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Wikipedia and Education

Anarchist Perspectives and Virtual Practices

Petar Jandric

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ABSTRACT

This paper explores the philosophical background of one of the most widespread Web based sources used in contemporary education – Wikipedia. Theoretical part consists of the basic notions of anarchist philosophy of education such as human nature, work and society.

Through Chomsky's prism of visions and goals, it provides the frame for further analysis. The practical part shows that Wikipedia creates a virtual anarchist society: open, ludic engagement in this society is fully interwoven with the specific kind of education of all its members.

Offering an insight into the often neglected area of social and political ideas underlying the use of technology in education, this paper offers a conceptual bridge between contemporary Digital Immigrant educators and their predominantly Digital Native patrons, thus contributing to the better understanding of education in and for the third millennium.

INTRODUCTION

McLuhan noticed that "we shape our tools and thereafter they shape us" (1964); technologies and human beings dialectically interact in the process of creating our reality. Generally, a tool is something that was produced before its user was born; technology is something that came after. When applied to information and communication technologies, this distinction creates large differences between two vast groups of users: Digital Natives and Digital Immigrants. Digital Natives are people who were born into the digital world; Digital Immigrants are people who got accustomed to the digital world in later parts of their lives. For this reason, "today's students think and process information fundamentally differently from their predecessors. These differences

go far further and deeper than most educators suspect or realize” (Prensky, 2001: 1).

One of the most widely used ICT-based tools in education is the “multilingual, webbased, free content encyclopaedia project” Wikipedia (2010a). There is hardly a teacher who hasn’t dealt with students who extensively use Wikipedia as a source in their work: “students, particularly in the ‘first world’, are increasingly using Wikipedia as a source of information” (Szesnat, 2006 p.1). There is a small but rapidly growing body of research about its educational use. This can be roughly divided in two categories: research about the use of the Wikipedia knowledge database in instruction, and using Wikipedia as a tool for instruction. This study takes another approach to Wikipedia studies. Instead of looking at how Wikipedia can be used in instruction, it focuses on the philosophy built in its functioning. Inspired by similarities between the basic postulates of Wikipedia and anarchism and supported by Reagle’s article showing the high degree of similarity between Kropotkin’s idea of “mutual aid and interdependent decision making within the Wikipedia” (2005), it seeks for model in the philosophy of anarchism.

THEORETICAL BACKGROUND

Addressing problems associated with analyses of anarchist views in the context of education, De Leon writes that “anarchist theory is a huge field and is not easily summarized, as there have been historical variants that are quite diverse and eclectic” (2006). In a similar fashion, Suissa says that anarchism is inherently “anti-canonical, so one cannot refer to any single body of written work in the search for definition” (2001 p.629). For those reasons, it is of utmost importance for this research to create a working definition of anarchist education. This paper follows the most usual approach: isolating attitudes common to the most prominent anar-

that such uncertainty does not prevent pharmacists from using test tubes, educators should not close their minds to new research opportunities. The information era does not only create new challenges; it also offers radically new possibilities for research.

This paper does not offer judgements about anarchism, contemporary education, technology or the educational use of Wikipedia; it was born from the urge to obtain a better understanding of the philosophy built into the technology that every educator meets on daily basis. For anarchists, the proof that Wikipedia is based on anarchist principles provides a practical insight into anarchist ideas about human nature, work and society; above all, the example of real, working, large-scale anarchist education is a serious rejection of accusations for mere utopianism. For educators, its connections with anarchism offer an insight into the philosophy many of their students are daily supporting through active participation. The majority of contemporary students are Digital Natives: their engagement in the virtual world shapes not only the content they learn, but more importantly the worldview they carry into real-world environments. Understanding how the old, rigorously studied anarchist ideas found their ways to the very foundations of one of the most widespread technologies used in education, it is possible to draw connections between the present and the past. Following the old proverb that history is the teacher of life, it might also help educators design a better education for the future.

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that people burdened with the real-life consequences of their activities would behave differently than hidden under self-created, essentially anonymous identities.

Growth of Wikipedia is “very sensitive to community driven decisions” (Zlatic, Bozicevic, Stefancic and Domazet, 2006 p.9); devised by and exercised in the community, patterns of behaviour are inherently interconnected with the individual cultural capital of each contributor. Limited to the privileged side of the digital divide, Wikipedia society is quite homogenous. However, the majority of the Third World’s population lives in cultural and social spaces that are both radically different from the First World’s and from each other. It is therefore to be expected that rapid spreading of Wikipedia to the Third World would not just influence its size, but also the overall nature of participation.

CONCLUSION

It seems that every time a historical event chops off a head of the anarchist Hydra, two more grow in the most improbable places. Contrary to the common belief that anarchism belongs to history lessons or Zerzan’s idea that anarchism is feasible only in a primitive, nontechnologist society, the example of Wikipedia clearly shows that anarchist educational ideas are flourishing in the most unexpected place: in the field of cutting edge information and communication technologies.

