

Quality assessment process in Wikipedia's Vetrina: the role of the community's policies and rules

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Abstract

The increasing growth of Wikipedia poses many questions about its organizational model and its development as a free-open knowledge repository. Yochai Benkler describes Wikipedia as a CBPP (commons-based peer production) system: a platform which enables users to easily generate knowledge contents and to manage them collaboratively and on free-voluntary basis. Quality is one of the main concerns related to such a system. How would a CBPP environment guarantee at the same time the openness of its organization and a good level of accreditation? The paper offers an overview of the quality assessment processes in it.wiki's Vetrina section. It also suggests an explanation to quality assessment which questions Benkler's hypothesis. Thanks to a qualitative analysis carried out through in-depth interviews to Wikipedia users and through a period of ethnographic observation, the paper outlines Vetrina's organization and the factors related to the evaluation of quality contents.

Introduction. Wikipedia as a tool for collective knowledge production

Since its appearance in 2001, Wikipedia gained progressively the attention of media and Internet users as an exemplary project of on line collaboration. The biggest Web Encyclopaedia includes today 10 million articles in more than 250 languages and involves about 75.000 active users distributed worldwide (<http://en.wikipedia.org/wiki/Wikipedia:About>). Notwithstanding the cultural fragmentation phenomenon exploited by the web, Wikipedia is represented as an expression of a new kind of knowledge universalism, an updated manifestation of the so-called "connective" or "collective intelligence" so often celebrated by cyberspace philosophers (de Kerckhove, 1997, Lèvy, 1995). Wikipedia is a positive example of how the web is reshaping the material infrastructure of knowledge in the network society, providing communities and individuals action with powerful tools for creating and disseminating a collective knowledge. Wikipedia seems a particular expression of a new cultural phase of the World Wide Web focused on "interoperability" and "re-combination": it realises the Internet potentials, already suggested in the early 90's by Ted Nelson, of - *"recombining the existent information and communication on the basis of specific purposes defined in real time by every user/producer of the World Wide Hypertext. Recombination is also a source of innovation, in particular if the knowledge produced become the support for further interactions, in a spiral of ever more significant information"* - (Castells, 2001:122).

Wikipedia as a commons-based peer production system for collective knowledge

Yochai Benkler describes Wikipedia as an interesting example of commons-based peer production system:

– *«..networked environment makes possible a new modality of organizing production: radically decentralized, collaborative, and non proprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands. This is what I call "commons-based peer production"»* - (Benkler, 2006: 60).

Compared to traditional encyclopaedias, Wikipedia shows in fact a decentralized and widely dispersed structure based on the engagement of thousands of people who collaborate spontaneously and without any institutionalized reward. Everyone can contribute in Wikipedia and the output of the peer production - the millions of articles written and systematically reviewed - belong to everyone as a common good.

Tasks are not conferred by an authority, a manager or a personnel's responsible, but they're defined autonomously and spontaneously by users according to their free time, their interests and their personal attitudes (Ciffolilli, 2003). The term "peer production" describes in fact the non-hierarchical and horizontal structure which distinguishes Wikipedia social organization.

In spite of its spontaneous and de-centralized participation, Wikipedia project shows a good level of coordination. In traditional knowledge organizations (eg. Editorial companies, Media companies):

– *"Centralization" is a particular response to the problem of how to make the behaviour of many individual agents cohere into an effective pattern or achieve an effective result" - (Benkler, ibid.: 62).*

In Wikipedia coordination seems the emergent quality of the peer-collaboration supported by powerful communication tools: on line chat forums, mailing lists and the wiki software platform which permits the quick and easy articles revision and update (Kittur et. al., 2007a). Wikipedia can also counts on the systematic and voluntary activities of hundreds of Administrators, Stewards, Burocrati and Check users. They are elected by the community and they're in charge of Wikipedia system management: they can stop vandalism acts by deleting certain users, they can restore or remove articles, they can attribute specific functions to other users and coordinate different Wikipedia linguistic platforms. Even if their roles are the only ones recognised by the community and prove to be fundamental for the daily system management, they don't entitle them with any kind of economic reward or personal privilege. Their functions are performed voluntarily through a peer collaboration process among administrators and common users.

Voluntary and spontaneous collaboration distinguish numerous web experiences and technological platforms: some FOSS (Free Open Source Software) initiatives for example (Benkler, *ibid.* 59 – 80), showed to be able to create knowledge and economic value through the CBPP model, but also other free projects related to information elaboration and sharing such as Slashdot¹, NASA Clickworkers² and of course Wikipedia, turned out to be successful organizations. Those projects proved in fact to be able to evolve toward higher quality standards without giving up their principles of peer-collaboration and non-exclusive knowledge property.

¹ <http://slashdot.org/>. A free repository of news concerning technology, constantly updated and maintained thanks to both the voluntary and paid contribution of thousands of users.

² <http://clickworkers.arc.nasa.gov/top>. A platform supported by NASA where users volunteer in scanning and analysing images produced by space satellites.

