Deschooling Virtuality

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Abstract

This article explores contemporary potentials for Illich’s 1971 proposal to replace institutional schooling with non-institutional large-scale educational infrastructure, and shows that his visions of deschooling through technology could be embodied on the internet in the form of deschooling virtuality. This conclusion is methodologically restricted in three ways. First, the concept of deschooling heavily depends on one’s views to human nature. Second, deschooling society is dialectically intertwined with the concept of conviviality, while deschooling virtuality is based on non-convivial technologies which lead directly to radical monopoly. Third, even the most developed deschooling virtuality might never transform into deschooling society. Despite those restrictions, the article concludes that Illich’s deschooling has graduated from mere vision to the real opportunity. Realization of this opportunity will depend on future scientific and social developments and, ultimately, on collective human decision.

Keywords: Ivan Illich, deschooling, conviviality, virtuality, anarchism, hacker ethic

Introduction

Radical thinkers have always heavily despised schools. Schools have been accused—and completely rightfully—for many evils such as social reproduction, indoctrination, failing to respect individual needs of their patrons, stupefying … In order to fight against those evils, radical educators have developed an impressive body of alternatives ranging from historical non-institutionalized educational practices such as Tolstoy’s Yasnaya Polyana (Tolstoy, 1904) to contemporary examples such as Anarchist Free Skool (Shantz, 2012). However, while most historic alternatives have replaced institutionalized schools by less formal approaches, only the rare have dared to challenge the very essence of the concept of schooling.

Far on the fringes of educational praxis, much further than ‘regular’ radicals who oppose traditional schools because they inculcate wrong ideas or fail to respect pupils’ personality,
there is a small stream of educators who advocate complete abandonment of the concept of schooling. Those people agree that education is an intrinsic part of human nature: we all learn and unlearn from cradle to grave. However, they point out that schooling is an institutionalized process of meeting certain educational outcomes. They are not against education: they merely claim that the process of education is completely detached from the process of schooling, and that schools should be replaced in favour of more efficient educational processes. In the recent study, Joseph Todd describes the project of deschooling as follows: ‘Anarchists and deschoolers, as well as educational theorists, argue for the creation of networks, as opposed to institutions, that are temporary, autonomous, and non-hierarchical, and facilitate a variety of diverse models of learning and community interaction’ (Todd, 2012, p. 78).

Genesis of argument against schooling can be traced in several major works such as Everett Reimer’s School is Dead (1971), Paul Goodman’s Compulsory Miseducation (1973) and Matt Hern’s Deschooling our Lives (1998). Back in 1971, however, the small book called Deschooling Society provoked worldwide debates about the future of schooling and has placed Ivan Illich on the unofficial throne of the project of deschooling. Such positioning of Illich’s work has not arrived from thin air. According to Atasay, ‘what distinguishes Illich’s work from other critiques of industrial everyday life (...) is that Illich offers us alternatives, tools that can influence power and offer individuals and communal settings the potential for alternative vernacular practices to emerge in culture’ (2013, p. 58). In order to replace traditional schools, Illich proposes creating large scale non-institutional educational infrastructure which consists of a set of four interlocking educational networks: reference services to educational objects, skill exchanges, peer-matching and reference services to educators-at-large (Illich, 1971).

Based on this proposition, Hart concludes that ‘it is not too far-fetched to assert that Illich predicted the World Wide Web’ (2001, p. 72). A decade later, Jandrić asserts that his proposal of learning webs is ‘strikingly similar to the basic principles of Wikipedia’ (2010, p. 54). Inspired by those similarities, Jandrić and Boras (2012, pp. 72–74) have inquired deeper into contemporary information and communication technologies and shown that they provide adequate technical infrastructure for Illich’s educational networks. Joseph Todd (2012) explores Illich’s ideas in the context of contemporary anarchopedagogy and develops deschooling into unschooling. Shane J. Ralston analyses pre-publication networks: websites specifically designed for informal online dissemination of scholarly work (ideas, research proposals, abstracts and even full papers) prior to publishing with mainstream academic journals. Based on Illich’s concept of conviviality, he asserts that they might be ‘the perfect partners in a grassroots movement to deinstitutionalize e-learning’, and suggests that it might be useful ‘to spread the “gospel” of online pre-publication with the expectation of gradually overcoming top-down e-learning on the business model’ (Ralston, in press). Lydia Rose asserts that Illich’s conclusion that “the right to learn is curtailed by the obligation to attend school” is confounded with the means in which attending school has changed technologically with the advent of the internet and subversive epistemologies regarding time and space in learning environments’ (Rose, in press). Based on growing interest in the relationships between Illich’s ideas and contemporary information and communication technologies, it seems that the time for serious revisiting of his argument against schooling has finally arrived.
Why Deschooling?

