

## OPEN SOURCE AND NEW MEDIA ARTISTS

Katri Halonen  
*Faculty of Culture*  
*Helsinki Polytechnic, Finland*

**Abstract:** *This paper deals with the open source method practiced within the new media art context. I present a case study on an international festival, PixelACHE 2005, which was organized by and for new media artists and served as a platform for demonstrations of new media projects and as a meeting place for experimental new media artists. In this article I discuss how new media artists adapted the open source ideology. Open source is seen both as a more liberal method of distribution and as an open joint creative process. I was particularly interested in what kind of motives the new media artists had for taking part in the PixelACHE festival and the joint artistic creative process. In my analysis, I found four different groups that have diverse motives for participating in open source art projects. One group contains the key persons who use the open source network as an important reference in their professional image. Members of the second and third group are new media artists who earn their main income in either the public or corporate sector and use open source projects as a learning platform. The fourth group comprises young enthusiasts who are seeking jobs and professional networking opportunities in the open source network.*

**Keywords:** *experimental new media art, open source art, Creative Commons licensing.*

### INTRODUCTION

New media is an artistic field that has developed around cultural development projects, with the computer playing a central role as the medium for production, storage, and distribution. It has also influenced a number of new models of authorship, which all involve different forms of collaboration. This challenges the romantic notion of a solitary author of an artistic artifact (see Manovich, 2001a, p. 125), though Lev Manovich (2001b, p. 1) states that solitary authorship actually occupies a very small place in the history of human culture while collaborative authorship represents a norm rather than an exception.

## The Open Source Ideology

The open source ideology has emerged within the software development arena. Its fundamental idea lies in openly-distributed source code and voluntary-based, joint development of software. When software programmers are able to read, redistribute, and modify the source code of a piece of software, the software evolves. This happens in a process where software developers improve the software, fix defects, and adapt it for their own purposes. The open source movement has been researched from the technical software development (e.g., DiBona, Ockman, & Stone, 1999; Feller & Fitzgerald, 2005), business (e.g., Fink, 2003; Raymond, 2001), and legal (e.g., Lessig, 2004; Rosen, 2004) perspectives.

Open source can also be viewed as an approach to organizing collaboration over the Internet. The collaboration can lead to all sorts of content, not just software development. In this article I am interested in the cultural change that the open source method is bringing to the field of new media art. Manuel Castells, in his *The Information Age* trilogy, has written about the economic, social, personal, and cultural changes that are occurring in the age of computerization. He includes the open source movement in his analysis. In his book *The Internet Galaxy* (2001, pp. 101, 199), Castells states that the open source logic of cooperation is not limited to software, but could be applied, for example, to artistic creation. As Castells (2005, pp. 1, 9-10) has recently pointed out, open source refers to a “form of social organization of production” that “works as an open network of voluntary cooperation.” He points out four challenges in the open source concept: (a) the motivation of the volunteers taking part in the process, (b) the economic logic that departs from conventional market logic, (c) the coordination of hundreds of volunteers without a hierarchical organization, and (d) the management of the complexity.

Steven Weber (2004) has researched the social perspectives of the open source movement by analyzing the software development process. He is especially interested in the concept of ownership within the open source context. A similar new concept has also been introduced by Castells (2005, p. 1). Both of these authors see that while a capitalist economy is based on the right to exclude others from the use of goods or services, the open source property thinking is built around the right to distribute, rather than to exclude.

New media theorist Lev Manovich (2001b, p. 6) points out two aspects of the open source movement that are interesting when applied to a cultural sphere. First, new licensing schemes have been developed alongside open source development. The licenses specify the rights and also the responsibilities of a person modifying the code. The second aspect is the idea of the kernel. In a software environment, the *kernel* is the very core of the code that all developers are careful not to change in any fundamental way. Manovich assumes that there could be many collaboratives and individual works in the arts world that already employ the ideas of these licenses and the kernel, even if under different terminology.

## Open Source Distribution and Process

In the software business, the control of the source code is the foundation of the business model. Similarly in the art world, authorship-based copyright is the foundation of business. Traditionally in the Western world, the copyright system has aimed to guarantee artists a fair compensation for their work (Bettig 1996; Bollier, 2003, p. 119-134; Frith & Lee, 2004;

Lessig, 2004). In the Nordic countries, copyright is based on contract licensing. The law in each of the Nordic countries is identical in all important aspects and is often described as Nordic legal unity (Duelund, 2003, p. 503). In the Nordic countries, copyright is an exclusive right that is authorized under Section Two of the law on copyright. The starting point of the law is that an author has exclusive rights to decide on usage and distribution of his/her works. Copyright is seen as the basis of the income within the creative industries, of which media art is one. In reality, the union-based copyright system greatly benefits a few famous artists and a few major enterprises, but it has little to offer to most creators (Betting, 1996, p. 34-42; Litman, 2001, p. 14).

