

What is Open Source Art?

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Is it a visual art? Or, is it possibly a performance enacted in physical space, or maybe a community developed around a certain practice of Open Source development? However, the hermeneutics of both Open Source culture and various Art methodologies and histories are multiplied by the multiplicity of circumstances that define each auteur/theorist questing to develop in either or both fields. Although I've heard this wired phrase repeatedly over the last year, have participated in events that use Open Source ideologies, am an artist, and more importantly am a full-time Open Source developer on Inkscape¹ and the Open Clip Art Library,² I'm writing this using the heuristics of self – experience in both fields, or the Google of self – and not as an advocate. So, I start with the aforementioned basic query: What is Open Source Art?

It is quite possible that artwork already exists, or practices of art-making have existed that are similar to the current movement called "Open Source," coined in 1997 by Eric S. Raymond and Bruce Perens.³ Open Source implies that some "thing's" source code is open, or publicly available for copying, viewing, modifying, and forking – all operations normally attributed to software "source" code development. Whether or not a particular artist summons forth from the sky invoking Open Source culture to define their artwork is what is to be explored.

So, without Source Code, then how is it Open Source Art?

On one level one could say that the design of a chair is Open Source and that the plans for making the chair are readily available for modifying and reconfiguring. This is a common object in which the basic prototype, or simple knowledge of the common object is freely available. Therefore, common objects could be identified as precursory Open Source art projects, however quite dubiously. This is one step removed from source code as a type of language (or map) that is translated into computer byte code. Possibly a better example is an actual architectural blueprint which is akin to source code, and the final house constructed from this map would be equivalent to the byte code. Still, this is not explicitly Open Source, because it is not computer source code.

However, there are some problems in simply calling an art project "Open Source." Just as a taxonomic classification is attached to Net.Art, Software Art, Pop Art, and Video Art, is it not quite cliché and laborious to map

¹ Inkscape (<http://www.inkscape.org/>) is a cross-platform open source scalable vector graphics editor. It is a drawing tool used to create SVG, which is an XML mark-up meta-language, similar to HTML, but for graphics. There is a dire need for an open source SVG tool and also an excellent professional-quality illustration application in the world.

² Open Clip Art Library (<http://www.openclipart.org/>) is a brand new project that is an outgrowth of Inkscape with the primary goal being to develop a massive online graphics repository, or library of meta-data rich graphics for anyone to use. All graphics in this project are public domain.

³ Bruce Perens. "The Open Source Definition". *In Open Sources*. ed. Chris DiBona, Sam Ockman, & Mark Stone. (Sebastopol, CA: O'reilly & Associates, 1999).

the good nature of Open Source onto an artwork that is possibly quite far, conceptually, from the proper original definition given by the Open Source Initiative and that organization's Open Source Definition (version 1.9)?⁴

Several projects I've been involved with have failed in part because of this application of Open Source ideals to imply both democracy and anarchy, naively in opposition. Media theorist Pierre Levy talks about "open work" as being "trapped in the hermeneutic paradigm, where a participant is left to fill in the blanks and wander through the multiplicity of possibilities of interaction"⁵. This is the case with the "digital happenings" of MESH.FM,⁶ a collective of individuals coming to grips with the socialization of their technology and extension of it back into public life. MESH.FM developed in synchronicity with Bootlab – Berlin, the SHARE movement in New York, and MAMA Media – Croatia⁷. Basically, MESH.FM was designed to be an experimentation zone of informality and new ideas using modern tools where the prime concepts of deejaying, webcams, streaming media, and parties were conflated. This collective ended explosively because of the bipolar mixing of both order and chaos. Sociologically, it came to an end because of groupthink, which Janis describes as "a mode of thinking that people engage in when they are deeply involved in a cohesive ingroup, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of actions."⁸ When a group develops its own isolated subcultural jargon that others can not understand and redefines concepts outside of the dominant discourse without any allowance for influx from external entities, then please look for this groupthink problem. This happened with MESH.FM significantly as various ideological concerns appropriated from Open Source culture stood in for a misconstrued sense of openness and democracy. Without a more thorough understanding of these ambiguous representational concepts, the "open work" will remain a stochastic mass of goo. As simple as it might be to call something open in recognition of some past contextual use of the word, possibly from the 60s and early 70s Vietnam War protests, this is to naively suggest that an open artwork has no (or few) constraints. This is forgetting the constraints that are already environmentally given such as our bodies, available time, and location. Thus, to misunderstand this is to be at the will of the environment rather than in the drivers seat. Don't forget: Open Source means that the source code is open!

Similarly, another project used Open Source for inexpensive tongue-and-cheek construction of portable dwellings, or Open Huts (I took down the website as it was quite atrocious), where the building plans, or source code, were never actually given to participants of the project. Instead, the participants were told to build a "70's style Burning Man Geodesic Dome" with 2 different sizes of conduit, that, when fit together, make a lovely Utopian dwelling. This idea still has legs if considered as an inexpensive dwelling for impoverished nations, or cities with shanty towns like Tijuana. Sadly, it became an exercise in group experimentation. See, it is very difficult to build a dome, as the logic one would use to build it does not follow the actual plans necessary to organize the actual

⁴ <http://opensource.org/docs/definition.php> As of this writing (MAY 2004), this definition is at version 1.9.

