, korjattu linkki)
Uudempi muutos →

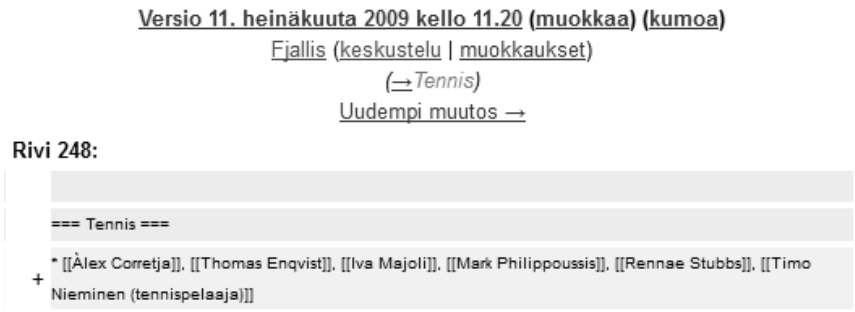
Rivi 41:

* [http://abilita.fi/fredrika/WebForm2.aspx?idisbn=MAGICNUMBER&Advanced=3 Etsi tätä kirjaa] Fredrikasta (13 Vaasan rannikkoseudun kirjastoa)

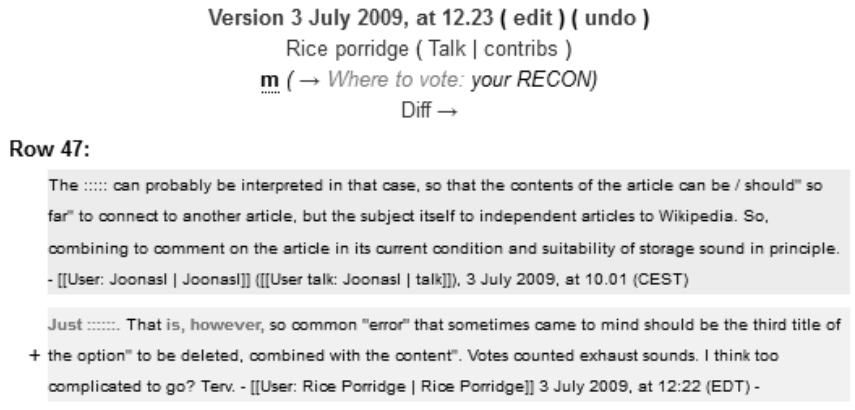
* [http://verkkokirjasto.vaasa.fi/Vaasa?bool=AND&dat0=MAGICNUMBER&ulang=fin&formid=fullt&typ0=6 Etsi tätä kirjaa] [[Vaasa]]n kaupunginkirjastosta

\+ * [http://piki.verkkokirjasto.fi/web/arena/Search?search_query=%22MAGICNUMBER%22 Etsi tätä kirjaa] Pikistä, [[Pirkanmaa]]n kirjastojen yhteisestä tietokannasta.

This correction is focused on the URL of the Tampere regional libraries. The outdated URL kirjasto.tampere.fi was updated to piki.verkkokirjasto.fi



This correction is about fixing an incorrect syntax. The line was missing the closing parenthesis in the word *tennispelaaja*, tennis player.



Here is a third example of correcting. User “Rice Porridge” has added a couple of words to his previous comment. By adding these, I assume, he has made the complete sentence to follow a slightly softer tone. In case my interpretation is correct, the original statement might have looked too direct, and the user wanted to improve it afterwards.

5.6 Collaboration Outside the Wikipedia Website (RQ6)

This chapter offers the results from the fourteen interviews conducted with top Wikipedia members. In the long interviews it was attempted to investigate what, when, where, how and why these active wikipedians collaborated beyond Wikipedia.

The important aspect for this chapter is the where and why questions- through which media do the participants interact with each other? Additionally, what is their perception and opinion of importance of each communication media? In the spirit of media choice theories we shall investigate what media choices participants make when they are collaborating in Wikipedia. Additionally, if they are not using these media, why not?

The interviews revealed that most communication actually occurs through the Wikipedia website. However, the interviews revealed some communication practices that occur outside of the Wikipedia website. Some were strongly against these activities, as demonstrated by the following quote.

> *#5: "I try to avoid all external coordination. It's a very bad habit [for those who do it]. But should there even be coordination within Wikipedia… I don't think it's necessarily ethical… I think the goal should be that the writing process itself would lead to co-operation, collaboration."*

The communication media which were discussed by every interviewee were face-to-face meetings, Internet Relay Chat (IRC), and email, in addition to the Finnish Wikipedia website. Mailing lists did not play any role in inter-Wikipedian communication. Meanwhile, in open source software development much of collaboration is run on mailing lists (Fish et al., 2011, p. 172). Total lack of mailing list use is rather interesting. While Wikipedia Foundation hosts a plethora of various kinds of mailing lists[52], those are not adopted by Finnish Wikipedians in their everyday practices.[53] Only one interviewee mentioned mailing lists as a medium for Wikipedia-related communication. Even that one person did not emphasize that

[52] https://lists.wikimedia.org/mailman/listinfo

[53] I subscribed to the Finnish Wikipedia's WikiFi-L mailing list on May 2010. By May 2012 there has been absolutely no activity on that list. The list archive (http://lists.wikimedia.org/pipermail/wikifi-l/) confirms that the last message on WikiFi-L has been sent on January 2008.

mailing lists would play any significant role. Therefore, I do not discuss mailing lists any further.

Wikipedia allows the sending of private messages by email, if the user has enabled it. One interviewee was not even aware of this possibility, even though he was contacted by me, the interviewer, using this feature. Most participants were aware of the possibility, but seldom used it. One interviewee said he never answers Wikipedia-related emails by email. Rather, he answers on the other user's Talk:User page. Wikipedia-enabled email communication seemed to be rare. Only one interviewee said he uses the email functionality often, at least on weekly basis.

Most interviewees had never met another wikipedian in real life, and many did not even have any interest in such meetings. Almost only exception to this were three participants who had all met each other once in a small gathering of natural sciences oriented Finnish wikipedians. Generally most interviewees considered Wikipedia only as an encyclopaedia, and not a place for building social contacts.

All interviewees had initially joined Wikipedia for some kind of curiosity related to contributing to one or several Wikipedia articles. No one said they had planned to become an active wikipedian, it had just happened progressively that they were "sucked in." Most of the interviewees were still mostly interested in writing articles, though some had found other personal niches of interest within the Wikipedia space. One wikipedian was interested in programming new templates and other supporting automating functionalities. Another one was currently not interested in article writing, but was doing vandalism-prevention activities on daily basis.

5.6.1 Face to face meetings

Ten interviewees out of 14 had never participated in a face to face Wikipedia meeting of any kind. This low amount of 'real life' collaboration was rather surprising to me. I would have assumed that those who collaborate actively online would be eager to meet each other physically as well. Of these ten, three had met one Finnish

Wikipedian in real life, and one (#5) had met one English Wikipedian once. One had met one Finnish Wikipedian once. Interviewee #9 had recruited a work colleague to join Wikipedia, but had not met anyone else.

Two (#2 and #8) interviewees stated explicitly that they are not interested in meeting other Wikipedians 'in real life.' The negative attitude towards "real life" meetings seemed to rise from interviewees' perception that Wikipedia is primarily an encyclopedia, and not a place for building social relations.

 # 8: "I have never met a Wikipedia user [in 'real life']. That does not interest me at all."

#2: "I have not met any [Wikipedian] face to face. I have exactly one Wikipedian on my Facebook friend list. Wikipedia is an encyclopedia, and social relationships do not belong there."

A milder version of the same is reflected in the following quote from the interviewee

> *#6. He states that he keeps Wikipedia separate from his regular social circles. He did not however deny the social side of Wikipedia as some other interviewees did. He also told me that he had planned to participate in the Finnish Wikipedia meeting at The Assembly – an annual demoscene and computer gaming event in Helsinki. He was eventually unable to attend the event because of work responsibilities.*

#6: "I've met only one other Wikipedia user. In that sense I keep Wikipedia separate from my 'real life'."

Two interviewees (#8 & #12) hinted in their answers of some kind of a double-life attitude. Maybe a comparison with a daytime Bruce Wayne and a night time Batman is a bit extreme, but something towards that scenario. In any case, a couple of collaborators preferred to keep Wikipedia as a covert mission, one not many work comrades or student friends are aware of. Maybe Wikipedia is sort of a "guilty pleasure" for some?

Several answers reflected Antin's (2011) findings that the perception of a stereotypical "Wikipedian" is not generally the kind of person people want to be related to. What is a particularly interesting distinction here, however, is that Antin's study focused on potential participants, while the current study focuses on the core community. It is an interesting finding that some highly active Wikipedia participants do not want to be identified as Wikipedia participants.

> *#8: "Wikipedia is somewhat a place to do things you can't do in real life. You can talk with some researchers, and the like. I wouldn't talk with these people in real life, at least not about anything serious. And I'm not a… how'd I put it. One could stereotypically think that a Wikipedia user is a nerd. I don't think I'm like that in real life. But I can actualize that part of me in Wikipedia."*

#12: "I'm not aware that I'd ever met another Wikipedian ['in real life']. I don't see any benefit in revealing my identity. I think it's questionable."

The above answer from #12 also shows that the perceived problem with face-to-face meetings is that it would allow other people to connect this person's Wikipedia activities with his real identity. Keeping Wikipedia a purely online activity enables participants to remain fairly anonymous and unknown.

Of the four interviewees who had met several Wikipedians in real life, only one (#4) of the interviewees said he had met other Wikipedians several times. He felt that "real life" meetings were one aspect that contributed to a sense of belonging in a community. However, he emphasized that social relations are not among the most important factors to why he participates in Wikipedia.

> *# 4: "Over the years Wikipedia has become kind-of a community for me. I have friends there, and some of them are acquaintances, people I've also met outside of Wikipedia. These relationships might also be one reason that keeps the whole thing interesting. Still, the main reason I'm in Wikipedia is not the social aspect. It's simply that I enjoy writing. At work, I rarely get to write as much as I write in Wikipedia. Or, even when I write at work, it's not self-motivated*

in the way Wikipedia writing is. At work, writing is mostly some boring software documentation, and most often in English language. Writing in Wikipedia in Finnish is pure fun."

This Wikipedian (#4) also described that he has a role as a Finnish Wikipedia Public Relations spokesperson. That makes his Wikipedia-related social interactions somewhat different from other Wikipedians. The biggest "offline" Wikipedia social event he has participated in occurred when Finnish Wikipedia reached its 100, 000-article milestone. He then helped organizing a public seminar where several academic and media personalities were invited as speakers.

 # 4: "I co-organized an event when Finnish Wikipedia reached its 100 000th article. We had a seminar in Helsinki with known invited speakers such as journalist Unto Hämäläinen from [the biggest Finnish newspaper] Helsingin Sanomat, Kari Ekholm from Helsinki University Library, Tere Vadén from University of Tampere, Kari Hintikka from University of Jyväskylä and copyright law professor Jukka Kemppinen from Helsinki University of Technology."

The remaining three interviewees (#1, #3, and #11) had all met each other. They formed a small emergent group of very active Wikipedians. The unifying factor between these users is that they all have contributed substantial amounts of information to natural sciences related articles. Throughout time they have found each other contributing to similar kind of articles. Thus they have started to collaborate with each other in many different ways.

Eventually, one interviewee (#1) decided to host a meeting, where interviewees #3 and #11 also participated. Additionally interviewee #10, who has never met any other Wikipedians in person, said he was also invited to this 'natural science' meeting. He was willing to participate, but because of a schedule conflict he was not able to.

#11: "I've participated in one meeting last summer. We organized a meeting with people who are interested in biology-related topics. We met, chatted, drank some red wine and that's it."

> *#1: "We've held one meeting, which was fun. It was when one other female [Finnish] Wikipedian, who lives in Germany nowadays, visited Finland. We decided to hold this meeting then, and we would gather together a small group of active Wikipedians with similar interests [in biology and other natural science topics]. So I invited four people to my place, and we prepared food and then dined together. So this particular event has been the only face-to-face meeting I've participated in so far. But we've agreed that this event will be held again next year, so yes, this will be a recurring meeting in that sense. (Laughter). Actually it was funny that in this meeting I met one person whom I've collaborated with a lot in Wikipedia. When we met in person, he said he had thought I was an older man! He got to know that I'm a woman only when we met face to face! I do not know how he had formed this wrong idea earlier. Maybe I have a very masculine writing style. (Laughter)."*

The long quote from interviewee #1 demonstrates that while participants might be deeply involved in collaboration in Finnish Wikipedia, it is directed by content-production goals, and is not necessarily 'social' otherwise. The fact that two close collaborators did not know each others' gender shows that not many personal or social themes had been discussed during that collaboration process.

5.6.2 IRC

Internet Relay Chat is a somewhat officially acknowledged communication medium for Wikipedia interactions. There is a dedicated IRC-channel for Finnish Wikipedia, namely *#fi-wikipedia* in the IRCNet IRC network.

The interviews revealed that IRC is a highly controversial external back narrative. The enactment and perception about IRC divided heavily between

interviewees. I was surprised by the rather wide renouncement of using IRC in Wikipedia collaboration.

Four Wikipedians (#2, #8, #10 & #11) said they had visited IRC, but weren't using it regularly. Of these four, #10 had by far the most positive view about the purpose of IRC for collaboration. He argued that IRC allows a wider range of social interactions between Wikipedians than what is possible on the wiki platform. #2 and #11 argued there were practical reasons why they did not want to participate in such form of real-time chatting.

> *#2: "I've visited there [the #fi-wikipedia IRC channel] only a couple of times. I'm not terribly familiar with using IRC, in general. I do not currently have Internet access at home, so I'm not bothered to be in IRC when I'm connected from the library. Also I did not like that some Wikipedians claim that IRC is kind of an insider channel for a chosen few. And [some claim] that there's some secret mystical decision-making going on. But… those couple of times when I went there did not make me enjoy IRC much. So I didn't start to hang out there regularly."*

> *#11: "I used to visit IRC every now and then. But the Wikipedians I'm actively involved with are not in IRC, so I have not found a reason why I should be there either. And one thing is that this kind of realtime interaction requires much more time than I am able to invest. So there's no chance for me to be in IRC."*

#10: "I've been idling there, but never participated in any discussions."

Only two participants (#4 & #6) said they used IRC frequently. They seemed to have well-reasoned and legitimate motivations in doing so, and they described their IRC-activities well in depth. Both of them were also active IRC chatters otherwise. #6 told he used to have IRC open in the background all the time during his workday

#6: "[During the work day] I had IRC open all the time in the background. So we chatted actively on the #fi-wikipedia channel."

It thus seemed that if IRC was an already familiar means of communication for the person, then the person was also on the #fi-wikipedia channel. Also vice versa: if the person didn't use IRC in general, then the existence of the #fi-wikipedia channel was not seen as a great enough reason to start IRCing.

#3: "In general, I haven't participated in those IRCs. So that's why [I am not on the Wikipedia IRC-channel]. I know there is this recurring joke that actual decision-making is done in IRC. But generally, it's a place to chat, and it that way it supports Wikipedia activities."

Two interviewees, #5 and #9, argued that IRC is for younger people, and not for their generation. That was one of the reasons why they are not on the #fi-wikipedia channel.

#9: "No. I haven't been there. I've once seen that someone uses that. But I'm more of an older generation. I mean, I'm not part of the IRC-generation."

#5: "I don't use IRC. I'm too old for that. I don't know what its role is for Wikipedia, I'm not interested."

#6 was involved with template programming. He described how coordinating the development and implementation of a new template requires real-time interaction with fellow developers. IRC was optimal for this purpose for its quickness. Using wiki would be too slow to maintain a high-tempo real-time dialogue between several developers.

> *#6: "When we start to build a more complex template entity, then it usually requires clear division of labour and task assignment. It's like, 'would you focus on that, while I'm focusing on this.' It is important that while we are developing the templates, no one should be there disturbing the process meanwhile. We developers do not want that someone else comes to add one missing character which was missing five seconds ago, but maybe not anymore. In this kind of development there is always a risk of change conflict*

between two or more persons. Therefore, the programming tasks are assigned well. Usually all coordination happens on IRC, because all core template programmers are there. Coordinating this requires real-time communication, so that's why IRC is better than wiki. For example, when someone finds a mistake in logic or something like that, then it has be dealt with very quickly. Wikipedia's discussion forums are way too slow for this purpose."

#4 was also attributing quickness as one of IRC's benefits. He stated urgent administration needs as an example of where IRC is practical. He said, however, that mostly the IRC-chats are non-related to Wikipedia. This might be one of the advantages (or disadvantages, depending on the viewpoint) of IRC, that it is possible to discuss a very large range of topics. That is very different in the wiki, where all communication should be Wikipedia-related.

#4: "In some situations, the IRC is very handy when regular users notify administrators to block some IP address because there is vandalism coming from there at the moment. Sometimes, rarely, there is some discussion in IRC about general things that are related to Wikipedia, such as policies or something. It is remarkably easier and quicker to discuss acute issues in IRC than in the wiki. But mostly there is some discussion about things that have nothing to do with Wikipedia. (…) I guess IRC is part of the community experience, togetherness. In some cases IRC brings tangible benefits, when someone notices vandalism and he can quickly notify administrators to block an IP address. And sometimes there's Wikipedia-related discussion going on, for example about policies. It's easier and quicker to discuss there when there is an acute need. But mostly the discussions are off-topic. And no… it [the Wikipedia IRC channel] is quite inactive. Even our own company's internal IRC channels are more active (laughs)."

#4 also portrayed IRC as forum where he maintains most of the social aspect of the Wikipedia community.

#4: "[I discuss with other Wikipedians] mostly in IRC. I like to hang around there. Some people I've also met, in different occasions."

In the interview with the interviewee #4, appeared the notion of an administrators-only IRC channel. He said this channel was rather quiet, and most activities were involved with coordinating Wikipedia maintenance. I had requested if I could get an access to the administrator-only channel, and observe it for a period of time. This request was neglected. While #4 denied there has been any "scheming" on the channel, its esoteric nature left some doubts for imagination.

> *#4: "There is also a closed IRC channel for Wikipedia admins, that's true. On that channel there are some administrators, but the channel is very quiet. All administrators are invited to this channel at the point of time when the user has been promoted as an admin. Concrete maintenance tasks are the main focus of that channel. Or sometimes it is just nice to talk "behind the backs of regular users" (Laughs)."*

Potentially, admins and template programmers may deepen their relations with other Wikipedians through IRC. Previous research shows that when people use multiple media to communicate with each other, they build multiplex relationships (Haythornthwaite, 2002).

The clear majority, a total of eight interviewees, had never visited the #fi-wikipedia IRC channel. Of these eight non-IRCers, three explicitly stated that Wikipedians should not use IRC. They argued that the egalitarian spirit of Wikipedia is about openness and free access to information. Therefore, they argued, all communication and content should be publicly available on the wiki platform, not in external "esoteric" spaces.

#12: "I'm not on IRC. In fact, I think IRC is bad. It's not a good thing to have that channel [#fi-wikipedia] there. Because in Wikipedia, you can trace back any discussion that has ever taken place. In IRC you don't have that possibility. [While] conspiracy theories are delicious and sweet… but actually, the only and the major problem with IRC is that all that discussion should be held inside of Wikipedia instead."

Interviewee #5 described thoroughly how IRC had been used in coordinating an "Eastern European history conspiracy"[54] in English Wikipedia. Generally, these three wikipedians saw IRC as a root to conspiracies, power games, and coordinated attacks.

#7: "[Using IRC to discuss Wikipedia-related issues] is comparable to big political parties making decisions behind closed doors. It's similar to what happened during the [president Urho] Kekkonen era in Finland. (...) That is a very bad thing."

The interviews also revealed how some users had been skeptical towards IRC-communication and had attributed that to secret decision-making. In its most striking examples, it was compared to the confrontation between the proletariat and the elite. Sometimes it was the lay users versus the administrators, sometimes it was those who participate openly on the Wikipedia platform versus those who "conspire" in IRC.

#2: "Sometimes there [in Finnish Wikipedia], in any general discussion, you can see claims that an inner circle is ruling. Nowadays these claims are more about that an inner circle is doing secret decision-making in IRC. Nowadays it's like some people are complaining that that all administrators are, you know, … like Nazis. That administrators are dominating over everyone else. And I really do not agree with these views."

[54] http://en.wikipedia.org/wiki/Wikipedia:Arbitration/Requests/Case/Eastern_European_mailing_list

#3: "The reason why I'm not an administrator anymore… is that I don't have enough time. I don't have the possibility to be there as much as I think an administrator should be there. And I got tired of all those disagreements, and the unnecessary confrontation between regular users and administrators."

Active IRCers (#4 & #6) defended against these critical views, saying that IRC is available for everyone to use. They argued that IRC is a useful addition to the wiki, and it is not taking anything away from anyone's Wikipedia experience.

#4: "Some people in Wikipedia have this strange perception that there's insider scheming going on in secret IRC channels. Such as administrators would be deciding voting behaviour consensus in secrecy. But if you look at how admin votes are distributed, it's pretty similar to the distribution of all other users' votes. So the purpose is not by any means to be a channel where "junta" opinions are formed. IRC is a place where it is possible to get to know other Wikipedians better, and speak more freely [of issues beyond Wikipedia] than is possible on the wiki platform."

Both #4 & #6 also denied the perception that IRC would be closed. They stated that it is very open for everybody to join and participate.