Weber (2004, p. 1) argues that “the conventional notion of property is the right to exclude you from using something that belongs to me.” In other words, the core of a property right can be seen as the exclusive right to choose whether, and on what terms, the property is made available to others. In the open source environment, property is configured fundamentally around the right to distribute, not the right to exclude (Weber, 2004, p. 228). There are numerous types of licenses in the open source movement that have been developed, as well as free operating systems (such as GNU/Linux) and software that follow the General Public License (GPL). In the GPL, the term *copyright* is replaced with the “copyleft” idea<sup>1</sup>. Copyleft licensing gives all recipients of a program the right to run, copy, modify, and distribute the program, while forbidding them from imposing further restrictions on any copies they distribute. From this copyleft approach, licenses for content creators also have been developed. One set of licenses used by artists are the Creative Commons licenses (Creative Commons UK, 2005), a range of copyright licenses that are freely available for public use and allow the creator or creators to fine-tune control over their work in order to enable as wide a distribution as possible.

In Himanen’s (2001, p. 32-47) opinion, open source developers, whom he calls *hackers* are pro-individual and anti-authoritarian. A similar definition is given by Castells (2001, p. 52), though he adds that hackers are working for the common good—at least for the community of hackers. Castells (2005, p. 2) clarifies four years later that the open source is anti-capitalist in the sense that it is “compatible with different social logics and values.” According to Tarkka (2002, p. 93), open source development is becoming a more typical way of functioning within Finnish universities, where new tools are developed and given for use in public and private sectors. The inner joy of creation has often been identified as an attribute of the open source software developer culture, bringing it, according to Castells (2001, p. 47), close to the world of art. Weber (2004, p. 73), in discussing the motives of open source developers for participating in open source projects, states that these developers look for cool opportunities to create new and exciting functions.

Internet-based distribution is already in use in the field of arts, where Creative Commons licenses are increasingly being used. With a Creative Commons license, others can usually freely cite artistic content as long as the artist is always mentioned. But all commercial use is limited and copyright for commercial use remains with the person or team that has created the content. For example, musicians such as the Beastie Boys and David Byrne have released records under the Creative Commons license; horror genre author, Stephen King, published in 2000 his book *Riding the Bullet* exclusively as an electronic book available free of charge for download during the first days after the publication; and Project Gutenberg<sup>2</sup> has made available more than 16,000 e-books for free, including many classics of world literature.

Project Gutenberg aims to publish one million free e-books by the year 2015. These are only a few examples of creative content available via the Internet for others to use under Creative Commons licenses.

Castells (2001, p. 47) and Weber (2004, pp. 149-150) have introduced the idea of a “gift culture” or “gift economy,” respectively, into the narrative of open source, stating that it is a dominating working mechanism among open source-based developers. Raymond (2000) states that status, power, and wealth are a function of what you give away instead of what you control. Gifts bind people together because they create an obligation to give back. Weber (2004, p. 150) argues that the gift culture logic works particularly well in software because the value of the work is hard to measure in concrete replicable terms. This reasoning might also fit well in the field of arts, where measuring the value of each artifact is difficult. An artistic artifact released under a Creative Commons license could also be seen as a gift.

The open source movement is not only about a more liberal distribution system. Open source can be seen also as a process of joint creation. In the seventh chapter of his book, *The Internet Galaxy*, Manuel Castells (2001, p. 199) anticipates art as a growing area of the Internet, stating that “open source art is the new frontier of artistic creation.” He also presents the idea of open source art where *art* refers to computerized graphic design. Castells feels that open source art could result from a collective, interactive, joint process when the art is produced in interaction through groupware practices. For Castells, the Internet not only serves as a means for distribution of artifacts, but also serves as a platform for a process that aims to create new artistic artifacts. Ingo (2005, p. 183) also underscores that the strength of the open source ideology does not lie on the free use of the artifact but on the different creative process.

There are many examples of jointly-created, Internet-based, open source artifacts, such as the numerous updated manuals for using the Linux operating system. Joint creative content that is open for Internet users can be also found, for example, in fan fiction stories<sup>3</sup> or Wikipedia<sup>4</sup>, an open source encyclopedia. The joint creation process of the artifact blurs the traditional concept of the author as a solo artist or a group of artists each holding the copyright of their own impact on the artifact.

Media art is based on cooperation to a greater degree than are many art forms that can be created alone. The bases for creativity and innovation are the media laboratories, networks, and production teams (Tarkka, 2002, p. 39), and this collaboration creates difficulties when determining who the author is. For open source artists, the concept of authorship differs from the traditional copyright ideology. So when copyright is no longer the main means to compensate creative work, there is a need to find new means to compensate for artifacts.