Implicitly or explicitly, educators have always recognized their position in and against dominant social forces commonly described as Gramsci’s (1992) superstructures: political power relationships, institutions, culture and the state. At the one hand, education is supposed to liberate people from ignorance and poverty; at the other hand, educational ‘liberation’ is brought by middle-class teachers who, often unwillingly and/or unconsciously, inculcate dominant value systems and reproduce traditional social inequalities. This power dynamic creates a vicious circle on all levels of educational praxis, including but not limited to the nature of teacher employment. Working within the current educational systems, educators are intrinsic parts of educational Ideological State Apparatuses (Althusser, 2008) which contribute to increasing social inequality. (To make things worse, they are also blamed more than ever for any perceived shortcomings in ‘the system’. ) Those who resign might feel better with themselves, but the next person in line will step into their places and perpetuate the system. Adapted from collective work of the small group of British scholars called London Edinburgh Weekend Return Group (Mitchell et al., 1979), the concept in and against superstructures succinctly summarizes Illich’s argument against schooling. However, while the majority of radical educators seek solution in opposition from this unfavourable position (Mitchell et al., 1979), Illich asserts that all such attempts are deemed a failure and looks for radically different approaches.

Illich’s argument departs from his wide critique of institutionalization of the contemporary society. ‘Medical treatment is mistaken for health care, social work for the improvement of community life, police protection for safety, military poise for national security, the rat race for productive work’ (Illich, 1971, p. 3). Institutionalized society is dialectically intertwined with institutionalized education. ‘The pupil is thereby “schooled” to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new’ (Illich, 1971, p. 3). Institutionalized educational systems are necessarily dehumanized. Hence, institutionalized society reduces people to producers and consumers. In the context of learning it could be argued that this is not always bad, as a form of the relationship between producers and consumers naturally underpins learning (beyond schooling). What makes institutionalized educational systems dehumanized, however, are the static models of ‘delivering’ education and often perverse ways they feed into capital. Following the line of argument very similar to Frankfurt School critiques of technologies exposed in Herbert Marcuse’s One-dimensional man (1964) and Martin Heidegger’s ‘Only a God can save us’ interview (1981), Illich shows that stability of institutionalized society is based on constant economic growth. Deeply rooted in the spirit of 1960s and 1970s, he finally concludes that such a model inevitably leads towards ecological destruction of our planet.

Width and depth of Illich’s argument represent one of his biggest contributions to science and one of the biggest challenges for those who would like to understand his work. According to Kahn and Kellner,

One need not commit to Illich’s indictment of education, however, to realize that one of his enduring contributions is the manner in which he perceived the deep ideological relationships between modern institutions like schooling,
the church, factory production, medicine, the media and transportation systems as aspects of unchecked industrial society. (Kahn & Kellner, 2007, p. 438)