#4: "It's an open IRC-channel. Everybody can join. No-one's been denied access."

#6: "#fi-wikipedia, that's what it is. That's where we invite people to come. Come join us. Many people say it's a secret society, but how could it be a secret society when it's so public. Everybody can join."

Finally, interviewee #10 was convinced that the "IRC inner circle" conspiracy theory cannot be true, because there no decisions are made in IRC. Every decision is made on the Wikipedia platform, mainly in the 'Wikipedia namespace.'

#10: "Even though there was an inner circle, it wouldn't have any power on decision making. All decisions are done democratically. If there was an IRC-based inner circle, it would not make any difference. That's what I think."

5.6.3 Email

Wikipedia allows the sending of private messages by email, if the user has enabled this functionality from the settings. Most participants were aware of the possibility, but did not use it regularly.

One interviewee (#8) said he never answers Wikipedia-related emails by email. Rather, he answers on the other user's Talk:User page. Wikipedia-enabled email communication seemed to be rare.

 # 8: "I never [write e-mails related to Wikipedia]. If someone sends me an email, I'll reply on his user talk page."

Interviewee #9 also said that he does not use email. He stated that the only time he has written a Wikipedia-related email was when he wanted to notify another user in a discrete way.

> *# 9: "No, I don't really [write e-mails]. I have once written a Wikipedia email, when I informed one user during the previous European Union elections. A True Finns Party candidate had used this Wikipedia user's pictures in their campaign video. So I sent an email to this user because I thought the material was not used properly according to the Creative Commons licence."*

#4 wasn't much more active email user either. He said that his Wikipedia-related emails total to about five.

#4: "I've used the 'send email' functionality maybe five times. Very little. Very seldom I've seen any need to discuss with another Wikipedian by email. Not really."

#1 said she prefers not to use email. She only uses email in rare cases when the wiki cannot be used, because of sensitivity or discretion issues.

> *# 1: "Actually, I use email only when discretion is an important issue. When there is something I don't want other people to read. For example, if we use a copyright-protected scientific article as a reference, then I might send this*

article by e-mail. I can ask, for example, that please check out this article, how could we properly phrase this thing to Wikipedia."

Additionally, #4 described how email communication is part of his role as the Finnish Wikipedia public relations representative. However, he said that such communication is quite seldom.

Only one interviewee, #11, said he uses the email functionality often, on a weekly basis. He explicitly stated that email communication plays an important role for him. He described that his enactment of the email functionality makes Wikipedia a social media for him.

 # 11: "I have several regular Wikipedia email contacts. Usually those have started when I have mentioned something in Wikipedia, often as a subordinate clause. Like, "I'm here writing an article in Wikipedia, even though I should be writing a real [scholarly] article instead." And then someone else with the same interest might contact me. This has also happened when I have written about local history, and then someone from that region writes me an email. Sometimes discussions that have started publicly in Wikipedia continue in email after a while. This happens if there is something that requires privacy, or is otherwise unrelated to the Wikipedia project."

Generally speaking, email seems to play a very marginal role in Wikipedia collaboration. In those rare cases when email was used, it was in situations when discretion was an important issue (#1 and #9,) or for public relations purposes (#4.) Unlike IRC, email usage did not seem to raise any strong feelings among interviewees. People used it or did not, mostly not, but no one made a big deal about it.

Interviewee #11 was the only exception, the only active email user. Interestingly, he described how email played an important role for his Wikipedia collaboration, and he valued email as what makes Wikipedia a social medium for him.

He also valued email to suit "collegial" communication better. He did not want to have this kind of communication publicly in Wikipedia to protect his own privacy.

#11: "But I talk very seldomly any non-Wikipedia-related issues in Wikipedia. Just to keep care of my privacy. If I want to joke with my Wikipedia friends, I do that by email. That's more suitable for informal communication."

This shows that email has the potential to enhance the Wikipedia experience, but that potential is rarely taken advantage of.

5.6.4 Summary of collaboration outside the Wikipedia website

The following table summarizes the perceptions and enactments related to external communication media. All kinds of external interaction seemed to play a marginal role. What was surprising was the controversy, especially in the context of IRC. Two participants were actively involved in IRC, while three were willing to ban IRC altogether. Only one non-IRCer (#10) saw IRC as a positively contributing factor to the Wikipedia community. Other eight respondents, all non-IRCers, were either neutral or indifferent towards IRC-use. To my knowledge, previous research has not captured this kind of phenomenon of external media conflict.

Id	**Participates in face-to-face meetings**	**Participates in #wikipedia-fi IRC channel**	**Sends private email in Wikipedia**
#1	Once hosted a small meeting of 'natural science' Wikipedians.	No.	Only for topics that are not meant to be public in Wikipedia. E.g. distributing scholarly articles to be used for Wikipedia references.

#2	No.	Has visited, but not anymore.	Rarely.
#3	Once participated in a small meeting of 'natural science' Wikipedians.	No.	Very rarely.
#4	Has met several Wikipedians face to face. Has co-organized a public seminar when Finnish Wikipedia reached the 100.000 article landmark.	Yes. Both the public irc-channel and the restricted admin-channel.	Sometimes, mostly related to fi-Wikipedia public relations.
#5	No. Has met one English-Wikipedian once.	No. Explicitly states that IRC is not a preferable communication channel, because it has been used for coordinating edit-wars.	Very little in Finnish Wikipedia. Long-term correspondence with a couple of users in English Wikipedia.
#6	No. Has met one Wikipedian once.	Yes. Finds IRC particularly useful in supporting coordination when programming functionalities such as templates.	Not much.
#7	No.	No. Explicitly states that	No.

		IRC should not be used, because it leads to 'behind the closed-door politics.'	
#8	No. Explicitly states that he is not interested in meeting other Wikipedians "in real life."	Not regularly, but has visited there.	Never. If he receives an email, replies to the user's talk page.
#9	No, but has recruited one work colleague to contribute to Wikipedia.	Never.	No. Did not first even remember there was this possibility.
#10	No. Was planning to visit the first 'natural science' Wikipedia meeting, but was not able to because of a schedule conflict.	Has been idle on the channel, but has not communicated there. Thinks IRC can improve social relations among Wikipedians.	Rarely.
#11	Once participated in a small meeting of 'natural science' Wikipedians.	Has visited, but not any more.	Yes, often. Weekly.
#12	No.	No.	No. Has not even enabled the email feature from settings.
#13	No. Explicitly states that he is not	No. Thinks IRC should not be used, because the	Very rarely.

	interested in meeting other Wikipedians "in real life."	discussions are not archived and accessible to all.	
#14	No.	No.	No.

Table 10 - Interviewees' participation in external back narratives

6. Discussion

In this chapter, the findings are reflected upon and weighed towards the extant knowledge base. The contributions are considered in a form of "lessons that are applicable in other settings" (Seddon & Scheepers, 2012, p. 6).

This thesis has posed the research question: *What characterizes collaboration in online communities*? In answering that question, I have defined collaboration as the back narrative communication. Previous studies concerning non-article content in Wikipedia have almost completely focused on article talk pages. I have conceptualized them as the *collocated* back narrative. Here I propose two other back narrative types, namely the *community-wide*, and the *external* back narratives. These are discussed generally in sections 6.1.1 and 6.1.2, and more specifically in sections 6.2 and 6.3. In such a way, this thesis brings an important contribution through an improved understanding of the collaboration and the back narrative concepts.

In the section 6.4, I present arguably the most important contribution in this thesis. Under this section, I formulate five modes of collaboration in online communities. In the subsequent section, I discuss the initial design principles which are based on these modes.

In the section 6.6 I consider the stability of genres. I conducted the genre analysis on *edits* in Wikipedia. I argue this is a minor contribution to the genre theory, but still a novel one.

Finally, I discuss the limitations of this research.

6.1 Four Back Narrative Types: Collocated, User-Centric, Community-Wide, and External

Through the interviews, the genre analysis, other minor sources of data collection, and connecting to previous research, we have established some evidence

and at least tentative conceptualization. In other words, collaboration occurs in the back narratives, which can be divided into four distinct types: collocated, user-centric, community-wide and external. Of course, these results are derived from just one case, and other settings may be different.

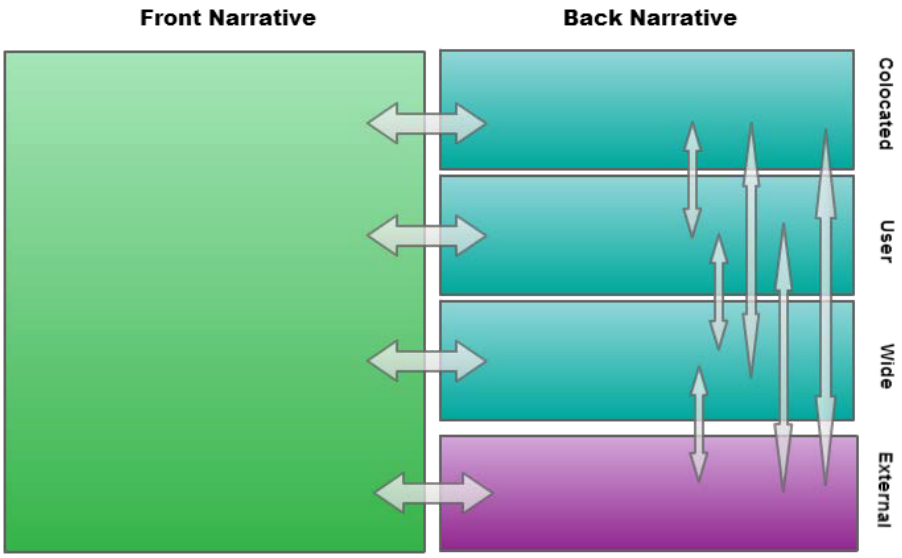


Fig 7 - Dynamics of the Front and the Back Narratives

Active online communities require a clearly defined purpose for the members to orient their activities towards (Preece, 2000). Most online communities consist of diverse participants – geographically distributed, attending in different times, having varying motivations. Thus the direction and the means often need to be negotiated between participants. Faraj et al. (2011, p. 1232) argue that "no single narrative is able to keep participants informed about the current state of the OC with respect to each tension. These communities seem to develop two different types of narratives." In describing these, Faraj el al. adopted Erving Goffman's (1959) concepts of the front narrative and the back narrative. "Narratives occurring backstage provide an opportunity for the informal organization to assert itself and convey possibilities of various roles, abilities, attributes, and expertise that can be put to use. […] In

Wikipedia, the ‘talk pages’ are likely to display the back narrative.” (Faraj et al., 2011, p. 1232)

The talk pages have been thus far the traditional venue to study dialogic deliberation (e.g. Cimini, 2010; Hansen et al., 2009; Hartelius, 2010). These pages are ‘collocated’ in such way that they are arranged side by side with the front narrative. Whenever there is a need for deliberation in the front narrative, it can be facilitated in its collocated back narrative, in the talk page of a particular article page. It is part of the technological structure for each article page to have its own talk page. Therefore, it is easy to move between the content page and the talk page, and between the front and the collocated back narratives. In this study, I have witnessed how the back narrative involves a much broader scope of communication than just the talk pages. I thus propose that the concept of the back narrative should be divided into at least three nominations: collocated, deep and external.

The two new nominations are the ‘community-wide’ back narrative and the ‘external’ back narrative. The genre analysis was conducted on the ‘Wikipedia-namespace,’ and it revealed an interesting form of back narrative communication. This namespace consists of both communication that follows a largely established process form, and communication that supports emerging reflective discourse. This community-wide back narrative is not, however, collocated next to the front narrative in the way the talk pages are. These deal with general community-level issues instead of a specific temporal and spatial aspect of the front narrative.

In addition, the external back narratives – IRC, email, face-to-face – that I investigated in the interviews, neither are collocated. These extend the collaborative possibilities of the wiki, allowing richer social interaction, better concentration on niche interests, and more clarity in the middle of an abundance of communication.

6.1.1 Community-wide back narrative

The communicative activities in the collocated back narrative might grow into a heated conflict. Often the collocated back narratives develop into greater communal importance than the situation at hand. The issue has to be brought to the attention of the whole community. The idea of the community-wide back narrative is to attempt to deal with community-level issues. As it is not located next to the front narrative, it offers the potential to bring issues to the whole community's attention. The goal is to involve all the members of the community, or at least the core of the community, into reflection, debate, and decision-making. The participants of the individual talk pages (the collocated back narratives) might be biased towards niche interests, so it is better to have an arena that is not tied to a particular front narrative. In addition, the most wicked conflicts and challenges are dealt with in the community-wide back narrative.

Whenever a topic in the collocated back narrative gains wider acceptance, it can be transferred to an area that reaches the whole community's attention. In this way, some percentage of the community-wide back narrative can be understood as processes originating from the front narrative and the collocated back narrative.

Other important areas for the community-wide back narrative are the emergent themes for discussion. How should Wikipedia celebrate its anniversary? Are blogs accepted as reference sources? Where is the line of requisite notability? These kinds of broad-interest topics emerge from within Wikipedia, and outside of Wikipedia.

Hilbert (2009) demonstrated how some of the principles on which Wikipedia is governed can be used for design and development of the e-democracy applications. He argues that Wikipedia and the related applications "have the potential to fulfil the promise of breaking with the longstanding democratic trade-off between group size (direct mass voting on predefined issues) and depth of argument (deliberation and discourse in a small group)" (p. 87). In the context of Finnish Wikipedia, however, even the "mass votings" are held by relatively small groups. In addition, votings are

not often “pure votes,” but they have also deliberative characteristics. People tend to give arguments in support of or against a topic while they are voting.

6.1.2 External back narrative

The concept of the external back narrative refers to the media outside of the main platform, when those are used for platform-related collaboration. The external communication media that was investigated, namely IRC, email, and face-to-face interaction, was studied through the interviews.

6.2 Collaboration in Finnish Wikipedia’s community-wide back narrative

When I chose the ‘Wikipedia namespace’ as the focus of my genre analysis, I supposed that I would grasp different types of collaboration. That was proven true, but the namespace also revealed communication that is not collaborative in in the usual sense of the word.

Testing is an exception to all the other types of communication, because it neither fits the front, nor the back narrative. This is caused by the temporary existence of user-produced content on the testing pages. In some sense, testing precedes the front narrative, as it provides an easy and riskless start for novice users to contribute. Testing facilitates learning the technical functionalities required for contribution. Listing seems to situate between, or in both the front and the back narratives. The form of the lists would hint that lists are situated in the front narrative, as lists do not contain dialogue. Lists link and unite the contents of the front narrative, by organizing them thematically, alphabetically, and chronologically.

Task management (5) seems to be very far in the community-wide back narrative. There, people negotiate and agree on what they are going to do next, what others are going to do, and what tasks have already been completed. Based on my sample, however, the task management seems to be a rather marginal phenomenon.

Or, at least, the task management is focused on niche purposes such as the technical development. Encyclopedia editing rarely seems coordinated through explicit task management practices.

The task management in Wikipedia differs from that of the open source development. First of all, task management activities are of rather low volume. Second, the tasks involved are not directly related to encyclopedia editing, but to technical development. The task management has been a widely researched topic in the open source software development. This literature has found 'self-assignment' as a central mechanism of the task management (Crowston, Li, Wei, Eseryel, & Howison, 2007). This seems to be very different in Wikipedia. Here, the "product" that is developed and the back narrative are co-located in the same wiki platform. By contrast, in the open source development, the source code is one thing and the coordination platforms are another separate thing.

In traditional organisations, tasks are assigned to organisational members through hierarchical power mechanisms. Meanwhile, voluntary organisations need to have a different approach for the task assignment, as there is little room for the coercive mechanisms of command and control. Rarely any tasks need to be assigned. People choose their tasks ad-hoc instead.

While policy update (6) is technically a similar activity as editing an encyclopedia article, it is distinguished in the way that this targets the policy pages. These pages are most tightly connected with values, as they encapsulate the social norms on which the community bases its actions - as there are no absolute rules in Wikipedia, policies may change over time. In addition, the normative idea behind each policy description might become more articulated, as the community members reflect and challenge them in their practices. I would argue that the policy update is in the community-wide back narrative, but touching a higher level of values.
In my sample, enforcement (7) appears to deal with the facilitation and the moderation of activities in the community-wide back narrative. For example, enforcement occurs when an administrator enables a voting process and after two

weeks' voting period disables it. Enforcement requires user privileges - a random encounter does not license enforcement. I noted that most of the work of the administrators, i.e. enforcement of policies and decisions, was largely oriented to maintaining the tidiness of the front narrative. Tidiness is maintained by both reactive and proactive activities. Proactive activities include such actions as banning of a user, and locking of an article. Enforcement as a whole seems to locate in each of the narratives, keeping all activities within accepted limits. The goal is to keep the activities productive and of sufficient quality, focused on desired type of content. The Wikipedia front narrative should look like an encyclopedia, not like random blurts.

The findings also offer us interesting perspectives to what Avital & Te'eni (2009) call convergent and divergent actions. A convergent action requires operational efficiency, while a divergent action requires generative capacity. The fact that the wiki has been enacted for both established processes and emergent issues shows how flexible a technology wiki is. Clearly, the technology does not determine convergent or divergent uses, but it can be shaped to suit many kinds of purposes on a divergent-convergent continuum.

6.3 Collaboration in the external back narrative of Finnish Wikipedia

We start to discuss the implications of our findings first by turning to media choice theories. First, we must understand the starting point- that all Wikipedia communication is mediated by the Wikipedia platform by default. This may seem an overly simple fact, but it is necessary to understand before we continue further. Hence, the use of any other communication medium can be attributed either to limitations of the Wikipedia platform, better/different affordances of the other medium, or both. It takes effort for a user to start using media other than just Wikipedia. So our treatment of media choice in the context of the present study boils down to this question: what kind of medium makes a user take the extra effort needed in order to enact it?

Most, if not all, of the traditional organization based media choice theories have little to give to our study. The communication in Wikipedia is largely text-based and hence "poor" in the sense of the media-richness theory (Daft & Lengel, 1986; Daft, Lengel, & Trevino, 1987). This does not seem to be a problem for the participants, as none of them seem to seek richer media for the sake of richness. The task closure explanation of media choice (D. Straub & Karahanna, 1998) does not offer any useful advice either. Task closure is not a problem in Wikipedia, as there is no end to anything. The participation just keeps going on, and everybody can join or leave at any given time. Other media hence do not offer any benefit for the closing of tasks.

In their study, Figl & Saunders (2011) attributed face-to-face communication to social team climate, while they link email to task-oriented team climate. In the present dissertation, face-to-face was also considered to be social, but also mostly-unnecessary. Email was regularly enacted by just one participant, but he mainly used it for social purposes, not for task-orientation.

Dennis et al.'s (2008) study needs to be contextualized. They suggested that "communication performance will be improved when individuals use a variety of media to perform a task, rather than just one medium" (p. 575). In Wikipedia, such values as openness, transparency, and egalitarian spirit are emphasized. Thus the preference is more for everyone to use the same medium in order that these values are realized. Everybody should be on the same line. With the exception of the two interviewees who actively used IRC, and the one interviewee who actively used email, no signs of improved communication performance through media variety were found. Konieczny (2009a) writes how the Wikipedia community has policies and other mechanisms to prevent privileged users from becoming an oligarchic class. When all communications are visible to everybody on one platform, such processes are easier to manage. Thus, this might be an argument against the external back narratives.

Duguid's (2006) notice is valid here-that the findings from different open creation settings do not necessarily travel between contexts. Most significantly, the role of the mailing-lists in Finnish Wikipedia collaboration was absolutely non-existent, while mailing-lists are often the primary means of collaboration facilitation in the open source software development.

The conducted interviews have offered us a spotlight on the enactment and the perception of Finnish Wikipedia's external back narratives. Only 1 of 14 interviewees (i.e. ~7%) used to send private email messages to fellow Wikipedians and 2 of 14 interviewees (i.e. ~14%) actively interacted on the #fi-wikipedia IRC channel. Excluding the 3 (21%) "natural science" Wikipedians who had met each other in a closed meeting, only one interviewee had met several fellow Wikipedians "in real life." Despite authors such as O'Mahony & Lakhani (2011) who have emphasized the role of face-to-face communication for online communities, "real life" interactions are paltry to Finnish Wikipedia.

These figures demonstrate that Finnish participants generally do not perceive Wikipedia as a social medium. Of course, wikis organize around content creation, not around people. Even though Wikipedia has user pages, they do not play such a central role as interlinked user profiles in social networking services such as Facebook and LinkedIN. Maybe the external back narratives are more easily adopted in the connectivity-based social media, while in the content-based social media, e.g. Wikipedia, such phenomenon occurs less frequently.

One reason why so few collaborators interact 'in real life' could be because the notion of a Wikipedian, as a person, does not bring appealing or generally positive perceptions (Antin, 2011). In Antin's study, his interviewees did not want to be associated as Wikipedia contributors, who were perceived as "anti-social, unkempt, and essentially autistic," "despite common positive ideas about generosity, the human spirit, and the love of knowledge and sharing" (p. 3418).

Jäkälä & Pekkola (2011) have questioned how social the so-called social media are in reality. For example, social media are not often interactive, but largely based on one-directional communication. Among various unsocial "social media," Finnish Wikipedia seems to be particularly unsocial, especially when considering the external back narratives. Users collaborate with each other on the bare minimal level required to serve the content production flow, but extremely few wish to communicate with some other contributors beyond that.