However, it should always be remembered that Wikipedia is a virtual society. Educators can observe its development or sometimes make an experiment; however, conclusions based on such observations can never be literally transferred to the real world. When a pharmacist grows a culture in a test tube, he or she cannot accurately predict whether it will survive or mutate when exposed to outer conditions. Conclusions drawn from the virtual world of Wikipedia have the same character. However, for the same reasons

chist thinkers, it looks for a “middle way” which satisfies the majority. Following the method from De Leon’s successful comparison between anarchist and critical education, “when I refer to the concept of anarchism, I am actually referring to ‘anarchisms’ which better captures this diverse radical theoretical tradition” (2006).

The vast majority of anarchist thinkers points out that any discussion about anarchism and anarchist educational praxis “must rest on some conception of human nature, of what’s good for people, of their needs and rights, of the aspects of their nature that should be nurtured, encouraged and permitted to flourish for their benefit and that of others” (Chomsky, 1996 p.107). Traditionally, philosophers have used the concept of human nature for three purposes:

1. To identify or demarcate human beings;
2. To explain human behaviour;
3. To prescribe how human beings should live and conduct themselves (Parekh, 1997).

Based on the work of dialectical thinkers from Heraclitus onwards, Bookchin develops the dialectical approach to acknowledging the developmental nature of human reality. “Dialectical reason grasps not only how an entity is organized at a particular moment but how it is organized to go beyond that level of development and become other than what it is, even as it retains its identity.” (1995 p.3) The contradictory nature of identity, for Bookchin, is an intrinsic feature of the human being; its flourishing, rather than disciplining, is therefore one of the highest values in anarchist education.

The developmental nature of human reality makes people inherently interconnected; as Bakunin said, “man is born into society, just as an ant is born into an ant-hill or a bee into its hive” (Bakunin,

1964 p.157). Thus, for anarchists, there is no strict distinction between human beings and society. It is therefore natural that in anarchist theory, where the central animating ideal is the one of free society, based on mutual cooperation, decentralisation and self-government, the concept of a common human nature is employed in order to demonstrate the feasibility of this social ideal (Suissa, 2006 p.25).

During the period of the fastest development of anarchist ideas often referred to as the golden age of anarchism, all major leftist political theories were strongly influenced by Darwin's theory of evolution. However, unlike Huxley or Marx who understood evolution quite literally as survival of the strongest, Kropotkin argued that "the fittest are not the physically strongest, nor the cunningest, but those who learn to combine so as mutually to support each other, strong and weak alike, for the welfare of the community" (1902 p.7). In one form or another, Kropotkin's view became the credo of left-wing anarchism: exercised on all levels, the principle of mutual aid is the basic prerequisite for philosophy of anarchism.

Anarchists believe in organization free from the restrictions of extraneous authority; thus work, together with all other human activities, has to be voluntary. For Black, it is hard to conceive that any free person would voluntarily engage in an unpleasant or intrinsically unrewarding activity – hence, for an anarchist, the main reason to work is the pleasure obtained. Unfortunately, as Woodcock notes, the Western concept of work is far from the ideal pleasure producing activity: "quantity rather than quality becoming the criterion, the enjoyment is taken out of the work itself" (1997 p.56). Depending on minor differences between working classes, this lack of enjoyment leads to more or less subtle coercion; in the present social order, the real choice about whether to work is left only to members of the small portion of the society who can afford it. This problem affects the individual worker just as much as the whole society: when expressed in terms of work, a truly

knowledge (Johnson, 1988 p.3); in this respect, the example of Wikipedia can offer a lot to traditional education systems.

Transferring power relations from Wikipedia to the real world is faced with much more difficulties. No-one has ever created a fully egalitarian education system of nearly similar size and stability as Wikipedia; even when dealing with groups smaller by several orders of magnitude, past and present educators had to maintain at least a minimum of distinction from their students. In this respect, the case of Wikipedia can certainly help developing other virtual education systems; however, it is highly likely that transferring Wikipedia power relations to the real world, especially for populations counted in tens of millions, would end up with failure.

Albeit with some difficulty, the Wikipedia community manages to counterbalance social and individual instincts of its members. However, contributors spend only a small portion of their waking lives in Wikipedia society and choose the exact duration of their engagement; it is unclear whether people would be equally altruistic and courteous in a full-time arrangement. When a Wikipedian has had a "bad day" he or she can simply not connect to the Internet or shut the Web browser down at any moment of the engagement; physical residence in a community based on Wikipedia principles would impose different dynamics of joining and leaving.

Engagement in Wikipedia is de-personalised. One can change identities like clothes, thus there's no fear about experimentation with all kinds of behaviours. Another aspect of impersonality is the lack of personal contact. For the majority of people, it is easier to express and accept critique or advice through a text medium than in person; moreover, the asynchronicity of Wikipedia collaboration allows indefinite time for reflection before answering a message.