In the last chapter of Deschooling Society, former Jesuit Illich develops his ecological argument using the ancient myth of Prometheus and Epimetheus. ‘Prometheus is usually thought to mean “foresight” (…) He tricked the gods out of their monopoly of fire, taught men to use it in the forging of iron, became the god of technologists, and wound up in iron chains’ (Illich, 1971, pp. 48–49). Epimetheus is his exact opposite. He values hope above expectations, loves people more than products, and loves ‘the earth on which each can meet the other’ (Illich, 1971, p. 49). Promethean man is all around us: in industry, commerce, education. Even most humanistic radical educational politics, such as Freire’s, often reflect Promethean sentiment (Kahn & Kellner, 2007, pp. 437–438). Illich’s Epimethean politics, however, seeks exactly the opposite in ‘those who collaborate with their Promethean brother in the lighting of the fire and the shaping of iron, but who do so to enhance their ability to tend and care and wait upon the other’ (Illich, 1971, p. 49). Based on dichotomy between Promethean and Epimethean approaches, Illich develops profound critique of our technological society in his next book Tools for Conviviality (1973). Certainly, the two critiques are dialectically connected: non-institutional large-scale educational infrastructure to replace institutional schooling must necessarily be convivial.

**Deschooling in the Network Society**

In the recent book Critical e-learning: Struggle for Power and Meaning in the Network Society (2012), Jandrić and Boras have explored potentials of various communication technologies for Illich’s deschooling. Anchored deeply within their social habitus (Bourdieu, 2007), communication technologies have been classified along the lines of two distinct sociological concepts. Pre-digital technologies belong to what Jan van Dijk (1999) and Manuell Castells (2001) call the mass society, while digital technologies are linked to the so-called network society. To an extent, this distinction is not very precise: for instance, it implies that digital radio receiver still belongs to the mass society despite its microchip-based nature. However, it clearly reflects the conceptual framework of critical theory which sees technologies as inseparable from the spirit of the times (Feenberg, 2002).

According to van Dijk, ‘mass society is a term used for the type of society that developed during the industrial revolution when large concentrations of people came together in industrial towns and trading centres’ (1999, p. 23). Pre-digital media of the mass society, such as radio and television, consist of one-way communication between centres of power and peripheries: the chosen few perform and talk, while the rest of the population watches and listens. Therefore, technologies of the mass society do not provide adequate infrastructures for Illich’s webs. In contrast, the network society is associated with social and media networks, and ‘individuals, households, groups and organizations linked by these networks’ (van Dijk, 1999, p. 24). The internet provides all users with equal opportunities to read and write, listen and talk. In the first page of The Internet Galaxy: Reflections on the Internet, Business, and Society, Castells wrote one of the best descriptions of its ubiquitous nature:
The Internet is the fabric of our lives. If information technology is the present-day equivalent of electricity in the industrial era, in our age the Internet could both be linked to the electrical grid and the electric engine because of its ability to distribute the power of information throughout the entire realm of human activity. (2001, p. 1)

Obviously, technical structure of the internet well corresponds to Illich’s learning webs. However, virtual worlds created by the internet still reflect power relationships, values and organization of the mass society (Jandrić & Boras, 2012, pp. 72–74). Probably the most famous example of tensions between traditions of the mass society and technical opportunities offered by the internet is the case of intellectual rights. Everyone knows that the traditional concept of copyright simply cannot be sustained on the internet—nevertheless, governments and corporations still predominantly hold to traditional values and business models (van Dijk, 1999; Castells, 2001).

Such tensions are inherent to the wide, descriptive nature of the classification of our present and past realities to two distinct categories. In some aspects, the mass society and the network society are fundamentally similar; in others, they are just as fundamentally different. According to van Dijk,

> a final qualification to add is that the information and network society concepts indicate long-term evolutionary processes of human society. They are not concrete societal forms with precise historical beginnings and ends. To clarify this one might say that the information society did not start in 1751 with the appearance of the first part of the Encyclopédie of Diderot and d’Alembert and the network society did not appear with the installation of the first telegraph line by Samuel Morse in 1844. (van Dijk, 1999, p. 21)

Despite methodological issues arising from using loosely defined sociological concepts, the case of intellectual rights on the internet clearly illustrates the general rule: inventions are always deeply rooted in the social context.