The open source process is largely built around a key person. Weber (2004, pp. 73-74) argues that the project leader often has to place extra emphasis on how cool or valuable as a learning experience a project is. Since the project is built on a large base of volunteers with diverse interests and expertise, the task can be difficult. The leader needs to find a balance between exciting challenges and a credible assurance that the challenges will be met. Castells (1996, p. 415) states that the key persons in the networks can be called “dominant managerial elites” who play essential roles within the networks, describing them as cosmopolitans who must retain local contacts to ensure the coherence of their group. Himanen (2001, p. 73) adds that, in principle, anyone can gain authority in the open network, based on his or her merit.

Merchandising open source work is problematic, however. In the open source software business, the logic has shifted from right-to-use licenses to selling services and support merchandise. Weber (2004, pp. 195-197) names several alternative ways to generate income in an open source software business: selling support packages and customizing services to users; linking free software to demand, and the seeding of a larger market for a commercial product, by accessorizing, for example, manuals; and the branding of the product though the source code of the open software itself is not owned by the company.

The open source ideology, hacker logics and values, and Internet-based distribution have also landed in the field of new media art events. These networking and demonstration gatherings are also often built around a key person or persons, and allow for joint creation and new interpretations of authorship that arise from these open source-related new media events.

There are a great number of different open source-related art and cultural events. In Europe, for example, there are the software art festivals PixelACHE in Finland, READ\_ME in France<sup>5</sup>, Piksel<sup>6</sup> in Norway, and MAKE ART<sup>7</sup>, which changes its location annually. The festivals serve as a demonstration platform for open source and experimental new media art projects while a great deal of the joint work is presented and developed in media laboratories, hack meetings, and hacklabs and at other meetings such as Dorkbot<sup>8</sup> meetings organized locally around the world, and OpenLabs<sup>9</sup> in London. There are also several open source art software development projects that have collected a great number of artists around them, such as live CD software for multimedia production called dyne:bolic<sup>10</sup> and Kingdom of Piracy<sup>11</sup>, which serves as a open workspace for open source software and art projects.

This article presents data from empirical research of a new media art festival, PixelACHE 2005. I will discuss how the open source ideology is used by the new media artists who present their work during the festival.

### **THE CASE: PixelACHE FESTIVAL**

PixelACHE is a festival on electronic art and its subcultures, such as video jockeys (VJ), live performers who mix visuals in much the same way the DJ mixes music. The festival program consists of concerts, clubs, project showcases, workshops, and panel discussions from a broad range of disciplines: artists, engineers, designers, researchers, and architects. PixelACHE focuses especially on presenting activities of various international grass root networks and communities, such as the VJ community, media activists, and the open source community. It also serves as a demonstration platform for new media projects. The goal of the PixelACHE festival is to act as a bridge between the traditional creative disciplines and the rapidly developing electronic subcultures. According to the event's Web site (PixelACHE, n.d., ¶3), the name PixelACHE describes "the feeling that results from an overdose of digital media content. This overdose can happen easily if the content is too monotonous—which is the case if standards, formats, tools and design principles converge to a very limited set of options." The festival aims to bring together technology and art experts interested in experimental new media artwork.

The first festival took place in Helsinki in 2002 and presented about 15 local new media artists or artist groups and a guest media artist from New York. From this point forward, the vision for the festival became more international. The second PixelACHE festival took place

a year later in Helsinki with more than 100 artists taking part, of whom 24 were international guest artists. The festival continued on tour in June 2003 that took the artists first to New York and, immediately following, to Montreal. In 2004, PixelACHE started in Stockholm and continued in Helsinki, and was partly funded by the European Union Culture 2000 funding scheme. More than 100 artists took part in the festival, along with an audience consisting of about 6,000 people. The main information channel of the festival is its Web site and mailing lists that are free for anyone to join.

This case study is based on material collected on the PixelACHE2005 festival that was held 14-17 April. In 2005, the festival program presented a very diverse group of artists, engineers, activists, architects, and designers who share the open source and non-profit ideology. There were again more than 100 artists and an audience of about 6,000 people. The theme of the PixelACHE 2005 festival was Dot Org Boom, and it concentrated on open source communities, open content initiatives, media activist networks, and the myriad non-governmental organizations (NGOs) around the world. The festival had three sub-themes: the VJ culture, experimental interaction and electronics, and interactive and participatory cinema. The presented projects were mainly prototypes that were introduced to a larger audience for the first time. At the core of the festival were the presentations and workshops where the audience got to know the both the projects and the artists. The 2005 festival presented 17 VJ culture and audiovisual performances, nine projects concentrated on experimental interaction, and three projects were about participatory cinema.