Transferred to the real world, engagement in Wikipedia-like society would impose inevitable restrictions in terms of both creation of identity and impersonality of communication. Such transfer may change its members' patterns of behaviour: it is to be expected

Wikipedia society more accessible to financially and educationally better-off individuals: in other words, it is globally and locally elitist. Some of the aforementioned barriers have been addressed by sister projects such as Simple Wikipedia, which is designed for users lacking proficiency in academic English (Simple Wikipedia, 2010). However, the success of such projects is inevitably partial: there will always be people who do not use computers, if for no other reason than because of lack of interest. Access barriers are subject to social reproduction (Van Dijk and Hacker, 2003: 323). Approaching the fringes between online and offline worlds, virtual Wikipedia society quickly becomes faced with well-known challenges in any traditional society.

Analysis of Wikipedia praxis in the light of basic concepts of anarchist philosophy of education shows the following:

- Engagement in Wikipedia is based on essentially anarchist beliefs about human nature.
- Engagement in Wikipedia is very close to anarchist concept of work.
- Wikipedia creates a virtual anarchist society.

Those conclusions can be interpreted in two different ways: as a control mechanism showing whether Wikipedia is based on anarchist principles, and as a proof or rejection of principles themselves. This paper is strongly committed to the first interpretation: in its present state, the latter provides no more than indications that have to be thoroughly studied before full confirmation.

Instead of taking up “predetermined problems in a ritually defined setting”, Wikipedia provides an anarchist alternative in terms of “a network or service which gives each man the same opportunity to share his current concern with others motivated by the same concern” (Illich, 1977 p.26). It is widely accepted among radical educators that such an approach leads to more really useful

free society is defined “as one in which there is no social coercion compelling the individual to work” (Gibson, 1990 p.110).

Apart from social relationships, coercion to work deeply affects the possibilities for individual human development. Throughout written history, the majority of people belonged to the working class; only a small percentage of those who were rich enough belonged to the privileged leisure class. Despite the huge discrepancy in numbers, it was the leisure class that

cultivated the arts and discovered the sciences; it wrote the books, invented the philosophies, and refined social relations. Even the liberation of the oppressed has usually been inaugurated from above. Without a leisure class, mankind would never emerge from barbarism (Russell, 1997 p.33).

Even in the most advanced democracies, it is extremely hard for the working class to progress into the leisure class. Thus the myth of full employment, advocated by modern capitalism, “is the slogan of wage-slaves in an unfree society” (Richards, 1997 p.158); in the more moderate words of a non-anarchist, it is obviously one of the main means of social and cultural reproduction (Bourdieu and Passeron, 1994 p.41).

For anarchists, the concept of education takes a central part not only in the quest for personal freedom but also for achieving a free, equal, just, anarchist society. Based on his view that human development strongly depends on social circumstances, Bakunin asserts that complex ideas such as ethics, morality, freedom and even self-identity are not innate to human beings; on the contrary, they are transmitted to individuals through social traditions and education.

Good or bad, education is imposed upon man – and he is in no way responsible for it. It shapes him, in so far as his individual nature allows, in its own image,

so that a man thinks, feels and desires whatever the people around him feel, think and desire. (1964, p.153)

Thus, the inverse of the initial statement is as valid as the original. Anarchist education can exist only in a truly egalitarian society, while any other kind of organization inevitably leads to social and cultural reproduction. As Stirner said, “education creates superiority and makes one a master: thus in that age of the master, it is a means to power” (1984 p.13). Anarchist understanding of the relationship between education and society recalls the chicken and the egg problem: it is impossible to conceive of anarchist education in a nonanarchist society and vice versa.

VISIONS AND GOALS

In order to apply philosophical inquiries to the praxis of anarchist education, theory has to be comprised into a useful, widely applicable framework. Containing both practical and theoretical elements, Chomsky’s distinction between visions and goals makes an excellent starting point for inquiry:

By visions, I mean the conception of a future society that animates what we actually do, a society in which a decent human being might want to live. By goals, I mean the choices and tasks that are within reach, that we will pursue one way or another guided by a vision that may be distant and hazy. (1996 p.107)

This is “a practical rather than a very principled distinction”, continues Chomsky; however, it does contain both anarchist philosophy of education and its practical implications. In this way Chomsky’s distinction provides an all-round, though not always precisely defined frame for analysis of Wikipedia educational praxis.

in developmental nature of human beings, anarchists also do not have universally accepted vision of perfect society. Participation in Wikipedia society is on a fully voluntary basis; free from all forms of coercion, there is no social reproduction.

Wikipedias provide an inexhaustible range of Bey’s Temporary Autonomous Zones to anyone who connects to the Internet; in this way, they provide appropriate spaces for its specific, essentially educational engagement based on anarchist principles. Starting by few young enthusiasts as a small, independent project, Wikipedia was quickly founded by millions of people and became one of the world’s largest virtual learning societies. Its size and stability indicate that, at least in the virtual world, anarchist society is possible.

One of the main features of participation in Wikipedia is geographic and social decentralisation: theoretically, Wikipedia can be used by anyone from anywhere in the world. In practice, however, opportunities for participation are restricted to the privileged side of the digital divide. Van Dijk distinguishes four different types of access barriers:

1. Lack of elementary digital experience caused by lack of interest, computer anxiety, and unattractiveness of the new technology (“mental access”).
2. No possession of computers and network connections (“material access”).
3. Lack of digital skills caused by insufficient userfriendliness and inadequate education or social support (“skills access”).
4. Lack of significant usage opportunities (“usage access”) (Van Dijk and Hacker, 2003: 315–316).

