FL SOFTWARE DEV✓ TEACHING SINCE 2002

How to run an art school on Free Software/Open Source?

(Florian Cramer, Aymeric Mansoux, Michael Murtaugh, 2010)

RESIST IMAGE

Introduction

INTRODUCTIONS

Florian

~~(introduce to yourself / future of program / Renee Turner)~~

WEBSITE + 2 IMAGES

students

images

We have to admit that this title is a hyperbole. Actually, we are not talking about our entire art school, but only one study programme: the Networked Media Master at the Piet Zwart Institute of the Willem de Kooning Academy in Rotterdam, the Netherlands. It is a small, very international and cross-disciplinary new media design and art programme in the graduate school of Rotterdam's traditional art academy. Our students have backgrounds as graphic and web designers, media artists and activists, but also include architects, fine artists and even a dancer. Our common interest is to critically think about digital and computer media, and create one's own media work based on that thinking and research. The most simple formula we use is the following: it's media design as design of media, not just with media. And that's where Free Software and Open Source come in - because they provide the building blocks for these self-created media.

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- Light writer: Ricardo Lafuente: a self-created medium on the basis of the Arduino board

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- Web 2.0 Suicide Machine: Gordon Savicic/Danja Vasiliev: a Web application that thoroughly deletes your social media profiles.

=3:42 =

— 4 min —

Aymeric

~~(introduce yourself)~~

So when we talk about Free and Open Source (FLOSS) in our department, we do not simply mean the scenario of replacing Photoshop with The Gimp, Max/MSP with Pure Data, Cinema 4d with Blender, and so on. We are more interested in FLOSS as an entry point into a different media practice - based on a comprehensive critical rethinking of communication in its relation to technology. ~~But even this simple frustration can trigger productive research and learning of contemporary issues of patented technology and, on a larger scale, control and ownership of information and technology.~~ Apart from that, we have a very practical interest in the non-mainstream tools and work flows provided by Open Source and Free Software (ref web 2.0 suicide machine). This puts us into a different camp than even the GNU Project of the Free Software Foundation because our concern is not to obtain free alternatives to existing software, no matter how this software is designed.

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- Ivan Monroy Lopez, man immigration

Media Design?

Michael

~~(introduce yourself)~~

FOR ME...

~~We indeed see Open Source as an opportunity for designers to reclaim their tools.~~

ERASE

(Former co-course director) Matthew Fuller would use the example of "vapourware", software that is announced and discussed without ever being actually released to the public (or perhaps even being written at all), as a simple example of how software is a cultural, and not just technical phenomenon.

— 5:40 — 5:02

Florian

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- Darija Medic: The "us" in virus, artistic/activist reflection of openness in the medium of a "viral" sticker campaign

For example this piece evokes software, while taking the form of stickers.

Facebook tagline

ANDERS ENSEMBLE OVER EARLIER

Michael

Using open source in art education is ~~also about~~ using new methodologies and approaches to teaching. Traditionally "good design" is equated with notions of "simplicity" and "seamlessness". The Faux-metal skins popular in current interface design seems to respond to a need to reassure the user of a stability and sturdiness. Free software often reveals the underlying assumptions and decisions that have been in the design of software and confronts the user take an active position in how they want to work, with what tools on what terms. Open source confronts students with the fact that software is developed in communities, with differing philosophies / approaches / priorities.

FLORIAN: INTRO =6:40=

ME: WHAT'S ON SCREEN

- Epicpedia: Annemieke van der Hoek

Presents wikipedia articles as a dramatic conversation over time, as opposed to a seamless essay.

For me personally, as a software developer, the experience of working with free software has encouraged me to shift from a "make everything from scratch" way of thinking to one that is more modular, and which looks towards tapping into existing code and software communities; I've come to value the creative potential of simply making novel connections between existing systems; In addition, conceiving a project as a pipeline opens it up to collaboration, and broadens the range of your work beyond your own particular skills or interests.

=9:11=

— 9:02 —

Aymeric

The pipeline, as an approach to creating an artistic work, is in dramatic contrast to a traditional image of the "isolated artist working in the 'clean room' of his/her creative suite..." and recasts work as being a flow of material across different sources. ~~aknowledges that the tools are themselves represent decisions, assumptions, work of others, negotations/compromises~~

Often a project can have a powerful impact simply by making an unexpected connection between systems.

- Timo Klok ~~(in collaboration):~~ Pirates of the Amazon

(many ppl thought it was a crack.)

= 11:00 =

Florian

We are also critical about the typical divide between designers on the one side and engineers on the other. It's the classical new media trap where the artist develops the vision, the technician the code, and the result is disappointing because neither speak each other's language.

