



Create, share and learn. Experiences with free software, free culture and collaboration in formal and non formal education in Colombia.

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ABSTRACT

New media technologies, specially software have been of great impact in modern society. The combination of computer/software/networks as creative machines is present in everyday life. This article is focused in this interactions specially from the perspective of free open source software (FOSS). In doing so, the influence of its values is traced from the original hacker culture ethics to the free software four freedoms, showing a software explained culture as in the software studies disciplines. Also the bazaar creation model is explained, as a metaphor originally intended to software development that now is present in several realms as the open source method can be applied in diverse fields. To the education field, this values are seen as encouraging of the remix and amateur culture, producing engaging methods to education through media manipulation. For this reasons remix culture and temporary autonomous zones are explained as extensions of the bazaar model to educational related fields. Finally to summarize, examples from non formal and formal (University) education in Colombia are presented, where the create and share approach can be seen in action. This examples were explored from a participant perspective. Finally some conclusions and recommendations are made, as a result of a critical assessing of the ideas presented.

Key Words: Free/Libre Open Source Software, Free Culture, Remix Culture, Temporal Autonomous Spaces.

1. INTRODUCTION

The technologies that we have come to recognize as new media (Manovich, 2002) , support in several ways most of our daily lives. From general more invisible procedures running silently in background such as traffic or banking to more present activities as working, leisure and studying, different tasks are performed and mediated by this technologies. Particularly in education, digital technologies and most of all, computer applications or software are serving several fields and stages important to accomplish activities . E-learning platforms, on-line bibliographic resources, simulators, domain specific software, learning games among others are examples of technology involvement in teaching and evaluation of courses at several levels. However most of the time software is seen as a neutral tool in a instrumental fashion which serves just as a technical layer for education. I am interested in discussing the so called software culture (Fuller, 2008), as seen from the emerging field of software studies from a critical perspective focused in how software design and use practices affect knowledge creation and distribution. In particular, the free/open source software (FOSS) (Feller et al., 2007) has been an important influence in providing ideas of horizontal collaboration, rapid prototype development and use of networks in non formal educational experiences such as medialabs, hackerspaces, open workshops etc. Also the FOSS inspired cultural movement known as free culture (Lessig, 2004) focuses in open creation,

circulation and sampling practices in the digital content realm. In doing so, I want to show the advantages of this tandem model in horizontal communication and education but also to point out difficult aspects in trying this models in formal spaces such Universities, left alone recent intellectual property issues endangering the whole education community. As a complement 3 scenarios are presented to exemplify this topics allowing to propose strategies to take advantage of this practices.

This paper is organized as follows: the first part will discuss the so called free open source software, as a tradition traced from the early 60s hacker ethics through the four freedoms of free software. Secondly the Internet is presented from a related perspective, showing the sharing and open values exercised in its architecture and the rediscovering of Internet as a collaboration artifact, specially with the so called “Bazaar” model. Following the impact of software culture and free culture and its influence in non formal education, remix culture and alternative DIY DIWO hands on spaces which embrace open source values are described. Then, as a meeting point of the the former key issues on software freedom, collaboration and amateur culture, 3 cases from formal and non formal education are shown in order to exhibit pros and cons of these approaches, leading to some conclusions and recommendations in order to use these practices to stimulate a read/write culture and not only media consumption.

2. THE SOFTWARE VALUES: A BRIEF HISTORY OF COMPUTER FREEDOM

Nowadays the concept of freedom and openness in media theory and even in popular culture, have become an asset always present in discourses about knowledge and information. And even though that from the knowledge perspective the free flowing of ideas is present in several imaginaries, as the utopia subtle related with such metaphors as the universal library or the Encyclopedia Galactica, the modern metaphors are mostly based in information technology devices or artifacts: the computer, the software and the network. As treated in (Berry, 2011) the so called software culture shows the increasing influence of computer programming even in the everyday language, replacing former representations or models. Therefore, as in the past concepts from physics or chemistry where used to explain several phenomena, today is common to encounter computer models, imagery and jargon serving as the standard reference. As a consequence, to understand this open/freedom discourse which has permeated artistic and educational practices, we need to look at the history of software evolution and the different incarnations of the “freedom” and its ever present relationship with Academy.