The greater the variety of the enacted media is, the more dispersed the communication gets. As Fleming & Waguespack (2007, p. 168) stress, "it remains impossible for all information within open communities to be shared" when using several media in combination: "dyadic or small-group communication," "personal e-mails, or telephone and face-to-face conversations." Therefore, it is rational for any openness-emphasizing participant to oppose external back narratives and prefer all communication to take place on the wiki platform. The fewer variations of media are used, the more open and democratic the collaboration can be. Lauren Sessions (2010) has warned against the negative consequences of face-to-face interactions to online communities. While the bonding social capital created in online community meetups is likely to benefit attending members, consequently "those that do not attend meetups (the vast majority of the community) are negatively affected" (p. 392).

If the front and back narratives are available for everybody on the same platform, openness is more probably guaranteed. But this can still, of course, be criticized. Just by having the front and back narratives openly available does not guarantee openness. For example, Ayelet Oz (2009) has argued that Wikipedia is "burying the punitive practices behind a series of mechanisms" that employ "the fragmentation of a single discussion to multiple pages," eventually creating "private spaces for administrators and advanced users to act away from the eyes of new users" (p. 1). This could be improved by more sophisticated narrative-tracking features of the wiki software. Currently it is not very easy to trace how narratives are spreading from the front to the collocated to the community-wide back narratives. MediaWiki

developers could consider improving forwards and backwards traceability of the narratives. This way the front narrative and the different kinds of back narratives would be thematically closer linked between each other.

Haythornthwaite (2002) viewed media choice from the perspective of the strength of the social network tie between participants. She formulated that "where ties are strong, communicators can influence each other to adapt and expand their use of media to support the exchanges important to their tie, but where ties are weak, communicators are dependent on common, organizationally established means of communication and protocols established by others" (p. 385). In the context of Wikipedia this could be interpreted from another direction. The common wiki platform facilitates weak ties between participants. When participants enact external back narratives, they are able to establish stronger ties.

6.4 Five Modes of Collaboration

This thesis is a quest for answering the question *what characterizes collaboration in online communities*. By studying Finnish Wikipedia as an instance of an autonomous online community, we have been able to identify various aspects of the characteristics of the collaboration within and beyond the Wikipedia website. However, thus far we have only been able to answer *what characterizes collaboration in Finnish Wikipedia*.

In this section 6.4 our goal is to do a "creative jump" (Vaast & Walsham, 2011, p. 14) that lifts us up from our present context to a generalized understanding of collaboration in online communities. This is achieved by sensitizing our findings using various theoretical frameworks and concepts. What we do here is thus neither *applying* a theory nor *creating* a theory. Instead, we are *theorizing* (Weick, 1995). In the spirit of Erving Goffman, it is "better perhaps [to have] different coats to clothe the children well than a single, splendid tent in which they all shiver" (Goffman, 1961, p. xiv).

On the following pages, five modes of collaboration are presented. These are called planned, feedback, deliberative, stigmergic, and vanguard collaboration. By "five modes" I do not mean "the five" or "all five." Most probably, these five are not all possible modes of collaboration in online communities. In all likelihood, these are not even all modes of collaboration in Finnish Wikipedia. More modes might exist, but these five are the ones that are backed by the data. The first four are supported by existing literature, and the fifth one (vanguard collaboration) I suggest as a novel contribution.

Research and practice in online communities have long demonstrated how the communities are not limited to internet-based interaction. Community members meet each other "in real life." It has been noted that "[c]ollaborative technologies in virtual environments enable better face-to-face meetings" (Qureshi & Zigurs, 2001, p. 86). It is often so that the ones who are most deeply engaged online are the most probable to participate in face-to-face meetings. (Wellman & Gulia, 1999). McCully et al. (2011) found out that before online community participants engage in face-to-face meetings they first have to develop trust online. There is a consensus among researchers that face-to-face communication is important for the success of online communities. For example, O'Mahony & Lakhani (2011, pp. 8-9) state that "the reality is that successful, mature online communities are often complemented by face-to-face interaction in social forums not unlike their traditional local counterparts." The data I have collected does not support these claims. Face-to-face meetings do not play any role in collaboration in Finnish Wikipedia.

I have carefully revisited Preece & Shneiderman's (2009) descriptions about collaboration. I propose that their characterization of collaboration is largely captured by just two categories: planned collaboration and feedback collaboration. Hence these five categories I propose bring a richer and more nuanced conceptualization of what collaboration is in the context of online communities.

6.4.1 Planned Collaboration

In my understanding, *planned collaboration* is the concept best describing how Preece & Shneiderman (2009) approach collaboration. In the abstract of their article, they state that collaborators are "forming tightly connected groups with lively discussions whose outcome might be a Wikipedia article or a carefully edited YouTube video" (p. 14). In my mind, this is what planned collaboration is: discussing how to do something and then doing it. In citing Denning & Yaholkovsky (2008), Preece & Shneiderman define that collaboration "involves two or more contributors discussing, cooperating, and working together to create something or share information" (Preece & Shneiderman, 2009, p. 20). The idea of planned collaboration is visualized in the following figure.

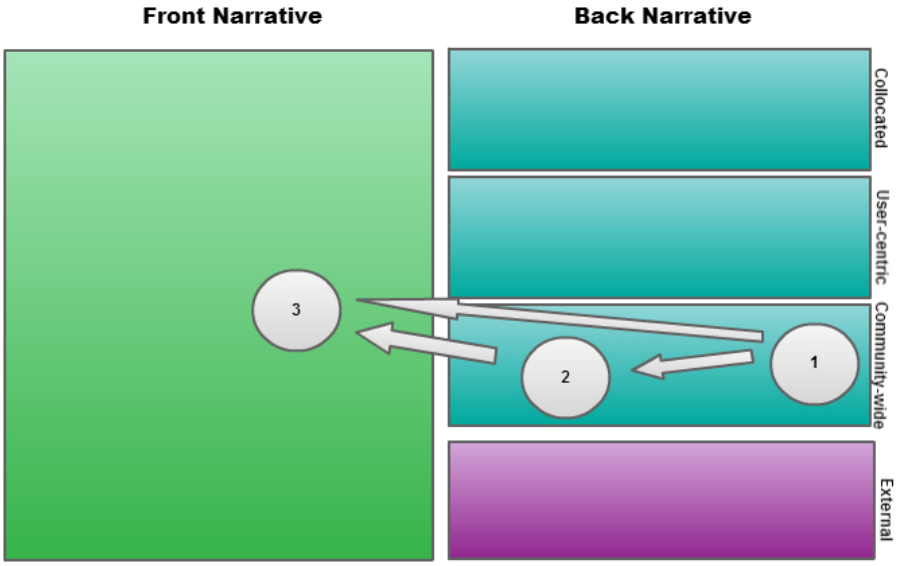


Fig 8 - Planned collaboration

The stages of planned collaboration could be characterized as 1) Developing a common ground through discussion, 2) Assigning tasks, and 3) Doing contributions.

Task assignment is not a necessary stage, as members may jump into contributing without explicitly telling anybody about their commitment.

I have adopted the concept of *common ground* from Preece & Shneiderman (2009) who have taken it from Convertino et al. (2008). Common ground is defined as "mutual understanding, shared beliefs and assumptions" (Preece & Shneiderman, 2009, p. 21). In this vein, Kittur & Kraut (2008) have conceptualized *explicit coordination* in Wikipedia projects. This involves building common ground in the early stages of a project.

Communication that was characterized as reflective discourse in the genre analysis fits this mode of collaboration. Collaborators discuss various topics in the community-level discussion forums. Discussion is held and issues are reflected, often eventually resulting in new article contributions.

In my genre analysis, thematic task management is another example that reflects planned collaboration. These take place on Wikiproject pages. They involve collaborative efforts focused on article improvement around a specific theme. Instances related to two Wikiprojects were caught in the sample: namely "Pseudoscience" and "Check Wikipedia."

Planned coordination seems to be difficult to carry out in a small online community such as Finnish Wikipedia. Few participants seem to be interested in contributing through planning. Rather, participation seems to be motivated by the interests of every collaborator. Many people didn't seem to follow what kind of projects there were in progress, if any.

> *#9: "But yes, there are also these Projects [for the coordination of activities]. Some users have played with those, but I'm not aware how well it has worked out."*

A more general problem of planned collaboration is the uneasy coexistence of volunteerism and control. These two concepts seem to be difficult to combine. Few people seem to be interested in committing for longer periods in common-ground development plans. Again, people stop doing contributions when they lose their interest in the topic, and then they move on to something else that inspires them more at that time. It could be said that the community suffers from a collective attention-deficit disorder.

> *#11: "it's not possible to command others, like 'you cannot do what you think is fun, but you need to follow these orders instead'. That would work out only if you'd get paid for it."*

> *#1: "I might be wrong, but currently I think that... it's very difficult to combine volunteerism with strict control. There can be no top management team in voluntary projects. Everybody knows that there is no way to force people to do something they don't themselves want to do."*

6.4.2 Feedback Collaboration

The next mode we shall call feedback collaboration. With feedback we refer to situations when a Wikipedia editor is explicitly notified by her fellow Wikipedians that her contributions are noticed and appreciated.

> *#11: "That social aspect is what attracts many to contribute. That you get feedback from the work you've done. That aspect is needed, of course."*

Preece & Shneiderman (2009) describe two mechanisms that result from feedback collaboration: credit and reputation. These are based on the idea of "cycle of credit" (Latour & Woolgar, 1986): the main incentive to continue working on something comes from fact that the previous work was noticed and appreciated by others. Preece & Shneiderman present several Wikipedia-related studies where this has shown to be true (Forte & Bruckman, 2008; Kittur et al., 2006; Suh, Chi, Kittur, & Pendleton, 2008).

A simplified model of feedback collaboration is depicted in the following figure. The three stages can be called 1) a contribution 2) Feedback stating that this contribution is noticed and appreciated, and 3) more contributions empowered by this feedback.

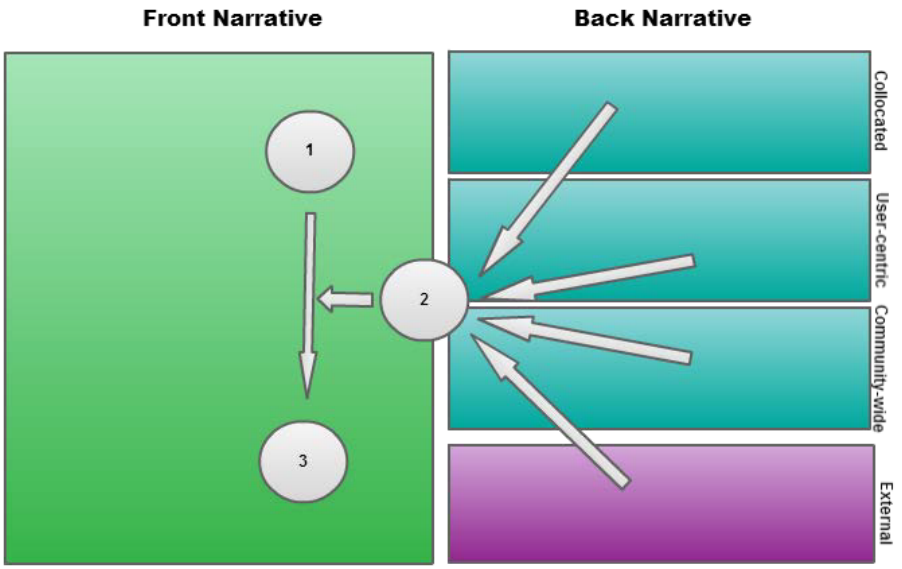


Fig 9 - Feedback collaboration

Feedback can be given for example on the user page in the form of a barnstar – a "diploma" that is attached to the user page (Kriplean et al., 2008). Barnstars also show that feedback can be situated, i.e. feedback about a particular action, or concerning the whole career of a contributor. Similarly, the example of being motivated by the position on a ranking list (see section 5.4.4) shows that the feedback need not necessarily come from another human user.

6.4.3 Deliberative Collaboration

The third mode of collaboration is titled *deliberative collaboration*. Webster's dictionary defines deliberation as "careful consideration before a decision." ("Webster's Encyclopedic Unabridged Dictionary of the English Language," 1996, p.

382). The concept of deliberation is most often used in the context of democracy. According to Freeman (2000), there is “no settled and commonly accepted account of the central features of a deliberative democracy among political scientists and theorists. According to one account, it simply involves discussion among the members of a group before voting. For another it is voting preceded by public discussions and communications intended to change peoples’ preferences.” (p. 373).

Interestingly, both accounts above include both discussion and voting. The principle in Wikipedia is that problems should be solved through discussions, not through voting. However, the practical reality in Finnish Wikipedia seems to be that voting is needed together with discussion: *"Basically, Wikipedia’s line is that voting is bad. That everything should be solved through dialogue. But often you need to have a vote because discussion won't end up in a consensus."* (#2)

The deliberative characteristics of Wikipedia have been emphasized in several studies (e.g. Black et al., 2011; Hansen et al., 2009; Klemp & Forcehimes, 2010; Towne & Herbsleb, 2011). One well-argued candidate for a definition suitable for online collaboration comes from Black et al. (2011). They formulate deliberation as “decision-oriented conversations in which a group weighs pros and cons of different options, articulates core values, and makes choices in a way that is respectful, egalitarian, and open.” (p. 3).

‘The established processes’ in the genre analysis (section 5.5) fit largely this deliberative mode of collaboration. All of them represent deliberative decision-making in the ‘Wikipedia namespace’ (i.e. community-wide back narrative). Each of these instances deal with issues that originate from the community’s conflicted opinion about how an encyclopedia article should be developed further.

Heylighen & Bianchin (2013) have argued that deliberation is an inclusive, bottom-up, design approach. This is an opposite view to the popular belief that best design knowledge originates from expert design authority. Heylighen & Bianchin explain that the “competence to judge what is good design is not an exclusive

possession of anyone, but arises by deliberative cooperation of designers and people about the issues at stake" (pp. 106-107). In such egalitarian context of volunteerism as Wikipedia is, members are both the "designers" and "user-people" of content.

The process of deliberative collaboration can be summarized as depicted in figure 11. The five steps can be characterized as:

1. Contributions resulting in a dissensus
2. Deliberation about the contributions
3. Bringing the issue into a community-level topic of deliberation
4. Community consensus
5. More contributions, informed by the community consensus

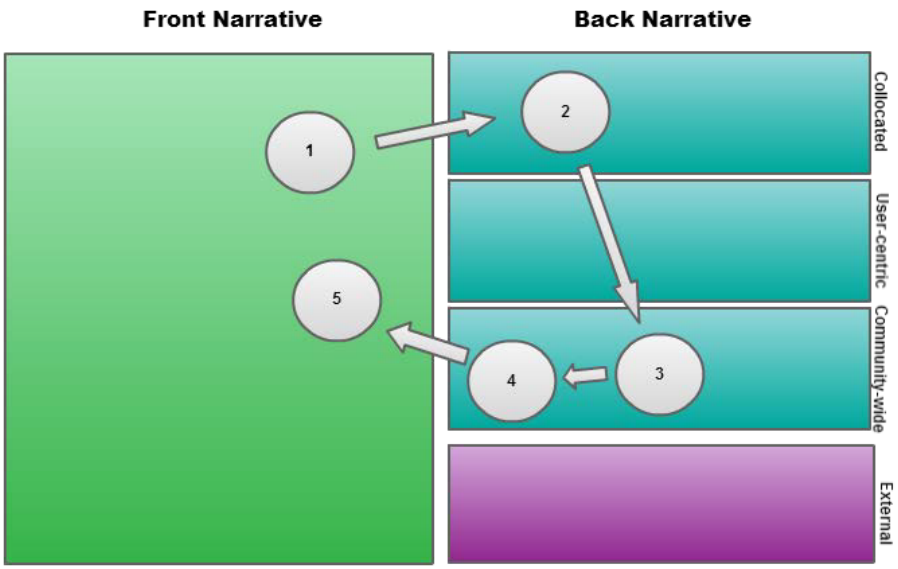


Fig 10 - Deliberative collaboration

Van Maanen (1995a) has argued that "one of the most common tactics of elite groups of all sorts is to refuse to discuss – to label as uninteresting or vulgar – issues that are uncomfortable for them" (p. 690). Our interest is on self-organizing egalitarian systems of participation, and in such settings potentially everything should be a topic of discussion. Cimini (2010) has phrased that autonomous web communities "signal a rebellion against exclusivity in knowledge construction and, in so doing, may bring to the fore the inner workings of debate and discussion on any given topic." (p. 410).

Freeman (2000) has stated that "democratic deliberation encourages people to reflect on their preferences and provides them with information that can lead them to alter their values and positions" (p. 384). This may be an idealized view, as people are rarely truly open to new points of view. More often, people act from their own entrenched ideas, based on their previous experiences. This is demonstrated by the "political parties" within Wikipedia, the inclusionists and the deletionists (Kostakis, 2010), which are also present in Finnish Wikipedia.

Deliberative collaboration seems to have similarities to the governing principles of common-pool resources, or "the commons" (Ostrom, 1990). More specifically, the mode of deliberation involves what Elinor Ostrom calls *collective-choice arrangements.* This means that "most individuals affected by the operational rules can participate in modifying the operational rules" (Ostrom, 1990, p. 93). Hence, the same people who were involved in a conflict are involved with solving the conflict through consensus-building. In the context of democracy, deliberation is seen to "contribute to the legitimacy of decisions, because citizens who lose out in the resolution of competing claims are more likely to accept the decision when it is adopted after careful consideration of the relevant merits of competing moral claims for resources" (Freeman, 2000, p. 383).

Deliberative collaboration is also related to the concept of *articulation work*, which has a strong foothold in CSCW research (Blomberg & Karasti, 2013). The concept articulation work was introduced by Anselm Strauss (1985) and it is defined as "work that gets things back 'on track' in the face of the unexpected, and modifies action to accommodate unanticipated contingencies. *The important thing about articulation work is that it is invisible to rationalized models of work.*" (Star, 1991, p. 275). The first sentence of this definition fits well. Similarly, deliberation gets work back on track. Deliberation helps community achieve a consensus when contributions become conflicted for one reason or another. The second sentence of the definition then sets these two concepts apart. Articulation work occurs in 'traditional' work settings where process modeling is a mundane activity. Articulation work is needed because in all kinds of work there are aspects that cannot be predicted. The *invisibility* of articulation work comes from the struggle when actual operational-level work reality appears different from what 'scientific management' practices have prescribed (e.g. Littler, 1978). Conversely, deliberation aims to be as visible as possible. Deliberation is a situated activity, and there is no such conformist pressure as in articulation work. Deliberation is an inclusive activity, for the purpose of engaging "diverse perspectives in public decision making" (Quick & Feldman, 2011, p. 283).

The interviewees opined that deliberation has its downsides when the barrier to deliberate is too low. Many of them seemed to prefer to "just do it" instead of going through the complex long processes of deliberation. Stvilia et al.'s (2008) also noticed how the percentage of non-article content has significantly increased in Wikipedia. The following quote shows dissatisfaction towards such a trend.

> *#11: "Of course, the purpose is to create the encyclopedia, and in that sense there is too much of all this metaconversation. Well, some people enjoy that, initiating more voting processes, voting about everything, discussing about everything, trying to get comments to all possible issues. Some people are just fond of bureaucracy. They get self-esteem out of that, in that way they try to prove their proficiency. I think there's too much of all this."*

6.4.4 Stigmergic Collaboration

The starting point of this thesis was that online communities require both a front narrative for fulfilling their content-producing purpose, and a back narrative for facilitating collaboration. This distinction was informed by the work of Faraj et. al (2011), who grounded the 'narrative' concepts on the work of Goffman (1959).

A question that haunted me for a long time is if this division is justified or not? Does collaboration only occur in the back narrative? The more I reflected on the interview data, the more I started to doubt this division. For example, the interviewee #9 stated that he does not "coordinate anything. "

> *#9: "I don't really coordinate anything. It's more like I just do things. That's kind-of the idea of Wikipedia that people should just do things and not think too much how to do it. The result may be good or bad. Someone else might have done that in some other way."*

I interpreted this as that he does not *explicitly* coordinate, as he does not engage in dialogues. This does not mean that there is *no* collaboration. When he contributes, he often picks up from where someone else has left. Similarly, someone else may take the contributions further after him.

Several interviewees had suggested that the focus on the back narrative is unhealthy for Wikipedia, because all efforts should be focused on the encyclopedia itself, the front narrative. However, focusing on articles is not just mere contributions. It may have collaborative elements, when different people work on the same article, supplementing each other. Kittur & Kraut (2008) call this *implicit coordination*. Here is one of the excerpts where this kind of a view was suggested:

> *#8: "I think that the less there is discussion, the better. People should concentrate on creating an encyclopedia, and not on chatting, nor do any political activities there. Of course there has to be some policies, so that the articles become stylistically similar. But anything over that, that's*

> *unnecessary. So, as I said, there should be as little discussion as possible. That's what I try to do, discuss as little as possible, and edit articles as much as possible."*

So how should we conceptualize this phenomenon of the front narrative collaboration? The word we may be looking for is *stigmergy*.