⁵ Pierre Levy. "The Art and Architecture of Cyberspace," in *Collective Intelligence*. Trans. Robert Bononno. (New York: Perseus Books, 1994).

⁶ <http://meshfm.ucsd.edu/>

⁷ Bootlab: <http://www.bootlab.org/>, Share: <http://share.dj/>, MAMA Media: <http://mama.mi2.hr/>

⁸ Irving Janis. *Groupthink: Psychological studies of policy decisions and fiascos* (2nd ed.). (Boston: Houghton Mifflin, 1982), 9.

building. One such event took place at the Center for Research in Computing and the Arts (CRCA)⁹ and took approximately 3 hours of time for various people to enter into the situation, connect together conduit, take on the role as leader, coordinate action, fail, and then become subservient to another risen leader. Eventually, the dome was finished, but it no where near looked like a dome.

Through the two aforementioned projects (and other unpublished ones), I've partook in the ambiguous mapping of Open Source concepts in a Post-Modern sense. I call this "wounding." One wounds a project to learn more about the functionality of how it works in society. This is an extremem minimalism, where instead of reducing features down to the least amount, one rather reduces reality by breaking the chosen feature. If we took our Open Source chair and broke one of the four legs, what does that say about "chair-ness." A perfect recent example is game modding and Game Art, as Celia Pearce and others have been so enthusiastic about. An example displayed at USC's Art In Motion V festival by Margarate-Jahrmann and Max Moswitzer called "Nybble-Engine" 2003 showcased some Game Art with the original functionality of a game, in this case Half-Life, wounded. In this particular instance a feature of the original games rendering engine is exploited to create real-time computer generated animation or what they call "interactive machinima." The visuals for this mod take a stock character from the game and allow user interactions with that character to stain the background. In normal games, the screen is redrawn around 30 times a second, yet these artists allow the background to stay over-painted – in reference to Vasulka-like video feedback. Whereas normal games are goal oriented, i.e. a player has to save the princess, this genre of artwork severely disables or destroys expected usability of the traditional game and its many inter-faces. This is why so much Net.Art is so irritating, as it destroys traditional user expectations of usability – thank you jodi.org very much! In return, a user gets angry and leaves the the broken game or software interface cursing it as worthless because it doesn't follow the standard logic, and thus, is no longer a game, but Game Art, or Software Art! Still further, it is one thing to extend a game logic, but its a subversive tactic to simply take away a key element and watch a genre hobble around like a dog with three legs in order to misunderstand the gestalt of the original.

This wounded logic is quite counter-intuitive to the actual existence of Open Source ideologies and the community that surrounds. These communities are focused, quite consciously, on filling in technological and social holes. Pre-Open Source luminary, Richard M. Stallman, founder of the Free Software Movement, has said that part of his mission is to embed social consciousness into the actual software that is distributed under the GNU project. Also, when asking an Open Source Community about political and social stances of what they are involved in, prepare to get an earful. These are not your stereotypical "hackers" misrepresented as long-haired losers without a job. In fact, according to recent studies, 83% of Open Source Developers are employed in the IT sector or a related field at a University, and more than two-thirds have significant others or are married (Rishab 2002). Open Source developers are in fact quite established individuals in society, who in my experience, at the end of the day when they leave their jobs, immediately log onto their project chat channel and start working on 1-2 Open Source projects simultaneously.

The general code that defines Open Source projects is the Open Source Definition which highlights 10

⁹ Please see Center for Research in Computing and the Arts, <http://crca.ucsd.edu/>

requirements for software to be called Open Source: 1) Free Redistribution, 2) Source Code must be distributed with the program, 3) Derived Works must be distributed under the same terms as the original, 4) Integrity of The Author's Source Code, 5) No Discrimination Against Persons or Groups, 6) No Discrimination Against Fields of Endeavor, 7) Distribution of License, 8) License Must Not Be Specific to a Product, 9) License Must Not Restrict Other Software and the 10) License Must Be Technology-Neutral. Each of these points is also provided with a rationale of why they are included in the definition¹⁰. Already from this listing, it is made clear that anything that is considered Open Source relates specifically to software code. Are we looking in the right place if an artwork is considered Open Source Art and isn't based on source code?