Since the dawn of computers age (the digital ones) in the 40s, the development of computer technologies was strongly attached to Universities (Williams, 1997) . Computers as the legendary ENIAC, MARK I among others, built to meet the war requirements, were the product of the collaboration of physicists, mathematicians and engineers. In this early environments, where every discovery was a product of a tremendous effort, it was already common to share the latest findings between several groups. Software and hardware designs were communicated from the regular scientific channels but also in a more straightforward way from team to team, allowing to focus in new problems and designs. This tradition was possible as the designers of new systems were also the only users, members of a University staff. This behavior will lay the grounds for maybe the first explicit acknowledge of this sharing values among the early computer practitioners: the hacker ethics.

Maybe the first account of the hacker ethics is the seminal work on the history of hackers by Steven Levy. In this work, the hacker community is presented as group of students and some enthusiasts in the late 50s early 60s interested in the computer and its possibilities not just as a calculating tool for other sciences, but as and end by itself (Levy, 2010) . The computer embodied an aesthetic and a particular vision of the world, where it can be used to improve human conditions. The principles or what is known as the hacker ethics, were summarized by Levy in the following way:

- 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.

Despite some obvious political connotations of this principles, the hacker ethics were more about teaching yourself by immediate trouble solving and a hands on imperative, different from the regular college approaches based on previous theorization and exhaustive planning. As a result, computer code flowed freely between hacker peers, fostering collaboration and rapid software development.

A change on this sharing trend started when the idea of software as a commodity became the norm. Some facts in the late 60s and 70s can be mentioned as sign of this paradigm turn. First, in 1968 IBM was sued by the American government for having commercial advantage in delivering bundled software with the hardware sales, forcing the company to develop a software line business . Likewise, it is also very famous the “open letter to hobbyist” (1976) by Bill Gates, where is literally stated that “the thing you do is theft” (Berry, 2008) . The latter is of special importance, because is located at the dawn of the personal computer revolution, a movement also rooted in hacker ethics mixed with counterculture values from the 60s which ended as one of the biggest business of today (Gradin, 2004)

This changes also affected the world of UNIX, a very popular operating system of the 70s which also carries sharing principles and a design philosophy close related to the topics discussed above. When it started to sell licenses one of its users, Richart Stallman, make a statement which unleashed all the “free software” movement in resigning to his job at MIT and starting the free software foundation (1985) (Stallman et al., 2002) . It's hardly surprising, that Stallman, being a hacker himself, presented his ideas in four principles clearly resembling the hacker ethics :

- The freedom to run the program, for any purpose (freedom 0).
- The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbor (freedom 2).
- The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

As its first project, the free software foundation pursued the development of a Unix alike operating system. However, this objective was accomplished with the help of an external actor, giving birth to the now famous Gnu/Linux operating system. Since then free software have become a growing alternative for computing, keeping the code sharing approach to software development alive in the era of the commercial software explosion, which usually relies on secrecy and closed code. However, to understand the arise of the software culture and the freedom paradigm as a model for other activities, we need to look to the another cooperation device of our times: the computer networks, particularly the Internet.

3. NETWORK AS A COLLABORATING SPACE AND THE RISE OF THE OPEN SOURCE

Intertwined with software history is the creation and expansion of the Internet. Also with the computer, the network shares a common origin in the war effort, being designed and used mostly for research in Academia as a government related defense project. Conceived as a mechanism of communication for a post nuclear scenario, its main objective was to resist a direct attack maintaining military parties linked even considering some damages in the communication structures (Piscitelli, 2005). Furthermore, the software-computer-networks connection, so clear today, was not just restricted to its actors, the scientific community developing such inventions but also to their values. Embracing collaboration instead competition, was not only a matter of ideology, rather a choice of quality and efficiency as will be shown.

Open values were in the core of the very design and evolution of the Internet(Atton, 2004) . First, the architecture design favored a network topology opposed the other possibilities, as the

centralized or decentralized ones, allowing a non hierarchical communication with interconnected peer nodes. Also as the Arpanet, the direct predecessor of the Internet as we know it, this efforts were documented in a participative fashion, open to anyone who wanted to join. The RFC (Request for comments) were created as an informal record of the development of the project, but ended as the Internet standards discussion field. Also, the first hardware built as a middle gear between computer networks, was developed by a private company allowing total access to the source code to the Arpanet participating Universities, as requested by themselves (Flichy, 2007) . Similarly to the boom of the personal computer and its closed source software business practices, the Internet also went through a phase of leaving the academic realm and turning into a commercial phenomenon , watering down its former open practices. However, alternatives uses of the network and a tradition of community networks (as the USENET) merged into the Internet, keeping the knowledge flowing, as it was intended from the beginning.

