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CHAPTER 17 Learning Democracy by Doing Wikiversity

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Abstract

Wikilearning is self-organized and self-determined by nature and has a simple common goal — editing a wiki page. It enables and leans on voluntary participation, altruistic sharing of ideas and resources, and anonymous collectivism. At best it exceeds the orthodox boundaries of formal schooling and other exclusive practices of education, and contains an ideological and political message. It highlights people's knowledge, and aims to promote a world in which knowledge production is democratic and equal among all peoples. In this chapter we analyze our experiments with wikilearning both in Finnish upper comprehensive school and at the university. We conclude that wikilearning is among the components of any reinterpretation of what it means to educate new generations into democracy 2.0. Because of its collaborative style of knowing, wikilearning belongs to the toolbox of teaching and learning in developing and nurturing democratic minds and democratic collectives both inside and outside the classroom.

Keywords: wikilearning, democracy 2.0, collaborative learning, open education, Finnish schooling, participation, school education

Introduction

An ordinary day in an ordinary Finnish upper comprehensive school.¹ A literature and language teacher is walking in the classroom among her 14–15-year-old students who, in front of their laptops, are concentrating on their individual projects on the Internet writing and editing their own Wikiversity pages. From time to time they search information from the Internet and their reference books. Where one student has chosen an international consumer product as her topic, the other is a fan of ice hockey and has decided to make a project on a Russian born NHL-star. Another day, another place: a group of university students with their laptops and smartphones are working on their

Wikiversity pages on such themes as media education and adbusting. The school kids continued their Wikiversity projects at home and university students in their dormitories and apartments; some of the former ones showed their digital creations to their caregivers and even shared their URLs with their peers in their smartphones.

Wikilearning refers to learning activities people undertake *together* on the Internet where they not only share their ideas, information and opinions, but also cooperate, create and evaluate things with each other. Researchers, educators, teachers, and other cultural workers in various educational institutions, formal, non-formal and informal, are building wikis and forming alliances globally with their peers and likeminded people.

Wikilearning is self-organized and self-determined by nature, and has a simple common goal — editing a wiki page. It enables and leans on voluntary participation, altruistic sharing of ideas and resources, and anonymous collectivism. At best it exceeds the orthodox boundaries of formal schooling and other exclusive practices of education, and contains an ideological and political message: It highlights people's knowledge, and aims to promote a world in which knowledge production is democratic and equal among all peoples. Simply put, in formal educational settings wikilearning practices are small-scale exercises on democracy 2.0 and as such they can add multiple voices and perspectives to the formal curriculum.

We have been applying these core ideas of wikilearning for several years in our teaching in Finland both in upper comprehensive school and at the university by using (Finnish language) Wikiversity as our teaching and learning platform. In the university, the teaching experiments started in 2008, and in upper comprehensive school in 2012. Some 600 students have participated in the university program in 2008–2015, and 200 students in the upper comprehensive school program since 2012.²

In this chapter we want to connect to and further "a critical approach to the study of educational technology" that "attempts to produce analyses that highlight the practices, processes and liminal spaces in educational settings where technology use can be challenged and reconfigured along more equitable and empowering lines" (Selwyn, 2010, p. 71). The first step in this analysis is to identify those resources of the Internet that utilize the non-commercial FLOSS (Free/Libre Open Source Software) principle and are compatible with educational use. Among them is Wikiversity, an open source, open access wiki-platform on the Internet with tens of thousands of learning resources in multiple languages (in January 2019 there is over 26,000 learning resources in English language Wikiversity). In our analyses we were not interested in measuring our students' cognitive learning outcomes, but to provide them a collective experience of studying in a non-textbook mode. At the same time we were interested in developing and documenting our teaching practices in the use of Wikiversity in two different educational settings.

In what follows we describe the main principles of wikilearning by relating them to the following question: How do we apply wikilearning with our students in order to strengthen our common sense of democratic agency in collaborative knowledge creation? We then elucidate two case studies, the Finnish upper comprehensive school and the university. We conclude with analyzing our cases in reference to the tenets of wikilearning as integral parts of the present day media literacy and the ideals of democratic media.