The festival was organized by the Piknik Frequency association and the Kiasma Museum of Contemporary Art. Two individuals have held key roles in organizing every PixelACHE event, although the people responsible for managing specific events changes. The Piknik Frequency, a registered association, carries the main responsibility of organizing the PixelACHE festival, but in reality the festival is organized by a cluster of different networks, namely the Amfibio collective, Olento Ltd., and the Katastro.fi registered association. Each network has its own specific aim. Amfibio is a Helsinki-based collective that focuses on developing the VJ culture. There are about 15 active members, mainly students at various universities in Helsinki. Olento Ltd. is a production company providing mainly educational and consultancy services. It shares office space and often collaborates with Katastro.fi and Piknik Frequency. Katastro.fi is a non-profit association whose registered members are designers, programmers, scriptwriters, and producers working in Finnish new media companies and research units interested in the experimental new media art field.

## RESEARCH METHODS AND DATA

This case study is based on three interviews, the project archive of the PixelACHE 2005 festival, and my own observations of festival activity. I will now describe the data gathered and my methods.

### Interviews

In the two months following the April 2005 event, I interviewed three people involved with the festival. Each semi-structured interview lasted between 90 minutes and 2 hours. One

interviewee is the artistic director who has created the whole festival from the beginning to what it is nowadays. The artistic director is a media artist, software designer, and curator who has devoted most of his time and energy to developing cultural organizations and events. During his interview, I focused on how he sees his role in the festival and networks around the festival, and how he describes the artist network and the members of the networks. I also wanted his opinion on how new media artists perceive open source ideology.

The other two informants are artists who presented their work at the festival. Their artistic work is based on collaboration with mainly Finnish new media enthusiasts. One of the artists has more than 15 years working experience in the field; she has also worked internationally and collaborated with foreign artists during the creative process of several new media experiments. The other artist has 4 years experience in the new media field. He works part time, and occasionally full time, on short open source art projects, but his main income is generated mainly outside the new media art field. He has volunteered in several successful new media projects, but has not received any financial income from his work, or at least not directly. During the interviews with the artists, I focused on how the open source ideology and co-creation affect their creative process, and their opinions regarding what motivates artists to take part in joint creation.

I audiotaped the interviews and transcribed them to create a written text. The interviews were conducted in Finnish with native-speaking Finns, and I have translated the comments into English. In my analysis, I focused on the kind of groups the informants named among the PixelACHE network, how they described the groups, what motivates them to take part in open source art projects, and how they identified themselves with the groups.

## Secondary Data

The Web site of the PixelACHE 2005 festival has a large archive<sup>12</sup> where the presentation of projects (a total of 46), artists, exhibitions, press releases, and recordings of live events of each festival can be seen and downloaded. The core materials used in this study are the presentations of each artist, group of artists, and networks that presented their artistic projects or installations during the festival. I have used the archive to gain an overall picture of the number and roles of artists taking part in each project, finding out the background organization of each artist, and the licensing scheme used by each project. The scopes of the artist biographical data vary considerably, from three lines to extensive explanations of the artist and his/her previous projects. In addition, almost all of the artists have comprehensive personal Web sites, from which I found additional information about the artists' background institutions and other activities in the new media field.

In the history of the festival, there have been two event managers. Under my supervision, these event managers wrote their final polytechnic theses about the processes of developing and managing the festival. One individual wrote in 2003, the other in 2005. The first thesis I steered was written by the manager of PixelACHE 2002 and 2003 and centered on analyzing the organizational structure of the festival. The author of the second thesis was responsible for the PixelACHE 2004 and 2005 and wrote about the managerial problems that the festival had faced during the rapid growth that had taken place between 2002 and 2004. During the thesis supervision process, I met both festival managers over 10 times and read nine of their interview transcriptions as well as several versions of their theses. The supervision of their

work has given me an insight on the festival and the tensions within the network. This experience provided secondary data, presenting background on the festival and the networks behind it. It proved to be highly useful when I selected my interviewees and decided the themes of the interviews and formulated relevant questions. The research findings discussed next are based on the interviews.

## **RESEARCH FINDINGS: CHARACTERISTICS OF PixelACHE ARTISTS**

As the PixelACHE network is built from very different types of artists, new media enthusiasts, and software developers, it is obvious that the motives to take part in the network also differ. The artist informants named four entities from the network with distinct motives and expectations of the network: key persons, public institution-based members, corporate members, and new enthusiasts. In this chapter I discuss the motives of each group for taking part in new media activism. Public institution-based members and corporate members are discussed as one group since they share the same basis of getting their income through employment in an organization.

### **Role of the Key Person**

The networks surrounding the PixelACHE festival have not come about accidentally. Instead, they have grown up around a key person and remain active mainly through this person's initiatives. The artistic director is a founding member and also chairman of the Piknik Frequency registered association, Katastro.fi registered association, Amfibio collective, and Olento Ltd., networks, and thus the key player in all of these organizations. Olento Ltd. generates most of its income from organizing cultural and educational events but it gives most of its profit to the non-profit associations that organize the PixelACHE event and that have lower taxation rate. According to the art director informant, the image of a registered association is an important factor when applying for public and third sector funding, sponsorship, and event organization in Finland. The registered association status gives a more fiscally responsible, trustworthy, and professional identity for the events, as compared to having no official status or a corporate status.