Material access barriers roughly follow the division between global north and south; other barriers, however, can be found in all societies regardless their economic power. For this reason,

wrong. The second assumption can be seriously questioned on statistical grounds: only English-language Wikipedia has a member population of roughly the same size as Greece or Belgium (Nation Master, 2010) and a similar number of pages. By adding non-registered or guest users those statistics can grow unpredictably. However, since participation of guest users is fairly limited, it is reasonable to expect that the majority of active members are registered. Wikipedia contributors do not get any external reward for their engagement.

Academic students, in contrast, are strongly extrinsically motivated for obtaining a degree. It would certainly be interesting to pursue a socio-psychological research about contributors' motives for engagement in Wikipedia; such inquiry, however, is left to future researchers.

According to Marshall, anarchist society is "a sum of voluntary associations" (1993, p.12). Consisting of approximately twelve million registered contributors, English-language Wikipedia makes a virtual society with the population of approximately the size of an average European country (Nation Master, 2010). The free, egalitarian Wikipedia is based on the specific kind of engagement which is inherently educational; such engagement is feasible only in a free, egalitarian Wikipedia. All members of Wikipedia society have exactly the same privileges; even the most basic laws are subject to constant questioning and change. Anyone who actively participates in Wikipedia is a member of the society; opting out is simply achieved by ceasing to contribute. There are no elections or permanent representatives of any group of people; chosen by the consensual agreement of all interested members, editors, administrators and contributors in other "higher" positions can be called off at any time of their engagement and others can be appointed. All decisions are purely consensual: in a case of dispute, the concerned parties can choose a mutually respected arbiter.

Constantly questioning its basic assumptions, Wikipedia society develops unpredictably and spontaneously; based on a belief

For most anarchists, the discussion of visions begins with the three slogans of the French Commune: liberty, equality, and fraternity (Marshall, 1993 p.435). Anarchists' disillusionment with communism has often led them to omit those slogans in their writings. However, as Bakunin clearly and repeatedly stated, "the June defeat of the workers of Paris was the defeat of State socialism, but not of socialism in general" (Bakunin, 1964 p.279). The notions of liberty, equality and fraternity encompass the most general vision of anarchist society. It is impossible to conceive anarchist education in a non-anarchist society and vice versa; therefore, their blend can easily be taken for the first vision of anarchist education.

In order to come closer to a "philosophical vision of a liberated humanity" (Giroux, 1985 p.xvii), anarchist education is concerned with a specific kind of knowledge. According to Smith, such knowledge should be "rational, scientific and practical" (1990 p.125); according to Bakunin, it should be emancipatory (1964 p.327); according to Kropotkin, it should be "integral and complete" (1912 p.364)... Historically, in the education of adults, there was a term which comprised similar meanings: borrowing from past radical educators, the second vision of anarchist education is named "really useful knowledge" (Johnson, 1988 p.1). According to Martin, "education is always a key resource in the broader struggle for democracy" (2006 p.14); in such a view, really useful knowledge becomes coloured with the vision of the perfect, or at least the best available, democratic society.

The third vision of anarchist education is subscribed to the unique anarchist understanding of human nature and its interdependency with work and society. It can be summed up in the ideal of the highest respect for the needs of the individual, as viewed by anarchists; for the lack of a better expression, it is simply named humanity. Illustrating this vision, prominent anarcho-individualist Stirner writes: "thus the radii of all education run together into one centre which is called personality" (1984 p.25).

Despite the attractiveness of anarchist educational visions, it should be well remembered that they only describe a wish, an ideal, “the conception of a future society”. In order to deal with the application of anarchist philosophy to educational practice or more practical “choices and tasks that are within reach” (Chomsky, 1996 p.107), it is therefore necessary to study the goals of anarchist education.

In his very successful comparison of anarchist and critical education, De Leon asserted five main goals of contemporary anarchist education:

- Urgency and radical change;
- Free association;
- Autonomous action;
- Cooperation and mutual aid;
- Combining activism and education (2006).

Arising from resistance to current political systems, urgency and radical change have always been the “trademark of anarchism” (Franks, 2006 p.116). Based on Kropotkin’s belief in the evolutionary concept of anarchist revolution, the only way to achieving anarchist society is

not to wait for a distant revolution but to reinvent daily life here and now. To transform the perception of the world and to change the structure of society is the same thing. By liberating oneself, one changed power relations and therefore transformed society... (Marshall, 2000 in Ward, 2004 p.75)

Thus the goal of urgency and radical change, standing “both as a practical response to its own right to a given situation, but also as a

A mistaken – or, more often, deliberately inaccurate – interpretation alleges that the libertarian concept means the absence of all organization. This is entirely false: it is not a matter of “organization” or “nonorganization”, but two different principles of organization. (Voline in Guerin, 1970 p.43)

Replacing the word “libertarian” with “Wikipedian”, Voline’s statement remains as true as in the original.