Wikilearning

Wikilearning exists in what has been labeled as the Wikiworld. As Suoranta and Vadén (2010) have noted, Wikiworld refers "to both the technical and the social spheres of the Internet; more specifically to those social formations and political struggles, can be enforced by the possibilities of the Net" (p. 2). The Wikiworld is part of people's participatory culture, civic engagement and activism, which support "easy access for creating and sharing one's outputs with others, peer-to-peer relations and informal mentorship, as well as new forms of socialization, social connections, collectivism and solidarity" (Suoranta & Vadén, 2010, p. 2).

Wikilearning is a self-directed form of learning taking place in the open spaces of Internet such as Wikipedia and Wikiversity or their sister projects such as Wikibooks, Wikinews, Wikispecies or Wikidata. Wikilearning consists of 1) learning tasks which are created and decided by the participants themselves, 2) the active information search by the participants and 3) the teacher's role as a facilitator who is not controlling the learning episodes but mentors them and is reachable in need (see also Struyven, Dochy & Janssens, 2010, 44). Wikilearning occurs when people learn together on the Internet, more specifically, when they share their ideas, information and opinions, and cooperate, create and evaluate things with each other in the wiki platform. In this way they are part of informal digital networks and 'invisible colleges' outside the closed educational system. (Suoranta & Vadén, 2010, p. 2–3.)

Wikilearning belongs to the group of learning theories which emphasize learners agency, that is, their autonomy and control of learning as well as their collaboration and dialogue – even with those who live and work in other locations, but have an access to the Internet and Wikiversity. Wikilearning shares the basic assumptions of social learning theory and problem-posing education: students are conscious, social beings who produce meaning and know things by actively engaging and participating in the world (Freire, 2005, p. 79–80; Wenger, 2009, p. 210).

Wikilearning also belongs to 'abundance theories of learning' consisting of the following characteristics (see Weller, 2011, p. 6): Content is free, abundant and user generated; sharing of the content is relatively easy (wikis, social bookmarking, tagging and linking); organizing learning is informal and relatively cheap; learning itself is generative and relatively free from the constraints of the structures of formal learning.³ The innovation represented by wikilearning is that the outcome of a shared production of knowledge that has a material existence as text promotes further learning beyond that which emerges from its production.

Wikilearning is not based on individual information processing alone, but cooperative learning and knowledge creation. In wikilearning it is not necessary to interact face-to-face. It is not even necessary to be familiar with your learning partners. The most important thing is a common and shared learning objective, a common interest to know more about something that interests all partners. This is the way Wikipedia and its sister projects work as anonymous people work in and with them. They all allow people to write and edit texts together. For instance in Wikipedia, the most famous project of them all, someone first creates an entry (e.g. about learning theories), and then others continue the work by expanding and improving it by adding information and references or editing the text. They also discuss and dispute about the topic in the entry's discussion page. As we argue and want to demonstrate in what follows, wikilearning can also be applied in the classroom settings especially when the goal is to try to develop the students ownership of learning.

In wikilearning it is not necessary, or even possible, to make a distinction between the knowing and the ignorant subjects because everyone participating is by definition a knowing subject and doing her best according to her own abilities. Likewise the distinction between teaching and learning becomes obsolete, since essential in wikilearning is a shared learning task. As we demonstrate in what follows the characteristics of wikilearning can be seen as seeds of democratic citizenship in that as a practice wikilearning creates the possibilities for a democratic citizenship. Thus, we define and defend wikilearning as a tool for the shaping of collaborative learning situations, which in turn contain the elementary particles of a democratic mindset.

In this respect, we connect wikilearning with pragmatism, and walk in the footsteps of John Dewey and his idea of the Laboratory School (see Mayhem & Edwards, 1936). We believe, as he did, that learning is a by-product of activity and experience (Menand, 2001, p. 322). Wikilearning is first and foremost active doing with the wiki-page: how to set up a wiki-page, write and edit it, and learning the contents in the process. Thus, wikilearning is instrumental and functional for coping with the reality in "the process of making our way as best as we can in a universe shot through with contingency" (p. 360). In this process the function of wikilearning has been to assist our students to live in and cope with digital realities, to motivate their learning and to make their lives in and outside the school more meaningful.