Wikipedia’s articles quality: definitions and related researches

Since its first appearance on the web in 2001, Wikipedia changed significantly: nowadays the encyclopaedia involves millions of people around the world, it has numerous language versions and it’s more and more often cited as a reliable reference in media, in news articles as well as in academic literature. Wikipedia’s quality is though an open issue which requires a conceptual definition and further empirical researches to be proved. One of the first attempt was carried out by the magazine Nature who revealed that the quality of Wikipedia contents is comparable to that of the authoritative Britannica (Giles, 2005). Other analysis showed that Wikipedia’s credibility is significantly affordable (Chesney, 2006) but its reliability may vary a lot according to specific topics (Magnus, 2006).

The table below shows the quality dimensions of Wikipedia’s articles (English Version) explored by the mentioned authors:

Author	Definition of quality	Criteria	Methodology	Results
Giles	Accuracy	Factual errors, omissions and misleading statements	Independent scholars review of 50 pairs of articles from the Wikipedia and <i>Encyclopaedia Britannica</i> websites. The reviewers were not informed which of their pair of articles came from which source; the subjects of the articles were chosen in advance to represent a wide range of scientific disciplines.	8 serious errors, such as misinterpretations of important concepts: 4 from each encyclopaedia. Reviewers also found many factual errors, omissions or misleading statements: 162 and 123 in Wikipedia and Britannica respectively.
Chesney	Credibility	The article’s credibility was measured with five items: believability, accuracy, trustworthiness, bias and completeness.	55 academics (research fellows, research assistants and PhD students) review of Wikipedia articles. Each respondent was randomly assigned to one of two experimental conditions. Under Condition 1 they were asked to read an article in Wikipedia that was related to their area of expertise. Under Condition 2 respondents were asked to read a random article. Wikipedia’s own	The experts rated the articles as being more credible than the non-experts. This suggests that the accuracy of Wikipedia’s information is significant. In the survey, all respondents under Condition 1 were asked if there were any mistakes in the

			random article selection feature was used to assign a different article to each Condition 2 respondent. After reading their assigned article, all respondents were asked to complete the same on line questionnaire which measured the article's credibility	article they had been asked to read. Only five reported seeing mistakes and one of those five reported spelling mistakes rather than factual errors.
Magnus	Reliability	Infelicities (peculiar interpretation compared to the dominant philosophical approaches), Minor errors, Major errors, (misrepresentation of the facts).	Selected articles from Britannica and Wikipedia have been blindly reviewed by three obliging experts. The topics covered included Rawls' theory of justice, Husserl and phenomenology, and bioethics. The topics were chosen because Britannica and Wikipedia provide similar depth, and because expert readers were readily available.	The Wikipedia articles, considered altogether, contain 32% more errors than the Britannica articles. In addition to having more errors overall, Wikipedia entries varied more than Britannica entries. Britannica had a mean error per article of 3.0, with a standard deviation of 2.4; Wikipedia had a mean error per article of 3.9, with a standard deviation of 3.5. Wikipedia contained more entries than Britannica with zero errors, but two Wikipedia articles were worse than the worst of Britannica's.

The parameters reported above could be referred to the criteria commonly adopted to define traditional encyclopaedia: to the best of our knowledge the most comprehensive framework of encyclopaedia quality assessment was proposed by Crawford (Crawford, 2001: 433-459.). She defined seven general dimensions of encyclopaedia information quality: Scope (Purpose, Subject Coverage, Audience, Arrangement and Style); Format; Uniqueness; Authority; Accuracy (Accuracy and Reliability, Objectivity); Currency; Accessibility (indexing). In addition, two other dimensions – Relevance to user needs and Cost – were defined as contextual, encyclopaedia specific. Many of those criteria have been used as a basis to

develop other qualitative analysis and quantitative metrics to investigate Wikipedia's articles quality in general and the quality of the English Featured Article section (Stvilia et al., 2005). Vetrina's quality parameters are the same accepted in the English Featured Articles section. Vetrina's articles are selected through an articulated review process and they're considered by Wikipedia community as the best contents elaborated. Vetrina's contents are evaluated according through the following: an article has to be exhaustive, accurately plausible, stable and well written (http://it.wikipedia.org/wiki/Wikipedia:Criteri_per_una_voce_da_vetrina). The article must cover the whole subject without omitting important elements neither some significant details; it has to be accurate, stating the facts with notes and references ordered in a bibliography and in a list of external links. The article must be stable, that is to say it has to emphasize data and information which don't change too rapidly. The good prose is still a main concern: contents must be written in a good style, with an incisive and brilliant prose. The article must be unexceptionable for its neutrality and accuracy with respect to one of Wikipedia pillars: the neutral point of view. Formally articles have to be coherent with the contents already accepted: they must have an initial paragraph, an *incipit*, some headings and a brief summary. Images are well accepted where needed, but they must be accompanied by a description and they have to follow the rules of copyright defined by Wikipedia (http://it.wikipedia.org/wiki/Aiuto:Copyright_immagini). The article must also have a reasonable length: it should be focused on the point avoiding inconsistent details.