Another problematic outline of Open Source principles is given in Eric Raymond's "The Art of Unix Programming" where he defines three Open Source development rules that have emerged from earlier Unix development traditions. The first is to **let the source be open**, which means to not have secrets in the code and process that is used to develop some *thing*. He states that this process should be public and as many people as possible should review the code. Second is to **release early and release often**, where more frequent releases means more frequent feedback from the community of users. And, the third rule is to **reward contributions with praise**, so that if you cannot give each other material rewards, then give psychological ones. He notes that "people will often work harder for reputation than they would for gold."¹¹

These emergent principles guide the continuous development of multiple thousands of people distributed all working on various projects. Open Source development is a community of practice¹² where a network of social software is used to create a shared repository for group memory (Shirky 2003), or group projection onto a singular object. The technology used to synchronize a majority of these projects is called CVS, or Concurrent Versioning System, which I have shown in a writing of a similar name,¹³ is used as a technical system and ideological framework for medium to large-scale collaboration. **Concurrency** implies that authors are working in synchronization, which is important if everyone is working on the same codebase, so that each member of the community benefits from the asynchronous development of authors in other timezones – around the planet that are awake when you are asleep. **Versioning** is the component of the system that implies that the community is goal-oriented, or working and progressing towards a positive future version of the shared object. Finally, **Systems** is what links with the technologically signified. It is necessary for a technological system to mediate collaboration, or transactions between multiple participants that cannot be in be in physical proximity. Also, the mediating system allows for one's connectivity with multiple individuals to scale. Still, however there are limits to how many relationships one person can maintain as limited by your brain. One can maintain around 150 relationships, which as

¹⁰ Perens, 176-180.

¹¹ Eric Raymond. *Art of Unix Programming*. (New York: Addison-Wesley, 2004), 438-440.

¹² Jean Lave and Etienne Wenger . *Situated Learning: legitimate peripheral participation*. (Cambridge England; New York: Cambridge University Press, 1991).

¹³ The writing I'm referencing is called CVS: Concurrency, Versioning and Systems in which the Open Source software CVS is used as an ideological framework with which to discuss large-scale collaboration. It is also expanded to discuss how this type of system is employed to work on text, graphics, video, in addition to software source code.

Clay Shirky points out, is the max number of people you can have in your buddy list on America Online Instant Messaging client (AIM) (Shirky 2002).

With this being said, let's return now to discussing Open Source Art? It would seem that an Open Source Artwork should, in addition to upholding past art traditions, uphold the community-based approach to software practice, as well as follow the 10 rules of the Open Source definition. Rather than developing a Post-Modern reductive project that actually misinforms or decontextualizes the community which is being sampled, how can an Open Source Artwork be created that is additive to the Open Source movement while extending the concepts into art practice? Or, are we on the wrong track? Is what we are calling Open Source Art, actually Open Content, which has now been shuffled into the Creative Commons umbrella?¹⁴

Before we provide an answer, I'd like to say that I am coming at this writing from an artistic background. I decided that I wanted to become an Open Source developer in actual projects and contribute my artistic skills – among many other more successful skills – and learn the practices first hand before looking around at the landscape of what is considered "Open Source Art". The reason for this is that I do not like the idea of being an outsider as an artist, and then traveling to new and distant lands when funding is ripe (or when one has tenure), culture sampling other disciplines or subcultural movements and bringing back the cultural booty to the art world where the interesting anthropological statements are made (sarcasm). This represents a reductive foundationalism applied to yet another subcultural movement that is expanding or has moved mainstream. I spent much time developing Inkscape, an Open Source Scalable Vector Graphics Program and the Open Clip Art Library for them to be actual functioning projects that commit content and artistic history to larger cultures; I am not outside of the community, but am part of the culture. Why should I spend time pushing my friends, colleagues, and their ideas into a nonfunctional 'ism?

However, with time and maturity, I have learned that there are some significant values that art can inform upon other disciplines and movements. In review, I found that it is the actual approach of my peers and context that I was critiquing. Now, here is my first sweep at looking at the field of Open Source Art. You may end your reading of this text at this point, or continue below through my hyper-texted hyper-jumping through Google searches of "Open Source Art".

First Google Sweep for "Open Source Art" in 10 Steps

My first experience by searching for Open Source Art brought up some very interesting results. First of all, the project with which I've spent many hours developing, yet which has not been publicly announced, Open Clip Art Library, is the second result of the search. Brilliant! (I just sent an e-mail to everyone on the Open Clip Art Library team congratulating them on this success – Google-sweeping is prime!).

¹⁴ Open Content (<http://www.opencontent.org/>) is a project that David Wiley started with the intent to provide licenses for open media content such as published works, music, video and so forth. He has now funneled this project into the Creative Commons (<http://www.creativecommons.org/>) which "is devoted to expanding the range of creative work available for others to build upon and share."

Now to dig in deeper:

1. [<http://www.calarts.edu/~line/history.html>] The first result comes from a colleague of mine, Amy Alexander and Natalie Bookchin's efforts to place the history of net.art into a temporal classification system. While I've visited many of these sites, they are all Net.Art projects, and find that the page itself is considered Open Source, but not Open Source Art.

2. I just mentioned that my second search result was Open Clip Art Library! Double the Publicity!

3. [<http://netartcommons.walkerart.org/>] This next link is pretty interesting, as it comes from the Walker Art Center. It appears that the project is defunct now, with Steve Dietz gone from the Walker Art Center (He is a cool guy no doubt). This project hasn't been active since June and July of 2002 and has some post-Net.Art mystery comments scribbled into the netartcommons blog. I'm doing the unthinkable now and am traveling one link deeper inward. I clicked About OSAH (Open Source Art Hack) and I received an Internal Server Error, bummer! Next!