Wikilearning and the use of wiki-technology open up classrooms into the world of collective learning. In this respect we think as Gergen (2009) that "the primary aim of education is to enhance the potentials for participating in relational processes—from the local to the global," and that "the classroom would ideally be a meeting ground for the concerns of the world" (p. 243, italics in original). The basic premises of traditional school learning and wikilearning can be compared in the form of emerging typology as in the Table 1, which we will use in analyzing our two cases in what follows.

Table 1. Comparing Wikilearning and School Learning (Suoranta & Vadén, 2012, p. 105; cf. Resnick 1987)

Wikilearning	School Learning
IKadical openness and 'disorganization' of	Politically and economically regulated school learning with top-down, ready-made curriculum
Voluntary participation	Compulsory participation
Radical inclusiveness	Economically and culturally determined exclusiveness
Peer-to-peer (p-2-p) -interaction	Teacher- and tutor directiveness
Reflective uncertainty	Unreflective certainty
Evaluation and synthetization	Listening and (rote-)memorizing
Cooperation and sharing	Evaluation of individual achievements
People's collective intelligence, knowledge as an aggregation	Schooled elite's expert knowledge, knowledge as a body of learning
Problem-based learning	Subject-based learning
Folksonomy	Taxonomy
Local, contextual ad hoc-learning	Predestined learning goals and achievements
Radical equality	Equal opportunities

Wikiversity is a multilingual, easy to use platform for the free-content projects on the Internet, in which everyone can participate as users, editors or content providers. It is a pedagogical platform, a teaching and learning tool. At the moment Wikiversity exists in eight languages with over 1000 pages, the German Wikiversity being the largest. We have applied Wikiversity in upper comprehensive school and university classrooms aiming at teaching our students to participate in digital knowledge creation—and to have progressive experiences of the possibilities of the Internet, in our case Wikiversity, that would exceed their oft-regressive pleasure principle (*Lustprinzip*) in using social media. In other words we have used Wikiversity for pedagogical purposes in the digital environment students are familiar with in two different educational settings to strengthen their sense of being part of collective knowledge construction and meaning making as basic ingredients of all democratic engagement.

Case Studies

Language and Literature Class in the Finnish Upper Comprehensive School

In this chapter we describe the use of Wikiversity in the Finnish upper comprehensive school. The main goal was to teach the students what a wiki is and how to use Wikiversity. The students were assigned to write a Wikiversity article on the topic of their own choosing. The students chose their topics from their lifeworlds and interests such as NHL-stars, horses, football players, sleeping, music, child soldiers,

animal rights, energy drinks, and street dance.4

The project was started in the spring term of 2012, and it has been conducted every year since then (and is planned to be carried out in the coming school years too). The participants were eighth-graders (13–14 years of age). The project lasted three weeks, and included eight 45-minute lessons in total. We planned the project together, and analyzed the students' Wikiversity pages afterwards. The lessons were documented by the teacher: she took field notes and gathered feedback from the project.

The starting point of the class was problem-based: the teacher asked the students to familiarize themselves with Wikiversity as a group work. What is it, and how can it be used in language and literature class? In addition the students generated suggestions what to do with Wikiversity and provided the same idea as the teacher has planned, that is, that Wikiversity could be a place for writing articles. They noticed that technically Wikiversity is exactly the same as Wikipedia. Students said that they are aware that Wikipedia is a free encyclopedia and that everyone can contribute to it, but at the same time they did not seem to think that this 'everyone' includes them as well. During the project they not only realized that after all they were part of 'everyone' but also acquired practical skills to use Wikiversity, Wikipedia and their sister projects.

The students expressed as their own learning experience that studying with and in Wikiversity was not only about 'knowing that' but also 'knowing how', that is, they felt that they learnt both new knowledge about Wikiversity and their topics, and skills to use wikis. As one student put it: "The best part of the project was to learn how to use Wikiversity." We believe that this know-how is important in enhancing their possibilities for democratic sentiment in general.

In the second class, the teacher posed a question for the discussion, how the students could use their personal experiences and knowledge in nonfiction, and the students began to study the main characteristics of nonfiction. In addition they created the main page for their Wikiversity project with the teacher. The main page included a short introduction to a nonfiction article as a textual genre and the links to the students' own, still stub Wikiversity articles. As homework they were asked to decide their individual topics and create their usernames to Wikiversity.