Interestingly enough, the Vetrina's criteria miss a "reputation dimension", the "authority principle" mentioned by Crawford. For traditional printed encyclopaedias the reputation and expertise of carefully selected editors or groups of editors serve as a guarantee of the article's quality. In contrast to that Wikipedia's quality assessment mechanism exploits the power of the collective knowledge of a large-scale distributed community following the FOSS (Free Open Source Software) quality motto: "*given enough eyeballs all bugs are shallow*" - (Raymond, 1998).

That calls for further investigations about the process of quality assessment in Vetrina section: given the Vetrina's definition of quality which may resemble that one of the traditional encyclopaedia, Wikipedia shows in fact a major distinction related to the social process involved in the quality assessment. While the first is based on recognized authority (the expert of a domain) the latter is related to an open review supported by the community of peers. The extent of the importance of this communitarian process is the subject of the analysis presented in the following paragraph which try to define: thesis and explanations to Wikipedia's quality and Benkler's hypothesis concerning quality in CBPP systems as Wikipedia.

Wikipedia's quality: thesis and explanations

Different hypothesis concerning quality have been formulated and in most case they were related to empirical investigations about Wikipedia English version, en.wikipedia.org. According to Lih (Lih, 2004), quality is the outcome of a successful combination of Wikipedia principles that can be summed up in "keeping it social and neutral". The online encyclopaedia is based on an articulated set of social norms and policies which regulate the participation and the editing tasks (http://en.wikipedia.org/wiki/Wikipedia:List_of_policies). At the bottom of each rule are the "five pillars of the project": Wikipedia is an encyclopaedia, Wikipedia has a neutral point of view (NPOV), Wikipedia is free content, Wikipedia has a code of conduct, Wikipedia does not have firm rules (http://en.wikipedia.org/wiki/Wikipedia:Five_pillars). The NPOV in particular, guarantees the neutrality and the plurality of opinions: it suggests in fact to present as much opinions as possible on a single subject instead of reporting the prevailing thesis or ideas. This principle is very important in order to handle delicate issues such as abortion, homosexuality, political matters and to moderate flaming debates which can arise among members. The technological platform is also essential for the project management: Wikipedia offers its users software tools, the wiki tools, which enable the easy and immediate update of articles (Edit History), discussion and the coordination among users and different groups (Talk Pages, Chat, Mailing List) and the efficient management of several tasks: the Watchlist tool for example allows every single user to monitor the articles he's working on and to concentrate on selected tasks at a time.

Others (Anthony et. al., 2005) relate quality to the openness of the system: the spontaneous and self selected recruitment which distinguish the participation in Wikipedia, the policy of free access and the user-friendliness of the technological system encourage contributions from users with heterogeneous competences and cultural backgrounds. According to Anthony's analysis Wikipedia users could be of two types: Zealots, the registered users who constantly submit contents and systematically help to revise and update articles, and Good Samaritans, people who contribute sporadically, most of the time in anonymous way. Nevertheless Good Samaritans prove to be good contributors in the project. Through the evaluation of the quantity of contents retained from a user contribution, the authors formulate a quantitative measure of quality contribution of the two users' typologies and they conclude that Good Samaritans are even better contributors than Zealots. Contrary to the arguments which relate good quality in Open Source systems to reputation issues (Ghosh, Prakash 2000; Lerner, Tirole 2002; Lakhani,

Von Hippel 2002), - a registered user with a constant presence in the project is more likely to submit the best content in order to reinforce his reputation –, Anthony et al. find that quality in Wikipedia is more linked to the openness of its organization and technological system. Such an openness encourages in fact, both the Zealots to contribute and improve their competences through a constant participation, and the one-time anonymous users to enrich in unforeseeable way, the development of a common knowledge repository.

CBPP systems quality: the importance of recognized roles and functions in Benkler's hypothesis

According to Benkler, CBPP systems quality is related to an "evolution process" which is articulated in two phases:

1. the first phase or utterance;
2. the second or relevance/accreditation phase when the system tends to stabilize its content quality both in subjective terms, the relevance of a resource for a particular user, and in objective terms that is to say through the definition of standard criteria to assess the quality project. In the first phase knowledge production process develops through a wide collective participation: tasks are divided in a huge number of sub-tasks in a voluntary and non-hierarchical way. Collaboration grows up spontaneously and each user candidates himself for different tasks: writing or reviewing articles, checking a portion of code or reading another user's submissions. In this phase quality assessment is up to the user who is motivated by the goal of finding the most useful resource (Benkler, *ibid.*: 69-71). Wikipedia reflects this stage of CBPP quality process: it's a collaborative platform with a huge number of users who voluntary join the project with the aim of systematizing encyclopaedic articles:

– *"So, while not entirely anarchic, the project is nonetheless substantially more social, human, and intensively discourse and trust-based than the other major projects described here"*- (Benkler, *ibid.*: 72).