4. [<http://rhizome.org/carnivore/>] Okay, well I followed the link from the to Open Source Art Tools and discovered a link to the earlier project, Carnivore Personal Edition by the Radical Software Group. This is an interesting project as always. It looks like Alex Galloway and gang have made Carnivore into an Apple Cocoa application for people to monitor packets on their local network – impressive! However, I don't know if I'd consider Carnivore Open Source, because I can't easily find all the source code and there doesn't appear to be a community of practice surrounding the effort, however there are some parts of the project that are loosely Open Sourced, as there is example client code compressed into a file for users to download. This might be one of the first Open Source Art Projects, as it isn't *wounded* software, but provides a useful client and server combination; it provides a service. Alex, we should talk. This project could benefit from being further Open Sourced and publicized to the Open Source community for future iterations. It could even possibly turn into a datascan client, in which datasets could be rerouted to different client modules, somewhat similar to what is implemented currently. Did I mention that I consistently enjoy this project!

5. [<http://three.org/openart/>] From Carnivore, I've now left via a link at the bottom of the page for the **Open Art Network**. Yet again, this is news to me, but represents a naming trend which I've tried to stay away from, but was out-voted on in naming the Open Clip Art Library. Yes, the use of “open” is quite cliché, but it is hard to turn down an offer from Open Office developers for the use of the free domain name openclipart.org and their organization's support. Plus, Open Office has 20-30 million users and rising. Back to the point! Wait, I just found a brilliant link

from their site, and I've decided that since their pages are about Open Source and Open Content that I'm sampling the following:

The Open Art Network: Project Description

This is a dynamically generated version of the Open Art Network project description in printable form. You can find the updated version at <http://three.org/openart>.

Participating Artists

The artists who've contributed to the Open Art Network use very different software for very different purposes, yet they all chose to open their code for the benefit of artists at large. Click on the headings at left to find out why.

Mark Daggett is best known for his unsettling browser and peer-to-peer clients such as Blur Browser and DeskSwap. He has released an open version of his Carnivore client written in Director.

A founding member of the Radical Software Group, Alex Galloway has also created innovative works for gaming platforms and written a book on Internet politics. He has released an open version of Carnivore written in Perl.

John Klima has explored the interactive potential of 3d interfaces based on realtime interaction (GLASBEAD) or data (EARTH, ECOSYSTEM). He has released an open version of his war simulation The Great Game written for the Gameboy console.

Mark Napier is best known for interfaces such as Shredder or net.flag, which re-imagine the Web beyond the print-based metaphors of commercial browsers. Napier has released an open Carnivore client written in Java.

In association with the Open Art Network, Napier and Daniel Howe are also at work on Open Java, a component-based toolkit that enables Java multimedia programmers to share code. This project aims to provide a method for building small code components that can be reused in a variety of contexts, sample components that demonstrate a pluggable approach to code design, and a way to "test drive" a component outside of any specific application.

Still Water at the University of Maine is at work on The Pool, a collaborative environment for sharing art, code, and text. Participants include John Bell, Joline Blais, Jon Ippolito, Matt James, and Justin Russell.

The Problem

The Internet opened the door to new possibilities of democratic access. Artists were among the first to step inside, and since the early 1990s many have been standing in the doorway, holding it open for others to pass through.

But in recent years pressure has mounted from both inside and outside the art world to close that door. In the war brewing over creativity in the digital age, the artists who are standing in the threshold are going to have to choose a side--and a lot rides on their decision.

Click on the links at left to learn more.

A Crisis in Open Culture

Ten years ago, the rich tapestry of interwoven communities and creative practices we call digital culture didn't exist. Ten years from now, it may again cease to exist--not because of stock market crashes or terrorist attacks, but due to our inability to sustain the open protocols that encouraged the growth of that culture in the first place. According to a wide range of experts, from network pioneer Vint Cerf to Google CEO Eric Schmidt, the Internet is at a turning point--a point where the combined pressures of government control and corporate profit threaten to foreclose its democratic underpinnings.

Especially at risk are artists, who have been both instigators and beneficiaries of the digital revolution. An important reason that network culture has blossomed so quickly is that creative advances don't come exclusively from Big Science or Big Industry. A single person can make a

difference just by finding the right cultural need and fulfilling it through the philosophy of "DIY": Do It Yourself. And thanks to View Source--the browser feature that allows surfers to see how a Web page is built and re-appropriate the code for their own ends--online artists haven't needed residencies in research universities or high-tech firms to acquire the necessary skills.

Until now.

Together with the increasing privatization of the Web, pressures from inside the art world have led many contemporary digital artists to migrate to closed rather than open media. In particular, a number of prominent artists have been experimenting with models for selling digital art, and dealers who smell money are scrambling to help artists package work into closed, exclusive forms. While there's nothing wrong in principle with making money off art, in practice this pressure has led some artists to move toward formats where code is hidden from view and where access is controlled by private collectors or gated communities.

The Choice

For the rest of artists working online, this leaves a choice between View Source or Black Box. In the first vision of the future, open protocols prevail and usher in a second generation of online creativity dispersed among people of many classes and geographies. In the second, closed formats prevent surfers from looking under the hood, and digital media become the sole instruments of an artistic elite with access to esoteric training or equipment.