I came across the concept of stigmergy in December 2012 when I read Lars Rune Christensen's article (Christensen, 2012) in the Journal of CSCW. In his study on building construction projects, he states that "when actors coordinate their cooperative efforts by acting directly on the evidence of work previously accomplished by others we may describe them as engaged in practices of stigmergy" (p. 4). I immediately became interested in this concept and in its application potential for Wikipedia collaboration. Then, an article by Loveland & Reagle (2013) appeared in mid-January in the OnlineFirst[55] section of the journal New Media & Society. To my surprise, this article discusses stigmergy in Wikipedia and in encyclopedia production in general! Not only this, it referred to Elliott (2006), to an article titled *Stigmergic Collaboration: The Evolution of Group Work.* Elliott writes in his article:

> *"As stigmergy is a method of communication in which individuals communicate with one another by modifying their local environment, it is a logical extension to apply the term to many types (if not all) of Web-based communication, especially media such as the wiki. The concept of stigmergy therefore provides an intuitive and easy-to-grasp theory for helping understand how disparate, distributed, ad hoc contributions could lead to the emergence of the largest collaborative enterprises the world has seen." (p. 4)*

I wondered why I had not found this article earlier during my PhD process! What makes it even more surprising is that I am part of a systematic literature review project- Wikilit- where we have tried to locate all published Wikipedia research,

[55] http://nms.sagepub.com/content/early/recent (29.1.2013)

which is literally thousands of studies (see Lanamäki, Okoli, Mehdi, & Mesgari, 2011, for a detailed description of the systematic search process). Even that project had missed Elliott's article. Apparently the reason for the failure to capture this article is that the journal where this article was published, M/C Journal is a poorly indexed open access journal, and quite unknown outside its home country, Australia.

The concept of stigmergy was introduced by a French zoologist Pierre-Paul Grassé in 1959. Grassé, an expert on termites, was the first to formulate an explanation to a seemingly paradoxical observation: "In an insect society individuals work as if they were alone while their collective activities appear to be coordinated" (Theraulaz & Bonabeau, 1999, p. 97). Theraulaz & Bonabeau summarize the idea of stigmergy as follows:

> *"Traces left and modifications made by individuals in their environment may feed back on them. The colony records its activity in part in the physical environment and uses this record to organize collective behavior." (p. 111). Consequently, stigmergy "solves the coordination paradox: Individuals do interact to achieve coordination but they interact indirectly, so that each insect taken separately does not seem to be involved in a coordinated, collective behavior." (Ibid.)*

In the following figure, I visualize what stigmergic collaboration might look like.

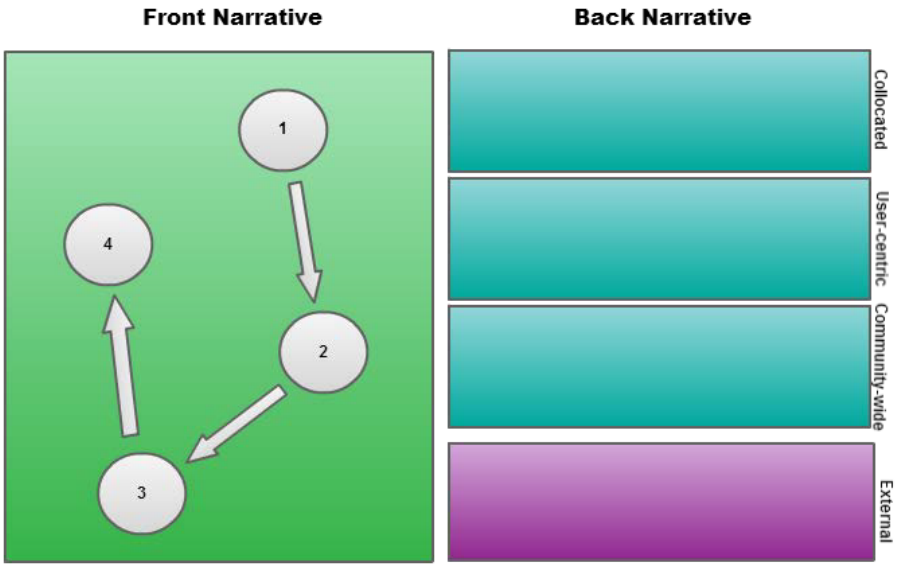


Fig 11 - Stigmergic collaboration

The steps in this figure could be summarized simply as:

1) Contributions

2) New contributions based on traces left and modifications made by previous contributions

3) More contributions based on traces left and modifications made by previous contributions

4) Still more contributions based on traces left and modifications made by previous contributions

I confess: what I have written thus far about stigmergy is nothing new. To *me* this was new, and it was delightful to find a theoretical concept that makes these findings appear reasonable.

The ‘anomalies’ (section 5.4.4) may actually offer us a pool to draw a theoretically novel contribution to stigmergic collaboration from. So let us revisit that section. Let us think about what the interviewee #1 stated about the list of Nobel Prize winners- that which had 95 blue links and 5 red links. When a user created that list, he knew it was incomplete. Having red links within other content has a purpose of *metacommunicative signalling* to the community (Bateson, 1972; Wilmot, 1980). A red link is a symbolic way to state that “these things are missing from the whole, please add these articles.” Thus, traces of stigmergy are not always left implicitly, but explicit “tracing” is sometimes needed using metacommunicative signalling such as red links. Similar metacommunicative signalling is what the “note-making” users do for articles, whenever they see an unreferenced knowledge claim, or a vague statement. In such cases, a “Citation needed” text can be added to the claim. All this happens within an article, in the main/article namespace.

> *#3: “When someone sees anything strange in an article, you may add a Request for References, or a Request for Clarification.”*

This kind of a note-making or tagging practice is also exactly what Den Besten & Dalle (2008) describe as the practice of how Simple English Wikipedia keep their articles “simple.”

6.4.5 Vanguard Collaboration

The fifth mode of collaboration is what I have decided to call the *vanguard collaboration*. I was not able to connect this phenomenon to the existing body of literature. Thus, I named this mode of collaboration myself. So, this mode may be a novel contribution. I define the vanguard collaboration as tasks coordinated by specialists using two or more media simultaneously. I base the characterization of the vanguard collaboration primarily on the interviews number #4 and #6. The activities that I consider as the vanguard collaboration are template programming and vandalism fighting.

The word vanguard has the same etymologic root as the concept *avant garde*. Both these concepts are derived from two Old French words: *avaunt*, before, and *garde*, guard (Partridge, 1991, p. 761). Webster's dictionary defines the word vanguard as "the forefront in any movement, field, activity, or the like." ("Webster's Encyclopedic Unabridged Dictionary of the English Language," 1996, p. 1579)

The reason why I named this mode 'vanguard' is that these collaboration activities are done by an *advanced* group of people. One could also label them metaphorically as special forces, outpost, or by less military terms such as handymen. The vanguard group is involved with tasks that require special skills not necessarily shared by the majority of the community. Performing vanguard activities also requires higher user privileges. Members participating in the vanguard collaboration are often regarded as respected elders in the community, because they are skilled and experienced people.

Unlike all other modes of collaboration, the vanguard collaboration simultaneously makes use of several communication media. Part of the vanguard collaboration takes place on the website, and part of it outside. In both examples of the vanguard collaboration, the main interaction is between the Wikipedia website and the #fi-wikipedia IRC channel. The quick, real-time communication features of IRC were noted as the main strength of that medium. IRC seems to serve as a communication channel supporting the execution of special tasks in Wikipedia. The use of IRC simultaneously helps coordination and thus reduces risks when updating the system.

The simultaneous use of several media directs us to the considerations of media choice and technology affordances. Different technologies 'afford' action differently (Chemero, 2003; Norman, 1999). The concept of *affordance* refers to the perceived types and ranges of activities allowed by technology. Media choice theories try to describe, explain, or predict the choices people make when they are able to choose between various communication media. The choices take place in different situations, times, and other contexts, and may be based on, for example, the

"richness" of the media (Daft & Lengel, 1986), or on the easiness to close tasks (D. Straub & Karahanna, 1998).

Using various media simultaneously enables forming multiplex relationships. These are depicted as intimate, supportive and sustainable (Haythornthwaite, 1996). Sessions (2010) argues that the development of multiplex relationships "enhances attendees' engagement with the online community as a whole, strengthens ties to other attendees, and contributes to the creation of bonding social capital. Conversely, deepening relationships among the vanguard may drive away those who are not part of the vanguard.

This leads us to the controversial aspect of this mode of collaboration. The fact that the vanguard collaboration is divided between various media has its downsides. When all communication does not take place on the Wikipedia website, communication is no longer traceable and transparent. Even though the IRC channel is also open for all to join, its role has caused confusion among some of those who are not part of the vanguard. This has contributed to conspiracy speculations that "the elite" is scheming against "the proletariat." Tkacz (2007) has argued that Wikipedia's openness is 'positive visibility,' in contrast to the general perception of open information leading to online surveillance. "[O]ur relationship to knowledge is always mediated by the structural condition in which it is represented – conditions that are themselves political – the more we know about these conditions and how they operate, the better" (p. 17). Future research and development could focus on how the advantages of the vanguard collaboration can be balanced better with the demands of positive visibility.

The simplified idea of the vanguard collaboration is depicted in the following figure. The stages can be called: 1) discussing about a task among the vanguard, 2) informing and discussing the task in the community, and then 3) the vanguard coordinates a performance resulting in 4) an improvement in the front narrative. The initial idea may originate from the members of the vanguard or from the other members of the community.

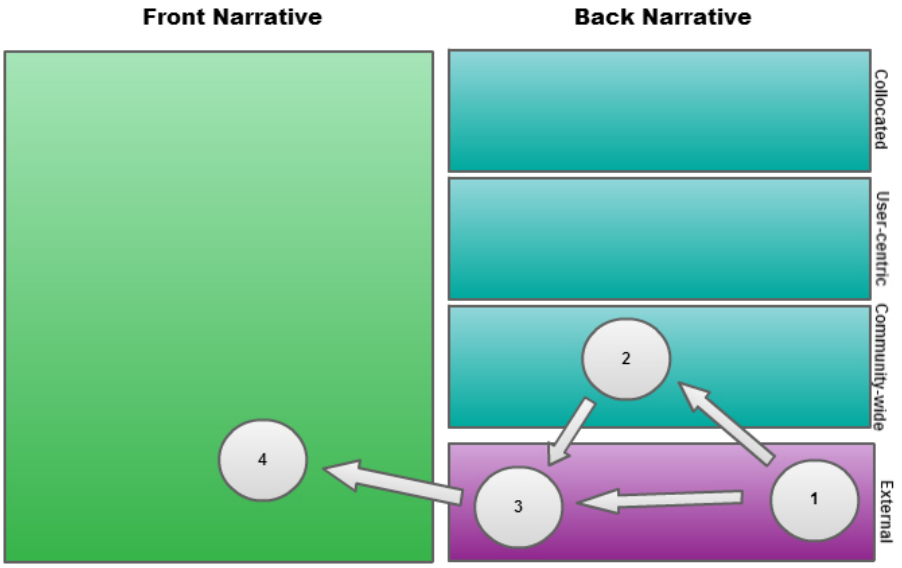


Fig 12 - Vanguard collaboration

6.5 Towards Design Principles for Autonomous Online Communities

Professor Shirley Gregor was a keynote speaker at a theory development workshop in Tampere in September 2007. Here, Gregor presented the long process that had resulted in her MIS Quarterly paper *The Nature of Theory in Information Systems* (Gregor, 2006). In that paper she presents five archetypes of the goals of IS theories: to describe, to explain, to predict, to predict and explain, and to design. The way she presented the archetypes offered a much richer narrative than what the article itself states. One particular detail was how she presented the Type 5 theory, the theory to design. She stated that Information Systems, as an applied discipline, should ultimately aim towards designing. In other words, the best thing that any describing, explaining and/or predicting theory can do is to offer us a basis to design and develop something new that did not exist before. In Gregor's statement, the ability to contribute through design is the highest form of scholarship. When a scholar designs,

she has ascended from a mere observer and bystander. A designing scholar is not anymore a tourist of life, but has become a creator.

The leap from the modus of *understanding* collaboration to *designing* collaboration is not without challenges. It is philosophically risky to derive *ought* from *is* (MacIntyre, 1959). No matter how rich the descriptions, or explanations we can draw from our existing social reality, it is problematic to argue how the future ought to be. Any suggestion for interventions to reach preferred goals can be tackled by stating: that is only your opinion. Nevertheless, I acknowledge that mere scepticism would be counter-productive. I will just accept Weimer's (1979) observation that philosophers of science have falsified every single empirical research method. For example, the division of concepts into empirical and theoretical does not hold ground methodologically. Still much of empirical research follows this division, because it makes sense practically. Despite moving in a logically risky area, these leaps can potentially offer valuable insights of practical relevance.

I shall next present an initial sketch of what might become a design-oriented theory of autonomous collaboration. More precisely, this is not yet a presentation of a theory, but an argument for what such design theory could consist of. Thus in this section we shall make two leaps from our previous state of argumentation. First, in the vocabulary of engaged scholarship, we remain detached-external, but we move from informed basic research to design/evaluation research (Mathiassen & Nielsen, 2008). The other move requires us to think outside of the current context of Finnish Wikipedia, or even Wikipedia, or even any currently existing context. To put it simply, we dedicate a moment of thought to what would be required for the ideal performance of autonomous computer-mediated collaborative platforms. Here, I propose five candidates for such design principles.

1. Enabling each mode of collaboration
2. Coexistence of various modes of collaboration
3. Variety of back narratives

4. Traceability in and between the front and the back narratives

5. Ubiquity of positive visibility

I was able to identify five modes of collaboration in Finnish Wikipedia (see section 6.4.) The first principle means that when designing collaborative platforms, the designers should think of each mode and of how to best support their performance. For instance, the designers could pose the following questions: How to enable planning? In which ways can feedback giving be supported? How to best help users engage in deliberation? Are there better methods for users to leave stigmergic traces for other users to build on? How can the vanguard collaboration be best supported?

The second principle is based on the observation that all these five modes of collaboration are conceptually different, but in practice they coexist in the same space. Sometimes these modes may be intertwined, while sometimes they may be used in parallel. Designers should think how to enable the harmonious coexistence of these modes.

The slogan of Wikipedia is "the free encyclopedia that anyone can edit." All encyclopedias consist of articles, which represent the front narrative in Wikipedia. The present thesis has shown the variety of back narratives and how different modes of collaboration are afforded by them. The designers of the online platforms should not only focus on the front narrative, but also on the back narrative that allow rich communication possibilities. Johannessen's (2012) study concerning the online community of the Norwegian labor party is a good example of deliberation that focuses on the community itself. This study reports about a "debate going on between some of the regular contributors, where they discuss how to conduct debates, the language which is and is not suitable to use, and other issues related to what they want the community to be like" (p. 2578). This shows that various types of online communities involve the need to discuss community-level issues. The division between the front and various back narratives can bring clarity to such a deliberative community, because the situated practice, discussions about the situated practice, and

discussions about practices in general are all distinct. Conversely, a community may lose its direction and focus when all communication is forced in a single narrative.

The fourth principle suggests that collaboration should be traceable. The collaborative processes seem to spread over a multitude of pages. For example, deliberative collaboration may originate from an article, it may travel through the article talk page to various kinds of pages in the 'Wikipedia namespace' where conflicts are discussed and polls are held to reach consensus. This may be difficult to comprehend for people who are unfamiliar with the logic of wikis. Maybe these collaborative processes could be traced better, perhaps using some visualization mechanisms. This would help novice users to join in collaborative processes, and shorten the time to building consensus. This also relates to Yasseri et al.'s (2012) finding that "those articles which do not achieve consensus are driven by an influx of newly arriving editors and external events" (p. 11). Visual traceability might help in communicating the state of processes also to newly arriving editors.

The fifth, and last, principle concerns *positive visibility* in the lines of how Nathaniel Tkacz (2007) has formulated the concept. More particularly, this principle motivates designers to consider how to include as large a portion of communication as possible into the area of positive visibility. This relates to the centralization and accessibility of information. The participants should be able to receive all information – not only the front narrative, but all the back narratives. Current and future participants should be able to engage in all contributions and all collaboration – at least in principle. It would be suboptimal for our goals if information becomes dispersed in various communication media. In my study, this problem specifically concerns the vanguard collaboration. The conducted interviews showed how there is a conflict between those who used IRC in vanguard collaboration and the "resistance" of some of those who do not use IRC (see 5.4.5). On one hand, those who had enacted IRC in collaborative purposes argued that IRC enables high-tempo coordination better than wiki. On the other hand, those who opposed IRC argued for the transparency and the openness of Wikipedia. While IRC is open for everyone to join in, it is still

separate from Wikipedia, and thus perceived by some as “esoteric.” However, balancing these two viewpoints might be possible. Maybe we could see this issue as a flaw of/in Wikipedia (or MediaWiki), because it does not support high-tempo discussion, i.e. all those good affordances of IRC. What if this type of discussion would be open, transparent, archived, and, most importantly, integrated to the whole Wikipedia experience? A chat functionality within wiki might be the solution. For the picture this would mean the requirement for the technology to afford collaboration at various tempos.

6.6 Stability of Genres

When starting this dissertation research I was very enthusiastic about the genre theory, its interdisciplinary nature, its long history, and its shining beauty. I must confess however, that in the later stages of the research process I got more and more confused. After having read literally *hundreds* of genre studies and textbooks, I started to lose direction. Genre seemed to have many meanings, multiple uses, and thus it became to mean nothing to me. For a while. I started to doubt whether I would have anything new to say about genre.

I ended up with just a little thing I am going to propose as a contribution to the genre theory. Nevertheless, I think it is an important enough contribution to be presented and discussed here. The contribution is this question: *what does it mean for our understanding of genre when the unit of analysis is an 'edit'?*

In the commentary for Kane & Fichman’s (2009) MIS Quarterly article on wikis, Ann Majchrzak (2009) called for more theory-based approaches in studying the wiki technology and its uses. One of her suggestions was to interpret different wiki-pages as distinguishably different genres (Orlikowski & Yates, 1994). “We recognize that a wiki used to create an article with a neutral point of view, for example, is fundamentally different from a wiki used to evaluate others’ ideas (as in teaching or peer reviews)” (Majchrzak, 2009, p. 19).

Certainly, wiki technology can be utilized in creating very many types of wiki pages, serving various purposes and forms. However, Majchrzak's suggestion seems incomplete. Different users edit different kinds of pages in different ways. For example, a single page can serve different purposes for communication. We need to bear in mind that genres are "typified rhetorical actions based in recurrent situations" (Miller, 1984, p. 159). There is no mention about a page or a document in that definition. Genre is not a page- it is a social action. Therefore, a page is not probably the correct unit of analysis when analysing wiki genres. An edit – the basic unit of communication in wikis – seems to be a more fitting unit. If several edits have the same purpose – possibly also the same content, form, participants, time and/or place – then it is feasible to say that we have, indeed, found a genre.

The analysis has implications for genre analysis and genre theory. This approach of edits, not pages or documents, is rather unique. In many previous genre analysis approaches, genres have been likened to documents. In Wikipedia, one particular page can be edited by different people through a long period of time. The evolution of a page can thus be indefinite, never-ending.

One of the implicit hypotheses I had before conducting the study was that by taking two samples with enough time in between, I could reveal significant differences of collaborative practices. In such way, I presumed, I could reveal emergence or autopoiesis of shared practices within the community. However, that did not happen. Instead, the two samples offered relatively similar communicative patterns. I suspect that this might be a sign of established collaborative conventions. Finnish Wikipedia is soon turning ten years old, and many approaches of collaboration have become conventionalized. Alternatively, the selection of data collection of two relatively small cross-sectional samples might not be the optimal way to point out changes in practices. A quantitative analysis using a large longitudinal dataset might be more appropriate in revealing such trend change.

The finding that both samples largely share the same characteristics is also valuable. This shows that despite no presence of coercive force, the community has

found shared conventions of how collaboratively dealing with different issues. Three types of established collaborative processes were identified, namely voting, policy update, and task management. The genre analysis also shows that several users were represented in both samples. These are long-term power users: collaborators that are deeply engaged in the community and thus are very important to collaborative dynamics.

The relative similarity of the two samples also allows the confidence that we can talk about genres. A genre is understood as recurrent typified social communicative action. A genre must demonstrate some level of fixity in order to be a genre. Anything that has happened only once is clearly not a genre.

Autonomous online communities pose a challenge to the genre theory by introducing the concept of power. Voluntary laymen can edit any document. Thus the purpose of those documents can potentially change in any given moment.

Structuration, defined as "conditions governing the continuity or transmutation of structures, and therefore the reproduction of social systems" (Giddens, 1984, p. 25) is a continuous process (Jones & Karsten, 2008), not episodic. Change may be triggered by any instantiation of communication. Jones & Karsten state that the theories promoting episodic change, such as that in punctuated equilibrium, are incompatible with structuration theory. The "punctuated view neglects the way in which gradual change may be happening all the time, perhaps never being sufficiently notable to be identified as a specific event" (p. 145).

Nieminen (2010) has formulated that "[u]nlike texts, genres cannot be directly observed … [Genres] exist as semiotic, social conventions, *habits* in the Peircean parlance, in the texts and their usage." (p. 275). Therefore neither document-based nor edit-based analysis can directly tell us what the genres are. However, analyzing edits in wiki-pages instead of analyzing wiki-pages themselves has the potential to liberate us from the chains of document-based thinking. Edit-based genre analysis may offer another dimension to genre understanding, together with other approaches. In some

sense, the community members carry an extant version of "genre understanding" in their heads, meaning what types of communication belongs to where, by whom, at what time, how, why, et cetera. But this genre understanding is always in a beta-stage. Every single new edit offers a possibility to change the meaning of that page, and the genre it represents. Not much of this evidence was showed in this study, because of the similarities between the two samples. Nevertheless, maybe a future study will reveal the true power of edit-based genre analysis, perhaps by analyzing a community in its more formative stages.