In the following classes, the students began to search the Internet for information about their topics to write their articles. In the class the students practice the evaluation of reliable sources. The writing process took two classes, and many of the students continued writing also at home. Working in front of their laptops they occasionally chatted with their peers. The students searched for Internet sources and utilized the digital database of the municipal library. As a sign of voluntary participation which breaks the textbook tradition of schooling (see Table 1) some of them went to the school or municipal library to find book references.

The teacher followed the students work from the background occasionally guiding them about the formatting styles of nonfiction such as paragraphing and subheadings as they were creating independently their wikipages in Wikiversity from the topic of their own choosing. Together with the teacher they had familiarized

themselves with the Wikiversity, but now they were on their own, the teacher was not interfering, but acting only as a resource person in the classroom. The students common opinion was that they enjoyed the possibility of writing freely about their own topics of interests.

In the second half of the project the students started to practice 'wiki writing,' that is, they began to convert their texts to wiki form: adding titles and the table of contents as well as tables, pictures and links. The teacher raised copyright issues and the instructions for using pictures were added to the main page for all to remember. The students learnt that Wikipedia and Wikimedia Commons contain a lot of copyleft photos, charts and pictures that can be used in their works without permissions. As they used the vast visual resources of Wikipedia and Wikimedia Commons the copyright issues were also talked about. Some of the students took their own photographs and uploaded them first to Wikimedia Commons⁵ and then linked them to their Wikiversity pages. These Wikiversity pages were literally self-made. The students were also forced to ponder the fact that their uploaded pictures were in the public domain and thus available for all. As their homework, students put the final touches to their articles.

In shifting from the 'content production phase' to the use of digital platform on the Internet the nature of their work changed from individual to collective. In practice this 'collective mode of learning' was shown as follows. First the teacher demonstrated a student how to add a picture to the wikipage and then the student taught it to her peer. This was carried on from student to student as a 'snowball effect,' or as in p-2-p interaction (see Table 1), and eventually all the students knew how to add pictures to their wikipages. They had developed together their expertise on the wiki practice.

In one class when the teacher was in a sick leave, and was replaced by a wikiilliterate substitute, the students taught themselves by using Wikipedia how to add a
picture to the Wikiversity page. In the 'collective mode of learning' the teacher's role
is to step back and encourage students' cooperation and sharing, and also their selfgovernment in the classroom. When a student came to ask an advice, the teacher often
replied "I don't know but why don't you try" — echoing Jacques Rancière's (1991)
provocative suggestion in his *The Ignorant Schoolmaster* to teach what you don't know.
In this respect the teacher was following Rancière's (1991) idea that "explaining
something to someone is first of all to show him he cannot understand it by himself"
(p. 6).

"He does not teach his pupils *his* knowledge, but orders them to venture into the forest of things and signs, to say what they have seen and what they think of what they have seen, to verify it and have it verified." (Rancière, 2009, p. 11.)

In the final classes, the teacher reminded the students what they should keep in mind when revising the texts. The students peer reviewed someone else's article as pairs and made suggestions for improvements. They also held a mini-conference in which they read their classmates' articles and wrote their comments to the individual discussion pages of the Wikiversity articles. The students enjoyed the final phase a lot in that they could read and hear what their peers had done and achieved. However, their comments on the discussion pages of the other students were quite brief if not humoristic or altogether laconic. Some of their comments are as follows:

"Accurate information, but too accurate." "Thank you for the review, I am just planning to buy a moped." "Nice to read that you have learnt something in the chemistry class – that alcohol contains ethanol." "League of Legends is better because it is so lol." "Although short, all the necessary information was included. I got interested in this band." "I became hungry."

In the end, the teacher asked for written feedback of the project. In it the students emphasized that "in the use of Wikiversity it is fun that someone else might read my text." We interpreted this at least as a 'weak signal' of an important realization from students' side that their work in the classroom can be connected to the outer world and that their school work can have value to someone else. To us the project marked a viable means to develop a relationally rich pedagogy (see also Gergen, 2009, p. 267).

Media Education and New Literacies Course in the University

During the several years the course Media Education and New Literacies had followed pretty much the same pattern. In the first class the teachers introduced Wikiversity, the timetable and the basic idea and aim of the course as a student-directed class based on students' self-organized group work. Besides the introduction lecture, the course consisted of 20 hours of independent group work and the final conference in which the students presented their projects.