Digital artists are not the first artists to feel the pressures of enclosure. Despite the variety of experimental approaches explored by Conceptual artists in the 1960s and 70s, most of their work has entered museums in the form of anemic photo-collages and other documentation, which represent at best a pale reflection of the radical immateriality and spirit of the original performances and installations.

Nevertheless, some creative cultures that have managed to stave off enclosure, if not defeat it. Until the late 1980s, software programmers had been accustomed to exchanging code without restriction as a matter of principle. When AT&T decided to enforce its license over the Unix operating system, programmer Richard Stallman proposed the legal paradigm of copyleft to preserve access to the fruits of collective labor. Stallman's conceptual monkey wrench in the gears of monopolism enabled GNU/Linux, Apache, and other Davids of the software industry to foster gift-based communities that offer an increasingly attractive alternative to Goliaths like Adobe and Microsoft.

Yet the "Open Source" movement ultimately owes its success to the efforts of a few people who extrapolated an informal ethic into extensible principles.

The Long-Term Risks for Artists

Copyright now has an acknowledged legal incarnation in Stallman's GNU Public License and its variants, yet such licenses are at bottom simply the codification of ethical practices of attribution and transparency that were already mainstays of the computer science community. Valuable contributions like Creative Commons rightly aim to offer new license options for artists, but such efforts are hampered by the difficulty of jump-starting the legal process before ethical conventions have been firmly established in the art community itself. The Open Art Network aims to fill that gap, by devising and promoting open standards cultivated from within the community of online artists.

Media politics aside, artists have another incentive to pursue open formats that doesn't apply to the average open source programmer: their legacy. Since browsers and plug-ins go stale in a matter of months, code-based artworks are especially vulnerable to technological obsolescence; for such art to have a lasting impact requires that the artworks outlive their manifestation in any particular medium. The variable media paradigm developed at the Guggenheim Museum holds out a potential solution to this accelerated obsolescence, by empowering artists to specify how their code might be migrated or rewritten in the future. When the code running an artwork is closed, however, such efforts are hampered or well nigh impossible. In this sense, the Open Art Network will be a natural--and necessary--complement to the growing Variable Media Network that currently supports the preservation of new media art.

A Solution

In today's bewildering climate of rapidly changing technical and legal structures, the opportunity to create open yet enduring standards--and most important, a community ethic--offers creative individuals a chance to take control of their destiny and help shape the culture that nourishes them.

The Open Art Network aims to empower artists working in digital formats by devising and promoting standards that encourage an open architecture for the Internet and digital media.

The links at left offer more details on such open protocols.

Open Protocols

At left are some examples of the protocols the Open Art Network will explore.

Recombinacy

For code to be re-purposed also requires that it be recombinant--that is, that parts can be copied and recombined to make new programs based on the old ones. If a program is modular in structure, it's much easier to understand and to extract whatever components may be useful to another artist's project.

For these reasons, the Open Art Network will encourage artists to code their work whenever possible in an object-oriented rather than procedural style, and to offer the modules that might be the most useful generally--or conversely, the most unique--to others in the online community.

The Open Art Network will also encourage artists to work in recombinant World Wide Web Consortium standards such as Dynamic HTML. This combination of HTML, Cascading Style Sheets, and JavaScript is well implemented in contemporary browsers--both commercial and open source--but few Web developers take advantage of the flexible visual and kinetic environment it offers. Unlike Flash or server-side protocols, DHTML is searchable, selectable, and modular, which encourages the re-purposing of elements from one online project in another.

The Open Art Network will also encourage artists to make modules in any language available to the general public, either by posting them to an "/open" directory, or by registering them in an online code archive. As an example of the latter, artist Mark Napier has proposed such a "codebase" for the online art platform Rhizome.org, and artist Christian Ryan has proposed a similar protocol for peer-to-peer networks. The Open Art Network could advise and support artists and activists on the creation of such protocols.

More on Recombinacy

Since the turn of the century a number of the most prominent Internet artists have turned away from HTML and toward compiled code such as Flash and Java, which prevents viewers from seeing the code. To be sure, communities of Flash and Java developers commonly post or trade the

code that runs their projects behind the scenes--but you have to be a member of those subcultures to know where to look for this code. If a convention existed for "outing" this code, many artists and other software developers might readily adopt it--but so far no one has proposed one. The Open Art Network will bring artists and technologists from the Open Source movement together to propose recombinaity standards such as the following:

Post Flash source files in the same directory as compiled files. For example, someone who wanted to see the Actionscript behind `three.org/myproject.swf` would know that the source file was located at `three.org/myproject fla`.

High-resolution sources for online audio or image files might follow the same convention. For example, the source image for `ftp.three.org/myproject/image1.jpg` might be found at <ftp.three.org/myproject.image1.psd>

Post Java source code and libraries in an "open" subdirectory of each project page. For example, the source for a Java applet running on `three.org/myproject/index.html` might be at `three.org/myproject/open/`

Design client-side rather than server-side programs whenever possible. Proprietary authoring tools bias many programmers in favor of server-side databases and scripts rather than client-side arrays and JavaScript. While there are technical reasons to support the latter, more important are the political reasons for doing so: client-side code is easier to access and less of a security risk when publicly accessible.