Networked Media Design

IMAGE HERE → HOMEPAGE

?
HOLD
PIRATES
HERE

Florian

You could say that FLOSS Artistic tools are not as professional as the Adobe suite. I think we are in the same situation as database servers in the 1990's. MySQL was criticized for lacking the full feature set of Oracle, just as the GIMP is now criticized for lacking the features of Photoshop. The breakthough of MySQL came with the rise of the web, and the need to have simple flexible solutions without licensing fees. Unlike photoshop, the gimp can be run on a server to generate graphics in real time. In addition, the growing important generative design creates an ideal situation for Open source tools.

ZOOM
OUT

Aymeric

One of the key aspect of the program is to get students to question their work flows, their tools, their assumptions. A key challenge is getting students to stop thinking in terms of "what can the software do for me", and switch the mentality to "what can I do with software",and eventually create their own programs. This means to pull students out of a production mode of "getting things done" and into a more reflective manner of work. The complexity inherent to using Free Software is often very good for this purpose. ~~(Even if we are repeating ourselves here, it's still important to keep stressing it:)~~ We would like to encourage FLOSS developers not to strive for a better Photoshop, a better Illustrator or a better Final Cut Pro, but build artistic design tools on the traditional virtues of programmable and networked Free Software. We need more software projects that are low level enough to allow artists and designers to develop their ~~your~~ own GUI metaphors, command line tools and of course artistic software, while - at the same time - being accessible and usable ~~without a degree in Computer Science.~~ Software like the Unix/GNU text tools, ImageMagick, MLT and ~~AML~~ really shines in this respect.

FRAME
WORKS

=15:25 =

frameworks list? DROP? (OBSCURE

= 15:00 =

Florian

These are concrete practical issues for us. But there's also the level of media theory and criticism which is integral to our study programme and the way we work and think. Free Software and Open Source is useful in this context, too. It can serve as a critical tool because it cuts into all major social, economic, political and artistic issues of information ownership, media governance and participation. However, it is no magical bullet.

CUT

~~There is no comprehensively developed philosophy or politics of Free Software.~~

~~Historically, the notion of Free Software and Open Source is indebted to the notion of open systems. Open systems theory was founded in the 1960s as a comprehensive model for science, technology and society by the Austrian-American biologist Ludwig von Bertalanffy. It is linked to the concept of the open society by the philosopher Karl Popper, a friend of Bertalanffy. Together with the Austrian-American economist Friedrich von Hayek, Popper and Bertalanffy were frequent collaborators and key players in establishing a philosophical, scientific and economic notion of openness. Their notions were closely tied to political liberalism, free market economics and cybernetics.~~

~~The financial system whose crisis we are witnessing now, is the product of this philosophy and its practical application in the neo-liberal Chicago School of Economics, founded by Hayek and his colleague Milton Friedman.~~

Looking at the founding manifesto of the Open Source movement, Eric S. Raymond's "The Cathedral and the Bazaar", we see that it is based on the notion that an open system, or a free flow of information and labor, will result in a self-regulating whole providing optimal solutions for everyone. Today, we now that this has been over-optimistic thinking of the 1990s.

Aymeric

CLOUD RAISES MANY QUESTIONS

If we see where Free Software and Open Source are today, more than ten years after Raymond's manifesto, then some questions need to be asked: In the Internet 'cloud', in all kinds of embedded devices from routers to media players, and now on mobile phones, Free Software is mostly used as a cheap productivity stack underneath proprietary technology. The "world domination" it achieved this way is quite different from the one imagined in the 1990s. But investigating such questions is exactly what makes a study programme like ours more engaging, and hopefully helps us to have a larger vision of media and design.

Under the Hood

=17:20=

Michael

(image: mac_issues)

Early in the course, we have sessions to install Linux onto student's laptops (often leaving their original OS -- Mac or Windows -- intact). ~~Though not strictly~~ necessary the experience is an important one -- a key moment to confront students with a question of what exactly is the computer in front of them?

(image: Ted Nelson: Computer Lib)

Breaking through the glossy veneer of a polished operating system designed to "just work", is a crucial first step in understanding the computer and it's software as a socially constructed assemblage: of electronic components, of software, of legal agreements all with a particular history.

(image: Danja: meme 2.0) (for example this is Danja Vasilijev's implementation of a web server as a physical object)

Ultimately it's about instilling a sense of empowerment as what was previously a "magic box", something you ought not to tamper with, becomes a platform for actively re-imagining / rethinking what computers and software can be.