One of the most important features of Wiki is that “the mechanisms of editing and organizing are the same as those of writing so that any writer is automatically an editor and organizer” (Cunningham, 2010); in plain language, there is no difference between “technical” and “academic” contributions. In order to create or edit an entry, each contributor has to do both tasks simultaneously. Certainly, it is possible to get voluntary help or advice from more experienced users: after all, Wikipedia is based on the principles of cooperation and mutual aid. However, each Wikipedia contributor is well aware that the old question: Who will do the dirty work? has just one answer: Everyone.

The process of editing Wikipedia involves the full synergy of theory and practice, academic and technical skills, personal wishes and abilities; in short, it is the complete exercise of encyclopaedic praxis for everyone. For educational process of engagement in Wikipedia, there is no difference between vocational training and education; this principle corresponds well to anarchist concept of integral education.

The critiques of anarchist views of work are based on two assumptions: that integral education would provide general knowledge inadequate for highly skilled professions, and that human beings simply wouldn’t work without coercion. The majority of research on accuracy of Wikipedia, particularly those comparing its science entries with those of Encyclopaedia Britannica, indicates that the first assumption is at least ambiguous if not completely

ing to Wikipedia is a constant, dialectical teaching and learning process; in this way, it is organized exactly according to Bakunin's idea that activism is education (Bakunin, 1964 p.382).

Engagement in Wikipedia corresponds well to the goals of anarchist education; in fact, it is hard to conceive a contemporary education system that would achieve a better match. Such a conclusion, however, still doesn't fully confirm that Wikipedia is based on anarchist beliefs. For this reason, the following analyses challenge its praxis in the light of basic concepts of anarchist philosophy of education.

Vast voluntary participation in Wikipedia speaks for itself in favour of Bakunin's ideas about the social nature of human beings. In a similar fashion, the non-sustainability of vandalism supports towards Kropotkin's assertion that the main characteristic of human nature is mutual aid between individuals. The case of Wikipedia strongly opposes the liberal idea that "people, being rational, will not voluntarily cooperate to provide themselves with public goods" (Taylor, 1987 p.ix). On the contrary, it sets a prime example of almost more than six million registered individuals (and at least as many unregistered) who voluntarily cooperate to provide everyone with the basic public good – a free, relevant encyclopaedia.

Wikipedia solutions to practical problems such as edit wars and vandalism are based on the education of all its contributors in dialogue and consensus. The practical success of such enterprise conforms to Bookchin's idea about the developmental nature of human reality; more specifically, it confirms Bakunin's and Ferrer's belief that human nature can be nurtured for the benefit of the community.

Both the size and stability of Wikipedia strongly confirm the basic anarchist belief that organization without authority is possible; for anarchists, lack of authority does not imply chaos.

symbol of the larger vision of societal change" (Franks, 2006 p.118), first has to be exercised in education (Kropotkin, 1912 p.364).

When applied to the praxis of contemporary education, De Leon's goals of free association and autonomous action are tightly interwoven and often indistinguishable. Nowadays, the state is the only entity with enough power to coerce everyone to do something: in this respect, compulsory and state schooling merge into one and the same thing. For this reason, those two goals can easily be merged into the goal of free, autonomous education.

Contemporary anarchist quests for educational autonomy can be summarized in Bey's metaphor of Temporary Autonomous Zones.

We are looking for "spaces" (geographic, social, cultural, imaginal) with potential to flower as autonomous zones – and we are looking for times in which these spaces are relatively open, either through neglect on the part of the State or because they have somehow escaped notice by the mapmakers. (Bey, 2007)

Bey's spaces can exist in the real world, as do remote, isolated communities; they can be primarily cultural, such as those found in works of art; imaginal, such as mythological places; virtual, such as cyber communities. Usually, they are a combination of all the above and more. When applied to educational praxis, a Temporary Autonomous Zone is the space for education free of social, financial and any other influence or restraint. Participation is voluntary and therefore inevitably temporary; curriculum is designed both from and for the involved community; and pedagogy is based on the highest respect for the individual.

Prerequisite for anarchist educational vision of liberty, equality and fraternity, one of the most important goals of anarchist education is cooperation and mutual aid. Anarchist educators from

Tolstoy to Illich have been trying to incorporate this goal in their educational praxis. Strikingly similar to the basic principles of Wikipedia, probably the most relevant example of cooperation and mutual aid in anarchist education can be found in Illich's proposal of learning webs. Three out of four pillars in his proposal – skill exchanges, peer matching and reference services to educators-at-large – are voluntarily offered by anyone who wishes to teach, freely accepted by anyone who wants to learn, and open to anyone looking for peers (Illich, 1977 p.55–56).

The goal of combining activism and education is tightly interwoven with the whole anarchist praxis. Anarchists see the individual deeply rooted in society; thus education becomes “a highly developed form of anarchist direct action possessing the ability to transform and radicalise consciousness (Piluso, 1990 p.338). Probably the oldest expression of such an attitude can be found in anarchist ideas about revolution which, “in its ideal form, requires multiple successful confrontations of oppressive powers, rather than a single determining conflict” (Franks, 2006 p.263). In practice, continues Malatesta, it means that the vast majority of citizens have to understand both the goals and the means of revolution (1922 p.2). Anarchists do not simply combine activism and education; it is much more proper to say that “activism is education” (Bakunin, 1964 p.382).