In the second phase, CBPP environments define methods and solutions to codify the quality of knowledge resources. They could be technological solutions such as collaborative filtering or recommendation systems used by Amazon in order to elaborate purchase suggestions customized on

users' choices. Other platforms, E-Bay for example, develop complex reputation systems not focused on the product but on the user himself with the goal to identify the trustful dealers. Slashdot instead, one of the best known collaborative platforms in the field of technology news on line, ensures its quality resources through an articulated subdivision of roles and functions. Some expert users are elected "editors" and they get a regular payment: they are in charge of monitoring and select the news suggested by other users. Once the news are introduced in the platform and the community begins to post comments, the "moderators" come up: they have to select the "informative comments" and to remove "flaming contributions". Moderators are chosen among users thanks to an automated reputation system based on different criteria: registration to the site, level of participation and the number of "Karma" which estimates the quality of comments posted by the user. If the moderator has a high Karma number, it means that he/she's a good commenter while a low number identifies a poor contributor. The selected moderators work in the project on a voluntary basis.

Slashdot is a good example of a CBPP system which is able to enrich "grassroot" participation and, at the same time, to define roles and functions in charge of evaluating, selecting and codifying the quality of information. (Benkler, *ibid.*: 78-80). According to the quality process outlined by Benkler, it seems that also Wikipedia will follow this path: starting from a quite anarchic phase based on a voluntary mass-participation, it's supposed to move toward a more complex definition of recognized roles and functions aimed at higher quality standards.

My paper wants to verify Benkler's hypothesis through a qualitative analysis focused on one of the most popular quality assessment processes in Wikipedia: the Featured Articles section (Vetrina in Italian, <http://it.wikipedia.org/wiki/Wikipedia:Vetrina>). My survey doesn't concentrate on the content's quality itself but it reflects on the organizational and social processes involved in Vetrina's quality assessment: it aims to verify whether quality is the output of the articulations of recognized roles and functions as assessed by Benkler, or it is more related to social policies and rules shared by Wikipedia community. The results presented in the following pages are the output of a qualitative survey carried out through 31 semi-structured, in-depth interviews submitted by telephone, e-mail and on line chat to Italian Wikipedia Administrators and active users in Vetrina section³. A period (September 2007 – June 2008) of non-participatory observation has also helped me to get familiar with the main practices and social habits in it.wiki while the content analysis of Vetrina's articles and the related discussions allowed me to add new elements to evaluate the community processes involved in the elaboration of quality contents.

³ See par. 5 "Methodological notes".

Vetrina's quality assessment process: the importance of community's policies and rules

Vetrina section includes a list of articles considered by Wikipedians particularly accurate, exhaustive and formally correct. The section is divided in 10 thematic areas, Art, Biographies, Geography, Literature and linguistic, Religions, Mathematical, Physical and Natural Sciences, Social Sciences, Society, History: at the moment there are 388 articles in Vetrina over a total of 479.441 articles in the whole it.wiki⁴. Vetrina section appeared in Wikipedia with the name of "Bella Prosa" (Good Prose) during November 2002. Nowadays Vetrina is articulated in different content areas, each one of those has multiple sub-sections: the Art area for example includes numerous sub-sections, Architecture, Cinema and theatre, Photography etc. One of the more active user, Castana, refers:

– "Vetrina in it.wiki (the italian Wikipedia – it's better not to use wikipedia.it: it could be deceiving since the correct url is it.wikipedia.org and not www.wikipedia.it) was born during the night of 20th november 2002, but it started working in february 2004. Then its name was «Bella prosa» and it didn't have any institutionalised revision processes (taking into account the small dimensions of the wikipedia community in those days): no voting, no scheduled times but just spontaneous recommendations. Also the evaluation criteria were different (focused on good prose). Only in february 2004 a distinction based on thematic areas was introduced and in june 2005 was added a specific page for recommendations separate from the vetrina itself"–.

⁴ Data refer to September 2008

The user Squattaturi remembers:

– " It was born as "Bella Prosa" on the 20th of november 2002. The initial comment of the user Gianfranco was: «If while you're browsing among our pages, you happen to find an article which deserves a reward for the commitment of his authors, if the article is in good Italian (but if it's not, you have to fix the errors) and its prose is interesting, use this page to point it out to the community. This little reward will be of great importance for those who had collaborated and it will be an useful point of reference in terms of style and logic»-. The first article to get into Vetrina was "Francesco Petrarca" suggested by Gianfranco himself. At the beginning the articles submission was not regulated. On the 8th of march 2005, Blackwolf proposed to follow the model of the English Wikipedia which is based on voting. ArchEnzo made up the title "Articoli in vetrina" and on the June 16th the first voting started up (the first article voted was "Shakira", it was rejected). On march 2nd 2006 Vetrina appeared with the present name" –.