18:50 =19:00=

Aymeric

There, were, however a number of issues:

- Since we used Gentoo as our standard distribution, Gentoo quirks and were falsely perceived as Linux and Open Source quirks.
- Laptops and their complete driver support through the Linux kernel were a problem, and still are a problem.
- The tech barriers and learning curves are high, particularly for students trained in graphic design Bachelor programs.
- Students who professionally work as graphic designers will still need their proprietary tools. A graphic designer will continue to work with InDesign? for non-generative design of printed matters for this reason.

Example: Alexandre Leray, Stephanie Vilayphiou, Issue magazine; interview with David Reinfurt addressed the problems of open source graphic design

These issues are less pronounced for web-based work. Linux and FLOSS are the software that drives the Internet. If students develop web applications, then this is the technology they need to learn as media designers and artists.

(2nd IMAGE ? from ISSUE)
[EMA → ??] 20:49 21:21

Florian

IMAGE ?

We fully switched to GNU/Linux when we decided that in a media study program computers are instruments much like musical instruments in a conservatory. Just as every music student brings their own instrument, we asked every student to bring their own laptop to the course, and provided Linux installation support. In that year, Linux broke through as operating system used by our students - and not just by staff - because it ran on all machines no matter whether originally designed for Mac OS or Windows. As a lingua franca, it allowed our students to better exchange knowledge and help each other. We also got a whole generation of students who appreciated Linux for actually being different, instead of just claiming to "think different".

(WIKI) IPU TRAC
= 22:30 =
=22:00=

Aymeric

Some details: (images)

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- Wiki-based code cookbook - made from in-house knowledge and inspired recipes from sources such as ThinkPython.
- Wiki-based planning of the course content and direction - from thematic project to the writing of this paper.
- Wiki-based sandbox for the students - essay drafts, notes during tutorials, assignments.
- Distributed version control for the code developed by the second years - we use

HAVEL

1

Git.

- Dual boot or single boot to GNU/Linux for students - we use Ubuntu for its practical advantages over less desktop-friendly distros, but actively encourage our students to break it apart, remove bloat and customize their system later on.
- 2 Debian servers with SSH accounts for all students - servers are used as networked sandboxes and production hosts for their code.

+x BLOG IMAGE

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- university-hosted web site/blog for news on the study programme, and self-hosted blogs for student research projects.
- Free software licensing - we recommend to use GPLv3 and AGPLv3 for their projects, next the common set of free culture licenses available, but we obviously let the students choose for themselves.

#PLANET Student BLOGS

~~Student projects that grew out of technical lessons in the course:~~

on PLANET

Translating FLOSS into the School Context

=24:30=

→ 24:20 ←

Florian

A school is not an open-source project, nevertheless good lessons can be learned from open-source development:

FULL STACK

Michael

- Pipeline: the power of novel connections
- Design isn't about slickness and seamlessness, but about systems

NOT SURFACES

(of TOOLS, of PRESENTATIONS)

Aymeric

- 'Release early, release often': communicate, release, document and archive what you do using free culture licenses
- Don't mystify creation
- Do not design from scratch, but reuse work - 'Dwarfs standing on the shoulders of giants'
- Week project collaboration outside the institution

NOT FROM SCRATCH

Florian

=26:00=

These are not only good principles for advanced art school education, but also very healthy recipes for the art world in general.

EXAMPLE: ~~FREE SOFTWARE~~ SIMPLE ASSIGNMENT

Concluding Example: Shahee Ilyas, Framing Leaders

Also: http://en.wikipedia.org/wiki/File:Male-total.jpg#filehistory, as an example of how a simple assignment (make an edit on Wikipedia) lead Shahee to upload a personal picture (which he took from the cockpit of a plane once when returning home) on to the page of the Maldives; I believe the positive reponse to the picture (to judge by its history of use in Wikipedia) helped contribute to Shahee's interest in working with Wikipedia data in his final project.

- Early course assignment to make an edit on Wikipedia.
- Shahee, chose to upload an image he shot from the cockpit of an airplane

FRAMING LEADERS

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CRITICAL POLITICAL TOOL

when he was returning home to the Maldives.

- He posted the image using a Creative Common license.
- Through the wikipedia interface one can trace the history -- including its being selected as a "featured image" by several different wikipedia language communities.

- In this final project, Framing Leaders, Shahee scraped data from Wikipedia pages, an visualized the length of time leaders have been in office by the width of their frame (the longer in power, the larger the frame).

At the time of the final exhibition, Maumoon Gayoom, the leader of the Maldives was in the third position (having been in power since 1978). In 2008, Gayoom lost the presidential election.

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