The aim of the course is that the students learn the basics of wiki work and Wikiversity and to discover the possibilities of utilizing wikis in their own course work and in their work life. Thus in the first class the students decided their topics, registered to Wikiversity and set up their own Wikiversity pages for the group. In the first couple of years the teachers arranged brief hands-on introductions to the use of Wikiversity. As students have become more wiki-savvy over the years (apparently without formal teaching), there has been no need for these how-to-do a wiki sessions anymore.

The teachers' initial idea was to stay true to the ideal typology of wikilearning and to create as free a learning environment as possible in the university's formal educational setting. By giving the students freedom to choose their peers, topics and timetables in the course's framework, the teachers wished to simulate authentic wikilearning in which there is no curriculum, but only the learning subjects sharing their interests in and outside the classroom.

The course and its study requirements changed over the years. In the first years, the teachers were not the captains of their ship, but let the students find their own paths in their self-organized groups. After the first four years the teachers added more study options such as their prerecorded video lectures and articles as PDFs and linked them

to the course's Wikiversity main page. The reason was that adult students could not participate to the daytime group work with their younger peers because of their work and family duties. Thus the course inside the course was created in the form of seven learning modules. These ready-made modules somewhat reduced the course's idea of 'freedom to learn and invent,' and increased its formal character.

The students' group work can be classified into three categories. One part of the group works has been 'practice-oriented.' The students have innovated socially useful social media such as blogs for parents who need peer support, or campus maps for the freshmen. The second part of the group works has been 'wiki-oriented.' In these groups the students have written Wikiversity pages on a variety of topics related to the course's core themes such as media education, copyright issues, adbusting, culture jamming, lying press (nowadays the term is 'fake news'), flipped classroom and many others. The third part of the group works has been 'technology-oriented.' In these groups the students have been interested in experimenting with specific digital technologies on the Internet, game playing or the uses of 3D-glasses. One student even studied the Media Education and New Literacies course by enrolling in a Stanford University MOOC course "Designing a new learning environment" (https://dnle.stanford.edu/). In their study groups they realized that 1) they are not blank sheets of paper but had some valuable experiences to share with each other in their self-regulated, open-ended projects, 2) they could actually teach each other, and that 3) they instructors could have some suggestions but neither correct nor final answers to their questions.

Over the years the group works have been accumulated into a large open access repository of various concepts, ideas and practices available for all to use and develop further. Some of them have been incorporated into Wikipedia. Our students have not only learnt what a wiki and Wikiversity are and how to use them, but also something much more useful: the power of collaboration and sharing as bedrocks of authentic democracy in and out of the Internet. These student created resources are part of the larger world of learning and they stay there as long as Wikiversity itself. In addition all the information in Wikiversity is free and open access so that it can be used for whatever purposes in other learning settings and circumstances.

Analyzing the Cases

In analyzing both cases in light of the above-mentioned typology in Table 1 it is evident that the ideals of wikilearning were at least partly met in the teaching experiments. The project in the Language and Literature Class in upper comprehensive school was implemented under the politically and economically regulated top-down national core curriculum of the Finnish schooling system. The Finnish schooling system has been praised after the first PISA results in 2001 (see Sahlberg, 2015; Simola, Kauko, Varjo, Kalalahti, & Sahlström, 2017). Although successful in international comparisons, in Finland the globally advanced schooling system has been under the criticism of being too teacher-centered, textbook-oriented and pedagogically traditional resulting in, e.g., to a poor school motivation. In the recent national curriculum reform

conducted by the Finnish National Agency for Education and implemented in all schools from August 2016 these criticisms were taken into account. As stated in the National Core Curriculum for Basic Education⁶:

"Some of the key goals of the reform include enhancing pupil participation, increasing the meaningfulness of study and making it possible for each and every pupil to experience success. (...) The pupils' experiences, feelings, areas of interest and interaction with others lay the foundation for learning. (...) The teacher's task is to instruct and guide the pupils into becoming lifelong learners." (The New Curricula in a Nutshell, 2016.)