Himanen (2001, p. 73) states that, in principle, anyone can gain authority in an open network, based on his/her merit. In PixelACHE's case, the festival's key person, the artistic director, is respected in the community because of his innovative festival programming and his own artwork that is known internationally in the new media sector. His artistic work and international recognition has been demonstrated in jury assignments, awards, and in roles as a lecturer and workshop leader. He also has been a guest speaker in several respected new media conferences and expert meetings around the world.

As the festival's key person, the artistic director's international reputation gives credibility to the networks and, at the same time, the networks support his reputation as the key person. The reputation of the key person enhances the brand of the whole network. As the artistic director described, "*The main credibility is gained through traveling a lot in all kinds of happenings and, after all, people know who I am.*"

Harris (2002, p. 68) argues that the brand of a network is often better known than the name of an individual actor. In this case, that comment was only partly true. The artistic director had an extensive artistic career beyond his involvement in the network and he was well known for it. For the PixelACHE festival, the credibility of the artistic director as the key person is important when working with other networks. This point was emphasized by the artistic director during his interview.

On the other hand, the members of the network are not part of the cluster only because of the reputation of the key person. The common interest for joining the network rises, in the opinion of the artistic director informant, from two main sources. First, the members of the network wanted to develop open source software to help create new media artifacts and find solutions to technical problems that artists find when putting together new experimental artwork. Second, the network serves as a platform for artists and other creative developers to present and test their artwork. The members of the network form a diverse group of enthusiasts willing to interactively test the experiments at different phases.

Still, the role of the key person in the life of the network cannot be underestimated. The artistic director informant himself questioned whether the network is even functional without the key person.

*When I try to keep these organizations alive, we have an eternal problem. Since I am the person who has started these networks, the activity tends to fade away if I am not present all the time. This has happened in very many networks that I know: When the key persons leave, the whole community breaks up. [Artistic director informant]*

The PixelACHE networks are open, flexible, and project-oriented. This reflects Castell's (2000, p. 145) category of a social network where the operational unit is a project. Artistic projects are a central function of the PixelACHE networks. The key person has a central role in starting new projects. The artistic director informant describes the process as follows:

*I go to the Net and say "Hey I've got this idea. I can develop it to this stage, please join me!" This is how the projects start. When the artists are selected, I use the criteria of finding new, exciting, and suitable projects to be presented during the festival. [Artistic director informant]*

In many cases, the artistic director informant was the initiator of a new project but he did not necessarily stay with the project until the end. In practice, most of the projects presented at the PixelACHE 2005 festival were based on the individual artists' own processes that were not jointly developed within the networks. According to the artistic director informant's experience, the joint development usually steps into the picture after the artists and other developers get to know each other personally during the festival. In this respect, the festival serves as an essential meeting place where connections are made and later possibly developed via the Internet towards joint creative artistic projects. This process is quite different, therefore, from the open source software development process. The artistic director informant stated that the personality of the coartist or codeveloper is highly important in the art scene, while in the open source software context, the usefulness and correctness of the code are most important.

The artistic director informant described himself as a person who directs the development process in the networks and supports others' creativity. He names the enthusiastic joy of creating new things with similar-minded people as his guiding motive. Trust also plays an important role in the community. His credibility as the key person gives a trustworthy label for the network, an important element when contacting other networks.

### **Institution-based Artists in an Anti-Institutional Environment**

The majority of the PixelACHE artists are employed by a corporation, or by a public or third sector organization. All of these entities comprise the second and third groups in my analysis. In principle, the main income of the members of these groups is generated outside the open source art projects. When I followed the links of the artists presented in the project archive of PixelACHE 2005, I found several professional titles used outside the open source art field. The members of the networks around the PixelACHE festival often work with titles connected to new forms of interaction (e.g., concept designer, information architect, interface designer, interaction designer), production and management (e.g., audio designer, flash designer, rich media designer), digitalized PR work (e.g., art director, copy writer, visual/graphic designer), technical expertise (e.g., software designer, database programmer, site builder), creative management (design manager, creative director, project manager), or in various roles in the educational and consultancy sectors. Artists, especially, often were currently affiliated with a university, college, or polytechnic, or they lived on art grants.

In the program catalogue of the festival the institution-based artists did not identify themselves through their background organizations but as sole actors. Individualism was stressed in the open source art community, just as in the open source software development communities. However, when presenting jointly developed artwork, the collectiveness was stressed in the presentation of a joint project.

*The authorship thinking is manifested during the performances of the festival. When the creative process is done jointly, often the performing of the work is done so too. The performer is not a "big star" taking over the stage. The performer is just one person on the stage with all the other authors. So, in the performing practices, we also question authorship. [Artist informant, female]*

Some of the artists used an artistic nickname. Both interviewed artists proposed that this is done by artists in order to separate their identity in the volunteer-based experimental playground from their day job identity built around their own name.