TOWARDS A LIBERATION OF TECHNOLOGY

Wikipedia is a popular web-based encyclopaedia edited freely and collaboratively by its users. Its main technological base is the software called Wiki; according to its inventor Ward Cunningham (2010), Wiki is designed according to the following principles:

for each contributor engages in the process of editing “without primarily mediating that action through the formal processes and structures of the State” (Hart, 1997 p.42); it is radical, for the content of Wikipedia solely consists of knowledge relevant to its contributors thus denying any kind of higher authority.

Wikipedia is one of the most striking examples of a successful large-scale project based solely on free association. Funded exclusively by voluntary contributions and run in virtual space, it is free of all kinds of influences either from capital or from the state. Based on voluntary engagement, it conforms to no rules apart from those consensually created by the community. It can persist for just as long as its contributors pursue their activities, hence it is intrinsically temporary. In this way, Wikipedias in various languages offer advanced examples of Bey's Temporary Autonomous Zones – the only spaces allowing the full extent of anarchist educational praxis.

The goal of cooperation and mutual aid lies at the very foundations of Wikipedia. Without a sufficient level of both, the project would simply not be operational. However, this doesn't imply smooth, easy operation: as predicted by anarchist thinkers from Kropotkin onwards, the Wikipedian community constantly struggles to maintain the delicate balance between its contributors' individual and social instincts. The prime examples of such a struggle are constant edit wars “when two or more contributors repeatedly revert one another's edits to an article” (Wikipedia, 2010e). Such disputes are regulated by the strong set of rules; developed by and for the community, those rules are subject to constant discussion and change. When rules are insufficient, contributors enter one of the specific dispute resolution processes; if this fails, the last resort is arbitration.

Engagement in Wikipedia is a prime example of radical direct action. The Wikipedian community quickly welcomes a new contributor: offering instruction, more experienced contributors direct the newcomer to introductory, policy and other pages. Contribut-

ing; fraternity, for its success is based on mutual aid and respect between all contributors, through the editing process in which one “both constructively participates in the community and retains his or her individuality” (Ferrer, 1909 in Goldman, 1969).

By mutual consensus Wikipedians do not only construct their own “truth”; through the process of negotiation, they also decide which knowledge is relevant for them. Providing each contributor with equal opportunities for sharing current concerns, the content of Wikipedia provides probably the best definition of the second vision of anarchist education: really useful knowledge. Wikipedia is available to all Internet users without restrictions: for this reason, users who utilize a knowledge “product” without engaging in a process of its dynamic creation also strongly benefit from its construction.

Each contributor voluntarily chooses the nature of his or her contribution: writing, editing, organizing, discussing or counselling less experienced users. Levels of participation significantly vary: some people contribute once and never come back, while others participate in thousands of entries. This feature makes Wikipedia fully orientated to the development of the individual – his or her wishes, aspirations and needs – or simply to the third vision of anarchist education: humanity.

Good correspondence of Wikipedia principles to visions of anarchist education is a strong indicator of its overall anarchist organization. However, warns Chomsky, visions are often contrasted to their applications (1996 p.108). Measuring the success of their practical implementation, analysis of engagement in Wikipedia through the goals of anarchist education provides a deeper insight into its praxis as experienced by ordinary user.

From its establishment to each individual contribution, Wikipedia is based on the principle of urgency: instead of waiting for publishers to issue the encyclopaedia they want, its founders and contributors simply create and maintain their own. Such activity is a prime example of radical direct action. It is direct,

- Open – Should a page be found to be incomplete or poorly organized, any reader can edit it as they see fit.
- Incremental – Pages can cite other pages, including pages that have not been written yet.
- Organic – The structure and text content of the site are open to editing and evolution.
- Mundane – A small number of (irregular) text conventions will provide access to the most useful page mark-up.
- Universal – The mechanisms of editing and organizing are the same as those of writing so that any writer is automatically an editor and organizer.
- Overt – The formatted (and printed) output will suggest the input required to reproduce it.
- Unified – Page names will be drawn from a flat space so that no additional context is required to interpret them.
- Precise – Pages will be titled with sufficient precision to avoid most name clashes, typically by forming noun phrases.
- Tolerant – Interpretable (even if undesirable) behaviour is preferred to error messages.
- Observable – Activity within the site can be watched and reviewed by any other visitor to the site.
- Convergent – Duplication can be discouraged or removed by finding and citing similar or related content.