Annotation

Viewable source code is useless if it's incomprehensible. For programmers and artists alike, inline comments like "This function opens a new window" are often an afterthought, and there are no formal conventions for their frequency or style.

The Open Art Network could establish a minimum standard for annotating source code--either inline or in a "/open" directory. We will also explore the possibility of devising a software tool for maximizing the collective advantages of annotation. This tool might facilitate the process of annotation itself; an add-on to popular authoring programs like Homesite or BBEdit could permit drop-down annotations that correspond to machine-readable standard phrases. In another implementation, this tool might permit artists who are learning a programming language to find or

compare sites that employ a function that, say, "opens a window." One of the goals of the Open Art Network will be to establish meta-data standards to drive such implementations.

Circulation

A legal innovation the Variable Media Network is exploring in response to the increasing prevalence of art in ephemeral formats is the concept of deferred rights. Many artists want to maintain control over source elements of their work during their lifetimes: photographic negatives, video masters, Java source code, or the rights to modify or redistribute online works. Yet it is crucial for those same artists to realize that their legacy will be lost to history if those video masters are lost in a fire or their source code becomes corrupted before they are able to transfer it to a public trust.

The Open Art Network will explore with such artists the legal possibility of deferring rights to source materials. According to such an agreement, a video artist might deliver to a collector or museum a duplicate master along with the artwork, with the understanding that the artwork's owner cannot access the master until the artist gives permission or dies. A neutral third party could serve as an artistic escrow account, into which an artist might place source code until such time as a need for open access outweighed their own proprietary interest in keeping it secret. There is some precedent for this in the custom software industry, where owners of a software copyright put their source code in escrow with a third party, so that a licensee can access it if the owners go out of business. In the case of an artwork, it may not be a licensee who gets access, but a cultural organization--online or off--or the public at large.

Attribution

Museums and other organs of artistic culture are organized on the model of the single artistic genius, but this paradigm is especially inappropriate for work in digital media, where collaboration and dispersed authorship is the rule rather than the exception. The Open Art Network will establish standards for documenting the various roles collaborators play in artmaking in everything from inline HTML comments to museum labels. The Network will also explore the possible development of tools to automate the attribution for projects based on copyleft, modeled perhaps on the CVS system currently applied to open source software development at networks such as Sourceforge.net.

Promotion

Establishing standards is one thing; convincing a community to adopt them is something else. The Open Art Network will adopt a number of strategies to educate its constituency.

These efforts have been made possible by the generous support of the Rockefeller Foundation.

Education Online

The Network will establish an online resource explaining the history of open and closed art-- paralleling, for example, the political innovations of composer John Cage and programmer Richard Stallman. This Web site will also feature news and links to help chart the current state of technical and legal developments affecting working digital artists. Links will range from reports on the status of current legislation such as the Hollings bill to surveys of open source operating systems, browsers, licenses, and programming languages, along with comparisons to their closed-source competitors. Contributors to the Network could also post or review the latest Requests for Comment (RFC) documents and other precursors of meta-data standards for open art standards.

Peer Pressure

Aside from its educational resources, the Open Art Network will link to selected artists who employ Open Art protocols. The goal is to establish legitimacy within the artistic community, exert "artistic peer pressure" to raise consciousness among artists who have not yet chosen to move to closed formats, and highlight the different possible stances artists can take on open versus closed culture.

We expect more links to be added soon!

Public and Private Events

Finally, the Open Art Network will organize an online listserv and a series of workshops to draw attention to the issues surrounding open art and stimulate debate over the best protocols. A public conference in a major city will then bring together artists and art professionals to assess the standards that had been proposed thus far. Portions of the conference will be archived on the Open Art Web site.

The audience for these events will expand well beyond artists to include media specialists, archivists, and lawyers. The new paradigms explored by the Variable Media Network have sparked interest in the legal community, as reflected by recent articles in Intellectual Property and other trade journals. It can only help the community of artists and art professionals at large to broaden the awareness of lawyers in both the ways variable media challenge the legal conventions governing traditional art as well as the solutions that leaders in the field are devising to adapt to these new forms of artistic expression.

Resources

Aside from its most important resource--artists--the Open Art Network will draw on expertise from a wide variety of curators, legal innovators, archivists, and technical standards advocates. Click at left to see a list of candidates.

Related Links

From the Variable Media Network

Alain Depocas, Daniel Langlois Foundation for Art, Science, and Technology

Steve Dietz, independent curator

Jon Ippolito, artist/Guggenheim Museum

Thomas Mulready, Performance Art Festival and Archive

Richard Rinehart, Berkeley Art Museum and Pacific Film Archive

Rachel Greene, Rhizome.org

Martha Wilson, Franklin Furnace

From other disciplines

Keith Frank, Oxygen Media

Wendy Seltzer, Berkman Center for Internet & Society

Lawrence Lessig, Stanford Law School

Yochai Benkler, Information Law Institute, NYU

Antoine Schmidt, Artlibre

Volker Grassmuck, Privatkopie.net

Creative Commons

Chilling Effects

OpenLaw
Electronic Frontier Foundation
Internet Society
The Web Standards Project
The World Wide Web Consortium (W3C)
The Open Directory Project

Code Used in This Site

Like all projects featured in the Open Art Network, this page enables you to download the code that makes it work. However, it is already written in an open standard--client-side DHTML--so in most browsers you need only select Save Page As and choose "complete Web page" to see and/or modify the code directly.