The Wikiversity project fulfilled some of the aims of the national school reform such as enhancing student participation and the meaningfulness of school work as well as providing them an opportunity to bring their own experiences and topics of interests into the classroom. Although the project was a compulsory part of the ordinary routine of the school day and thus directed and evaluated by the teacher, it shared some of the characteristics of wikilearning. It was problem-based in that it posed a genuine problem to solve: How to set up and edit a wiki-page in Wikiversity? It was also based on the students' own experiences and their objects of interest, and utilized their peer-to-peer-interaction, collective intelligence and cooperation. And, as we believe, it produced what Suoranta and Vadén (2012) have termed as reflective uncertainty:

Wiki information should not be taken for granted, because wikis are editable and the current edit may be erroneous if not outright malicious. However, the history of edits can, at least in principle, be traced back to the beginning. (...) [E]dit and history buttons potentially increase learners' skills in critical media literacy in comparison to textbooks' qualities to augment unreflective certainty. Gradually, by using wiki type pages, users learn to mentally expect and anticipate the structures of editability and genealogy also on other pages, including those of books. (p. 107)

In their feedback of the project, the students in upper comprehensive school appreciated that they were allowed to use computers, search information from the Internet, create their own Wikiversity pages and write Wikiversity articles from start to finish. They preferred the Internet to writing the articles to their notebooks and said that they could use their skills not only in writing but also in editing the page and adding pictures. Few students found the use of the computer and the Internet difficult because of deficiencies in their individual literacy and basic computer skills whereas others found them easy because they were media savvy with good computer skills. This highlights the fact that even in Finland, a technologically advanced country with a high ICT and Internet penetration, there still are digital divides among the students founded, at least partly, on differences in their economic background. However, in the big picture

all the students were digital natives immersed into digital world with their personal devices (see Peck et al. 2015).

The students were also fascinated by the fact that their own pages could be read by anyone anywhere. The students suggested that Wikiversity could be used in other writing assignments, papers, and talks in other school subjects as well. Their peers in their and other schools could read their articles and use them as learning materials. "It is cool that my own school assignment is on the Internet," as one student put it. The latter matter is something we find inspirational and quite unique in the project. It is what Jerome Bruner (1996) has described as the externalization of learning. Using Bruner's concepts we are inclined to think that the students' Wikiversity pages are "works" (*oeuvres*), that is, externalized products of the students' cultural activity created in the living context of the schoolroom (p. 22).

From the teacher's point of view it is noteworthy that the teacher spoke less and had more dialogue with the students than in ordinary class. In addition the Wikiversity classroom contained more student-to-student interaction than the usual classroom. The students also taught each other, and thus the use of Wikiversity promotes "a sense of the division of labor that goes into producing a product: Todd is our real computer wonk, Jeff's terrific at making graphics" (Bruner, 1996, p. 23). In the upper comprehensive school experiment a student demonstrated how to add a table to the Wikiversity page and another how to make a subheading. These are representations of students' cultural activities, which nurture mutual discussions and collective responsibility of learning. What was started at school could easily be continued at home.

What about the university course then? Over the years the students have been keen on studying the course if not for anything else than to have a break from their preorganized and tightly scheduled milieu of the current diploma mill. Some of the students have entered the university as already domesticated, almost as mentally paralyzed. In this situation they do not need any 'zombie pedagogy,' but as authentic freedom to learn as possible in the formal structures and constrains of the university—a wake up call for a free invention and collective reasoning. Zombie pedagogy resembles the Freirean idea of the 'culture of silence' that must be transcend by naming it anew in order to transform the world. As Freire (2005) puts it:

"Human existence cannot be silent, nor can it be nourished by false words, but only by true words, with which men and women transform the world. To exist, humanly, is to *name* the world, to change it. Once named, the world in its turn reappears to the namers as a problem and requires of them a new *naming*. Human beings are not built in silence, but in word, in work, in action-reflection. But while to say the true word—which is work, which is praxis—is to transform the world, saying that word is not the privilege of some few persons, but the right of everyone. Consequently, no one can say a true word alone." (p. 88. Italics in original)

In their course the teachers did not collect formal course assessments to evaluate the successes and failures but in the final conference the students expressed their satisfaction for the organization of their learning in a wiki-way.