Far from asserting that individual work and talent of the inventor are unimportant, new concepts and tools are invented and/or widely accepted only after the society has become ready for them. In National Geographic’s Book of Inventions, Harrison provides an excellent illustration of this principle in his brief history of dish-washing machines. Since the invention of the first plate and the first spoon, washing up has held the unfortunate position of one of the most tedious kitchen jobs. For several millennia, every now and then someone would build a dish-washer based on hydropower or steam. Some of these machines had actually worked quite well. However, mechanical designs and their usage had been fairly complicated, so their numbers have remained very low. During the last three decades of the nineteenth century, things had suddenly changed. Following rapid developments in practical applications of electricity, American women submitted more than 30 patents of dish-washing machines. Within years, dish-washers had quickly become an everyday sight in American kitchens (Harrison, 2004, p. 18).

This multi-layered story could be analysed from different perspectives. Engineers will probably be interested in the main challenges associated with the shift from one technology to another, while feminists will immediately spot that almost all patents had been
submitted by women. In the context of this paper, however, moral of the story is that contemporary opportunities for deschooling cannot be explored merely by inquiring technical feasibility of Illich’s proposals or even isolated, small-scale applications of his ideas in practice. Illich’s deschooling does not only imply informal education through learning webs, but also recognition of obtained skills and knowledge across the society. For as long as certification of educational degrees is firmly situated in the hands of state and corporate elites, and for as long as knowledge and skills acquired through schooling are valued more than knowledge and skills acquired in alternative ways, internet infrastructure will remain mere potential for deschooling. In order to develop towards Illich’s deschooling society, this potential should go in hand with wide social change. On such basis, let us take a brief look into the relationships between schooling and education in the network society.

The network disperses human activities, yet we live in the times of unprecedented conglomeration of economic power: for the first time in human history, there are companies richer than whole countries (van Dijk, 1999, p. 51). Day by day, critical theorists seem to be discovering new ways in which global neoliberal project of privatizing education gate-keeps educational resources thus acting in favour of small strata of ruling elites (i.e. McLaren, 2003, 2006). In the network society, however, this gate is subject to serious leakage: the internet. Free knowledge obtained from the internet (following Stallman, to understand the concept one ‘should think of free as in free speech, not as in free beer’ [2002, p. 43]) might not lead to a formal degree, but it may definitely serve as a powerful vehicle for large-scale Freirean conscientization (Freire, 1972). Slowly but surely, the network society decreases importance of traditional schooling. Despite current lack of formal social recognition, opportunities to obtain skills and knowledge from de-institutionalized information sharing practices powered by two-way information and communication technologies such as Wikipedia and pre-publication networks already represent virtual seeds of deschooling society: we shall call them deschooling virtuality.

However, the network society has not been kind to many. The digital divide has created a huge gap between digital haves and digital have-nots (Castells, 2001, pp. 247–274; Mason & Hacker, 2003; van Dijk & Hacker, 2003). Digital have-nots are excluded from deschooling virtuality by its very nature. For those on the privileged side of the digital divide, information and communication technologies enable unseen opportunities for creative expression. Yet, many occupations have become rapidly bureaucratic. Technologies have automatized industry, while world population has rapidly increased. Opportunities for meaningful employment have become much scarcer than offer. Day by day, fresh cohorts of people join Guy Standing’s ‘new dangerous class’—the precariat—whose existence alternates between sporadic episodes of low-paid work and the dole. The precariat has very little opportunity for personal fulfilment through work. However, it does have the basic First World living standard including food, shelter and access to information and communication technologies. More often than not, it also has plenty of time on its hands. Under the circumstances, the internet is probably the cheapest entertainment after sex. It is therefore hardly surprising that ‘the “connectivity” of the internet and social media is a defining feature of the precariat’ (Standing, 2011, p. 127). Moreover, the precariat may purposefully retrieve to virtuality in order to (re)gain own public sphere.
Habermas depicted the internet as generating an anarchic wave of fragmented circuits of communication that could not produce a public sphere. Fair enough. But he is too pessimistic. The precariat may be offered a fragmented public sphere, but it may fight for one where deliberative democracy can be revived. (Standing, 2011, p. 180)

It is fairly reasonable to assert that the rise of the precariat offers a powerful opportunity for deschooling. However, mere opportunity does not guarantee realization: for one reason or another, many a great vision has never passed the ultimate test of practice. Illich is completely clear why people should abandon institutionalized schooling: simply, because it is harmful for the humankind. However, the question why people would engage in deschooled practices seems to be a bit more critical. In *Powers and Prospects*, Noam Chomsky links such choices directly to human nature. “An animating vision 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). In order to succeed, Illich’s vision of deschooling society obviously rests on anarchist views to human nature such as described in late nineteenth century in Emma Goldman and John Most’s famous piece entitled ‘Anarchy Defended by Anarchists’ (1896).