Grounded in those principles, Wiki provides an egalitarian, open and free technological base for collaborative Internet projects. Its

largest and the most famous application – Wikipedia – is funded exclusively through voluntary donations. Only a very small number of staff is employed in basic technical maintenance; contribution of articles and all levels of editing are done only by volunteers. In order to contribute visitors can simply click Edit button, and their contributions will be “signed” by their IP address. Visitors can also register and create virtual identities, which do not have to correspond to the real ones. “After that, one can access information and privileges unavailable to non-registered users, usually referred to simply as guests” (Wikipedia, 2010b). Based in those principles, participation in Wikipedia is fully anonymous: even if someone decides to reveal their real identity, no-one can check its authenticity. However, only registered users enter various statistics provided by Wikipedia: for this reason, all statistical data in this paper are based on registered users.

Wikipedia organization is linear: each contributor has equal rights to create and edit all pages. All articles, including rules of contributing and conduct, are constructed by the mutual agreement of all interested peers; the same goes for promotions of individuals to higher positions such as editors and administrators.

The process of contributing to Wikipedia is essentially the following: A contributor chooses the topic of interest, creates a new page, provides a relevant title and writes an entry. Entitling, writing style, linking to other categories and all other activities are subject to strict rules; immediately upon saving, the page and the history of all changes become visible to any Wikipedia visitor. Upon reading the article, another contributor may object that the topic is un-encyclopaedic or irrelevant; in such case, he or she can propose its deletion. An article concerning a relevant topic may contain wrong, incomplete or poorly structured information.

In this case, any contributor can change or reformulate the entry; immediately upon saving any changes, the improved version becomes visible to everyone. A contributor may also put a remark about an article on the top of the page, inviting other contributors

the topic which, in some cases, might directly oppose student’s opinion or the desired course of studies. Wikipedia, in contrast, is based on free and consensual collaboration between peers. The only authority a contributor can have is the power of arguments: hidden by nick-names or IP addresses, opponents in discussions can be anyone from manual workers to distinguished academics.

The second difference is the number of people potentially involved. In the academic setting, a student typically has one or two supervisors; in Wikipedia, however, any page of average interest is edited by more than five people (Wikipedia, 2010b).

The third difference is that academic work has its end product – the dissertation – while Wikipedia entries are never complete.

Wikipedia contributors do not get any external reward for their engagement. Academic students, in contrast, are strongly extrinsically motivated for obtaining a degree. Together with differences between student-supervisor academic work and collaboration between Wikipedians, this makes a profound impact to the natures of engagements in those processes. However, they share the basic work pattern: for the same reasons why writing an academic paper is education, contributing to Wikipedia is essentially an educational process. By opening opportunities for open, ludic, self-directed study, liberation of technology becomes dialectically intertwined with pedagogy for liberation.

THEORY AND PRAXIS

Engagement in Wikipedia is essentially educational. In order to decide whether it is anarchist, the first step is to compare their visions. As can easily be understood both from its technical and organizational features, each act of contributing to Wikipedia is a good example of the first vision of anarchist education: liberty, equality, and fraternity. Liberty, for participation is completely voluntary; equality, for its linear organization and consensual decision mak-

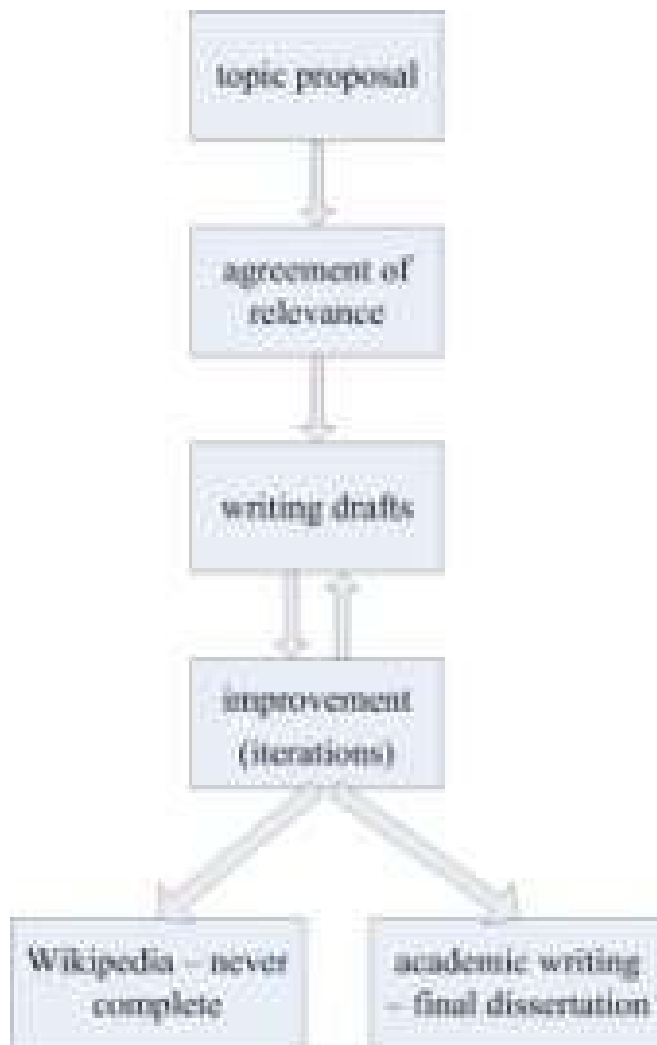


Figure 1: Work pattern of writing an academic dissertation and contributing to Wikipedia.

to help improving the article or calling for discussion about any of its aspects. Both the original and succeeding contributors check the new version and add further improvements through multiple iterations.