The importance of the Internet, as realization of a long history of utopias of a machine of universal knowledge and universal access, is crucial from the education point of view. From Vannevar Bush “memex” (Bush, 1945), the “Xanadu” project and the final materialization of hypertext ideas in Berners Lee World Wide Web (Flichy, 2007), it has been researchers main motivation to build such a device in order to share information. Perhaps one of the best proofs of the advantages of the Internet used as a sharing and creation medium, is also a milestone in the free/open source software history: the development of the Gnu/linux operating system. It was 1991, a time where the network was already starting to gain recognition outside the academic world, when Linux Torvalds, a Finish Phd student, posted the operating system kernel code on the Usenet, completing the work started by the Free Software Foundation. The massive grow of contributions and rapid gnu/linux development clearly exhibited the advantage of the Internet but also the social characteristics of the networked approach.

The hidden logics of Torvalds success were assessed by Raymond in his essay “Cathedral and bazaar” (Raymond, 2001) where the software development process in the Internet era is compared with a bazaar with equal actors and free exchange of ideas. In the same direction, the hacker sense of collaboration without economic compensation and more for the recognition and the pleasure of solving problems, is also brought as a feature of an engaging project shared on the network (Feller et al., 2007) . Raymond also coins the term “open source”, deciding to concentrate on the technical advantages of the Internet horizontal collaboration approach for developing software, rather than the confuse readings of the word “free”, as used in free software. Until now I have used the words open and free as synonyms because the differences are minimal. Nevertheless I prefer open source as it describes a property not only present in software, but also a production and design model which can be applied to tackle several tasks. As an example immediately comes to mind the concept of Free Culture (Lessig, 2004) , which brings open values to media creation remarking the intertextuality, reuse of cultural products and also the benefits from the free flowing of ideas resembling closely the free software freedoms. The creative commons licenses (Coates, 2007) and other of the same nature were designed to appeal to an increasing creative community more interested in sharing and collaborating. This has started a whole movement which presents itself as an alternative to the regular copyright issues enforced by traditional media producing monopolies.

4. CREATE, SHARE AND LEARN: REMIX CULTURE AND TEMPORAL AUTONOMOUS SPACES IN THE AGE OF NETWORKED EDUCATION

Collaboration made possible by the computer as an universal machine (Lunenfeld, 2011), software as a metamedium (berry) and networks as a communication channel have brought into existence a lot of new possibilities in education. As put by Howard Rheingold, in his concept “virtual communities” (Rheingold, 2001) , the non physical aspect of the Internet allow to build communities around common interests, no matter the distances. This property has been used extensively, making possible for peers to participate in discussion forums, bulletin boards systems (BBS), file sharing among others, in an asynchronous fashion.

In this landscape, with a world connected by several technological resources and with a model based on open values, real collaboration was just a matter of time. Even though participation was happening since the beginning, it consisted mostly of the computer savvy population, as in the Torvalds and Linux case. The change came in by the hand of new technologies that make possible to have presence on the Internet without managing the HTML language. This technologies, now labeled as the Web 2.0 introduced several new ways of create and consume networked content, empowering amateur culture and DIY ethics that suit quite well in the open source model. For this reason, static consumption turned into a participative consumer/producer pattern which enriched the Internet with blog, wikis, music, video platforms where the contents were uploaded by the public.

This newly acquired skills in media manipulation and the digital codification of content with a conceptual and technological framework produced two very interested phenomena, which even though are not exclusively rooted in new media/technologies, have been adapted to its protocols. Now they enjoy of a very well earned popularity, completely connected with the Information age: the remix culture and the temporal autonomous spaces.

4.1. Remix culture

The Remix culture is a direct consequence of the free culture movement. Given the great availability of cheap hardware/software for media manipulation and the Internet as an archiving device of popular music, films, text, images etc. it was just a matter of time for amateur culture to take this contents and recreate them in very special and imaginative way, taking distance from the original to state the remixer very own interests. This practice of course has been present for a long time in the history of art, as the collage techniques in dadaism (Germano Celant, 2008) , and also in popular culture, as the record sampling method for creating hip hop music (D-Fuse, 2006). However, as already described, is digital technologies which have empowered people encouraging them to take on their media favorites to produce something different.