When once free from the restrictions of extraneous authority, men will enter into free relations; spontaneous organizations will spring up in all parts of the world, and everyone will contribute to his and the common welfare as much labour as he or she is capable of, and consume according to their needs. (Goldman & Most, 1896, p. 2)

Although Illich never explicitly declared as anarchist, dependence of his ideas on anarchist views to human nature (including, but not limited to the concept of deschooling) is an important argument in favour of such classification (more about complex relationships between Illich and anarchism can be found in Grego [2013, p. 93]). Moreover, Illich’s case is far from isolated: it seems that the network society (and the internet in particular) has embodied a good deal of ideas and practices traditionally attributed to anarchism. For Eben Moglen, ‘in the network society, anarchism (or more properly, anti-possessive individualism) is a viable political philosophy’ (1999). For Manuel Castells, ‘neo-anarchism is an instrument of struggle that appears commensurate with the needs of the twenty-first century social revolt’ (2005). For Dana Ward, ‘the internet is the quintessential example of a large scale anarchist organization’ (2011). For Howard Rheingold, ‘perhaps the largest incubator of online social networks and the oldest global virtual community, Usenet, is also an example of a gigantic long-functioning anarchy’ (2002, p. 53). For Jandrić, ‘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’ (2010, p. 64).

However, creation of links between anarchism and virtuality is an inherently problematic endeavour. According to Abraham de Leon, ‘anarchist theory is a huge field and is not
easily summarized, as there have been historical variants that are quite diverse and eclectic’ (2006, p. 73). Judith Suissa goes one step further and asserts 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). Virtuality is also a contested concept, particularly in regards to its relationships with reality. Christine Sinclair and Hamish Macleod have recently classified several types of relationships between reality and virtuality (Sinclair & Macleod, in press). The continuum starts from completely artificial virtual reality, where everything (including one’s physical presence) is simulated. It continues with constructed reality, such as television programmes that mix real people and situations with constructed storylines. It moves on to simulated reality—artificial, but perceived by its participants as real—such as representation of our world in the film The Matrix (1999). Passing through alternate reality, such as parallel universe, it finally lands at the integration of virtual elements into the real world or augmented reality.

Richness and complexity of the notions of anarchism and virtuality make it extremely hard to determine what components of anarchism are actually fundamental to challenging virtual spaces. However, analyses based on any narrow, well-defined tradition of anarchism and/or any specific type of relationships between reality and virtuality are actually quite feasible. For instance, it is completely methodologically justified to link Kropotkin’s views to human nature and the basic principles of Wikipedia (Jandrić, 2010)1 or Illich’s notion of learning webs with the existing pre-publication networks (Ralston, in press). While the recent renewal of interest for anarchism in the context of the network society reaches beyond the scope of this article, it seems that nowadays—with full acknowledgement of methodological challenges arising from diversity of both traditions—we could learn a thing or two from often neglected philosophy of anarchism.

From Deschooling Society to Deschooling Virtuality

This study constantly juggles between two dialectically intertwined groups of questions. The first group is associated with questions concerning human nature. The second group is interested in feasibility of Illich’s vision in terms of Ellul’s technique (1964), i.e. in complete technical and social preconditions for deschooling. In order to understand whether Illich’s deschooling is indeed viable in the contemporary network society, we should explore both questions in the context of the internet. There is probably no better place to start this inquiry than Howard Rheingold’s Smart Mobs.