The artist informants used the term *hacker* in describing themselves. The interviewed younger new media artist defined the term *hacker* in a positive way:

*It [hacking] is a way to function and collaborate in order to test and create new interesting things. Hackers are smart enough to see how much more power there is when a large network combines its labor and thinking. I think that a hacker feels pride about being a hacker. [Artist informant, male]*

This perspective falls well with Castells' (2001) and Himanen's (2001) positive definition of hackerism as an ideology where new solutions are published and openly available to benefit the whole community. This can be seen, for example, in the academic tradition, where openness and joint work towards development is based on the ethics of science, not the law (Castells, 2001, p. 40; Himanen, 2001, pp. 70-71; Tarkka, 2002, p. 93).

Open source artists seem to be, at least in the view of the artist informants, less anti-authority-oriented than the software developers discussed by Himanen (2001, pp. 32-47) and Castells (2001, pp. 49-51). The artist informants viewed authority as split between public/governmental institutions and corporations. The governments in the Nordic countries have played an important role as financiers of the art sector and are seen in a positive light by all of the interviewed informants. Actually, the role of the government or state institutions is important for the open source art hackers. In the case of PixelACHE, it has been important to find cooperation from public institutions in order to ensure facilities, finances, and status for the festival. An alliance with the Kiasma Museum of Contemporary Art, located in Helsinki, was realized in the second PixelACHE festival in 2003. Only a year later, the festival received financial aid from the European Union, which gave an even more institutionalized identity to the festival of 2005. Neither the artistic director informant nor the artist informants saw any image problem or threat in the more institutionalized status of the event.

Although the anti-governmental or anti-institutional aspect of the open source hacker culture is not deeply held within the PixelACHE open source artist network, anti-corporation perspectives are still deep seated. The corporation-based artists underscore this perspective by using Creative Commons licensing. The free use of content in non-commercial environments gives the artwork the possibility to touch a wide range of people and, through this process, the team behind the content gains popularity and possibly new, interesting projects based on the ideas and skills they have demonstrated.

The PixelACHE festival has a corporate global IT sector sponsor, even though the open source model was seen as a rival to corporate methods. As the artistic director informant stated, *"The open source model and corporate model are two camps that have been polar opposite. I think the gap between the two should be reduced, so that both sides would understand the other side a bit better."*

The motive for the corporate sponsor to take part in the festival was, according to the artistic director of the festival, a willingness to understand grassroot-level networks. The corporation representative aimed to find a good way to cooperate and was afraid of being neglected because he came from the corporate environment. When working with the sponsor, the festival director made special effort to see that the sponsor stayed at arm's length from artistic decisions. Yet, having a corporate sponsor for an open source art event has created tensions inside the community because of the influence that sponsor has to the image of the festival. The informants divided the corporate world into "good" and "bad" companies on the basis of the attitude that the corporation had towards the open source ideology. Bad companies were those that treated open source hackers as criminals. The good companies were those open to see what kind of networks there are and that something could be learned from them or even jointly created. In the long run, the good companies are expected to give something back in exchange for the creative content received by an open source artist. The final decision of including a corporate sponsor at the PixelACHE event was made by the

festival director and accepted by the community on the basis of the trust that the community holds for the director.

In new media art, artifacts are created within media laboratories, networks, and production teams, with the goal of constantly exploring, experimenting, and learning from the other members (Tarkka, 2002, p. 39). The creativity is born within individuals, but the artwork is created in teams. The software coders behind the PixelACHE network have put their efforts into creating new open source software that the artists have used creatively. There have been several software programs developed, presented, and tested by the members of the PixelACHE networks during and after the festivals. At the same time, the ideology has slowly expanded towards open content creation. Still, the copyright tradition seems to slow down the spreading of the ideology more widely into the arts field. The copyright problems are caused, according to my interviewees, because of a new interpretation of authorship. The new interpretation of authorship is raised from the new method of joint creative work that blurs the role of single author that forms the basis of copyright law, and because of the open distribution of artifacts.

The public institution-based members (mostly from universities and other educational institutions, research centers, or art organizations) seem to use PixelACHE to find new perspectives, to get in touch with the rapidly changing development of the new media sector, and to present their ideas in order to get feedback from the other members of the network.

*The university is often isolated from the new media art field, so the meetings are an important way to find out what is going on in the real world. Last year my friend presented a sound demo at the festival and got more comprehensive feedback and ideas on how to develop the project than he would ever get from his colleagues at the university. [Artist informant, male]*

Because much of the work is funded by public institutions, the younger interviewed artist thought that a more liberal use of artifacts is reasonable. Nearly all of the work presented at the festival was done under Creative Commons licenses, so the author retains the possibility to exercise some form of control over his/her work, but at the same time makes it easier to use by those who want to borrow ideas and sample material. The network helped the artists to develop their projects in the daily work often supported by the public sector. When new innovations are born rapidly, it is hard to stay up-to-date. The open source community serves as a way to get information on the latest developments in the field of new media art.