Another consequence of this remix culture is that now not only big media conglomerates are producing content. Now all former users/consumers are producing it, and what is worst, using the content of this big companies. The current Internet enforcement laws promoted by this companies are endangering this creative ecosystem, alleging copyright infringement. And as usual, the excuse of Internet piracy making profit of copyrighted contents, has nothing to do with this remix/fan culture which is using this contents just for show their appreciation for the original creators and the digital skills acquired in media manipulation. It is clear that most of this skills were self taught also displaying a fondness and playful approach as seen within hacker culture back in the 60s. The remix culture represents the triumph of the DIY ethics and the fan/amateur culture, which is a fundamental aspect for designing engaging educational processes in the age of information society.

4.2. Temporal autonomous spaces

The idea of temporal autonomous spaces is linked with a more political concept, the temporal autonomous zone. This concept, which appeared in the same titled classic essay by Hakim Bey in 1991 (Bey, 1991), mixes anarchist politics with a hacker perspective and even cyberpunk aesthetics to exemplify zones without control of the state. As put by Lovink (Lovink, 2003) , this ideas were first was realized through rave parties, but also were closely related with the Internet popular emergence as it was seen in the early 90s: as a free space where the libertarian dream came true in a technological way. However this vision, still real spaces or "meatspace" provided the ideal framework for the social experience, in a form that has a deep impact in the education system built around the hacker ethics. In this direction, I can mention experiences as the barcamps, hackerspaces, hacklabs, unconferences among others where the teacher/student relation is deconstructed to provide workshop style spaces where knowledge is achieved through horizontal collaboration and contributions of participants backgrounds. Also another concept from software development (of course also related with FOSS) can be very handy to understand this spaces: the software rapid development method called extreme programming.

One of the key features of this method is to release frequently updated versions of a computer application, incorporating changes in short iterations. This method can be seen as a conceptual blueprint for the DIY and hands on imperative of rapid prototyping exercised in these spaces. The casual style, open participation and background heterogeneity of the attendants provide to these spaces a flexibility and appeal not present in formal education. In doing so, the educational process behaves more like an interest group when anybody can join without following a strict curriculum.

5. EXPERIENCES IN COLOMBIA: AN ETHNOGRAPHIC APPROACH WITHIN STRUGGLING SPACES

The previous sections try to follow a direct line from the computer code own nature, the open source approach to deal with such nature, and its advantage from the software development point of view. It also presents this open source model expanded to other fields by means of the bazaar model. Of course such a novelty have been embraced by political and artistic movements, and the education, as an important part in every society environment, have played an important role as a space for experimentation and reflection. This section introduces as case studies some examples from both non formal and formal education in Colombia, from a thriving community of teachers, activists, artists and students themselves who are trying to come to terms with these topics and with the building tension between University and temporal zones laboratories experience. The methodology followed use ethnographic techniques such as notes, interviews, field notes but mainly participative observation from a practitioner perspective. Being a University teacher but also an FOSS activist provides a position of privilege to analyze the differences and resemblances, but more important, possible courses of action to perform the urgent dialog between both worlds (formal and non formal education).

5.1. Experiences from temporal autonomous spaces.

One of the first experiences which tried to bring together education with a non traditional approach while being activist was the Bogotá electronic music festival Bogotrax¹. Strongly rooted in Hacking Bay ideas of temporary autonomous zones and with several ties with anarchist movements, the festival started with the idea of a mostly self supported open rave party where people could attend in a very unrestricted environment. Although the party as a liberation, communication and community space of interaction is such a strong idea, with time the Bogotrax crew (also an open ever changing group of musicians, activists, lawyers, philosophers among others) slowly began to include formation venues addressed to college population but also to marginal communities located in the outskirts of the city. Of course, music as the main drive served as a platform for other media practices as video, electronic art and even street art.

It was not any surprise that the activities were shaped in a hackerspace form. Even though experts (especially DJ) were attending and teaching workshops, also an open calling were made for proposals for new workshops and also for attendants. The hands on imperative and a rapid development approach were used focusing on a product which embodied the advices from the facilitators but also allowing enough freedom to meet the particular visions of the attendants. Usually a final display/performance of the works is appointed as a showcase but also as a deadline for the activities, trying even to put together the results from all the workshops in a single multimedia experience.