The most successful recent example of an artificial public good is the internet. Microprocessors and communication networks were only the physical part of the Net’s success formula: cooperative social contracts were also built into the Net’s basic architecture. The internet is both the result of and the enabling infrastructure for new ways of organising collective action via communication technology. The new social contract enables the creation and maintenance of public goods, a commons for knowledge resources. (Rheingold, 2002, p. 47)

The internet has been deliberately organized as the information commons. Its creators and developers—often called hackers—have understood that freedom of information is a necessary precondition for development. In Rheingold’s words, ‘the personal computer
and the internet would not exist as they do today without extraordinary collaborative enterprises in which acts of cooperation were as essential as microprocessors’ (Rheingold, 2002, p. 47). On such basis, hackers developed a coherent system of reasoning which ensures that the internet remains the information commons called the hacker ethic. In his 1984 book entitled *Hackers: Heroes of the Computer Revolution*, Steven Levy identifies the following main principles of the hacker ethic:

- Access to computers—and anything which might teach you something about the way the world works—should be unlimited and total. Always yield to the hands-on imperative!
- All information should be free.
- Mistrust authority—promote decentralization.
- Hackers should be judged by their hacking, not bogus criteria such as degrees, age, race or position.
- You can create art and beauty on a computer.
- Computers can change your life for the better.
- Like Aladdin’s lamp, you could get it to do your bidding. (Levy, 1984)

In his prologue to Pekka Himanen’s seminal book *The Hacker Ethic*, Linus Torvalds takes another approach. He defines three basic categories of hacker motivation—survival, social life and entertainment—and asserts that

> A ‘hacker’ is a person who has gone past using his computer for survival (‘I bring home the bread by programming’) to the next two stages. He (or, in theory but all too seldom in practice, she) uses the computer for his social ties—e-mail and the Net are great ways to have a community. But to the hacker a computer is also entertainment. Not the games, not the pretty pictures on the Net. The computer itself is entertainment. (Torvalds, 2001, p. xvii)

Researchers unanimously agree that hacker ethic is based on anarchist views to human nature (Bradley, 2005; Gordon, 2009). Considering the important methodological role of the concept of human nature within the anarchist philosophical position, this argument is central to drawing any links between anarchism and virtuality. However, Suissa asserts that obtaining a full account of anarchist views to human nature is almost as impossible as defining anarchism, because ‘the concept of human nature is inherently problematic and relying on it in philosophical discussions can have undesirable implications due to its tendency to assume an ahistorical position and to deny the cultural embeddedness of human experience and character’ (2006, p. 25). For this reason, the aforementioned methodological restrictions also apply to the studies of human nature.

One of the most important milestones in anarchist views to human nature is recognition of the developmental nature of human reality.

> Let us not fear to say that we want men capable of evolving without stopping, capable of destroying and renewing their environments without cessation, of renewing themselves also; men, whose intellectual independence will be their greatest force, who will attach themselves to nothing, always ready to accept
what is best, happy in the triumph of new ideas, aspiring to live multiple lives in one life. (Ferrer, 1909 in Goldman, 1911, pp. 169–170)

The developmental nature of human reality makes people inherently interconnected. According to Bakunin, “man is born into society, just as an ant is born into an ant-hill or a bee into its hive (...) Man does not choose society; on the contrary, he is the product of the latter, and he is just as inevitably subjected to natural laws governing his necessary development as to all other natural laws he must obey’ (1964, p. 157). Human nature is reflected in the society, and the society reflects human nature—hacker ethic is reflected in organization of the internet, and organization of the internet is reflected in hacker ethic.

Before the First International, 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, incensed by Huxley’s view about evolution as ‘thirsting ... for blood’ (in Gibson, 1990, p. 365), insisted that the main prerequisite for survival of society is mutual aid between the individuals. In his famous pamphlet entitled Mutual Aid: A Factor of Evolution, 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). Exercised on all levels of the society, the principle of mutual aid is the basic prerequisite for philosophy of anarchism. Hackers’ insisting on freedom of access and information—or the idea that everyone can use products of everyone’s work—is the quintessence of the principle of mutual aid. Conceptually, free software and open source software are mere extensions of this principle into the world of engineering. In practice, however, they are very important vehicles which build its consequences into the very bottom of internet infrastructure.