The main code modules that will download are:

index.html (this page)

Includes all text displayed on the site, as well as a short block of code that creates the menu at left using ExpandingMenu.js.

ExpandingMenu.js

Shows or hides text in the menu and content portions of the site depending on where you click. The introductory comments include suggestions for how to customize your own index page to go with ExpandingMenu.js.

opeStyles.css

Handles all colors, fonts, and positioning of textual and rectangular elements on the page.

Like most open code, these modules are constantly being improved and re-released; check the version number at the beginning of the document when you aren't sure if you have the latest upgrade.

W3Schools.com offers free online tutorials and reference pages to help you learn Hypertext Markup Language (.html), JavaScript (.js), or Cascading Style Sheets (.css).

However, from the look of this page, this does not seem like an Open Source community, but rather an artist community applying the brilliant ideas from Open Source communities to art. A clue that there is not much of a community supporting this project is the blog on the right hand side of the site which is updated sporadically (month gaps between entries). Open Source communities seemingly never sleep in their constant updates of project sites. Many times one can judge a project by how nice is its interface and the frequency of recent public updates. Although, I sound critical, I'm only applying a certain filter in my viewing of this site. My interest is piqued though because I know, or have met, several of the participants of this network (Don't take my comments the wrong way please). This link is quite interesting however and represents several of the dominant artists in the current digital culture and art field.

5. [<http://twentiethcentury.com/saul/os.htm>] I'm traveling back to my original Google search now. Okay, the next link is a link to a blog announcing the Open Clip Art Library. We'll skip this entry – brilliant! Yes! Someone I know – Saul Albert is a cool cat! This is a link to his writing "Open Source and Collective Art Practice." I can't tell however if it is a joke, as he refers to re-mixing some ideas from Net-Time, a “mailing lists for networked cultures, politics, and tactics posts.”¹⁵ He then provides a format for this remix. However, I really enjoy this text and it proves again that Saul and gang are doing some interesting work from the University of Openness in London.¹⁶ Let's cut to the chase and sample his entire conclusion:

The insights into collective practice gleaned from this investigation can be summarized as follows. Within "Open Source" collective art practices, which function in a gift economy, collective projects reach fruition by distributed effort, and are circulated and promoted and most importantly evaluated within the collective. This independence from traditional forms of validation means that the user/authors involved are not wholly reliant on commissions and residencies for the satisfactory development and success of their projects. These projects can take place within a community that is focused on the artwork. Many of the concepts I use in this text, such as the gift economy and the open source paradigm are flawed and have not been examined rigorously here. However, for the purposes of deriving some ideas as to how to organize collective art practice (rather than laying down a historical or sociological analysis of those concepts), I feel that the explanations offered were sufficient.

6. [http://www.wired.com/news/culture/0,1284,52226,00.html?tw=wn_story_related] The next is a wired news article about **Open Source Art Hack** (Googled in number one above) written by Michelle Delio on 02:00 AM May. 02, 2002 PT. To quote the article:

¹⁵ Nettime list: <http://www.nettime.org>

¹⁶ University of Openness: <http://twentiethcentury.com/uo/>

"Open_Source_Art_Hack, [is] a new show opening Friday at Manhattan's New Museum of Contemporary Art, attempts to show how the act of hacking and the ethics of open-source development – direct participation, deep investigation and access to information – can be art. Each piece and performance features technology altered by an artist-geek with an activist attitude, something that the curators of the show refer to as "hacking as an extreme art practice."

The show was co-curated by Steve Dietz and Jenny Marketou. Aha, the first search reveals that possibly that now defunct site was a blog for the show, as the time-lines match up. It is interesting though how digital trails are rarely erased – something, my friend, artist Shane Hope (<http://www.outsiderbiotech.com/>) and I used to talk about doing in order to erase our really bad early work. Well I missed the show, but it seemed to include most of the artists mentioned in the previous link, including Amy Alexander and RSG's Carnivore – what a small world!

7. [<http://www.theatlantic.com/unbound/digicult/dc990812.htm>] Aha, this is a link to when Linux was given the highest prize at Prix Ars Electronica, the Golden Nica in 1999. Harvey Blume, author of this article on theatlantic.com states:

For twenty years, Ars Electronica has held festivals on the theme of "cultural transformation from the analog to the digital era." Its jurors are unimpressed by "recycling conventional art forms on the Net (e.g. Web galleries)" and unmoved by brilliant home pages. In Linux they found an alternative form, one that contributes to global networking even as it foments discussion about whether "code itself can be an artwork."