Bogotrax has been successful in making compatible education with the joyful feeling of the party. However, this advantage sometimes can be perceived from a formal perspective as to relaxed in terms of time. Commitment varies from people to people making impossible to set up a proper schedule, affecting sometimes the quality of the output (in terms of effort invested). Nevertheless these features cannot be seen as failures but rather as the heterogeneity of such open processes and the diversity of abilities, time availability from attendants and flatten non hierarchical structures. Also the results of these experiences must be understood as a motivation first approach stage intended to encourage self learning reinforcing the DIY feature.

¹<http://bogotrax.org/>

5.2. Trueque digital: a remix culture activism.

Trueque digital² (can be translated as Digital Bartering) is a project that was born in the interception of the discussion of the virtual spaces (as Internet) and the so called “meatspace” meaning the daily life. As its name suggest the main idea behind it is to promote the concept of exchange in the digital realm. Even though there is nothing new in this notion, and from the beginning of the Internet, as we have seen, file exchange was very popular, the commercialization of the Internet in the 90s brought into the picture traditional big media/software companies which prosecuted for copyright reasons this practices. On the other hand, as network protocols, from ftp to peer to peer and mesh networks make possible to share files even in an anonymous fashion, this project aim to recover real interaction with a face to face data exchange.

Despite the fact that Trueque Digital is more on the activism side that in the educational one, evolution of the idea drove actions in that direction. Therefore, the “actions” are composed of two main options: a venue with a computer network Lan/party style and wireless access where people can share their files, while meeting in person and do some real life networking, and a small flash action where compilation DVD are given to assistants, with a selection of files obtained in the main venues. For principles and for practical reasons, the collective behind Trueque Digital label themselves as a Free Culture collective, encouraging the exchange of Creative Commons content or another open license scheme files.

The project has been a relative success, even winning a digital arts grant from the Colombian Ministry of Culture. Also, it have opened new spaces where hacklab workshops or small talks are given around the main file exchange performance. In the same manner, and taking advantage of the SOPA and ACTA discussions in Colombia, strongly connected with free trade agreements, the project has operated as an analysis collaborative think tank on free culture issues, appealing to activists but also to people that is still approaching to this ideas. On the down side, the collective complains that even the effort to promote alternative licensing still copyrighted material is very present in the exchanges. Similarly, remixed derivated works using the Creative Commons licensed material burned on the DVD compilations, seldom appear, not accomplishing the read/write culture notion of the original idea.

5.3. The formal education University approach.

As one expected, all this discourses on free culture, remix culture and temporal spaces/labs are making their entrance into the Universities, albeit rather slow. The hierarchical structure of the teacher/student relationships, the strict schedules and even the conservative IT decisions on hardware/platforms in the University environment are of a very different nature of the values of hacker culture and ulterior related developments in the social context. It is also fair to say that on the other side, some activists oppose strongly to formal education, sometimes even ignoring (or maybe because of that) the fact that some of them work as college teachers. Anyway, these practices in the University environment can been seen as an incremental process which goes from platforms to scientific open publishing.

First, the so called FOSS has made its entrance, mainly for economic reasons, in the University IT infrastructure, showing another platform to support every day computer tasks. I can name specifically the University "Corporación Universitaria Minuto de Dios" in Bogotá, which following its social mission started to switch from proprietary platforms five years ago, having today only the accounting systems in non free/open software. But this strategy not only covers the technological aspects of the organization. An educational focus has also implemented in two ways: a Moodle e-learning system that is mandatory for all courses as a complement to regular classes and a free software research lab which is trying not only to popularize available tools but to encourage software development and media production using this paradigm.

²<http://www.truequedigital.phunik.com/>

The second approach is intended to media production, mainly written products as the classic way to communicate academic work. In this case I can mention the University where I work with, Universidad Nacional de Colombia. Several strategies are currently overlapping in the free culture direction. The publishing department of the University and also the one of the Humanities school, is publishing all professor works with a Creative Commons licenses. Also the library provides an Open Access repository for students thesis and professor's short articles and conferences. This effort is one among a whole global movement for Academic "Open Access", as an alternative for the "closed source" big publishing academic houses and the monopoly they have created using in several cases, the products of public funded research. As an example of notable importance, the University of Harvard is encouraging public access an alternative to regular channels which have become to much expensive.