An article is work in progress for as long as contributors are interested in working on its content. In a case of dispute between contributors about any element of the article or its deletion, all contributors discuss the issue and consensually make a final decision. The Wikipedia interface is simple and intuitive. Its use requires only very basic ICT skills; in this way, contributing to Wikipedia is available to almost anyone connected to the Internet.

In control of all aspects of their engagements, contributors to Wikipedia are active masters of the medium. In this way, Wikipedia embodies the prophetic McLuhan's assertion from pre-Internet era that "the user is the content" (in Levinson, 2001 p.39).

The average rate of Wikipedia growth depends on size of a Wikipedia: the larger a Wikipedia is the faster it grows (Almeida, Mozafari and Cho, 2004 p.2). Wikipedia is based on the limited source of human knowledge, hence its growth will eventually have to cease; however, it shows no signs of slowing anytime soon.

As of 15th April 2010, Wikipedia has entries in 272 languages (2010d). The English-language Wikipedia is by far the largest of all: in order to obtain the biggest possible statistical sample, it was chosen as the case for this study. Based on analysis of Wikipedias in various languages in terms of complex networks, "it is very likely that the growth process of Wikipedias is universal" (Zlatic, Bozicevic, Stefancic and Domazet, 2006 p.9); for this reason, conclusions about its growth can be rather confidently applied at least to languages of similar size.

One of the most important educational aspects of Wikipedia is "whether the success of Wikipedia results from a "wisdom of crowds" type of effect in which a large number of people

each make a small number of edits, or whether it is driven by a core group of 'elite' users who do the lion's share of the work". Extensive research using several kinds of measurements and numerous languages showed that the biggest initial contributions were driven by 'elite' users, while the growth of Wikipedia soon resulted in a "dramatic shift in workload to the 'common' user" (Kittur, Chi, Pendleton, Suh, and Mytkowicz, 2007 p.1). Such trends fit well to diffusion of innovations theory (Rogers, 2003). As any other new innovation or idea, contributing to Wikipedia was first accepted by small groups of innovators and early adopters; few years after its foundation, contributing to Wikipedia is somewhere in the stage of early majority. Diffusion of innovations theory is based on Bell curve mathematic division. It is hard to determine the exact present position of Wikipedia in the curve; however, Rogers' theory predicts inevitable shift to common users or democratisation of participation in Wikipedia.

Contemporary Wikipedia is mostly edited by common people; nevertheless, Giles' famous research shows that "Wikipedia approaches Encyclopaedia Britannica in terms of the accuracy of its science entries" (2005 p.1). The Britannica's immediate counter-research responded that "almost everything about the journal's investigation, from the criteria for identifying inaccuracies to the discrepancy between the article text and its headline, was wrong and misleading" (Encyclopædia Britannica, 2006). However, the majority of independent researchers agree that "Wikipedia is not Britannica – but it's close" (Lamb, 2006 p.1). Accuracy is one of the main issues in Wikipedia studies. Apart from usability as an academic source, it implies the practical success of the philosophy it is built on. In the long run, the success of free, egalitarian Wikipedia in terms of accuracy would make paid, authoritarian Britannica idle: effects of this process would certainly strongly reflect to the whole academic community and beyond.

Early researchers of Wikipedia editing policy were extensively concerned with the problem of vandalism, i.e. purposeful deleting

or altering the entries with false statements. However, the majority of such research proves that "the site is subject to frequent vandalism and inaccuracy, just as sceptics might suspect—but the active Wikipedia community rapidly and effectively repairs most damage" (Viégas, Wattenberg and Kushal, 2004 p.575). Moreover, the researchers found that most vandalism in Wikipedia is removed within five minutes.

Created and maintained as an online encyclopaedia, Wikipedia wasn't intended to be a tool for instruction. However, the described editing process seems to have interesting parallels with, for instance, student-supervisor work on a dissertation. In order to compare those two processes, let us briefly analyse the process of developing a dissertation at almost any western university. In the beginning, student approaches the potential tutor and requests supervision.

Upon the supervisor's acceptance, they start discussing the topic in terms of relevance and structure; the first outcome of these discussions is the dissertation proposal, which is sent to an academic body such as the Board of Examiners for approval. Upon acceptance of the proposal, student starts the research process. Following the supervisor's guidance, he or she writes several drafts which are read and discussed with the supervisor; through multiple iterations, the both student and supervisor improve the research until it becomes ready for submission.

The comparison between writing a dissertation and editing Wikipedia shows that those two processes follow essentially the same work pattern (Figure 1). However, there are three main differences between student-supervisor academic work and collaboration between Wikipedians.

The first difference lies in the relationship between the involved parties. In an academic environment, the educational process is based on teacher's authority coming from his or her position in the system. Exercising this authority, the academic supervisor has the power to insist on an element of dissertation or relevance of