



Future of FLOSSE: Interview with Knut Yrvin

Monday 07 March - Teemu Arina

"If you buy a bottle of water you shouldn't have a law that prevents you to pour the water into a glass. You have to protect people from the technology. With DRM and patents, suddenly you are protecting the technology against people. If you have a car you need devices like airbags or safety belts by law: protective measures to help people save lifes. Now they do the opposite: they try to protect the technology because people may misuse it"

Listen Part 1 (MP3) - 25min - 11,7Mb

Listen Part 2 (MP3) - 35min - 16,1Mb

(Sorry for the lesser quality of the audio. Knut had problems with the Skype setup under Linux. Hopefully Skype is soon released to fully support the new ALSA sound architecture under Linux. I also had to re-record my questions afterwards)

I had the opportunity to interview Knut Yrvin from Skolelinux. This interview is more like a case story about how they build an operating system for schools, how they beat Microsoft in their own game, how they stand against the new European patent law and how they do a lot of promotion about Linux in their own country with such a small amount of funding. Recently they received the Linux New Media Award in the category of *Best Newcomer Linux Distribution*.

Knut has worked 10 years in a Norwegian telephone company as an engineer and in a couple of private companies. He completed his studies in the university of Oslo in computer Science. Knut Yrvin describes the project and the history of developing Free/Open Source software as: *"This is not a children's game, it's deadly serious"*.

Knut Yrvin operates as the elected project leader of Skolelinux. I became interested in Skolelinux when I heard about it back here in Finland. In short it's a Linux distribution specifically aimed for schools. What makes it interesting is the focused effort to carry out this project and its promotion in Norway. Just let me say you this: they have done a pretty darn good job on that.

Just look at the map of schools. It sure looks impressive when we take into account that they also have their government supporting their efforts and Knut taking part in public debate on software patents, DRM (Digital Rights Management) and stuff like that. It's not simply just pockets of hackers in some basements doing great technical things for their selves. They think about a typical end-user and get their developers in touch with schools to understand how they operate, what their needs are and how they work. Technical details are pushed aside and the focus is on usability and cost savings: *"we need no 160 page installation manuals just to get a system up and running"*. Teachers

should be able to maintain a Skolelinux network with only a few hours per week per hundreds of users. Recycled code on recycled computers.

The Skolelinux project helps people get started in using ICT in education. Skolelinux aspire to create a quality, full-fledged and preferable computer solution for schools. The other target is to localize Skolelinux into different languages, mainly the many different languages spoken in Norway. They invite outsiders to take part in their effort to deploy Skolelinux in their own region. So, if you were thinking about a Linux distribution specifically for schools in your own country, just save a lot of time and join their effort.

Skolelinux has chosen do-ocracy as a management method. I'm very interested to this because do-ocracy captures the pure essence of what online communities are doing when they build things together, be it software or content or something else:

In do-ocracy the person that does something decides. People who only talk have no meaning. In the other hand, people who deliver have meaning in our society.

In Skolelinux the developer always has to learn something new about the school situation. They have to investigate how ICT is used in the learning environment. According to Knut, it's better that people see their selves instead that they have some kind of mediators like sales men in between.

Software patents and DRM are discussed to great length. Skolelinux team is advising the local politicians in these issues. The main point is that software patents are a problem for the whole technology industry, not just Linux which is acting as a poster boy. Proprietary software companies like Opera also fight software patents. The only thing software patents bring is trade advantages to big companies. Unfortunately only big companies have the money to talk to politicians why software patents should be allowed.

We should protect people from technology. That's why we have black boxes in airplanes. If something goes wrong, we can search for that box and see a complete trace of what went wrong. That's why the source code of a technology should be open for inspection but also a reason to say no to DRM.

In the future, the biggest winners are probably the users because users have more options. It's not the programmer but we have to remember one thing: most programmers in the world are not paid to program on the Microsoft platform. Previously they didn't have many options. Now they have options and they will choose other platforms like Linux instead. Microsoft has done poorly in delivering developer interfaces, APIs, programming languages and standards. Number of developers writing in Java and LAMP exceed the number of people who write to Microsoft environments only. Because Microsoft has lost all those developers in their lock-in business model, they are going to loose the whole game.

This is a period where we have forgot the users demands and traditional economics of the software industry. Now we are going to rail this down and get back to normal again.

Some questions answered in the interview:

- 1st part:

- Who are you?
- Skolelinux?
- Do-ocracy?
- Success of Skolelinux?
- Debian vs. Fedora/Redhat?
- 2nd part:
 - Recycled equipment?
 - Thin client solutions?
 - Political situation of ICT in education?
 - DRM and patents?
 - How is Open Source affecting the IT industry?
 - Winners?

"The real reason why Europe wants software patents is because they want to limit the ability of countries like India and China in their way to get into the European markets. This is a trade war. It has nothing to do with Open Source at all. It's all about who is going to compete on the international arena"

"Read more" to see the extracted future events and analysis.

Future events

Here is a list of fictional future events extracted from the interview with Knut Yrvin. If you want to comment or have additional future events to present based on the interview, please do so.

Disclaimer: The future events were constructed from the ideas presented in the interview and do not represent the ideas of the interviewee. No crystal ball or time machines were used in the construction of these events. Bear in mind, it's the future and everything is possible.

Year 2005

Debian considered as the most scalable Linux solution

Commercial Linux distributions like SuSe and Redhat have problems in delivering the same scalability what Debian offers. Debian is quick to install and Debian hybrids like Ubuntu, Knoppix and Skolelinux provide Debian-based solutions for different needs. The main scalability benefit in Debian comes from the fact that it has a three year release cycle with an easy upgrade between versions. No re-installation required as it is with Windows or Redhat offerings.