The concept of genre has become a hot research topic in recent years. Just in Finland, three comprehensive text books (Heikkinen, Voutilainen, Lauerma, Tiililä, & Lounela, 2012; Immonen, Pakkala-Weckström, & Vehmas-Lehto, 2011; Mäntynen, Shore, & Solin, 2006) have been published about this topic. I do not claim that my contribution to genre theory is earth shattering, but it may open us a path to more dynamic in its understanding of genre.

6.7 Limitations

In this thesis we have focused on collaboration in online communities by exploring Finnish Wikipedia. We took off from the premise that online communities require both a front narrative for fulfilling their content-producing purpose, and a back narrative for facilitating collaboration. Another premise was that online communities need collaboration in order to guide participation towards improved content quality. I think the thesis has provided valuable insights. These premises have been largely justified, and provided a relatively novel basis in order to contribute to the extant literature on online collaboration.

I claim that I have succeeded in exploring what characterizes collaboration, both in our present case of Wikipedia, and as generalized to other online community settings. I do not claim this is in any way a comprehensive presentation or the last

word. Nevertheless, I claim that this thesis fulfils the requirements for a doctoral-level contribution (cf. Evans et al., 2011).

The notion of collaboration was adapted from the Reader-to-Leader Framework (Preece & Shneiderman, 2009). This framework consists of four categories of participation: reader, contributor, collaborator, and leader. The readership is the easiest category to distinguish from others, both conceptually and practically. Wikipedia readers do not 'edit,' while representatives of all other categories do. The initial challenge was to distinguish between contributors, collaborators, and leaders. These three categories are conceptually distinct, but practically unclear. Contributions, collaborations, and leadership all manifest as editors editing in Wikipedia. But how should we differentiate between these three in practice? In this thesis, I differentiated between contribution and collaboration using the front/back narrative framework. Contributors stay in the front, and collaboration happens in the back. This was demonstrated to be a useful distinction, though the concept of stigmergic collaboration also proved otherwise.

I differentiated between collaboration and leadership by neglecting leadership altogether. This was a conceptually clear and a convenient way to escape the discussion of what is the difference between these two notions. This omission, however, left a gap in our understanding of boundaries between collaboration and leadership. Even though some people might idealize that autonomous self-organization would not involve leadership at all, I do not support that view. Autonomy requires authority, but authority manifests itself differently than in top-down hierarchies (e.g. O'Neil, 2009). Future research may investigate more carefully where collaboration and leadership start, and where they end. Here is an idea that might guide research forwards: All collaboration involves leadership but all leadership does not involve collaboration.

Several tips from previous Wikipedia research were taken into account when designing this research. Mostly I have been informed by Kane & Fichman's (2009) article on applicability of wikis in various contexts, published on the March 2009

issue of MIS Quarterly. They emphasize how "conducting research on wikipedia involves (…) complex ethical requirements" (p. 4). They note that "all data on Wikipedia is available through GPL[56], and researcher can use this data without concerns about copyright or other intellectual copyright issues" (Gerard C. Kane & Fichman, 2009, p. 4), citing (Allen, Burk, & Davis, 2006).

As all Wikipedia data is publicly open for anyone to download and use as they wish, there might be a temptation to take a quick route to get easy publications. Kane & Fichman (2009) warn against this by stating that "collaboration on Wikipedia should not be reduced to its most easily observable elements" (p. 4). Therefore the data for this study comes both from a content analysis of the Recent Changes page and from interviews with 14 active wikipedians. Kane and Fichman also point out that the "researcher should take time to learn about and work within the cultural norms that govern collaboration on Wikipedia before conducting research" (p. 4). This aspect is supported by the fact that I have been a registered member of the Finnish Wikipedia since 2004. I have also closely observed the community dynamics, even though I have never been a chart-topping contributor. Assessment of the web server statistics also contribute to the triangulation of data from other sources. Additionally, I have familiarized myself with Wikipedia by ordering a daily summary of Wikipedia-related news delivered through Google Alert. In addition, I have participated to the Wikimania 2010 conference, and got to know several contributors personally.

I have tried to take various ethical aspects into account. First of all, the genre analysis is executed in a non-obtrusive way. As the analysis is interested only in revealing different types of collaborative communication, no user identities are disclosed. Additionally, all the interviewees were approached privately, by email. Every interviewee participated voluntarily. During the interviews, it was emphasized

[56] GPL stands for GNU Public Licence. More precisely, the content in Wikipedia is available through two different *copyleft* licences: GNU Free Documentation License (GFDL) (http://en.wikipedia.org/wiki/Wikipedia:Text_of_the_GNU_Free_Documentation_License) and Creative Commons Attribution-ShareAlike 3.0 Unported License (http://en.wikipedia.org/wiki/Wikipedia:Text_of_Creative_Commons_Attribution-ShareAlike_3.0_Unported_License).

that their real identity would not be unnecessarily disclosed, at least not in a harmful way. Only people who are deeply familiar with Finnish Wikipedia may recognize the interviewees in this study. Anonymizing the identity of the interviewee provides a "light disguise," an approach preferred in various internet-based studies (Bruckman, 2002; Forte et al., 2009). The focus was on mutual respect and trust. I kept an open policy towards what data would be collected and how it would be used. I was especially careful to not "poisoning the research well" (Kozinets, 2002; Reid, 1996) for me and other current and future researchers of Finnish Wikipedia.

Data collection and data analysis were largely qualitative and conducted manually. This had its limitations. Future research may seek to answer these research questions quantitatively using larger data sets, and sophisticated software tools. This may put these findings into a sharper perspective. Sample randomization is one of the scientific ideals for providing reliable results (e.g. Thall & Wathen, 2007). I followed none of this guidance. The main principle for my data collection was convenience. I find this not to be a problem. To a large extent, convenience is part of most case studies, ethnographies, and similar "unit of one" qualitative studies. The assumption is that an in-depth investigation *from within* offers a richer picture of a phenomenon than any survey *from a distance* is able to. The purpose was not to ask "how much" or "how many," but mainly "what." This could also have been formulated as "how."

Kane & Fichman (2009) motivate Wikipedia research to be generalizable to other IT-enabled collaboration contexts as well. However, even top open collaboration and peer production researchers do not have consensus on what are the boundaries of these contexts (Antin et al., 2011). I attempted to study what type of online community we are dealing with, in the case of Finnish Wikipedia. It was found to be a largely independent and autonomous franchise of the Wikipedia concept. Thus my study is generalizable to similar autonomous online community contexts, at least, but possibly to other contexts as well. One potential context could be what Fjeldstad et al. (2012) call the "actor-oriented" architectural scheme of collaboration.

Shirley Gregor (2006) has defined five types of theories: descriptive analysis, explanation, prediction, explanation and prediction, and design and action. Later Ron Weber (R. Weber, 2012) clarified that actually there is only one type of theory, which is the variables-centric positivist theory that explains and predicts a phenomenon. This is what Gregor calls Type IV theory. Weber labels these other types of fake theories as typologies, models, and so on (pp. 5-6). In my mind, the point in labelling something as non-theory is to state that some research approaches have less scholarly value than others. In this narrower sense of theory, this thesis does not offer a complete theory (Whetten, 1989). Instead of providing a full theory, I have just engaged in theorizing (Weick, 1995). On the other hand, Sandelands (1990) has proven that "[t]here is nothing so practical about theory (but it is good to have around)" (p. 259). What this thesis loses in the lack of a theory, I hope it gains in its potential for practical value.

The notion of practical value brings us to the main limitation of this study. This limitation is not an internal one. It has nothing to do with methods, theories, data, contributions, or any of that. Here I return to what I wrote in the Introduction chapter: "This present thesis focuses on collaboration occurring mostly on the egalitarian non-work side of the spectrum, where actions are based on voluntary commitment seeking no monetary compensation. Nevertheless, implications may be available for the work-side as well." The main limitation is that there may not be any contributions for contemporary working life. If there would be, we would assume that practices from non-work contexts would easily travel to work contexts. It is important to acknowledge that there is no consensus of how 'best practices' from Wikipedia translate to enterprise settings (Antin et al., 2011; Duguid, 2006; E. S. Poole & Grudin, 2010). Such translation would follow the idea of IT consumerization (Harris, Ives, & Junglas, 2012): mass-market technology is used increasingly in organizations. Consumerization seems to work well for electronic devices, but I fear this may be a wrong assumption for autonomous collaboration platforms such as Wikipedia.

"Information is the oxygen of the modern age. It seeps through the walls topped by barbed wire, it wafts across the electrified borders. ... The Goliath of totalitarianism will be brought down by the David of the microchip."

This quote was published in the June 14th, 1989, issue of The Guardian newspaper. The man who said this was Ronald Reagan. The rhetoric in this quote is very familiar. It reflects our Western ideology, where technological determinism is our ultimate religion: Give them an iPad or Facebook, and they will inevitably end up in freedom and democracy. However, it seems this is only a utopia (McChesney, 2013; Morozov, 2011). The hope of the Arab Spring (Pollock, 2011) has turned into the depression and oppression of the Arab Winter (Wiarda, 2012). Things do not turn more democratic, but we may be witnessing the decline of democracy altogether (Blühdorn, 2013; Fukuyama, 2012). For example, TED technology futurists Parag and Ayesha Khanna openly argue that democracy is just slowing down our transition towards the brave new world, and autocracy takes us there faster (Morozov, 2012). Slovene philosopher Slavoj Žižek has predicted that the economically struggling Western civilization is on the road towards "a new kind of authoritarian society."

> *"We will gradually proceed into a kind of a new – it will not be the old kind of fascism, we have to be very specific here – to a new type of authoritarian society. Here, I see a world-historical importance of what is happening today in China. Until now, let's be frank, there was one good argument for capitalism: Sooner or later it brought the demand for democracy. You can have dictatorship for ten-twenty years: South Korea, Chile... But. What I'm afraid of is this. Capitalism with Asian values, Singapore, China, we get much more efficient capitalism than – it looks so at least – than our Western capitalism. I don't share the hope of my liberal friends that give them ten years and another Tiananmen Square demonstration... No. The marriage between capitalism and democracy is over." (AlJazeera, 2011)*

The main class division in this new kind of authoritarian society is most likely between the authority and those who are servants to the authority. A third societal

class may then be those who create modern versions of whips for the authority. The authority needs tools to maintain order among the workforce, and to create stability in the society. Deliberative collaboration systems will hardly be among these whips. More likely candidates for such whips are ERP (Le Loarne, 2005), big data (Lohr, 2012), and such technologies of top-down control. The microchip Reagan talked about may not be the liberating David, but the Goliath of totalitarianism 2.0.

Despite all the pessimism in the previous paragraphs, I hope that work life will take more influence from the collaborative egalitarian online platforms such as Wikipedia. The five modes of collaboration proposed by me may be some of the practical approaches for this kind of development.

7. Conclusion and Further Research

7.1 Conclusion

Online communities play a great role in our contemporary societies, both socially and economically. These communities are formed through technology-mediated voluntary participation. A popular form of the online communities is oriented towards content production. Wikipedia – the free encyclopedia that everyone can edit – is one of the most prominent instances of these. While Wikipedia has been the subject to an abundance of research (Okoli et al., 2012), very little attention has been put on studying collaboration.

This doctoral thesis explored what types of collaboration occurs in wiki activities, both within and beyond the wiki platform. From these premises, the following research question was addressed: *What characterizes collaboration in online communities?*

The case chosen for this exploration was the Finnish-language edition of Wikipedia. The history and the present state of this online community were explored. It was characterized as highly autonomous. Additionally, collaborators participate there rather exclusively, with little interaction in other language editions.

Collaboration was defined using Preece & Shneiderman's (2009) definition of *collaborator* in their Reader-to-Leader Framework. I also contrasted this concept against the other concepts in that framework: reader, contributor, and leader. The exploration of collaboration was also informed by the concept of back narrative (Faraj et al., 2011). The starting point was that online communities require both a front narrative for fulfilling their content-producing purpose and a back narrative for facilitating collaboration. Furthermore, the concept of *genre* (Devitt, 2004; Miller, 1984) was used to identify recurring types of social communicative action.

I applied mainly two research approaches. First, 14 in-depth interviews were conducted with active Finnish Wikipedia participants. Second, 10,000 'Recent Changes' edits from Finnish Wikipedia were collected and a subset of the edits was analyzed using genre analysis.

I was able to identify five modes of collaboration from this research. These are named as *planned*, *feedback*, *deliberative*, *stigmergic*, and *vanguard* collaboration. I argued that Preece & Shneiderman's (2009) definition of collaboration is covered by just two of these concepts: planned collaboration and feedback collaboration. Thus this study brings a richer and also a more nuanced conceptualization of collaboration in online communities.

Collaboration is conceptualized as back narrative communication, with the exception of stigmergic collaboration. The back narrative was further theorized into four distinct types: *collocated*, *user-centric*, *community-wide*, and *external*. The genre analysis focused on the 'Wikipedia namespace' which was conceptualized as community-wide back narrative. This consisted of established processes (voting, task management, policy update,) and emergent reflective discourse.

The vanguard collaboration was the name I gave to collaboration that takes place both in Wikipedia and in other media such as IRC. Some interviewees opined that all collaboration should openly take place on the wiki platform – otherwise there is a threat of conspiracy. However, collaborators who utilized external back narratives seemed to have well-reasoned and legitimate motivations in doing so. They argued that using various collaboration media simultaneously is helpful in administrative and developmental activities, and it brings a more social dimension to the Wikipedia experience.

Five design principles were drawn from these findings. These are called: 1) enabling each mode of collaboration, 2) coexistence of various modes of collaboration, 3) variety of the back narratives, 4) traceability in and between the front and the back narratives, and 5) ubiquity of positive visibility.

The conducted genre analysis also provides a minor research contribution. I acknowledged that while genre is defined as social action (Miller, 1984), many researchers still equate genre to documents or page types. I conducted the genre analysis on edits in Wikipedia. The goal was to identify dynamics in genre change. However, only a little change was found between the two samples I collected, thus implying rather stable communication practices.

The last part of this thesis provides three potential paths for further research. Section 7.2.1 considers how Wikipedia collaboration is, as all other human activities, are based on values. While some values come in the form of norms and policies, autonomous communities offer the possibility to contest and negotiate these values. In the section 7.2.2 I argue that Wikipedia has great potential in theorizing of sociomateriality. This concept has become one of the hottest concepts in contemporary management and information systems research (Leonardi, Nardi, & Kallinikos, 2012). Finally, in the section 7.2.3 I present how Finnish Wikipedia can be seen as an instance of scarce-resource peer production. I discuss the implications of when you do not have a pool of billions of potential human participants, but just some thousands or less. These considerations are important when creating a culturally and linguistically richer internet.

7.2 Further Research

7.2.1 Values in autonomous online communities

Our present study has touched upon the concept of the back narratives, which we conceptually divided into four types. Of the four types, the community-wide back narrative consisted of several kinds of communication, one of them being policies. The policies were further classified into de facto policy, policy-by-discussion, and the constitutional policy. What we have not touched upon, but what would be a logical

next step is that the following question: where do the policies originate from? I suggest this question leads us to the concept of 'values.'

As Köhler (1938/1966, p. 38) has formulated it, "[a]t the bottom of all human activities are 'values', the conviction that some things 'ought to be' and others not" (cited in Hodges & Baron, 1992, p. 253). In Wikipedia, values – implicit norms and explicit policies – are presented, contested and negotiated in the back narratives. This relates most to the mode of deliberative collaboration. Freeman (2000) has articulated that "democratic deliberation encourages people to reflect on their preferences and provides them with information that can lead them to alter their values and positions" (p. 384).

The research on co-creation, open source and online communities, has demonstrated that platform ownership enables and constrains the participants' activities. The most usual ownership dichotomy is between sponsored and autonomous communities (Jarvenpaa & Lang, 2011; West & O'Mahony, 2008; Zwass, 2010). In sponsored communities companies interact with customers in R&D, production and marketing processes (Schlagwein, Schoder, & Fischbach, 2011). Participants in sponsored communities are "expected to align, at least partially, with the goals of the sponsoring organisation" (Jarvenpaa & Lang, 2011, p. 448, citing West & O'Mahony, 2008). This is in line what Leonardi & Barley (2010, p. 41) state, referring to Deetz (1992), that managerial discourse often "privileges the values, goals, and perspectives of those who run organizations, while often marginalizing the values, goals, and perspectives of other stakeholders". Similarly, the concept of 'spirit' in Adaptive Structuration Theory (DeSanctis & Poole, 1994) treats values as designers' values embedded in technology objects. Markus & Silver (2008) reconceptualize spirit as 'symbolic expressions.' They ask us: "What about an IT artifact may enable its users to make interpretations of 'the system's' (or its designer's) values and intents?" (p. 622). In this tradition, the end user's role is limited to interpreting and accepting the values embedded in objects by the powerful.

Autonomous communities may have the potential to offer a greater level of individual freedom to negotiate values, goals, and perspectives. It may offer emancipation for the weak. As Hansen et al. (2009) have noted, Wikipedia "illustrates the positive potential of information systems in supporting the emergence of more emancipatory forms of communication" (p. 38). Thus, it would be interesting to conduct further research on how different types of the back narratives – the collocated, the user-centric, the community-wide, and the external – provide different types of potential to emancipatory value shaping.

Values would also be an important concept to introduce because of the pillars number three and five of the five core pillars of Wikipedia. The third pillar states that "Wikipedia is free content that anyone can edit, use, modify, and distribute." The fifth pillar states that "Wikipedia does not have firm rules." These two pillars combined lead us to the conclusion that policy pages cannot be stable, but they can also be edited by anyone. Thus policy pages "cannot really reflect exactly what is right" (Forte et al., 2009, p. 57). As the fifth pillar defines, the "principles and spirit of Wikipedia's rules matter more than their literal wording, and sometimes improving Wikipedia requires making an exception to a rule." The principles and the spirit are very close to the concept of 'value.' Of course, people do not act from a blank state, tabula rasa, but their experience in Wikipedia and life in general guides their value decisions. This is reflected by the wiki-political division of the inclusionists versus the deletionists (Kostakis, 2010). Nevertheless, in my opinion even the *potential* for participants altering their values, growing as human beings, is priceless. I want to believe in the argument of Benkler & Nissenbaum (2006, p. 419): "participation in commons-based peer production fosters important moral and political virtues."

7.2.2 Sociomateriality

In this study, collaboration has been found to have various social configurations which we call "modes of collaboration." Each of these modes involves various material artifacts: namespaces, wiki pages, links of various colours, lists, user

names, and so on and so forth. While we have conceptualized social processes involving these artefacts of digital materiality (Leonardi, 2010), we have barely scratched the surface of the interplay between the social and the material.

This study focused on human users, and all bot-edits were filtered out from the accessed 'recent changes' samples. A further study could focus on the role of non-human agents in collaboration. This could be an interesting research path, as Niederer & Van Dijck (2010) have demonstrated how great a role bots have in Wikipedia editing.

Indeed, non-human agents, software tools and bots are already an important part of what makes Wikipedia tick. Niederer & van Dijk (2010) argue that Wikipedia is not only based on so-called wisdom of the crowd, but it is also a product of automatized software programs taking care of different tasks. Generally speaking, the smaller the Wikipedia language edition, the greater percentage of the content is produced by bots. Geiger & Ribes (2010) also noted that the "technological tools like bots and assisted editing programs have a significant social effect on the kinds of activities that are made possible in Wikipedia" (p. 9). In particular, they demonstrated how a vandalism-prevention process takes place not only between human agents, but between the human agents and the software bots. In addition, bots can suggest suitable tasks that fit each contributor's interests (Cosley et al., 2007).

This leads us to the concept of sociomateriality. Sociomateriality has become a promisingly popular approach to understanding the relationship of technology and agency. Sociomateriality is not only an antithesis to technological determinism or the so-called 'contingency view,' which argues that human actors will adapt to the demands of technology. Wikipedia is a sociomaterial environment where "melding of minds mechanical and organic leads to something that neither could do alone" (D. W. Straub & del Guidice, 2012, p. v).

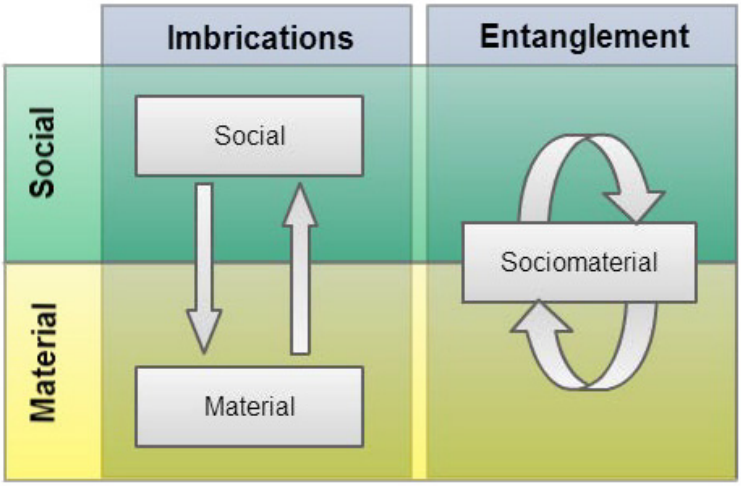
Sociomateriality is also a promise to include technology as a component of organizational research (Orlikowski & Scott, 2008). The research on sociomateriality

has taken two differing stances. I shall call these stances as the Orlikowski camp and the Leonardi camp. These labels are simplifications, and as such do not do full justification to the multitude of scholarship on this theme.