The students in the university as well as in the upper comprehensive school have learned to use wikis. At the same time they have built their digital agency. In addition they have became aware of the wiki-ideology, that is, the power of collaboration and sharing in the open source environments of learning. By using Wikiversity they are potentially a part of the worldwide community of learners. The teachers of the course believed, in Gergen's words, that a "classroom should give voice to the webs of relationship in which students and teachers are engaged" (Gergen, 2009, p. 243). Those students who studied in the teacher education programs or were already teachers themselves realized that they could utilize Wikiversity in their own classrooms. Especially those who studied the course as part of their work and family life expressed their gratitude in that they could meet their peers in their group's Wikiversity page and read the texts online without travelling after work to the university. It goes without saying that some of the students would have wanted and perhaps needed more tutelage and traditional teacher-oriented pedagogy.

Conclusion

Although every student had used digital apparatuses such as their smartphones, tablets and computers as part of their daily life, and practically everyone in our both cases knew Wikipedia and had read it (but had not usually edited it), Wikiversity was practically new to all. In this respect they were "digitally disconnected" (see Selwyn, 2006) from the educational FLOSS culture of the Internet and the Open Educational Resources (OE) movement in which teachers and students from all walks of life join forces to develop digital learning resources to facilitate learning inside and outside schooling (see Brons, 2017).

Studying in Wikiversity seems to be valuable when the emphasis is on learner-driven pedagogies, beyond-the-campus learning, and students' self-organizing groups (see also Dron & Anderson, 2014, p. 277), or such Deweyan flavored innovations as flipped classroom. In other words when a teacher tries not to control the classroom activities but to guide the students to find their agency of learning, their own interests and passions, and the world outside classroom.

A pedagogical practice is always a political commitment for a certain worldview. If a teacher teaches alone, using teacher-oriented top—down pedagogical models, she represents and constructs, knowingly or not, a pedagogical ethos that emphasizes individual assessment, comparison and academic success. But if she decides to let her students share their achievements and help each other, she sends a powerful message for the solidarity of learning and democratic thinking and acting in the society. As Freire (2005) states:

"Through dialogue, the teacher-of-the-students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow." (p. 80.)

In advancing the democratic learning opportunities, studying and learning should be arranged as free as possible, also free from time and space as in blended learning. Teachers should encourage students to self-organize their learning with those who are interested in collaborating with them inside or outside educational institutions. Study materials should be available to all in public digital repositories and the access to them should be open to all. Learning ought to be defined as a phenomenon not restricted to schooling but covering all aspects of life. At best learning should be defined as self-directed, group-oriented, experiential, insightful, and internally motivated cultural activity. It should provoke the feeling of "I can and we can together," for as Hardt and Negri (2012) put it,

"[n]o one can study for you, and the power to think is always already within you. Your intelligence needs to be cultivated. Self-education, of course, doesn't mean getting rid of teachers or tearing down the schools. It means instead that these relationships and institutions have to be oriented toward creating environments conducive to study. The greatest gift a teacher can give is the recognition that each student has the power to think and the desire to use that intelligence to study." (p. 75–76.)

Formal teaching should be based on collaborative planning of courses and contents; in other words, no teacher and no student should be left alone. Democratic nation states should not join forces with capitalist corporations, as they do at the moment through deregulation and privatization of public services (see Sipilä, Anttonen, & Kröger, 2009), but civil society and its many non-profit educational endeavors and projects. Free and public education should be organized as an instance "of open access to the common, including information, knowledge, tools of study, and so forth, free from financial obstacles as well as those of dogmatism and censorship" (Hardt & Negri, 2012, p. 76).

Finnish sociologists of education have claimed that despite the digital revolution (that is, vast possibilities of informal learning outside school strengthened by the consumer and social media) successful learning at school still requires "some kind of teacher authority and some kind of structured teaching" – although they do not answer the fundamental question, why (Simola et al., 2017, p. 120, italics in original). Putting the why-question aside, as crucial as it is, we would like to suggest that wikilearning could be one of the bridges over the troubled waters between informal learning outside schools and formal school learning. It reinvents the teacher's authority "on the side of

freedom" (Freire, 2005, p. 80, italics in original) and the structure of teaching emphasizing collaboration in the classroom and thereby creating space for the students' experiences, motivations and informal structures of learning via the use of digital technology.