Proprietary providers fight patents

Many smaller and mid-size proprietary software companies have started to object the software patents. Players like Opera Software have also problems with software patents not just Linux and FLOSS projects. There is also fear that foreign and local companies will come and patent software and computer algorithms that have already been invented

before. The main argument used against software patents is that they provide real trade advantages only to big companies.

Year 2006

Third-world countries implement Linux

Countries in Africa, Asia and South-America have started to implement Linux and older recycled computers to close the gap in digital literacy. Linux with older equipment is considered as a much more affordable solution. Many new Linux distributions and translation efforts take place in poorer regions of the world. UNESCO and other global organizations are helping in this effort. Some have ordered their institutions and businesses to use Linux only in effort to prevent the flow of money to better developed countries.

VoIP services take off

Many different VoIP applications have taken off. New VoIP services are announced almost every week as traditional telephone companies are entering the markets. VoIP enables telephony over a network with better quality and smaller cost. Many broadband providers have started to offer QOS (Quality of Service) to traffic related to their proprietary VoIP implementations.

Schools buy recycled computers

Linux has enabled schools to buy old recycled computers. These computers come with Linux pre-installed. Schools are able to buy a complete school computer network out-of-the-box from recycled computer centers. This approach allows schools to buy at least twice as much equipment than before. Linux uses less resources so the latest and greatest equipment is not required.

Thin-client solutions widely in use

Schools have switched to thin- or half thin-client solutions. This approach allows them to centralize applications on a server while desktops act simply as stupid clients booting right from the network by using the centralized server. Some thin-client solutions do not require a hard-drive or even any cooling measures, reducing the cost associated with power consumption, maintenance and licenses. Most of these solutions run FLOSS software.

RIAA pisses youngsters off

The Record Industry Association of America has taken its last and fatal step by completely pissing of the youngsters. First by suing their consumers for listening to music and then using ruthless efforts to get DRM approved and audio recording and copy devices like MP3 players completely banned. Youngsters have found ways to fight RIAA in a network-wide effort.

Software patents get approved in Europe

The European Commission has approved the software patent and EUCD related laws. This is in pursuit to block foreign competitors out of the European software market. It allows Europe certain trade advantages but mainly only to big companies. Very bizarre patent applications of software pieces that people might come up with by accident enter the system. If you are writing software, you never know if you are infringing a patented idea.

Year 2007

Do-ocracy common in online cooperation projects

Many online cooperation projects take advantage of a management model called do-ocracy. In this model the person that does something decides. Those who only talk have no power in decision making in these projects. This method especially applied to many FLOSS and Open Content projects. They are full of people who write code and documentation and those who do, have the opportunity to decide. Do-ocracy is a very effective in means of shared knowledge creation.

Linux generates cost-savings

Many organizations have switched to Linux because it enables cost-savings. Organizations are able to get faster up and running with new equipment because the easy installation process and centralization with thin-client solutions enable just that. Setting up a complete computer network with servers and desktops often requires next to basic knowledge of computer systems. Because it's made easier to install than Windows counter-parts, less resourceful organizations can do it their selves. Complete outsourcing is not really required.

Year 2008

FLOSS developer gatherings improve delivery

Some organizations, especially schools have noticed that by supporting FLOSS developer gatherings they have been able to receive some resources to setup their IT infrastructure to work with FLOSS software. Volunteer developers and FLOSS enthusiasts help schools and other non-profit organizations to get their system up and running. They can bring their computers to developer gatherings to get Linux and other software properly installed.

Computer skills part of mandatory curriculum

Many educational institutions all around the world have included computer usage as part of their mandatory curriculum. Using computers and digital networks is considered as important as reading, writing, mathematics and understanding of foreign languages.

Schools lack behind in IT deployment

Municipalities have big problems in offering local schools enough computer equipment. This is because of huge budget cuts that have forced municipalities to cut heaviest in the

IT department. Day-care and teachers salaries need to be covered for education to continue at all. IT is considered as less important and especially projects that try to improve and develop IT in schools loss most of their budget. This sets schools way back in the development of ICT in education.

Linux ready for mainstream use

The penguin has finally matured on the desktop. Linux developers have moved up-stack in their focus on Linux development. This is partly because the desktop environment development has received a lot of funding from major industry players. As a result Linux is considered user-friendly on the desktop and ready for mainstream use. Several reports support this conclusion. Government officials and politicians urge their institutions to switch to Linux and FLOSS in general. It simply just works.

Year 2009

DRM technology widely used in devices

Digital Rights Management technology has been deployed in many devices and software applications. DRM prevents playback and copying of content that is protected by copyright laws. In devices it makes it illegal to circumvent the copy protection of such a device. Some vendors have released computer hardware like processors that take DRM into account. Microsoft has included DRM in its operating system as a key component, successfully locking out third-party content providers and still limits the fair use of content even more.

Free music archive appears

After DRM was approved, politicians made it clear that there must also be a music archive service not owned by the record industry. Such an archive includes national classics and other stuff provided under the common good. Profits from such a service is used for the common good as well instead of filling the pockets of some proprietary multi-national enterprises.

Year 2010

Microsoft loses because of developers

The core reason why FLOSS has broken the Microsoft model as the dominant player in the software industry is because Microsoft lost a horde of programmers to free solutions like Java and LAMP. Developers became alianated of development on a platform which changes interfaces, APIs, programming languages and standards every couple of years. FLOSS alternatives provide a more steady environment to conduct long-term software development.

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