This is quite interesting, as I've heard many a complaint about how Ars Electronica constantly is minimizing the art field in favor of the fragmentation and the constant upgrade cycle of our global culture, rather than actually representing the interesting works in place around the planet; I realize that when you have a massive art exhibition, you can't encompass everyone's work. Blume's best statement though asks, "The Golden Nica invites us to detach the code from the process for the moment and to ask, If open source can lead to computer code worthy of being called art, can it serve as a foundation for other kinds of art as well?" Well, what a novel question? I wonder if we can apply this filter to our concept of Open Source Art? Wait, this refiguring has already been laid by Linus, the inventor of the Linux Kernel. He isn't an artist, is he? This was written in 1999 and it is now 2004!

8. [<http://www.deviantart.com/>] The next link (<http://www.levitated.net/daily/>) is not opening, so I'm moving to the next. This next site, deviantart I remember coming across while researching similar projects for the Open Clip Art Library. Now this looks more like the face of Open Source. It is a community portal with news updates,

graphics, and contests, all centered around people submitting their artwork for public display and free download. Cool! Here is the project's about page:

On August 7, 2000, deviantART was launched to provide a central location for graphical artists to display their creations for feedback and exposure. With an emphasis on digital works as pieces of art rather than desktop eye candy, the community grew rapidly. deviantART continues to commit itself to responding to the creative outlet needs of its members, releasing and revamping categories as interest grows. From humble beginnings as primarily a static image file gallery, deviantART is now proud to host poetry, photography, flash exhibits, cell phone art, as well as an enormous Indy art and wallpaper section and skins for 105+ applications.

I wonder if this project is considered Open Source Art? I think ART would place this one on the kitch back-burner. There are no signs of contemporary minimalist Art Forum ads. Instead there exists a happy community of craft artisans all building a large collection of graphics and artworks for each other. Please note: this is distinctly different from the Open Clip Art Library as this project is focusing on artworks created for their community, not for re-use, and not of vector-based graphics, all of which can be used to create compositions. Yet again, this is not Open Source because it does not relate to software source code and it is not Open Content because images are sold on this site. Also, there is no explicit release copyrights of images the associated art and images.

9. [http://boingboing.net/2004/05/14/open_source_games_fr.html] This is a community weblog of "wonderful things," with the page heading: Open Source Games from 1978. This page states, "The entire contents of Basic Computer Games, published in 1978, have been posted on-line as a series of scans. Danny O'Brien notes "I carried this around like a grimoire when I was eight." I especially like that this is scanned-in and not OCR-ed, which means that if you want to run any of these programs, you still have to re-key them!" I have no idea what this person is talking about, but I'm glad that he is happy that his Basic Computer Games are available for re-use.

10. [http://journalscape.com/pawns_unite/2003-07-31-22:47] Finally, I kind of got bored, and jumped down to find something interesting on the page. I found this nice article about Open Source Collaborative Art Processes in which various participants used Eric S. Raymond's in his landmark book "The Cathedral and the Bazaar" as rules for a performance. I can't read much more than this, but think this project is somewhat interesting. Okay, I'm getting some food, as I think the Google sweep has ended on page one from lack of published content about Open Source Art.

Open Content Google Sweep

This section still needs to be done. I need to sweep through and do top 10 Google hits for open content.

Conclusion

Thus, I'm using myself, an Open Source developer, as a filter for topics that are related to Open Source Art. I find it interesting that this "new" category is popping up all over the place. Do we need another one? I do not feel that there is a single project that I have come across that fits the standard definition of Open Source and is also art, with proper software licenses and that uses source code. I guess at some level the Open Art Network is very close to the Open Source Software model, yet, still it is not because there is not an active community surrounding the endeavor. I do however wonder on what level Open Source Art might be similar to how Linus' Linux was selected to win the Golden Nica – there already is Open Source Art, but its called Open Source software.

Aren't new categories used to get more funding, help define movements and reduce complex systems into manageable pointers? The reductive category Open Source Art implies through nomenclature a blend between Art and Open Source, and the multitude of complexities behind each sign, further linking with the people, histories, and practices of both disciplines. Yet, is this category destined to be an update to the womb-envy of "Art and Science collaboration," oft talked about by the more technologically minded artists. Yes, you've heard this brought up at many a conference – almost as much as the Digital Divide debate – where the general concern is that there needs to be more Art and Science collaboration because the benefits would be substantial – but for whom? From the Sciences perspective they have no need or interest in collaborating with artists, yet these omens of the Art and Science re-merge persist. Is Open Source Art the update upon this concept where Art is reductively kept as the qualitative and Open Source is the new representation of all things quantitative?

To end with a vision and a possible course, it would be gracious if this art and software subculture, if it exists, would look at the blending of Open Source and Art more as a Venn diagram in which features from both may be shared and overlapped. This is in contrast to the idea of **culture sampling** in which one member of a culture A takes some *thing*, from culture B and places it into her own context (context A), forcing a re-evaluation of the original *thing* B from an external viewpoint, in terms of A's context. Instead, why don't artists contribute their critical and artistic skills to Open Source software projects and Open Source developers build better tools for artists and provide another avenue for funding of Artist's projects.

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