Vetrina's quality criteria have been initially formulated in 2006 through an open and collective debate about Vetrina's guidelines. As Castana states:

– "Criteria elaboration and update don't come out from a formal structured initiative but, as usual, from free initiative of the users who wrote down and formalized the ongoing practices. Then they have been progressively refined according to the increasing quality and reliability of Wikipedia. For example the last update introduced compulsory references as a guarantee of the article contents verifiability: in this way it formalised a practice already in use since long time and assumed in the voting process"–.

In january 2008 new rules and policies have been introduced in order to regulate the Vetrina selection process. Today this process is divided in an exam (Vaglio), which is not compulsory but highly recommended, and in the following report (Segnalazione) which is articulated in two parts: a 10 day period, review (Revisione), and the final 20 days phase of voting when users declare a positive or negative opinion about the article's admission in Vetrina. The exam consists in a peer review which can be started by every registered user in Wikipedia and it's functional to check the article's conformity to the quality criteria: that's the initial selection process. The Vaglio is based on an online discussion with comments and opinions among users interested: it doesn't have a fixed duration, but at least a week of

peer reviewing is recommended (<http://it.wikipedia.org/wiki/Wikipedia:Vaglio>).

Once the exam is closed, users with the right of vote can start the first report phase: the review. Users with the right of vote must have done their first "edit" (content update or insertion) at least 30 days before the beginning of procedure and must have contributed with at least 50 distinct edits so far. In the review phase the article is refined according to Vetrina's standards: through the analysis of ten review procedures (each procedure referred to a particular area of Vetrina: Art, Social Sciences etc.), I found out that most part of reviews concerned the texts form, the presence of images and the bibliographic references. That's what the administrator Giancarlo Dessi wrote me about:

– "For sure a consistent part of the articles is written according to personal knowledge of the subject but the goal is to avoid the development of personal researches and to assure the reliability of Wikipedia contents. Bibliographic resources are indeed necessary. Unfortunately many users have a wrong vision of the citations use; they apply an almost automatic proportion between the article's length and the number of notes and texts cited in the bibliography. Very often this measure is applied without any consideration for the subject handled, especially in the field of specialized issues. This is leading Vetrina toward a wrong use of notations because they tend to increase in spite of their actual usefulness"–.

La Pizia as well, administrator since November 2007, confirms the strategic role of citations:

– "One of the foundations of Wikipedia are citations, the references to something already written. That's a very relevant matter also because copyright problems are solved before in an automated way. Wikipedia has a wide number of bots (automated software) which systematically browse the web comparing the contents edited in Wikipedia with the ones in other sites. These bots are able to tell us if our articles violate any copyright and if it is the case, the administrators remove the contents"–.

The review as well is based on an open on line forum with posts and comments: every user can take part in the review. Nevertheless the observation of posts submitted suggests that participation is quite limited: only 6 or 7 users actively contribute and in most cases the user who proposed the review is the

one who takes charge of contents review and update. Quite often users are involved in the review after an "open call" in Bar-Progetto (Project Bar): those are small communities who work on a specific topic or subject, Latin History or Italian Cinema for example. This kind of call is considered an acceptable practice while "electoral campaigns" are highly discouraged. The administrator Pietrodni refers:

– "The electoral campaigns are a serious problem. Some users force others to vote for an article with a link to the content in their nickname. This practice is highly incorrect and harmful for voting result"–.

The user refers to the practice which consists in introducing in one's own nickname the link to the candidate article for Vetrina: clicking on that part of the nickname, the user is re-addressed to the page of the article's voting. That link represents an implicit suggestion to vote. For this reason electoral campaigns are highly condemned by Vetrina's guidelines: their use could invalidate the selection procedure and lead to the article removal (<http://it.wikipedia.org/wiki/Wikipedia:Vetrina/Segnalazioni>).

After the review phase, the voting begins: during 20 days users with the right of vote decide the article's admission to Vetrina. If they express a negative opinion they have to make a precise reference to the parameter the article doesn't satisfy: negative and unjustified votes could be excluded from the voting and removed. The article is selected if it gains the 80% of positive opinions and at least 10 explicit votes. According to the practice observed, the article review doesn't stop with the beginning of voting: negative and motivated opinions aim at pointing out the contents mistakes but those feeble aspects could be easily fixed during the voting process itself. This practice is also aimed at achieving consensus among users. It's a good policy of the community in fact, that of empowering open discussions to solve problems rather than voting: in Vetrina voting is more useful as a poll to identify errors rather than a decisive tool to judge articles admission (Wales, 2005).

Starting from the initial version in 2002, Vetrina became a quality filter more and more complex: asking users whether Vetrina had improved or not the contents quality, Eltharion says:

– "It improved the quality for sure. Today for example it happens that the first articles admitted are removed because they don't stand the present basic quality requirements anymore"–.

Other users, as the administrator M7, believe that Vetrina procedures should become even more selective:

– "Progresses have been made but it's still too easy, some articles just go. We might be more exigent. If the number of Vetrina articles is limited that's not a problem, other contents are improving. Time is not an issue for us"–.