For as long as hackers will adhere to their ethic, the internet will remain an oasis of freedom. Looking bottom-up (from the structure of the internet towards freedoms it allows its users) and top-down (from freedoms that the internet towards allows its users towards development of its structure), hacker ethic is indeed compliant to Kropotkin’s principle of mutual aid. On such basis it is easy to see that Levy’s (1984) principles of hacker ethic fit as glove to Illich’s learning webs, while Torvalds’s (2001) principle of self-motivation ensures its long-term sustainability. The road to liberation is made by walking: for as long as the internet remains faithful to hacker ethic, it will provide adequate technical infrastructure for deschooling virtuality. Transferred into virtuality, feasibility of Illich’s vision in terms off Ellul’s technique (1964) must also pass the ultimate trial of anarchist views to human nature.

Some Ifs and Buts

Two years after Deschooling Society (1971) Illich wrote another important book called Tools for Conviviality (1973), where he explores the relationships between human beings and their tools. In the introduction, we mentioned that the two critiques are dialectically intertwined: non-institutional large-scale educational infrastructure to replace institutional
schooling must necessarily be convivial. In order to ensure consistency of this research, therefore, we shall explore whether this is the case with contemporary information and communication technologies. For Illich,

To formulate a theory about a future society both very modern and not dominated by industry, it will be necessary to recognize natural scales and limits. We must come to admit that only within limits can machines take the place of slaves; beyond these limits they lead to a new kind of serfdom. Only within limits can education fit people into a man-made environment: beyond these limits lies the universal schoolhouse, hospital ward, or prison. (1973, p. 12)

In order to counterbalance such effects, Illich has ‘chosen “convivial” as a technical term to designate a modern society of responsibly limited tools’ (1973, p. 12).

In the contemporary network society, Illich’s deschooling implies transferring almost all educational activities to the internet—on the road to deschooling society, we have arrived to deschooling virtuality. However, does that not imply a new kind of serfdom (towards those who own internet infrastructure and write usage policies), a universal virtual schoolhouse (through institutionalized online degrees), or even a universal virtual prison (more or less, being excluded from the internet implies deprivation from many freedoms)? In order to determine whether a tool is convivial, Illich develops counterfoil research methodology which consists of ‘the dimensional analysis of the relationship of man to his tools’. First, he typifies hazards created by unconvivial tools into six categories: biological degradation, radical monopoly, overprogramming, polarization, obsolescence and frustration (Illich, 1973). Then, using various thought experiments, he explores whether the tool in question leads towards one or more of these hazards. In the following analysis of contemporary information and communication technologies, we could focus to any of the hazards. For the sake of brevity, let us concentrate on radical monopolies.

Radical monopoly is the monopoly of a certain kind of products, which happens ‘when one industrial production process exercises an exclusive control over the satisfaction of a pressing need, and excludes nonindustrial activities from competition’ (Illich, 1973, p. 66). For instance, the combination of urban development, foreign policy, road and railway infrastructure investments, (the lack of) environmental conscience, non-adequate public transport and so on directs the majority of North American population towards everyday car usage. In the context of traditional education, Jandrić (2011) shows that contemporary information and communication technologies have real potentials to develop Illich’s radical monopolies. Based on reconceptualizing conclusions developed by London Edinburgh Weekend Return Group (Mitchell et al., 1979), he identifies oppositional possibilities for critical action in and against radical monopoly of information and communication technologies in the context of current institutionalized educational praxis.

In the real world, there is a physical way out from radical monopoly of information and communication technologies: instead of e-mailing, we can meet up and discuss things in person. In this context, oppositional opportunities are primarily political and consist of conscious individual and collective choices. However, participation in deschooling virtuality is physically controlled by internet access. Therefore, radical monopoly of information and communication technologies is its essential precondition. In institutionalized schools, the gate to knowledge is kept by the ministry of education, school principals and teachers.
In deschooling virtuality, the gate is kept by owners of internet infrastructures, policies of internet service providers, and technicians. The gate-keepers have changed, but the concept of gate-keeping has remained. The shared conceptual base ensures further similarities between institutional schooling and deschooling virtuality. For instance, institutionalized educational institutions of the global neoliberal capitalism are just as oriented to growth and profit as internet service providers (McLaren, 2003, 2006). Conceived in such context, Howard Rheingold’s (2002) smart mobs cannot be further from Illich’s vision of the Epithemean man. Instead, deschooling virtuality is epitome of Promethean struggle for freedom against oppression through knowledge and technology. Without the ecological Epithemean aspect, however, Illich’s argument against schooling becomes pointless: in places, the ‘mechanics’ of deschooling is directly confronted to its basic assumptions.