Software development-oriented members of the network are looking for new challenges, ideas for the software they use, and also to place their own software to be tested by the artists.

*Many of the members of our network live two lives. One is for the income and their projects are completed so that the outcomes are strictly copyrighted. Then the other life is around the new exciting projects that one just wants to be involved with. [Artist informant, female]*

The virtual networks are a platform for experiments and mutual learning that also help individuals to succeed in their work environments. Still, transferring open source products into business applications can be quite problematic. For example, in the case of Linus

Torvalds, an open source operating system developer, his income comes mainly from consultancy and not from an actual open source product such as the Linux operating system (Weber 2004, p. 194). Already by the mid-1990s, the open source ideology had expanded the IT sector. As a result, people often want help in installing and in using the open source software. For example, although Linux can freely be downloaded, people do buy it on CD because of the accompanying manual. Selling services also creates longer-lasting clients. But how does the “Give away software for free; sell services for a fee” ideology fit the open source art community? Exactly the same way: The key persons of the communities often live off of consulting services and by working as special experts in several projects. For them, the PixelACHE network was a test environment and an important reference.

*It is quite problematic to earn income associated with the networks I run. There are so many people voluntarily working in the network that it is difficult for me to take income out of the work around the network. The other members would question the whole work. Still, I carry the main responsibility, give my name and identity to ensure the status of the network, and am responsible for the most initiatives. [Artistic director informant]*

Meanwhile, the corporate members of the PixelACHE community felt tension from their peer commercial media sector workers who are employed in the corporate world but not involved at all with the open source community. The reason for this tension was, in the artistic director informant’s opinion, that the open source community has questioned the artistic process coming from a sole creator. When different types of experts join together in a creative process, the end result is often better, as compared to a sole artist who tries to be an expert in all aspects of new media art, such as sound, graphic design, and technical script writing.

The artists who hold a day job at a corporation seem to wear two hats. Their work in the day job is copyrighted while their volunteer-based development work is mostly released under Creative Commons licenses. However, the two worlds suit each other very well. The PixelACHE network serves as a playground for developing artistic ideas and having fun with them. At the same time, artists update their knowledge, gain important contacts, and stay in touch with developments that help them in their day jobs.

## **Young Enthusiasts**

A fourth group of members in the PixelACHE network were the artists just entering the field without a secure position in the workforce. Only rarely would someone call himself or herself a “media artist.” A more typical title was just artist or visual artist. Similar findings have been found on the basis of a large empirical study by Mäkelä and Tarkka (2002, p. 19), who argue that the authors in the new media field do not identify themselves as artists, but rather the motives for action is found from the themes and targets of popular culture, civic activism, and computer programming and software design subcultures. In particular, the youngest new media artists want to avoid the “artistic” label. They also want to get their works onto the Internet and in urban spaces rather than in a gallery or an exhibition context.

Although much of the work presented during the PixelACHE festival was released under a Creative Commons license, part of work was strictly copyrighted. According to Himanen

(2001, p. 53), the concept of ownership is different for open source developers than in, for example, the corporate world that pursues patents, trademarks, copyrights, and non-disclosure agreements. Castells (2001, p. 47) states that the gift culture is a dominating, working mechanism in the hacker world, where the inner joy of creation is the leading force and brings the culture close to the world of art. Still, the open source artists also hope to make a living from their art. According to Mäkelä (2002, p. 156), the new forms of economy are based on brands that are created in the networks, linked with software, projects, persons, and organizations. These forms are new in a sense that they are not built on mass production, but different models of distribution. If the copyright-based income is discounted, then what kind of income are open source artists looking for when working in the open source community?

According to my interviewees, many of the young members of the community hoped that the community would serve as an entry point for projects that generate income. In fact, this has happened during the 4 years of the development of the collective for many enthusiasts who have been employed in computer software firms. For young new media artists the festival has functioned as a demo and promotional scene for their work.

*Often young artists are outside the circle and need a platform to show their talent. This is what our festival is trying to provide. For many of them, the only ways to finance the artistic work is a mixture of social benefits, jobs outside the new media sector, or low-paid projects within the new media sector that one can't live on.*  
[Artistic director informant]

In the long run, the artistic director informant stated, most of the artists of the network drop out and get a proper job, usually simultaneously with starting a family. They often split their work into “quick and dirty” projects that are done in order to get money and to “art projects that strive for enjoyment of joint creation and self expression,” the artistic director informant explains. For young artists, the experience within the network, and in some cases also the status, was valuable, even though not many of them were able to continue artistic work, but rather turned to basic computer design work. Still, there is hope that the work done under Creative Commons licenses remains viable and might end up in a commercial environment and generate at least a little income.