Generally most users agree that Vetrina's selection process became harder and that the work expected on reviews got more and more complex. The administrator Salvatore Ingala says:

– "That's not easy indeed, it takes a lot of patience to write a complete, accurate, reliable text... the existence of a place (Vetrina) where you can tell the excellent articles from the good ones, in my opinion, encourages users to reach the excellence because it gives some points of reference and stimulate other users to help in the review.."–.

Vetrina's quality assessment as a community of peers process

There are no codified roles neither users with particular privileges in the process of editing and reviewing quality articles: apart from users who start the Segnalazione (report) who have to be entitled with the right to vote, contents creation and selection grows up on peer basis. Wikipedia Administrators don't have a specific role, neither the other positions formally recognised by the community - Stewards, Checkusers, and Burocrati - are entitled with any kind of privilege ⁵ (<http://it.wikipedia.org/wiki/Wikipedia:Amministratori>): they perform technical tasks (platform management, users' nickname check, vandalism reports etc.) and normally they don't interfere in the collective management of knowledge resources. The administrator Sannita refers:

– "First of all they're technical roles without any control on articles content. Control on contents is a "widespread" power: that is to say that's handled by everyone who know the subject. The Administrator is a user who has the faculty of blocking, removing or protecting certain pages (or he can limit the access to those pages to certain users: registered users or administrators). He

⁵ It.wiki has at the moment 95 active administrators: some of them have also the position of Burocrate or Checkuser. Data refer to September 2008.

can also isolate registered or anonymous user who make damages to the encyclopaedia. The Burocrate is someone who is in charge of giving the "flag" of Administrator or Burocrate to anyone who is elected for that position; he can also change, if requested, users nicknames. The Burocrate can also authorize bots, automated software which perform certain technical routines. The Steward position is quite similar to that of Burocrate, but he can also remove "flags" and he's elected on Meta.wikipedia.org, the site which coordinates all the WikiMedia projects. The Checkuser is an administrator who can verify the correspondence between IP and users in order to find out sockpuppets (fake users); fake users are forbidden by our guidelines since they violate the consensus policies" –.

Technical and management tasks distinguish the roles described above while control functions on Vetrina's articles is up to the entire Wikipedia community. Notwithstanding the lack of formalized control, contents report and review turn out to be well coordinated activities. Vaglio and Segnalazione procedures offer fundamental tools for peer collaboration and represent at the same time useful "filters" for quality assessment process. Vetrina also has a "Coordination board": a group of users who voluntarily committed themselves in Exam and Report activities. They are normal users who spontaneously candidate themselves for Vetrina's process. Actually from the empirical observation, it comes out that Coordination Board role is quite irrelevant in Vetrina and that most of the activities are performed by individual and autonomous users.

Italian Vetrina shows also a significant feature: a firm opposition against the definition of any kind of recognized role. According to Viégas et al. (Viégas et al., 2007) the English Featured Articles (the Vetrina correspondent in en.wiki) is coordinated by a Director who is in charge of the Featured Article management. Italian community shows instead a critical position toward the nomination of a coordinator or a committee. Lusum, administrator and checkuser, told me:

– "We don't have any arbitration committee, just votings or discussions... we don't need a director... he would be blamed of everything every time he intervenes... but sometimes big arguments arise and it's not the case to have a committee... arguments relate mostly to delicate issues, euthanasia, political personalities, religious articles... it's very difficult that such articles would get the 80% of positive votes... articles such as euthanasia, Cristopher Hitchens and others

I don't remember were reported but invariably rejected... there were too many controversial aspects... the director would be in this case too exposed to critics..."–.

Massimiliano Lincetto:

– *"I don't know very well the English Wikipedia but we don't have anything of the kind in the Italian version. You have to consider that other wikis adopted different procedures. An example is the arbitration committee, a group of users elected by the community who's in charge to solve certain disputes. Notwithstanding the fact that some of us would agree to have such a committee, we maintained a contrary position about giving more power to one or more individuals. Personally I consider this an aberration: Wikipedia system shouldn't have users with different decision-making power"*–.

Castana:

– *"In Italy we don't have any Vetrina director because our procedures are different. It.wiki strictly codified those practices (length of the voting, majority required) that en.wiki delegated to the "FA director"*–.

Italian community has indeed defined rules and policies in such a way that it can avoid specific roles or functions in charge of managing authoritatively the quality process. As the users statements show up, quality management is up to the whole community: the selection process finds its principles in regulated editing procedures based on peer collaboration. The community shows awareness about the difficulty and the commitment required in exam and review tasks and recently those processes got even more difficult and time spending. Nevertheless numerous users with interests in specific fields (Art, History etc..) commit themselves visibly more than others in Vetrina reviewing processes.

In spite of this evident engagement and merit, my survey shows that Wikipedians are quite reluctant to recognize their contribution with respect to the encyclopaedic project. Asked about motivations which presumably lead some users to work hard in Vetrina, most of the people declare that personal reasons such as *satisfaction, popularity, vanity* seem the more likely motivations. Salvatore Ingala explains:

– *"Probably they want to have a tangible proof of their job's quality and a personal gratification"*–.