The Orlikowski camp (Feldman & Orlikowski, 2011; Orlikowski, 2007; Orlikowski & Scott, 2008) promotes entangled sociomateriality. The idea is that the social and the material are inseparable. The Leonardi camp (Leonardi, 2011; Leonardi & Barley, 2010) argues for sociomaterial imbrications. This view emphasizes that while both social and material should be studied together, the two aspects can and should be separated. This gives us the imbricated layers of social and material, where social arrangements affect technology, and technology affects the social. Leonardi & Barley (2010, p. 41) note:

> *"Technologies sometimes exhibit particular material constraints and affordances precisely because a group has successfully maneuvered to have its vision of how people work inscribed into the technology's design (Grint & Woolgar, 1997). At present, there is almost no research on how power dynamics or other social mechanisms shape the diffusion of common responses to a new technology across an organizational field."*

The differences between the sociomaterial imbrications and the sociomaterial entanglement are depicted in the following figure.



I do not have a preference as to which of these sociomaterial approaches is better. I encourage future research to weigh the strengths and weaknesses of both approaches. It may depend on the research setting, method, and the phenomenon itself, how easy it is to separate the social from the material. Nevertheless, theorizing sociomateriality seems to be a hot topic in information systems research, with special issue in MIS Quarterly, etc. Wikipedia allows a rich basis for further research on this topic.

7.2.3 Multilingual Scarce-Resource Peer Production

Despite literally thousands of studies conducted on Wikipedia to date (Okoli et al., 2012), other Wikipedia language editions than the English have rarely been researched before. In general, "Internet in its present form does not provide representative access to the full range of linguistic and cultural groups worldwide" (Paolillo, 2007, p. 424). I propose that the present thesis, and other similar studies of smaller languages online, offer us opportunities for further research where we acknowledge the limits of peer production. While Finnish Wikipedia is an instantiation of Wikipedia, it does not need to follow a strict Wikipedia doctrine. Finnish Wikipedians have the power to do otherwise than other language editions. The case choice is interesting in the sense that it leads us to the discussion of the size

of the community. There are less than six million speakers of Finnish language in the world. Therefore, the pool of potential Finnish Wikipedians is about 1 per cent of native English speakers, and well under half per cent of all English speakers in the world. Of course, the pool of potential Finnish-language participants is significantly lower than six million, because not every language speaker is a potential participant.

In other terms, when we are talking about (potential) Finnish Wikipedians, we are talking about scarce human resources. Further research should explore the extent of autonomy allowed and required in different scales of online communities. It might be that communicative autonomy is dependent on the size of a community, in addition to other factors as culture and technical skills. For example, in their study located in English Wikipedia, Gorgeon and Swanson (2011) noted that Wikipedia is not "a product of the 'crowd,' (…) but (…) a set of many smaller subcommunities getting together for the purpose of building articles." (p. 1930). In smaller languages, the fragmentation into smaller subcommunities is not that massive, but one cannot talk of a large "crowd" either.

As Lih (2009, p. 11) points out, for "many cultures, in which there are no strong commercial incentives to create an encyclopedia, Wikipedia is the only comprehensive encyclopedia available at all." While there are currently 281 language editions of Wikipedia, that still represents only four per cent of all the languages of the world[57] There is a need for more Wikipedia languages, as 1,3 billion people on this planet still do not have Wikipedia in their own language (Rancic & Søby, 2011). Wikipedia continues to grow into new geographic, cultural and linguistic territory, especially in the 'Global South,' a strategic priority of Wikipedia Foundation (WMF, 2010). Wikipedia might also contribute to maintaining the linguistic richness in the world, in the situation where "linguists generally agree in estimating that the extinction within the next century of at least 3,000 … languages … is virtually guaranteed under present circumstances" (Anderson, 2005, p. 4). "When a language

[57] Ethnologue.com has thus far distinguished 6,909 different languages in the world.

dies, a world dies with it, in the sense that a community's connection with its past, its traditions and its base of specific knowledge are all typically lost as the vehicle linking people to that knowledge is abandoned." (p. 5)

Understanding the relation of autonomy and community size is a very important challenge in the context of Wikipedia. Whether the new Wikipedia instances should be established as fully autonomous online communities, or as semi-autonomous franchise, or as plain translations, is a matter of debate and a topic of potential future studies.

In addition to the scale challenges of small and as of yet-non-existant Wikipedias, the scale and the autonomy issues are relevant to mid-level and large Wikipedias as well. The interviewees of this study emphasized that Finnish Wikipedia is comfortably small, so that every conversation can be followed. Meanwhile, English Wikipedia has become so large that the community is divided into various interest-based subcommunities (Forte et al., 2009).

Previous research from various disciplines can guide us in finding the barriers of scale. Some limitations might be even biological. Washburn & Lancaster (1968), citing Goldschmidt (1959, p. 187), argue that during the hunter-gatherer period of the homo species, twenty to fifty individuals has been a local group size. "Such a group size is common in nonhuman primates and so we can say with some assurance that the number did not increase greatly until after agriculture." (p. 300). We know that "Cultural Man has been on earth for some 2,000,000 years; for over 99 per cent of this period he has lived as a hunter-gatherer" (R. B. Lee & Devore, 1968, p. 3). Therefore, it is not far-fetched to argue that group sizes ranging from 20-50 might feel "historically comfortable" to the members of our species. There also might be plain physiological reasons for the limits of the amount of social connections humans can manage. Robin Dunbar (2004, p. 72) argues:

> *"There is a correlation between social group size and the volume of the neocortex in primates which suggests that it has been the need to manage the*

> *complex social world in which primates live that has driven the evolution of ever-larger brains. The important point for the present story is that we humans fir neatly onto the same scale as the other primates. Group size in humans is about 150: this is the number of people that you know personally and have some kind of meaningful relationship with – as opposed to the people you know by sight or those with whom you have a strictly business relationship."*

[In the original text of this quoted paragraph there is a footnote referencing to Dunbar's earlier book Grooming, Gossip and the Evolution of Language (Dunbar, 1996).]

Of course, there are several more practical issues to the scaling problem. Bates & Stone (2005, p. 373) note the importance for managing signal-to-noise ratio when communities scale up:

> *"Yet any IRC veteran knows well the scaling problems group communication encounters. A channel with a dozen or so participants, a handful of whom are vocal, can be a very productive center of communication. A channel with 20 to 50 participants suffer a crippling signal-to-noise ratio, absent some form of moderation: too much noise, not enough signal."*

In a similar manner, the exclusivity of peer production as a solution to engaging unlimited "wisdom of crowds" can be questioned. Even Wikipedia, which has often been used as an example of "wisdom of crowds," has been suggested by the founder Jimmy Wales to be more a community than a crowd (Sirius, 2007). Peer production has been tied together with the assumption of infinite or at least abundant resources (Schultze, Prandelli, Salonen, & Van Alstyne, 2007). That might be true in some settings, but I would argue that the pool of potential participants is rather limited in most cases. I would also argue that the illusion of unlimited human resources has bad consequences for the sustainability of peer production platforms. I propose that it would be better to consider the peer production resources to be scarce. After all, everything in this world is finite. Our time, our resources, and most importantly we, as

human beings, are finite. The more finite the human resources get the further you go from the point of view of global English language imperialism, where one can pick from the pool of “billions of people” (Preece & Shneiderman, 2009, p. 13). In a multilingual approach, one has to settle for a smaller pool of human resources, but it can provide a culturally and linguistically richer alternative for peer production efforts. We need further investigations on how to make internet culturally and linguistically richer.

Source of data

AlJazeera (Producer). (2011, 5.2.2013). Talk to Al Jazeera - Slavoj Zizek Retrieved from http://www.youtube.com/watch?v=6Qhk8az8K-Y

Allen, Gove N., Burk, Dan L., & Davis, Gordon B. (2006). Academic Data Collection in Electronic Environments: Defining Acceptable Use of Internet Resources. MIS Quarterly, 30(3), 599-610.

Altheide, David L. (1987). Ethnographic Content Analysis. Qualitative Sociology, 10(1), 65-77.

Altman, Rick. (1999). Film/Genre. London: British Film Institute

Anderson, Stephen R. (2005). How Many Languages Are There in the World? : LSA - Linguistic Society of America.

Andreev, Pavel, Feller, Joseph, Finnegan, Patrick, & Moretz, Jeffrey. (2010). Conceptualizing the Commons-based Peer-production of Software: An Activity Theoretic Analysis ICIS 2010 Proceedings.

Antin, Judd. (2011). My kind of people?: perceptions about wikipedia contributors and their motivations Proceedings of the 2011 annual conference on Human factors in computing systems (pp. 3411-3420). Vancouver, BC, Canada: ACM.

Antin, Judd, & Cheshire, Coye. (2010). Readers are Not Free-Riders: Reading as a Form of Participation on Wikipedia Proceedings of the 2010 ACM conference on Computer supported cooperative work. Savannah, Georgia, USA: ACM.

Antin, Judd, Chi, Ed H., Howison, James, Paul, Sharoda, Shaw, Aaron, & Yew, Jude. (2011). Apples to oranges?: comparing across studies of open collaboration/peer production. Paper presented at the Proceedings of the 7th International Symposium on Wikis and Open Collaboration, Mountain View, California.

Arazy, Ofer, Nov, Oded, Patterson, R., & Yeo, L. (2011). Information Quality in Wikipedia: The Effects of Group Composition and Task Conflict. Journal of Management Information Systems, 27(4), 73-100.

Archer, Margaret S. (2003). Structure, Agency and the Internal Conversation. Cambridge, MA, USA: Cambridge University Press.

Arthur, Charles. (2006, 20 July 2006). What is the 1% rule?, The Guardian. Retrieved from http://www.guardian.co.uk/technology/2006/jul/20/guardianweeklytechnologysection2

Ashton, Daniel. (2011). Awarding the self in Wikipedia: Identity work and the disclosure of knowledge. First Monday, 16(1).

Avital, Michel, & Te'eni, Dov. (2009). From generative fit to generative capacity: exploring an emerging dimension of information systems design and task performance. Information Systems Journal, 19(4), 345-367. doi: 10.1111/j.1365-2575.2007.00291.x

Bacigalupe, Gonzalo. (2011). Is There a Role for Social Technologies in Collaborative Healthcare? Families, Systems, & Health, 29(1), 1-14.

Bakhtin, Mikhail Mikhailovich. (1981). The Problem of Speech Genres. In C. Emerson & M. Holquist (Eds.), Speech Genres & Other Late Essays (pp. 60-102). Austin: University of Texas Press.

Bakhtin, Mikhail Mikhailovich. (1984). Problems of Dostoevsky's Poetics (C. Emerson, Trans.). Minneapolis: University of Minnesota Press.

Basden, Andrew, & Klein, Heinz K. (2008). New research directions for data and knowledge engineering: A philosophy of language approach. Data & Knowledge Engineering, 67(2), 260-285.

Bates, Jeff, & Stone, Mark. (2005). Communicating Many to Many. In C. DiBona, M. Stone & D. Cooper (Eds.), Open Sources 2.0: The Continuing Evolution (pp. 373-396). Sebastopol, CA, USA: O'Reilly Media.

Bateson, Gregory. (1972). Steps to an Ecology of Mind. Chicago and London: University Of Chicago Press.

BBCNews (Producer). (2010, 24.11.2010). Jimmy Wales on why Wikileaks should be cautious. Click - The BBC's flagship technology programme. [Interview]

Benkler, Yochai. (2002). Coase's Penguin, or, Linux and "The Nature of the Firm". The Yale Law Journal, 112(3), 369-446.

Benkler, Yochai. (2007). The Wealth of Networks : How Social Production Transforms Markets and Freedom. New Haven and London: Yale University Press.

Benkler, Yochai. (2011). The Unselfish Gene. Harvard Business Review, 89(7-8), 76-85.

Benkler, Yochai, & Nissenbaum, Helen. (2006). Commons-based Peer Production and Virtue. The Journal of Political Philosophy, 14(4), 394-419.

Berelson, Bernard. (1952). Content analysis in communication research. Free Press.

Bezroukov, Nikolai. (1999). Open source software development as a special type of academic research: Critique of vulgar Raymondism. First Monday, 4(10).

Bilton, Nick. (2010). The Story Behind a Wikipedia Entry. Bits - Business, Innovation, Technology, Society (The New York Times blog). Retrieved 9.11.2010, from http://bits.blogs.nytimes.com/2010/09/09/the-backstory-of-wikipedias-take-on-the-iraq-war/

Bjørn, Pernille, & Ngwenyama, Ojelanki. (2009). Virtual team collaboration: building shared meaning, resolving breakdowns and creating translucence. Information Systems Journal, 19(3), 227-253. doi: 10.1111/j.1365-2575.2007.00281.x

Black, Laura W., Welser, Howard T., Cosley, Dan, & DeGroot, Jocelyn M. (2011). Self-Governance Through Group Discussion in Wikipedia: Measuring Deliberation in Online Groups. Small Group Research. doi: 10.1177/1046496411406137

Blom, Phillip. (2005). Enlightening the World: Encyclopedie, The Book That Changed the Course of History. New York, NY: Palgrave Macmillan.

Blomberg, Jeanette, & Karasti, Helena. (2013). Reflections on 25 Years of Ethnography in CSCW. Computer Supported Cooperative Work (CSCW), 1-51. doi: 10.1007/s10606-012-9183-1

Blühdorn, Ingolfur. (2013). The governance of unsustainability: ecology and democracy after the post-democratic turn. Environmental Politics, 22(1), 16-36. doi: 10.1080/09644016.2013.755005

Bolter, Jay David. (1991). Writing Space: Computers, Hypertext, and the Remediation of Print. Hillsdale, NJ, USA: Lawrence Erlbaum Associates.

Bostrom, Robert P., Gupta, Saurabh, & Thomas, Dominic. (2009). A Meta-Theory for Understanding Information Systems Within Sociotechnical Systems. Journal of Management Information Systems, 26(1), 17-47.

Boukhelifa, Nadia, Chevalier, Fanny, & Fekete, Jean-Daniel. (2010). Real-time Aggregation of Wikipedia Data for Visual Analytics. Paper presented at the IEEE Symposium on Visual Analytics Science and Technology, Salt Lake City, Utah, USA.

Bridle, James. (2010). On Wikipedia, Cultural Patrimony, and Historiography. booktwo.org. Retrieved 6.9.2010, from http://booktwo.org/notebook/wikipedia-historiography/

Bruckman, Amy. (2002). Studying the amateur artist: A perspective on disguising data collected in human subjects research on the Internet. Ethics and Information Technology, 4(3), 217-231.

Bryant, Susan L., Forte, Andrea, & Bruckman, Amy. (2005). Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia. Paper presented at the Proceedings of the 2005 international ACM SIGGROUP conference on Supporting group work, Sanibel Island, Florida, USA.

Bryman, Alan. (2008). Social Research Methods (3rd ed.). Oxford: Oxford University Press.

Burrell, Ian. (2010). Jimmy Wales: 'It's not about how many pages. It's about how good they are', The Independent. Retrieved from http://www.independent.co.uk/news/people/profiles/jimmy-wales-its-not-about-how-many-pages-its-about-how-good-they-are-2164840.html

Butler, Brian, Joyce, Elisabeth, & Pike, Jacqueline. (2008). Don't Look Now, But We've Created a Bureaucracy: The Nature and Roles of Policies and Rules in Wikipedia CHI 2008 (pp. 1101-1110). April 5–10, 2008, Florence, Italy.: ACM.

Cheliotis, Giorgos. (2009). From open source to open content: Organization, licensing and decision processes in open cultural production. Decision Support Systems, 47(3), 229-244. doi: 10.1016/j.dss.2009.02.006

Chemero, Anthony. (2003). An Outline of a Theory of Affordances. Ecological Psychology, 15(2), 181-195. doi: 10.1207/s15326969eco1502_5

Christensen, Lars Rune. (2012). Practices of Stigmergy in the Building Process. Computer Supported Cooperative Work (CSCW), 1-19. doi: 10.1007/s10606-012-9181-3

Cimini, Nicholas. (2010). Struggles online over the meaning of 'Down syndrome': A 'dialogic' interpretation. Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine, 14(4), 398-414.

Cohen, Noam. (2011, January 30, 2011). Define Gender Gap? Look Up Wikipedia's Contributor List, The New York Times. Retrieved from http://www.nytimes.com/2011/01/31/business/media/31link.html?_r=0

Coleridge, Samuel Taylor. (1849). General Introduction; or, A Preliminary Treatise on Method. In E. Smedley, H. J. Rose & J. Rose (Eds.), Encyclopedia Metropolitana (Vol. 1). London: John Joseph Griffin.

Convertino, Gregorio, Mentis, Helena M., Rosson, Mary Beth, Carroll, John M., Slavkovic, Aleksandra, & Ganoe, Craig H. (2008). Articulating common ground in cooperative work: content and process. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Florence, Italy.

Cosley, Dan, Frankowski, Dan, Terveen, Loren, & Riedl, John. (2007). SuggestBot: Using Intelligent Task Routing to Help People Find Work in Wikipedia. Paper presented at the IUI'07, Honolulu, Hawaii, USA.

Coyne, Richard. (1999). Technoromanticism: Digital narrative, holism, and the romance of the real. Cambridge, MA: The MIT Press.

Craib, Ian. (1992). Anthony Giddens. London: Routledge.

Crowston, Kevin, Li, Qing, Wei, Kangning, Eseryel, U. Yeliz, & Howison, James. (2007). Self-organization of teams for free/libre open source software development. Information and Software Technology, 49(6), 564-575.

Cukier, Wendy, Ngwenyama, Ojelanki, & Nesselroth-Woyzbun, Eva J. (2008). Genres of Spam. Scandinavian Journal of Information Systems, 20(1), 69-92.

Daft, Richard L., & Lengel, Robert H. (1986). Organizational Information Requirements, Media Richness, and Structural Design. Management Science, 32(5), 554-571.

Daft, Richard L., Lengel, Robert H., & Trevino, Linda Klebe. (1987). Message Equivocality, Media Selection, and Manager Performance: Implications for Information Systems. MIS Quarterly, 11(3), 355-366.

Dawkins, Richard. (1990). The Selfish Gene (2nd ed.): Oxford University Press.

Deetz, Stanley. (1992). Democracy in an Age of Corporate Colonization: Developments in Communication and the Politics of Everyday Life. Albany: State University of New York Press.

Den Besten, Matthijs, & Dalle, Jean-Michel. (2008). Keep it Simple: A Companion for Simple Wikipedia? Industry & Innovation, 15(2), 169-178.

Denning, Peter J., & Yaholkovsky, Peter. (2008). Getting to "We" : Solidarity, not software, generates collaboration. Communications of the ACM, 51(4), 19-24. doi: 10.1145/1330311.1330316

Dennis, Alan R., Fuller, Robert M., & Valacich, Joseph S. (2008). Media, Tasks, and Communication Processes: A Theory of Media Synchronicity. MIS Quarterly, 32(3), 575-600.

DeSanctis, Gerardine, & Poole, Marshall Scott. (1994). Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. Organization Science, 5(2), 121-147.

Devitt, Amy J. (2004). Writing Genres. Carbondale, Illinois: Southern Illinois University Press.

Devitt, Amy J. (2009). Re-fusing form in genre study. In J. Giltrow & D. Stein (Eds.), Genres in the Internet (pp. 27-47). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Di Gangi, Paul M., Wasko, Molly M., & Hooker, Robert E. (2010). Getting Customers' Ideas to Work for You: Learning from Dell how to Succeed with Online User Innovation Communities. MIS Quarterly Executive, 9(4), 213-228.

Diderot, Denis, & d'Alembert, Jean le Rond (1751-1765). Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers. Lausanne & Bern: Chez les Sociétés typographiques.

Dubreuil, Benoît. (2010). Human Evolution and the Origin of Hierarchies. New York: Cambridge University Press.

Duguid, Paul. (2006). Limits of self-organization: Peer production and "laws of quality". First Monday, 11(10).

Dunbar, Robin. (1996). Grooming, Gossip and the Evolution of Language. London: Faber and Faber.

Dunbar, Robin. (2004). The Human Story. London: Faber and Faber Ltd.

Dunbar, Robin, Gamble, Clive, & Gowlett, John. (2010). Social brain, distributed mind: Oxford University Press.

East, John W. (2010). “The Rolls Royce of the Library Reference Collection”. Reference & User Services Quarterly, 50(2), 162-169.

Elliot, Mark. (2006). Stigmergic Collaboration: The Evolution of Group Work. M/C Journal, 9(2).

Elo, Satu, & Kyngäs, Helvi. (2008). The qualitative content analysis process. Journal of Advanced Nursing, 62(1), 107-115. doi: 10.1111/j.1365-2648.2007.04569.x

Evans, David, Gruba, Paul, & Zobel, Justin. (2011). How to write a better thesis. Carlton, Vic: Melbourne University Press.

Faraj, Samer, Jarvenpaa, Sirkka L., & Majchrzak, Ann. (2011). Knowledge Collaboration in Online Communities. Organization Science, 22(5), 1224-1239. doi: 10.1287/orsc.1100.0614

Feldman, Martha S., & Orlikowski, Wanda J. (2011). Theorizing Practice and Practicing Theory. Organization Science, 22(5), 1240-1253.