For the young new media artists, the motives are often to show their talent and projects in order to find employment, although this did not seem to be a typical outcome, at least not yet. Some of the artists used social benefits (unemployment allowance and general housing allowance) to cover their daily expenses and felt that the public allowances are their “salary” for working in the new media open source art field.

## CONCLUSIONS

The open source ideology and method is an interesting concept when viewed within the field of new media artists. On the basis of this exploratory study, the PixelACHE artists seem to share the ideals of the open source-based, software-oriented hacker culture of openness, joint creation, and collaboration through Internet-based groupware practices. The PixelACHE network was considered open, even though the artistic director controlled the growth of the

network and wanted to know personally all the members of “his” network. Also, the artists of each artistic project usually knew each other already before the cooperation began. From this perspective, the creation forum seemed not to be open to just anybody, but to those who had earned trust and credibility through previous projects. The end results—artistic artifacts—were primarily openly distributed under Creative Commons licenses, so the open source ideology was most commonly adapted as a more liberal distribution than as joint creation with anyone wanting to join in the creative process.

The open source artists in this study see the traditional, highly legislated, author-based copyright tradition as old-fashioned, and felt that it is important to create a more open concept of property that makes it easier to use and distribute artistic work. This would be also an important step towards open source-based art that could benefit Internet users more widely. The ethic is similar to one of science: New ideas are openly distributed for others to comment on or further develop. This tradition could serve as a fertile ground for artistic innovations as well. However, if copyright and the matters of authorship are rethought, the open source artists face the challenge of finding an alternative avenue for income. At this point, the strategy for most artists was just to be employed somewhere and use the open source platform as a playground for artistic ideas.

In the case of the PixelACHE network, I found four groups of artists that differ in the way of financing their open source-based art in the new media network. The key person of the festival fit Castells’ (1996, p. 415) idea of managerial elites. He was cosmopolitan and funded much of his work through consultancy and lecturing fees. For him, the network was part of his credibility image, which was also essential when he applied for personal artistic grants. It is notable that the project-based, hired event managers did not fit the category of managerial elite. The second and third group contained those who earn their main income in public institutions or the corporate world. For them, the PixelACHE network served as a meeting platform—a playground where they can join others, develop artistic ideas, stay updated on what is going on in the field of experimental new media that may have implications for their day jobs, and have fun creatively. For the public sector employees the PixelACHE provides a demonstration platform for work often developed at least partially as part of their day jobs and often realized under a Creative Commons license. The corporate sector employee’s work is copyrighted and the volunteer-based PixelACHE development work is mostly released under Creative Commons licenses. The fourth group consists of those who put a great voluntary effort in the community, but live on social benefits or freelance-based “quick and dirty,” on-off projects that are organized just to earn some money. For them, the network served as a meeting place and they also hoped that the connections and possibility for introducing their artistic work would lead to new projects and employment. For most of the members who fall under the fourth category, activity in the network does not last very long because they are often forced to make their living outside of the new media sector. At the same time, they share high motivation on the development of work that might be beneficial for society in terms of the common good.

A challenge for society is to direct at least part of the open source artists efforts to benefit society as social hackerism. Still, the lack of opportunity for income is a big obstacle. As long as voluntary, unpaid work is the only option for young new media enthusiasts, their creative contribution to the society remains untapped to its full potential.

## ENDNOTES

1. More about the GPL and copyleft method at <http://www.gnu.org/gnu/thegnuproject.html>
2. For more information on Project Gutenberg see <http://www.gutenberg.org>
3. One famous site is [www.fanfiction.net](http://www.fanfiction.net), where, for example, Sherlock Holmes solves over 500 new mysteries and the Star Wars has over 8800 new stories voluntarily written by fans
4. The Web site <http://wikipedia.org/> publishes articles written by volunteer authors in over 30 languages, including lesser languages such as north Samic and Wolof
5. For more information on READ\_ME, see <http://readme.runme.org/>
6. For more information on Piksel, see <http://www.piksel.no/>
7. For more information on MAKE ART, see <http://makeart.goto10.org/2006/>
8. For more information on Dorkbot, see <http://www.dorkbot.org/>
9. For more information on OpenLabs, see <http://www.pawfal.org/openlab/>
10. For more information on dyne:bolic, see <http://www.dynebolic.org/>
11. For more information on Kingdom of Piracy, see <http://kop.fact.co.uk/>
12. The PixelACHE archive is accessible at <http://www.pixelache.ac/archives>

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All correspondence should be addressed to:

Katri Halonen  
Faculty of Culture  
Helsinki Polytechnic  
P.O. Box 4040  
00099 City of Helsinki  
[katri.halonen@stadi.fi](mailto:katri.halonen@stadi.fi)

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