Eltharion:

– *"I'm not sure, normally there are personal reasons, an article in Vetrina doesn't bring anything to users, so everyone can have a different motivation"*–.

The administrator M7:

– *"It's a mix of little personal gratifications, passions, interests etc.."*–.

The administrator Mau-db:

– *"Unfortunately motivations are popularity and personal pride rather than the will to present a good product for everyone"*–.

Jalo:

– *"I believe it's all about vanity, otherwise I wouldn't explain the difference between writing a perfect article and writing an article for Vetrina"*–.

Those comments reveal the impression that commitment in Vetrina is related to personal motivations: the advantage for the whole project seems just a secondary aspect. A similar attitude arises also in relation to the opportunity of recognising the role of those who elaborate the best quality articles. When asked: -" How would you judge a formal acknowledgement, in terms of merit in the election for administrator for example, for users who show a particular commitment in Vetrina?"-, users (most of them are already administrators) expressed a negative opinion.

Those opinions seem to show an egalitarian attitude: Wikipedia administrators are in fact very critical toward Vetrina's authors individualism and they consider their formal recognition quite useless with respect to the project collective goals. That's what the administrator Lusum wrote:

– *"No... that's an encyclopaedia based on voluntary work and those acknowledgements are not admitted... I don't know... recognitions shouldn't be too attractive otherwise people may be led to cheat, making lobbies or introducing copyright violations... Vetrina is not an administrator's duty, we have more important things to do such as fighting vandalism, copyright violation, consensus alteration, and protecting wiki from legal actions..."*–.

The administrator Jalo:

– *"No, no favouritism. There are many ways to improve Wikipedia even without working in Vetrina"*–.

The administrator Valepert:

– *"No. If there are people very good at writing quality articles, their engagement somewhere else wouldn't improve the encyclopaedia quality. A formal acknowledgement probably avoids to forget mistakes in articles related to the subject in Vetrina but there's the risk of becoming dependent upon an individual point of view"*–.

The administrator Giancarlodessi:

– *"Absolutely not. There would be distortions which would make damages to the whole project. Working on an article for Vetrina requires a significant commitment and long period when all the efforts are concentrated on one task. In the first half of 2007 I got five articles in Vetrina but after the last one I decided to give up this work. That meant a sensible increase of the number of articles I was able to work on and an increase of the medium qualitative standard of the so-called "dirty job". If any formal recognitions would be attributed, a lot of users would concentrate on this goal quitting all the other duties. That could be deleterious"*– .

Bias, discussions and conclusions

Wikipedia opened the path to an innovative way of knowledge organization and sharing posing questions about a traditional authoritative model which distinguished traditional encyclopaedia so far. The first

version of Wikipedia was conceived for expert contributors: only editors with a Phd degree were allowed to review and write contents on line. In Larry Sanger's perspective that would have guaranteed a minimum level of accreditation and quality (Sanger, 2004). After a few months Jimmy Wales' vision of an encyclopaedia with a wide basis of on line generic contributors became the main asset of the project. Since then Wikipedia maintained its open peer organization while its popularity and reliability seem to keep the pace even with authoritative resources as Britannica on line. While quality of contents is increasingly an issue for both qualitative and quantitative researches, the process of quality assessment itself is still a subject not adequately investigated. The paper tries to compare Wikipedia's Vetrina process to that of CBPP systems since they both involve web based decentralized activities, voluntary collaboration, they aim at creating a common repository of knowledge and both of them do without an authoritative editorial board of experts for contents elaboration.

Notwithstanding those shared features, Vetrina's organization and policies differ widely from the experience of a CBPP as for example Slashdot. In Slashdot, quality is the output of a complex subdivision of recognized roles and functions: in some cases roles are even institutionalized with a formal payment. On the contrary, the survey reveals that Vetrina's quality assessment process develops on a peer and self-selected basis. Every single user can become an "editor" or an "author" and in a reasonable period of time he/she could become more and more committed in writing and reviewing articles for Vetrina's selection process (Bryant et al., 2005). Even at the beginning of this involvement in Wikipedia's activities, users competences and skills are self-assessed and not evaluated by automated reputation systems as in Slashdot. At the same time, Wikipedians tend to reject the recognition of roles in the matter of content quality. Stating the role of "an individual author" or "Vetrina director" might encourage in fact, the emerging of unilateral points of view in spite of one of the project's pillars: the NPOV (Neutral Point of View). It.wiki community seems to avoid any kind of individual authorship and tend to hold in higher regard technical roles as Administrators, Burocrati and Checkusers who are devoted to daily management activities. Those roles, especially in the words of the directly involved people, are considered the most important for the encyclopaedia's development and maintenance.