Figl, Kathrin, & Saunders, Carol. (2011). Team Climate and Media Choice in Virtual Teams. AIS Transactions on Human-Computer Interaction, 3(4), 189-213.

Fischer, Gerhard. (2011). Understanding, fostering, and supporting cultures of participation. interactions, 18(3), 42-53. doi: 10.1145/1962438.1962450

Fish, Adam, Murillo, Luis F. R., Nguyen, Lilly, Panofsky, Aaron, & Kelty, Christopher M. (2011). Birds of the Internet : Towards a field guide to the organization and governance of participation. Journal of Cultural Economy, 4(2), 157-187. doi: 10.1080/17530350.2011.563069

Fishelov, David. (1993). Metaphors of Genre : The Role of Analogies in Genre Theory. University Park, Pennsylvania, USA: The Pennsylvania State University Press.

Fjeldstad, Øystein D., Snow, Charles C., Miles, Raymond E., & Lettl, Christopher. (2012). The architecture of collaboration. Strategic Management Journal, 33(6), 734-750. doi: 10.1002/smj.1968

Fleming, Lee, & Waguespack, David M. (2007). Brokerage, boundary spanning, and leadership in open innovation communities. Organization Science, 18(2), 165-180. doi: 10.1287/orsc.1060.0242

Flåten, Bjørn-Tore. (2011). Problem Solving in Extended Virtual Teams. (PhD), University of Agder, Kristiansand, Norway.

Forte, Andrea, & Bruckman, Amy. (2008). Why Do People Write for Wikipedia? Incentives to Contribute to Open-Content Publishing. Paper presented at the 41st Annual Hawaii International Conference on System Sciences, Hawaii.

Forte, Andrea, Larco, Vanesa, & Bruckman, Amy. (2009). Decentralization in Wikipedia Governance. Journal of Management Information Systems, 26(1), 49-72.

Freeman, Samuel. (2000). Deliberative Democracy: A Sympathetic Comment. Philosophy & Public Affairs, 29(4), 371-418. doi: 10.1111/j.1088-4963.2000.00371.x

Frow, John. (2006). Genre. New York, NY, USA: Routledge.

Fukuyama, Francis. (2012). The Future of History : Can Liberal Democracy Survive the Decline of the Middle Class? Foreign Affairs(1).

Gallaugher, John, & Ransbotham, Sam. (2010). Social Media and Customer Dialog Management at Starbucks. MIS Quarterly Executive, 9(4), 197-212.

Geertz, Clifford. (1974). "From the Native's Point of View": On the Nature of Anthropological Understanding. Bulletin of the American Academy of Arts and Sciences, 28(1), 26-45.

Gehl, Robert W. (2010). A Cultural and Political Economy of Web 2.0. (Doctor of Philosophy), George Mason University, Fairfax, VA. Retrieved from http://www.robertwgehl.org/text/gehl_diss_full.pdf

Geiger, R. Stuart, & Ribes, David. (2010). The Work of Sustaining Order in Wikipedia: The Banning of a Vandal Proceedings of the 2010 ACM conference on Computer Supported Cooperative Work. Savannah, Georgia, USA: ACM.

Giddens, Anthony. (1979). Central Problems in Social Theory: Action, Structure, and Contradiction in Social Analysis: University of California Press.

Giddens, Anthony. (1984). The Constitution of Society. Cambridge, UK: Polity Press.

Giddens, Anthony. (1989). A Reply to My Critics. In D. Held & J. B. Thompson (Eds.), Social Theory of Modern Societies: Anthony Giddens and His Critics (pp. 297-315). Cambridge, UK: Cambridge University Press.

Giles, Jim. (2005). Internet encyclopaedias go head to head. Nature, 438(7070), 900-901.

Giltrow, Janet, & Stein, Dieter. (2009). Genres in the Internet : Innovation, evolution, and genre theory. In J. Giltrow & D. Stein (Eds.), Genres in the Internet (pp. 1-25). Amsterdam/Philadelphia: Johns Benjamins Publishing Company.

Gimeno, Javier, Folta, Timothy B., Cooper, Arnold C., & Woo, Carolyn Y. (1997). Survival of the Fittest? Entrepreneurial Human Capital and the Persistence of Underperforming Firms. Administrative Science Quarterly, 42(4), 750-783. doi: 10.2307/2393656

Goffman, Erving. (1959). The Presentation of Self in Everyday Life. Doubleday, New York.

Goffman, Erving. (1961). Asylums. New York: Anchor.

Goldschmidt, Walter R. (1959). Man's way: a preface to the understanding of human society. New York: Henry Holt.

Goldspink, Christopher. (2010). Normative Behaviour in Wikipedia. Information, Communication & Society, 13(5), 652-673.

Gorgeon, Arnaud, & Swanson, E. Burton. (2011). Web 2.0 according to Wikipedia: Capturing an organizing vision. Journal of the American Society for Information Science & Technology, 62(10), 1916-1932. doi: 10.1002/asi.21612

Gregor, Shirley. (2006). The Nature of Theory in Information Systems. MIS Quarterly, 30(3), 611-642.

Grint, Keith, & Woolgar, Steve. (1997). The Machine at Work: Technology, Work and Organization. Cambridge, UK: Polity.

Grudin, Jonathan. (2010). CSCW: Time Passed, Tempest, and Time Past. interactions, 17(4), 38-40. doi: http://doi.acm.org/10.1145/1806491.1806501

Habermas, Jürgen. (1976). Erkenntnis und Interesse: mit einem neuen Nachwort. Frankfurt am Main: Suhrkamp.

Hansen, Sean, Berente, Nicholas, & Lyytinen, Kalle. (2009). Wikipedia, Critical Social Theory, and the Possibility of Rational Discourse. Information Society, 25(1), 38-59.

Hara, Noriko, & Shachaf, Pnina. (2009). Cross-Cultural Analysis of the Wikipedia Community. Paper presented at the AMCIS 2009 Proceedings.

Harris, Jeanne, Ives, Blake, & Junglas, Iris. (2012). IT Consumerization: When Gadgets Turn Into Enterprise IT Tools. MIS Quarterly Executive, 11(3), 99-112.

Hartelius, E. Johanna (2010). Wikipedia and the Emergence of Dialogic Expertise. Southern Communication Journal, 75(5), 505-526.

Hassard, John. (1995). Sociology and organization theory: Positivism, paradigms and postmodernity. Cambridge: Cambridge University Press.

Hays, David C. (1960). Automatic content analysis. Rand Corporation. Santa Monica.

Haythornthwaite, Caroline. (1996). Media Use in Support of Communication Networks in an Academic Research Environment. (Ph.D.), University of Toronto, Toronto.

Haythornthwaite, Caroline. (2002). Strong, Weak, and Latent Ties and the Impact of New Media. The Information Society, 18, 385-401.

Heikkinen, Vesa, Voutilainen, Eero, Lauerma, Petri, Tiililä, Ulla, & Lounela, Mikko. (2012). Genreanalyysi – tekstilajitutkimuksen käsikirja. Helsinki: Gaudeamus.

Herring, Susan C. (2010). Web content analysis: Expanding the paradigm. In J. Hunsinger, L. Klastrup & M. Allen (Eds.), The International Handbook of Internet Research (1st ed., pp. 233-250): Springer.

Heylighen, Ann, & Bianchin, Matteo. (2013). How does inclusive design relate to good design? Designing as a deliberative enterprise. Design Studies, 34(1), 93-110. doi: http://dx.doi.org/10.1016/j.destud.2012.05.002

Hilbert, Martin. (2009). The Maturing Concept of E-Democracy: From E-Voting and Online Consultations to Democratic Value Out of Jumbled Online Chatter. Journal of Information Technology & Politics, 6(2), 87-110. doi: 10.1080/19331680802715242

Hochheiser, Harry, & Shneiderman, Ben. (2010). From bowling alone to tweeting together: technology-mediated social participation. interactions, 17(2), 64-67. doi: 10.1145/1699775.1699790

Hodges, Bert H., & Baron, Reuben M. (1992). Values as constraints on affordances: Perceiving and acting properly. Journal for the Theory of Social Behaviour, 22(3), 263-294. doi: 10.1111/j.1468-5914.1992.tb00220.x

Hoffman, David A., & Mehra, Said K. (2009). Wikitruth Through Wikiorder. Emory Law Journal, 59(1), 151-209.

Hollis, Martin. (1994). The philosophy of social science : an introduction. Cambridge: Cambridge University Press.

Hopkins, Heather. (2009). Britannica 2.0: Wikipedia Gets 97% of Encyclopedia Visits. Retrieved from http://weblogs.hitwise.com/us-heather-hopkins/2009/01/britannica_20_wikipedia_gets_9.html

Howard, Tharon W. (2010). Design to Thrive: Creating Social Networks and Online Communities that Last. Burlington, MA, USA: Morgan Kauffmann Publishers, Elsevier Company.

Hsieh, Hsiu-Fang, & Shannon, Sarah E. (2005). Three Approaches to Qualitative Content Analysis. Qualitative Health Research, 15(9), 1277-1288. doi: 10.1177/1049732305276687

Humphreys, Ashlee, & Grayson, Kent. (2008). The Intersecting Roles of Consumer and Producer: A Critical Perspective on Co-production, Co-creation and Prosumption. Sociology Compass, 2, 1-18.

Höchstötter, Nadine, & Lewandowski, Dirk. (2009). What users see - Structures in search engine results pages. Information Sciences, 179(12), 1796-1812.

Im, Hyun-Gyung , Yates, JoAnne, & Orlikowski, Wanda. (2005). Temporal coordination through communication: using genres in a virtual start-up organization. Information Technology and People, 18(2), 89-119.

Immonen, Leena , Pakkala-Weckström, Mari, & Vehmas-Lehto, Inkeri. (2011). Kääntämisen tekstilajit ja tekstilajien kääntäminen: Finn Lectura.

Jarvenpaa, Sirkka L., & Lang, Karl R. (2011). Boundary Management in Online Communities: Case Studies of the Nine Inch Nails and ccMixter Music Remix Sites. Long Range Planning, 44(5/6), 440-457. doi: 10.1016/j.lrp.2011.09.002

Jarvenpaa, Sirkka L., & Leidner, Dorothy E. (1999). Communication and Trust in Global Virtual Teams. Organization Science, 10(6), 791-815.

Johannessen, Marius Rohde. (2012, 4-7 Jan. 2012). Social Capital and the Networked Public Sphere: Implications for Political Social Media Sites. Paper presented at the 2012 45th Hawaii International Conference on System Science (HICSS).

Jones, Matthew R., & Karsten, Helena. (2008). Giddens's Structuration Theory and Information Systems Research. MIS Quarterly, 32(1), 127-157.

Joyce, Elisabeth, Butler, Brian, & Pike, Jacqueline. (2011). Handling flammable materials: Wikipedia biographies of living persons as contentious objects. Paper presented at the Proceedings of the 2011 iConference, Seattle, Washington.

Jäkälä, Mikko, & Pekkola, Samuli. (2011). Mitä on sosiaalisen median sosiaalisuus? In T. Aaltonen-Ogbeide, P. Saastamoinen, H. Rainio & T. Vartiainen (Eds.), Silmät auki sosiaaliseen mediaan (pp. 96-113). Helsinki: Tulevaisuusvaliokunta, Eduskunta.

Kane, Gerald C., Majchrzak, Ann, Johnson, Jeremiah, & Chenisern, Lily. (2009). A Longitudinal Model of Perspective Making and Perspective Taking Within Fluid Online Collectives. Paper presented at the ICIS 2009 Proceedings.

Kane, Gerard C., & Fichman, Robert G. (2009). The Shoemaker's Children: Using Wikis for Information Systems Teaching, Research, and Publication. MIS Quarterly, 33(1), 1-17.

Kazmer, Michelle, & Xie, Bo. (2008). Qualitative Interviewing in Internet Studies : Playing with the media, playing with the method. Information, Communication & Society, 11(2), 257-278.

Kim, Amy Jo. (2000). Community Building on the Web : Secret Strategies for Successful Online Communities. Berkeley, CA, USA: Peachpit Press.

Kittur, Aniket, Chi, Ed H., Pendleton, B. A., Suh, Bongwon, & Mytkowicz, T. (2006). Power of the few vs. wisdom of the crowd: Wikipedia and the rise of the bourgeoisie. World Wide Web, 1(2).

Kittur, Aniket, & Kraut, Robert. (2008). Harnessing the Wisdom of Crowds in Wikipedia: Quality Through Coordination Proceedings of Computer Supported Cooperative Work (pp. 37-46).

Kittur, Aniket, Suh, Bongwon, Pendleton, Bryan A., & Chi, Ed H. (2007). He Says, She Says: Conflict and Coordination in Wikipedia Proceedings of the SIGCHI conference on Human factors in computing systems. San Jose, California, USA: ACM.

Klein, Heinz K., & Myers, Michael D. (1999). A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems. MIS Quarterly, 23(1), 67-93.

Klemp, Nathaniel J., & Forcehimes, Andrew T. (2010). From Town-Halls to Wikis: Exploring Wikipedia's Implications for Deliberative Democracy. Journal of Public Deliberation, 6(2).

Konieczny, Piotr. (2009a). Governance, Organization, and Democracy on the Internet: The Iron Law and the Evolution of Wikipedia. Sociological Forum, 24(1), 162-192.

Konieczny, Piotr. (2009b). Wikipedia: community or social movement? Interface: a journal for and about social movements, 1(2), 212-232.

Kostakis, Vasilis. (2010). Identifying and understanding the problems of Wikipedia's peer governance: The case of inclusionists versus deletionists. First Monday, 15(3).

Kozinets, Robert V. (2002). The Field behind the Screen: Using Netnography for Marketing Research in Online Communities. Journal of Marketing Research, 39(1), 61-72.

Kozinets, Robert V. (2010). Netnography : Doing Ethnographic Research Online. London: SAGE Publications Ltd.

Kraut, Robert, Maher, Mary Lou, Olson, Judith, Malone, Thomas W., Pirolli, Peter, & Thomas, John C. (2010). Scientific Foundations: A Case for Technology Mediated Social Participation Theory. IEEE Computer, 43(11), 22-28.

Kriplean, Travis, Beschastnikh, Ivan, & McDonald, David W. (2008). Articulations of WikiWork: Uncovering Valued Work in Wikipedia through Barnstars. Paper presented at the CSCW'08, San Diego, California, USA. http://dub.washington.edu/djangosite/media/papers/tmpZ77p1r.pdf

Kriplean, Travis, Beschastnikh, Ivan, McDonald, David W., & Golder, Scott A. (2007). Community, consensus, coercion, control: cs*w or how policy mediates mass participation GROUP '07 Proceedings of the 2007 international ACM conference on Supporting group work (pp. 167-176). New York, NY, USA: ACM.

Krippendorff, Klaus. (2004). Content Analysis: An Introduction to Its Methodology (2nd ed.). Thousand Oaks, California: Sage Publications.

Kvale, Steinar, & Brinkmann, Svend. (2009). InterViews: Learning the Craft of Qualitative Research Interviewing (Vol. 2nd). Thousand Oaks, CA: Sage Publications, Inc.

Köhler, Wolfgang. (1938/1966). The place of value in a world of facts. New York: New American Library.

Lacity, Mary C., & Janson, Marius, A. (1994). Understanding qualitative data: a framework of text analysis methods. Journal of Management Information Systems, 11(2), 137-155.

Lam, Shyong K., Uduwage, Anuradha, Dong, Zhenhua, Sen, Shilad, Musicant, David R., Terveen, Loren, & Riedl, John. (2011). WP:clubhouse?: an exploration of Wikipedia's gender imbalance. Paper presented at the Proceedings of the 7th International Symposium on Wikis and Open Collaboration, Mountain View, California.

Lanamäki, Arto, Okoli, Chitu, Mehdi, Mohamad, & Mesgari, Mostafa. (2011). Protocol for Systematic Mapping of Wikipedia Studies. In T. Leino (Ed.), Proceedings of IRIS 2011. TUCS Lecture Notes No 15. (pp. 420-433). Turku, Finland.

Latour, Bruno, & Woolgar, Steve. (1986). Laboratory life: The construction of scientific facts: Princeton University Press.

Le Loarne, Séverine. (2005). Working with ERP systems—Is big brother back? Computers in Industry, 56(6), 523-528. doi: http://dx.doi.org/10.1016/j.compind.2005.02.010

Lee, Allen S. (2004). Thinking about Social Theory and Philosophy for Information Systems. In J. Mingers & L. P. Willcocks (Eds.), Social Theory and Philosophy for Information Systems (pp. 1-26). West Sussex, England: John Wiley & Sons.

Lee, Richard B., & Devore, Irven. (1968). Problems in the Study of Hunters and Gatherers. In R. B. Lee & I. Devore (Eds.), Man the Hunter (pp. 3-12). Chicago: Aldine Publising Company.

Leonardi, Paul M. (2010). Digital materiality? How artifacts without matter, matter. First Monday, 15(6-7).

Leonardi, Paul M. (2011). When Flexible Routines meet Flexible Technologies: Affordance, Constraint, and the Imbrication of Human and Material Agencies. MIS Quarterly, 35(1), 147-167.

Leonardi, Paul M., & Barley, Stephen R. (2010). What's Under Construction Here? Social Action, Materiality, and Power in Constructivist Studies of Technology and Organizing. The Academy of Management Annals, 4(1), 1-51.

Leonardi, Paul M., Nardi, Bonnie A., & Kallinikos, Jannis. (2012). Materiality and Organizing: Social Interaction in a Technological World. Oxford: Oxford University Press.

Li, Charlene. (2007). Social Technographics Trends Report: Forrester Research.

Li, Charlene, & Bernoff, Josh. (2008). Groundswell: Winning in a World Transformed by Social Technologies. Boston, MA, USA: Harvard Business Press.

Lih, Andrew. (2009). The Wikipedia Revolution: How a Bunch of Nobodies Created the World's Greatest Encyclopedia (1st ed.). New York: Hyperion.

Littler, Craig R. (1978). Understanding Taylorism. The British Journal of Sociology, 29(2), 185-202. doi: 10.2307/589888

Lohr, Steve. (2012, December 29, 2012). Sure, Big Data Is Great. But So Is Intuition., The New York Times. Retrieved from http://www.nytimes.com/2012/12/30/technology/big-data-is-great-but-dont-forget-intuition.html?_r=0

Loveland, Jeff, & Reagle, Joseph. (2013). Wikipedia and encyclopedic production. New Media & Society. doi: 10.1177/1461444812470428

Lyytinen, Kalle. (2009). Data matters in IS theory building. Journal of the Association for Information Systems, 10(10), 715-720.

MacIntyre, A. C. (1959). Hume on "Is" and "Ought". The Philosophical Review, 68(4), 451-468. doi: 10.2307/2182491

Majchrzak, Ann. (2009). Comment: Where is the Theory in Wikis? MIS Quarterly, 33(1), 18-19.

Markus, M. Lynne, & Silver, Mark S. (2008). A Foundation for the Study of IT Effects : A New Look at DeSanctis and Poole's Concepts of Structural Features and Spirit. Journal of the Association for Information Systems, 9(10/11), 609-632.

Matei, Sorin Adam, & Dobrescu, Caius. (2011). Wikipedia's “Neutral Point of View”: Settling Conflict through Ambiguity. The Information Society: An International Journal, 27(1), 40 - 51.

Mathiassen, Lars, & Nielsen, Peter Axel. (2008). Engaged Scholarship in IS Research: The Scandinavian Case. Scandinavian Journal of Information Systems, 20(2), 3-20.

McChesney, Robert W. (2013). Digital Disconnect: How Capitalism is Turning the Internet Against Democracy. New York: The New Press.

McCully, Wyl, Lampe, Cliff, Sarkar, Chandan, Velasquez, Alcides, & Sreevinasan, Akshaya. (2011). Online and offline interactions in online communities. Paper presented at the Proceedings of the 7th International Symposium on Wikis and Open Collaboration, Mountain View, California.

McGrady, Ryan. (2009). Gaming against the greater good. First Monday, 14(2).

McNabb, David E. (2002). Research Methods in Public Administration and Nonprofit Management: Quantitative and Qualitative Approaches. Armonk, NY: M.E. Sharpe.

McNeill, Laurie. (2009). Brave new genre, or generic colonialism? : Debates over ancestry in Internet diaries. In J. Giltrow & D. Stein (Eds.), Genres in the Internet (pp. 144-161). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Medelyan, Olena, Milne, David, Legg, Catherine, & Witten, Ian H. (2009). Mining meaning from Wikipedia. International Journal of Human-Computer Studies, 67(9), 716-754. doi: 10.1016/j.ijhcs.2009.05.004

Merton, Robert K. (1936). The unanticipated consequences of purposive social action. American Sociological Review, 1(6), 894-904.

Miller, Carolyn R. (1984). Genre as social action. Quarterly Journal of Speech, 70, 151-167.

Morozov, Evgeny. (2011). The Net Delusion: How Not to Liberate the World. London: Allen Lane.

Morozov, Evgeny. (2012, August 23, 2012). The Naked and the TED, New Republic. Retrieved from http://www.newrepublic.com/article/books-and-arts/magazine/105703/the-naked-and-the-ted-khanna

Myers, Michael D. (2009). Qualitative Research in Business & Management. London: Sage Publications Ltd.

Müller-Seitz, Gordon, & Reger, Guido. (2010). 'Wikipedia, the Free Encyclopedia' as a role model? Lessons for open innovation from an exploratory examination of the supposedly democratic-anarchic nature of Wikipedia. International Journal of Technology Management 52(3-4), 457-476.