Schools and teachers in Finland are taking only the first steps in inventing the possibilities of collaborative learning methods in the digital realm. They are guided by the National Core Curriculum (2016) which encourages them to use and develop new digital learning environments. The traditional teacher-directed model of teaching needs to be supplemented by a more student-centered, egalitarian model applying the possibilities of wikis that, in turn, connect school's learning cultures from the microcosm of the classroom to the macrocosm of the society—and to the creation of both local and global democratic cultures.

Wikilearning fulfills the Deweyan maxim for learning: it is "a goal-directed activity, it is a social activity, and it is an activity continuous with life outside school" (Menand, 2001, p. 323). We do not suggest, however, that wikilearning is an allencompassing mode of learning, for teacher is still needed in the classroom as a mentor and coordinator of learning. But we do believe that it can be helpful in enhancing collaborative learning as a path to democratic and responsible learning practices.

In resolving the big problems of humanity (environmental problems, famine, wars and democracy) we need wikilearning as a collective tool in our toolkit and an open mode of learning and teaching. Digital communication and learning tools can be used to overcome the exploitative capitalist conditions of the current Internet and other realms of life, and to build an all-inclusive Internet. Instead of a teacher controlling the teaching of contents, we should change from 'the pedagogy of scarcity' to 'the pedagogy of abundance' (Weller 2011). The pedagogy of abundance is based on the fact that in the era of Web 2.0 demonstrates an unprecedented abundance of digital contents on the Internet.

We have (often free) access to journal articles, videos, podcasts, slidecasts and blog posts. And it is not only content that is accessible, but also discussion through forums, comments and blogs. In addition there is access to social networks of peers, experts and learners. The experts themselves may be more approachable, or there may be discussion around their content in dedicated forums. People may have shared annotated versions of their work, or associated reading lists through social bookmarking. (Weller, 2011, p. 9.)

This abundance of digital contents and discussions is the political economical reason for a progressive teacher to choose a non-profit, no advertising wiki platform such as Wikiversity in public education. As progressive teachers we should avoid the products of mammoth technology monopolies and use free/libre, open-source software (FLOSS) as much as possible especially in public educational institutions.

Wikilearning is among the components of any radical opposition and

reinterpretation of what it means to educate new generations into democratic practices desperately needed in the democracy-longing times of the Web 2.0. Because of its openness, collectiveness and collaborative style of knowing, wikilearning belongs to the toolbox of teaching and learning in developing and nurturing democratic minds and democratic collectives both inside and outside the classroom. To be critically aware of all the possibilities of horizontal communication and distributed learning in the digital networks we need more first-hand experiences of the use of these tools.

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¹ Upper comprehensive school is part of the Finnish basic education system (ages 7–16) consisting of grades 7–9 for ages 13–16 (see http://www.oph.fi/download/146428 Finnish Education in a Nutshell.pdf).

² Anna Renfors undertook the upper comprehensive school teaching experiments, and Juha Suoranta and Tere Vadén oversaw the university teaching experiments. We would like to thank Tere Vadén for his participation in the university teaching experiments as their creator and teacher.

³ These theories, maintaining learner-directness, self-organization of learning, collective learning, learning as sharing and beyond-the-campus learning, include such approaches and practices as collaborative learning (Bruffee, 1999), learning as dialogue (Freire, 2005), learning as radical equality (Suoranta, 2010), punk learning (Torres, 2012; Coles, 2014), connectivism (Siemens, 2005), students as producers (Neary & Winn, 2009), self-organized learning (Mitra, 2012), and do-it-yourself learning (Kamenetz, 2010).

⁴ The teacher used also another variation in which the goal was to teach the students what a wiki is and how to use Wikiversity, but also specific educational contents. In this 'content-directed' variation the teacher gave all the students the same topic in advance. Thus the emphasis in the second variation was more on the content than in the 'wiki-directed' variation. ⁵ Wikimedia Commons is a collection of tens of millions of media files to which anyone can contribute.

⁶ The core curriculum, a national regulation issued by the Finnish National Agency for Education, steers the provision of basic education and provides a common ground for the local curricula. In addition it aims to promote equality and equity in education and the rights of the pupils in Finland.

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