I can conclude that, contrary to Benkler's hypothesis, quality in Vetrina doesn't depend on a progressive definition of roles and competences as observed in other CBPP experience. Nevertheless Wikipedia is very far from being a semi-anarchic system: the project shows a structured and dynamic social system which seems to evolve toward an even more complex organization based upon multiple policies and rules (Kittur et al., 2007b). Vetrina represents a sub-world which reflects in its articulation the widest

system it belongs to. In the development of this sub-system, policies and rules defined by the community have a strategic role. Quality indeed seems to be, as also Viégas (Viégas et al., 2004, 2007), Lih, (Lih, 2004), Emigh and Herring (Emigh, Herring, 2005) observed, the result of those principles observation and common acceptance, the output of a community culture considered as the whole of rules, values and procedures rather than the product of a formal organization of roles and functions. Wikipedia's policies represent in fact the fundamental "pillars" of the project while an egalitarian ethic leads the community actions against any kind of individual "authorship" or unilateral control on information. Procedures are also very important: through the subsequent phases of Exam and Report articles can reach a recognized quality standard while the peer review process and the voting aimed at the contents improvement are the necessary phases for the articles assessment. A set of rules finally, as for example, those related to the final voting, guarantee the reliability and precision of Vetrina procedures.

Moving toward higher quality standards, it.wiki reveals a high degree of flexibility: as the survey shows up, the number of procedures has significantly increased as well as the definition of new rules and policies. Nevertheless this bureaucratization process was led by the open dialogue and coordination among Wikipedians and not by an authoritarian initiative: this process grew up in a "rational" way according to the community principles and values. Procedures and rules have been defined according to the openness and collaboration policies which represent the distinct features of Wikipedia project.

The survey results give a better understanding of Wikipedia social organization and may put a new light on the transformation of CBPP systems on line: it.wiki experience shows that open knowledge on line communities could reach higher quality standards even without recognized roles and institutionalised rewards. Emergent coordination and self-selected competences regulated by shared social rules and policies may in fact play a fundamental role in the development and management of common knowledge creation.

Methodological notes

Before starting the qualitative interviews I spent almost one year of non-participatory observation in Italian Wikipedia project (September 2007 – June 2008): I never took actively part in the on line forum or in the article review processes but I systematically monitored the community's activities in order to have a general vision of the ongoing discussions, the development of Vetrina and the typology of users (admins, generic users, stewards, burocrati etc) involved. The analysis of the user generated documents

helped me to follow the quality assessment process in Vetrina: I analysed a set of 10 articles submitted for Vetrina's selection (one article for each thematic area, <http://it.wikipedia.org/wiki/Wikipedia:Vetrina>) and the related on line discussions. I analysed the formal features of the texts submitted for Vetrina, in order to define if they match its quality standards (http://it.wikipedia.org/wiki/Wikipedia:Criteri_per_una_voce_da_vetrina, September 2008). At the same time I monitored the related discussions to understand the type of issues debated: I used a grid articulated in several items (quality criteria, citations, references, style, policies etc) in order to classify the user generated texts. I also followed the discussions generated in relation to the different phases of Vetrina's selection process (Vaglio, Segnalazione, Esame, Votazione) to get a more precise idea about the users involved. I realized that people personally committed in writing articles for Vetrina were mostly generic Wikipedia users, while the Administrators, who belong to the community since long time (2 to 4 years) and spend many hours a day (3 to 10) working for the project, are the most expert about Vetrina's quality assessment process, its organization, rules and policies. In June 2008 I contacted by e-mail all the 95 it. Wiki Administrators (<http://it.wikipedia.org/wiki/Wikipedia:Amministratori>, September 2008) asking them to participate in the qualitative survey and I received 28 positive answers within the end of July 2008. According to the Italian Wikipedia privacy policy (<http://it.wikipedia.org/wiki/Wikipedia:Wikipediano>, September 2008) I didn't ask them their real name or age and I gave them the opportunity to chose among telephone, chat or e-mail interview. That could be questionable according to a traditional methodological approach but it could be accepted in analysing on line community environments where identity is basically linked and recognized through nicknames and virtual avatars (Di Fraia, 2004:145-170). Among the 28 Administrators contacted there were 26 men and two girls. I also posted, as suggested by the Administrators themselves, a call to participate in the survey in the Bar-Progetto (<http://it.wikipedia.org/wiki/Wikipedia:Bar>, September 2008) and I received three interviews from other active users (males). Interviews' texts were analysed through an interpretative approach based on a grid of concepts and issues formulated on my preliminary hypothesis. I didn't use any specific software for content analysis such as Nvivo or Atlas but I tried to manually map the interviews outputs according to specific aspects and in particular: users' (generic users and administrators) commitment in Vetrina's tasks, users' awareness of Vetrina's development and organization (rules, policies, procedures), users' perception of quality critical issues, users' consideration of recognized roles and functions. According to the concepts' map I "dugged" the interviews texts in order to retrieve the more significant contributions: most of them were reported in the paper. This approach comes from an experimental research design which tries to

integrate the automated techniques performed by qualitative analysis tools such as Nvivo (tagging, mapping the text) with an interpretative approach based on my specific research hypothesis. A similar approach is illustrated in the qualitative research realized by Tosoni on a on line MUD environment (Albano, Paccagnella, 2007: 109-118).

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