Back in the day, Illich could certainly not envision many features of contemporary information and communication technologies: perhaps, after all, the internet is further from his learning webs than it seems. However, other solutions also spring to mind. Is it possible that Illich was wrong about the links between deschooling and conviviality? Is it possible to build convivial human existence using non-convivial tools? Have we entered the same theoretical traps which lead Marcuse (1964) and Heidegger (1981) to technological dystopia? Unfortunately, this article is simply not able to answer those questions: we can only conclude that the identified inconsistency may serve as a point of departure for further inquiry.

Answers to those questions may lie within the relationships between the virtual and the real. Based on completely voluntary activities, virtual deschooling practices are fairly benevolent. People engage in activities such as contributing to Wikipedia or pre-publishing their research, and no-one gets upset: the rest of the society more or less proceeds with business as usual. However, transfer of virtual deschooling into the real world would imply profound social changes such as abandoning schools and altering structure of employment: basically, it would radically change the existing social structure and create a completely new reality. Certainly, boundaries between the real and the virtual are more blurred than ever. For instance, Wikipedia has strongly influenced the real world of institutionalized education, while real-world lawmakers heavily influence virtual activities such as document sharing. The dialectics between the real and the virtual shows interesting and often unexpected results—it is therefore hardly a surprise that it represents a current hot potato in various fields from cultural studies to education. Conceived in a privileged space controlled by internet access, deschooling virtuality seems to be fairly remote from Jean Baudrillard’s murder of reality (2008, p. xi). Nevertheless, it would be interesting to try and examine potentials of postmodernist critique in explaining the relationships between deschooling virtuality and deschooling society.

Conclusion

The internet offers the complete technical and logical infrastructure for Illich’s deschooling, while the growing number of precariat class provides an increasing flow of potential recruits to the struggle against the oppressive forces of global neoliberal capitalism. Some engage in a wide range of virtual learning webs such as Wikipedia, pre-publishing
networks and open access academic journals, while others join the hacker community and struggle to ensure long-term sustainability of internet freedoms. At the first glance, it seems that Illich can rest in peace—his visions of deschooling through technology are slowly but surely getting embodied in virtual realities. However, this conclusion is methodologically restricted in three important ways. First, the concept of deschooling heavily depends on correctness of anarchist views to human nature. Second, deschooling society is dialectically intertwined with the concept of conviviality, while deschooling virtuality is based on non-convivial technologies which lead directly to radical monopoly. Third, even the most developed deschooling virtuality might never transform into deschooling society.

Ivan Illich has already proved as true visionary in many fields from energy to medicine. However, his more radical ideas such as deschooling have often been considered as thought-provoking intellectual exercises rather than real possibilities. In words of Engin Atasay, ‘his creative critique of industrial society and everydayness provokes a critical imagination, which perhaps is Illich’s richest legacy and greatest strength as a philosopher, activist and a convivial individual’ (2013, p. 57). This article shows that even the most radical Illich’s ideas should not be taken lightly. On the contrary, it seems that something so unimaginable to the average citizen of the mass society such as large-scale deschooling has been made possible by the advent of the network society. Certainly, it is a long way from isolated examples of virtual deschooling such as Wikipedia and pre-publication networks to deschooling virtuality, and it is an even longer way from deschooling virtuality to deschooling society. However, it is important to understand that deschooling has graduated from mere vision to the real opportunity.

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Note

1. The argument about anarchist views to human nature and hacker ethic is expanded and significantly revised from the article ‘Wikipedia and education: anarchist perspectives and virtual practices’ published in the Journal for Critical Education Policy Studies (Jandrić, 2010).

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