6. FOR A READ/WRITE CULTURE AND EDUCATION: CONCLUSIONS AND RECOMMENDATIONS

As I have presented, the so called open/free values, present in a non explicit fashion in the original hacker ethics, can be traced trough several stages until present movements of free culture and open access. The combination of computer/software as a digital symbol machine and the network as a communication device have provided powerful tools for media production , archiving and distribution. For the first time in the history of mankind, there is a universal media library of easy access where different records in text, video, audio and others are available. The possibilities for all cultural works and of course for education are enormous, and the digital codification makes easier and cheaper to obtain different media content through copy, alteration or assembly from different sources. On the other hand, the bazaar metaphor as a creation paradigm already proven with open source development is powerful within horizontal creation using networks, being successfully used in several fields. For education, this possibilities are of great importance as we live in a digital world where students are surrounded by all this technologies and sometimes are its main users. Computers at home or school, mobiles in the classroom, digital media everywhere is like a perfect field for collective intelligence building and networked tasks. However, as with every technology, there are some advantages and some drawbacks. As is implied by the bazaar model and much of the presented ideas, technology is not just a tool but a complete ecosystem for creation that works better for collaboration than for competition.

First, I will mention one possible danger for overusing digital media without changing and embracing its own logics of production. As we have seen, free culture is about openness inheriting FOSS values of share and modify applied to media content, conditions which developed in the current remix culture ideas. However the Internet is being use for most of the people as another massive media, using the computer as another appliance for media consumption. The Internet is becoming, so to speak, in another TV where a passive role is the common option. Of course there is a thriving community of remixers and digital creators around, but all the possibilities of the computer as a media machine are still to come. This can be observed directly even in the Internet activism discourse which focus mainly in the right to download and share as a civil right covering half of the equation (forgetting the right to upload). If we used new technologies just to reproduce media consumption patterns, then something is missing. Related to this, remix culture indeed can be very useful in education purposes, allowing students to play around with their favorite music and films to create something new engaging and more close to their interests. However, as put by Navas in his critic to the documentary "Everything is a Remix", we cannot fall in the remix craze and believe that is the only way to go. If we do so, there is the danger that everything becomes a remake, a caricature of the past. It is to notice that the last thoughts deal with education in media related careers as arts, music, cinema, graphic design etc. but what about science and humanities? Can they also be open and remixed?

The clue in other non media related education practices is collaboration and collective thinking. Math, theory courses, cannot be supported as much with media and remixing devices as other disciplines. Also, the hands ons imperative present in temporary spaces labs is more difficult to apply to, writing an essay for example. Nevertheless, as the open source rules can be applied even to science, some strategies can be implemented to accomplish results. For instance,

collective writing using Wiki or anonymous Internet notepads sites as Etherpad, can be used for rapid brainstorming and to provide a prototype built collectively of a bigger text which would be very difficult to achieve by other means. A special case can be mentioned in the same direction and to achieve projects not so digital, as a book. The Transmediale Festival 2010 ³held an action called booksprint, where using a special FOSS software, several invited experts wrote collectively a book named "Collaborative Futures", which of course deals with all this topics, and is openly available for download. All this experiences not only support the advantages of open models, but also are a quest to improve several education scenarios in order to adjust this models to different educational spaces, being school, university or even communal education initiatives.

Finally, I would like to point some interesting and promising aspects about new media technologies, open source approaches and education. Raymond in his open source development description, states that the best computer applications are those starting from a personal need to solve a particular problem. Later given the software freedom principles and the Internet as a communication channel, the application is made public evolving with the collaborations of geographically disperse developers, coordinated in a loose way. I think that the same metaphors can be applied to education. From collaborative course design, open source software and open access bibliography, to hands on methods and hacklab working spaces, unconferences results presentations and even, if possible, open publication of works on the Internet, the open source approach offers a whole set of options. As in software development, almost every step in the cycle can benefit not only from tools but also from this activities which for being open can be very engaging for both students and educators in a more flattened environment. For this reason, in today's Internet connected world, creating and just sharing, makes a lot of sense as an excellent learning method, where we can all collaborate, getting to know each other while having fun in the process.

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³<http://www.transmediale.de/collaborative-futures>

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