Mäntynen, Anne, Shore, Susanna, & Solin, Anna. (2006). Genre – tekstilaji. Helsinki: Suomalaisen Kirjallisuuden Seura.

Niederer, Sabine, & van Dijck, José. (2010). Wisdom of the crowd or technicity of content? Wikipedia as a sociotechnical system. New Media & Society, 12(8), 1368-1387.

Nielsen, Jakob. (2006, October 9, 2006). Participation Inequality: Encouraging More Users to Contribute. Jakob Nielsen's Alertbox.

Nieminen, Tommi. (2010). Lajien synty : Tekstilaji kielitieteen semioottisessa metateoriassa. (Ph.D.), University of Jyväskylä, Jyväskylä. Retrieved from https://jyx.jyu.fi/dspace/bitstream/handle/12345678/23383/9879513938710.pdf?sequence=1 (Jyväskylä Studies in Humanities 136)

Norman, Donald A. (1999). Affordance, conventions, and design. interactions, 6(3), 38-43. doi: 10.1145/301153.301168

O'Mahony, Siobhán, & Lakhani, Karim R. (2011). Organizations in the Shadow of Communities. In C. Marquis, M. Lounsbury & R. Greenwood (Eds.), Communities and Organizations (Vol. 33, pp. 3-36). Bingey, UK: Emerald Group Publishing Limited.

O'Neil, Mathieu. (2009). Cyberchiefs: Autonomy and Authority in Online Tribes. London: Pluto Press.

Okoli, Chitu, Mehdi, Mohamad, Mesgari, Mostafa, Nielsen, Finn Årup, & Lanamäki, Arto. (2012). The People's Encyclopedia Under the Gaze of the Sages: A Systematic Review of Scholarly Research on Wikipedia. Working paper.

Okoli, Chitu, & Schabram, Kira. (2010). A Guide to Conducting a Systematic Literature Review of Information Systems Research. Sprouts: Working Papers on Information Systems, 10(26).

Orlikowski, Wanda J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. Organization Science, 11(4), 404-428. doi: 10.1287/orsc.11.4.404.14600

Orlikowski, Wanda J. (2007). Sociomaterial Practices: Exploring Technology at Work. Organization Studies, 28(9), 1435-1448. doi: 10.1177/0170840607081138

Orlikowski, Wanda J., & Scott, Susan V. (2008). Chapter 10: Sociomateriality: Challenging the Separation of Technology, Work and Organization. The Academy of Management Annals, 2, 433 - 474.

Orlikowski, Wanda J., & Yates, JoAnne. (1994). Genre Repertoire: The Structuring of Communicative Practices in Organizations. Administrative Science Quarterly, 39(4), 541-574.

Ostrom, Elinor. (1990). Governing the commons: the evolution of institutions for collective action. New York: Cambridge University Press.

Oz, Ayelet. (2009). "Move Along Now, Nothing to See Here": The Private Discussion Spheres of Wikipedia. Available at SSRN: http://ssrn.com/abstract=1726450 or http://dx.doi.org/10.2139/ssrn.1726450.

Paavola, Sami, & Hakkarainen, Kai. (2007). Välittyneisyys ja trialogisuus innovatiivisten tietoyhteisöjen perustana. In J. Virkkunen & Y. Engeström (Eds.), Inhimillisen toiminnan kulttuurisen välittyneisyyden uuden muodot (pp. 47-80). Helsinki.

Palen, Leysia, Anderson, Kenneth M., Mark, Gloria, Martin, James, Sicker, Douglas, Palmer, Martha, & Grunwald, Dirk. (2010). A vision for technology-mediated support for public participation \& assistance in mass emergencies \& disasters. Paper presented at the Proceedings of the 2010 ACM-BCS Visions of Computer Science Conference, Edinburgh, United Kingdom.

Panciera, Katherine, Halfaker, Aaron, & Terveen, Loren. (2009). Wikipedians Are Born, Not Made: A Study of Power Editors on Wikipedia. Paper presented at the Proceedings of the ACM 2009 international conference on Supporting group work, Sanibel Island, Florida, USA.

Paolillo, John C. (2007). How Much Multilingualism? : Language Diversity on the Internet. In B. Danet & S. C. Herring (Eds.), The Multilingual Internet : Language, Culture, and Communication Online (pp. 408-430). Oxford: Oxford University Press.

Partridge, Eric. (1991). Origins: An Etymological Dictionary of Modern English (4th Ed.). London: Routledge.

Payne, Geoff, & Payne, Judy. (2004). Key Concepts in Social Research. London: SAGE Publications Ltd.

Pentzold, Christian. (2011). Imagining the Wikipedia community: what do Wikipedia authors mean when they write about their 'community'? New Media & Society, 13(5), 704-721.

Pereltsvaig, Asya. (2012). Languages of the world : an introduction. New York: Cambridge University Press.

Pollock, John. (2011). Streetbook: How Egyptian and Tunisian youth hacked the Arab Spring. Technology Review. from http://www.technologyreview.com/web/38379/

Poole, Erika Shehan, & Grudin, Jonathan. (2010, July 7-9, 2010). A Taxonomy of Wiki Genres in Enterprise Settings. Paper presented at the 6th International Symposium on Wikis and Open Collaboration (WikiSym'10), Gdansk, Poland.

Poole, Marshall Scott, & DeSanctis, Gerardine. (2004). Structuration Theory in Information Systems Research: Methods and Controversies. In M. E. Whitman & A. B. Woszcynski (Eds.), The Handbook of Information Systems Research (pp. 206-249). Hershey, PA: Idea Group.

Preece, Jennifer. (2000). Online Communities: Designing Usability, Supporting Sociability. Chichester, England: John Wiley & Sons, Ltd.

Preece, Jennifer. (2001). Sociability and usability in online communities: determining and measuring success. Behaviour & Information Technology, 20(5), 347-356.

Preece, Jennifer, Nonnecke, Blair, & Andrews, Dorine. (2004). The top five reasons for lurking: improving community experiences for everyone. Computers in Human Behavior, 20(2), 201.

Preece, Jennifer, & Shneiderman, Ben. (2009). The Reader-to-Leader Framework: Motivating Technology-Mediated Social Participation. AIS Transactions on Human-Computer Interaction, 1(1), 13-32.

Quick, Kathryn S., & Feldman, Martha S. (2011). Distinguishing Participation and Inclusion. Journal of Planning Education and Research, 31(3), 272-290. doi: 10.1177/0739456x11410979

Qureshi, Sajda, & Zigurs, Ilze. (2001). Paradoxes and Prerogatives in Global Virtual Collaboration. Communications of the ACM, 44(12), 85-88.

Rancic, Milos , & Søby, Jon Harald. (2011, August 4-7, 2011). Missing Wikipedias. Paper presented at the Wikimania 2011, Haifa, Israel.

Raymond, Eric S. (1998). The Cathedral and the Bazaar. First Monday, 3(3).

Reagle, Joseph M. (2007). Do As I Do: Authorial Leadership in Wikipedia. Paper presented at the WikiSym'07, October 21–23, 2007, Montréal, Québec, Canada.

Reagle, Joseph M. (2010a). "Be Nice": Wikipedia norms for supportive communication. New Review of Hypermedia & Multimedia, 16(1-2), 161-180.

Reagle, Joseph M. (2010b). Good Faith Collaboration. Cambridge, Massachusetts: The MIT Press.

Rehn, Alf. (2008). Pop (Culture) Goes the Organization: On Highbrow, Lowbrow and Hybrids in Studying Popular Culture Within Organization Studies. Organization, 15(5), 765-783. doi: 10.1177/1350508408093652

Reid, Elizabeth. (1996). Informed Consent in the Study of On-Line Communities: A Reflection on the Effects of Computer-Mediated Social Research. The Information Society: An International Journal, 12(2), 169-174.

Rheingold, Howard. (2003). Smart Mobs: The Next Social Revolution: De Boeck Université.

Rice, Pranee Liamputtong, & Ezzy, Douglas. (1999). Qualitative Research Methods: A Health Focus. South Melbourne (Australia): Oxford University Press.

Ristola, Tarja. (2008). Genre tietojenkäsittelyn maailmassa. (MSc Pro gradu), University of Jyväskylä, Jyväskylä. Retrieved from https://jyx.jyu.fi/dspace/bitstream/handle/123456789/18870/URN_NBN_fi_jyu-200808225675.pdf?sequence=1

Ronkainen, Suvi, Pehkonen, Leila, Lindblom-Ylänne, Sari, & Paavilainen, Eija. (2011). Tutkimuksen voimasanat. Helsinki: WSOYpro.

Royal, Cindy, & Kapila, Deepina. (2009). What's on Wikipedia, and What's Not...? Social Science Computer Review, 27(1), 138-148.

Sandelands, Lloyd E. (1990). What is so Practical about Theory? Lewin Revisited. Journal for the Theory of Social Behaviour, 20(3), 235-262. doi: 10.1111/j.1468-5914.1990.tb00185.x

Sanger, Larry. (2006). The Early History of Nupedia and Wikipedia: A Memoir. In C. DiBona, D. Cooper & M. Stone (Eds.), Open Sources 2.0: The Continuing Evolution (pp. 307-338). Sebastopol, CA, USA: O'Reilly Media, Inc.

Schlagwein, Daniel, Schoder, Detlef, & Fischbach, Kai. (2011). Social Information Systems: Review, Framework, and Research Agenda ICIS 2011 Proceedings.

Schultze, Ulrike, & Avital, Michel. (2011). Designing interviews to generate rich data for information systems research. Information & Organization, 21(1), 1-16.

Schultze, Ulrike, Prandelli, Emanuela, Salonen, Petri I., & Van Alstyne, Marshall. (2007). Internet-Enabled Co-Production: Partnering or Competing with Customers? Communications of the Association for Information Systems, 19, 294-324.

Schwämmlein, Eva, & Wodzicki, Katrin. (2012). What to Tell About Me? Self-Presentation in Online Communities. Journal of Computer-Mediated Communication, 17(4), 387-407. doi: 10.1111/j.1083-6101.2012.01582.x

Seddon, Peter B., & Scheepers, Rens. (2012). Towards the improved treatment of generalization of knowledge claims in IS research: drawing general conclusions from samples. European Journal of Information Systems, 21, 6-21.

Sessions, Lauren F. (2010). How Offline Gatherings Affect Online Communities: When virtual community members 'meetup'. Information, Communication & Society, 13(3), 375-395.

Shachaf, Pnina. (2009). The paradox of expertise: is the Wikipedia Reference Desk as good as your library? Journal of Documentation, 65(6), 977-996.

Shepherd, Michael, & Watters, Carolyn. (1999). The Functionality Attribute of Cybergenres Proceedings of the 32nd Hawaii International Conference on System Sciences (Vol. 34). Hawaii: IEEE, Los Alamitos, CA.

Shirky, Clay. (2008). Here Comes Everybody: The Power of Organizing Without Organizations. New York: The Penguin Press.

Shirky, Clay. (2010). Cognitive Surplus: Creativity and Generosity in a Connected Age. New York: The Penguin Press.

Sirius, RU (Writer). (2007). Show #92: Wikipedia Man Jimmy Wales [Internet radio]. In J. Diehl (Producer), The RU Sirius Show.

Snyder, Ilana. (1997). Hypertext : The Electronic Labyrinth. New York: New York University Press.

Star, Susan Leigh. (1991). The Sociology of the Invisible: The Primacy of Work in the Writings of Anselm Strauss. In D. Maines (Ed.), Social Organization and Social Process: Essays in Honor of Anselm Strauss (pp. 265-283). Hawthorne, NY, pp. : Aldine de Gruyter.

Straub, Detmar, & Karahanna, Elena. (1998). Knowledge Worker Communications and Recipient Availability: Toward a Task Closure Explanation of Media Choice. Organization Science, 9(2), 160-175.

Straub, Detmar W., & del Guidice, Manlio. (2012). Editor's Comments: Use. MIS Quarterly, 36(4), iii-viii.

Strauss, Anselm. (1985). WORK AND THE DIVISION OF LABOR. Sociological Quarterly, 26(1), 1-19. doi: 10.1111/j.1533-8525.1985.tb00212.x

Stvilia, Besiki, Twidale, Michael B., Smith, Linda C., & Gasser, Les. (2008). Information Quality Work Organization in Wikipedia. Journal of the American Society for Information Science and Technology, 59(6), 983-1001.

Suh, Bongwon, Chi, Ed H., Kittur, Aniket, & Pendleton, Bryan A. (2008). Lifting the veil: improving accountability and social transparency in Wikipedia with wikidashboard. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Florence, Italy.

Surowiecki, James. (2005). The Wisdom of the Crowds: Anchor Books.

Sutton, Robert I., & Staw, Barry M. (1995). What Theory is Not. Administrative Science Quarterly, 40(3), 371-384.

Swales, John M. (1990). Genre Analysis: English in Academic and Research Settings. Cambridge: Cambridge University Press.

Sørensen, Carsten. (2002). This is Not an Article : Just Some Thoughts on How to Write One. Working Paper. Department of Information Systems, The London School of Economics and Political Science. No. 121.

Tapscott, Don, & Williams, Anthony D. (2006). Wikinomics: How Mass Collaboration Changes Everything. New York: Penguin Group.

Tardy, Christine M. (2011). Genre Analysis. In K. Hyland & B. Paltridge (Eds.), The Continuum Companion to Discourse Analysis (pp. 54-68). London: Continuum International Publishing Group.

Thall, Peter F., & Wathen, J. Kyle. (2007). Practical Bayesian adaptive randomisation in clinical trials. European Journal of Cancer, 43(5), 859-866. doi: http://dx.doi.org/10.1016/j.ejca.2007.01.006

Theraulaz, Guy, & Bonabeau, Eric. (1999). A Brief History of Stigmergy. Artificial Life, 5(2), 97-116. doi: 10.1162/106454699568700

Tkacz, Nathaniel. (2007). Power, Visibility, Wikipedia. Southern Review, 40(2), 5-19.

Tkacz, Nathaniel. (2011a). The Politics of Forking Paths. In G. Lovink & N. Tkacz (Eds.), Critical Point of View: A Wikipedia Reader (pp. 94-109). Amsterdam: Institute of Network Cultures.

Tkacz, Nathaniel. (2011b, 20 January 2011). The Spanish Fork: Wikipedia's ad-fuelled mutiny, Online article, Wired.co.uk. Retrieved from http://www.wired.co.uk/news/archive/2011-01/20/wikipedia-spanish-fork?page=all

Towne, W. Ben, & Herbsleb, James D. (2011). Design Considerations for Online Deliberation Systems. Journal of Information Technology & Politics, 9(1), 97-115. doi: 10.1080/19331681.2011.637711

Vaast, Emmanuelle, & Walsham, Geoff. (2011). Grounded theorizing for electronically mediated social contexts. European Journal of Information Systems, 1-17.

Van Maanen, John. (1995a). Fear and Loathing in Organization Studies. Organization Science, 6(6), 687-692. doi: 10.2307/2635034

Van Maanen, John. (1995b). Style as Theory. Organization Science, 6(1), 133-143.

van Osch, Wietske, & Avital, Michel. (2010). Data Matters: An Analysis of Data Practices in IS Research. Proceedings of SIGPrag Workshop. Sprouts: Working Papers on Information Systems., 10(119).

Washburn, Sherwood L., & Lancaster, C.S. (1968). The Evolution of Hunting. In R. B. Lee & I. Devore (Eds.), Man the Hunter (pp. 293-303). Chicago: Aldine Publising Company.

Watson, Richard T., Wynn, Donald, & Boudreau, Marie-Claude. (2005). JBOSS: The Evolution of Professional Open Source Software. MIS Quarterly Executive, 4(3), 329-341.

Weber, Max. (1922). Economy and Society: an Outline of Interpretative Sociology. Berkeley: University of California Press.

Weber, Max. (1949). The Methodology of the Social Sciences (E. A. Shils & H. A. Finch, Trans. First ed.). Glencoe, IL: Free Press.

Weber, Ron. (2012). Evaluating and Developing Theories in the Information Systems Discipline. Journal of the Association for Information Systems, 13(1), 1-30.

Weber, Stephen. (2004). The Success of Open Source. Cambridge: Harvard University Press.

Webster's Encyclopedic Unabridged Dictionary of the English Language. (1996). New York: Gramecy Books.

Weick, Karl E. (1979). The Social Psychology of Organizing (2nd ed.). New York: McGraw-Hill.

Weick, Karl E. (1995). What Theory is Not, Theorizing Is. Administrative Science Quarterly, 40(3), 385-390. doi: 10.2307/2393789

Weimer, Walter B. (1979). Notes on the Methodology of Scientific Research. Hillsdale, N.J. and New York: L. Erlbaum Associates.

Wellman, Barry, & Gulia, Milena. (1999). Net surfers don't ride alone: virtual communities as communities. In M. Smith & P. Kollock (Eds.), Communities in Cyberspace. London: Routledge.

Welser, Howard T., Cosley, Dan, Kossinets, Gueorgi, Lin, Austin, Dokshin, Fedor, Gay, Geri, & Smith, Marc. (2011). Finding social roles in Wikipedia Proceedings of the 2011 iConference (pp. 122-129). Seattle, Washington: ACM.

Wenger, Etienne. (1998). Communities of Practice: Learning, Meaning, and Identity: Cambridge University Press.

West, Joel, & O'Mahony, Siobhán. (2008). The Role of Participation Architecture in Growing Sponsored Open Source Communities. Industry and Innovation, 15(2), 145-168. doi: 10.1080/13662710801970142

Whetten, David A. (1989). What Constitutes a Theoretical Contribution? The Academy of Management Review, 14(4), 490-495.

Wiarda, Howard J. (2012). Arab Fall or Arab Winter? American Foreign Policy Interests, 34(3), 134-137. doi: 10.1080/10803920.2012.686723

Vickers, Geoffrey. (1973). Values, norms and policies. Policy Sciences, 4(1), 103-111. doi: 10.1007/bf01404936

Wilmot, William W. (1980). Metacommunication: A Re-examination and Extension. In D. Nimmo (Ed.), Communication Yearbook 4 (pp. 61-69): Transaction Publishers.

WMF. (2010). Wikimedia Foundation annual report 2009–2010.

Volosinov, Valentin Nikolaevich. (1986). Marxism and the Philosophy of Language (L. Matjka & I. R. Titunik, Trans.). Cambridge: Harvard University Press.

Yasseri, Taha, Sumi, Robert, Rung, András, Kornai, András, & Kertész, János. (2012). Dynamics of Conflicts in Wikipedia. PLoS ONE, 7(6), e38869. doi: 10.1371/journal.pone.0038869

Yates, JoAnne. (1989). Control through Communication : The Rise of System in American Management. Baltimore, Maryland, USA: The Johns Hopkins University Press.

Yates, JoAnne, & Orlikowski, Wanda. (1992). Genres of Organisational Communication: A Structurational Approach to Studying Communication and Media. Academy of Management Review, 17(2), 299-326.

Yates, JoAnne, & Orlikowski, Wanda. (2002). Genre Systems: Structuring Interaction through Communicative Norms. Journal of Business Communication, 39(1), 13-35. doi: 10.1177/002194360203900102

Yates, JoAnne, Orlikowski, Wanda J., & Okamura, Kazuo. (1999). Explicit and Implicit Structuring of Genres in Electronic Communication: Reinforcement and Change of Social Interaction. Organization Science, 10(1), 83-103.

Zickuhr, Kathryn, & Rainie, Lee. (2011). Wikipedia, past and present. http://www.pewinternet.org/Reports/2011/Wikipedia.aspx

Zwass, Vladimir. (2010). Co-Creation: Toward a Taxonomy and an Integrated Research Perspective. International Journal of Electronic Commerce, 15(1), 11-48.

Østerlund, Carsten, & Crowston, Kevin. (2011). What Characterize Documents that Bridge Boundaries Compared to Documents that Do Not? An Exploratory Study of Documentation in FLOSS Teams Proceedings of the 44th Hawaii International Conference on System Sciences. Hawaii: IEEE.

Errata for
Collaboration in Online Communities

Exploring Finnish Wikipedia

Arto Lanamäki

Thesis for the degree philosophiae doctor (PhD)
at the University of Bergen

_____ _____

(signature of candidate) (signature of faculty)

20.9.2013

Errata

Page 45, the sentence should read “Inductive inferences proceed from particulars to generalizations.” (It reads the opposite now.)

Page 87, there are two official languages in Finland: Finnish and Swedish languages. It should be clarified that the language of Finnish Wikipedia is Finnish, but not Swedish.

Page 92, the last paragraph, which continues to page 93, is a quote and should thus be in italics.

Page 102, table 8 is referred to in the text, but it is labeled as Table 9 under the table.

Page 181, the use of the word “neglected” should be changed to “negated”.

Page 192, the word “nominations” should be changed to “denominations”.

Pages 243-263, three references are missing from the reference list. These are:

Chen, Shun-Ling. (2010). Wikipedia: Republic of Science Democratized. *Albany Law Journal of Science & Technology*, 20(2), 247-325.

Kane, Gerald C. (2011). A multimethod study of information quality in wiki collaboration. *ACM Transactions on Management Information Systems*, 2(1), 1-16. doi: 10.1145/1929916.1929920

Mathiassen, Lars, Chiasson, Mike, & Germonprez, Matt. (2012). Style Composition in Action Research Publication. *MIS Quarterly*, 36(2), 347-363.