The Software Challenge

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Software is codified power in the digital domain. In other words, to quote Stanford Professor Lawrence Lessig, "Code is a regulator that governs cyberspace in ways similar to Law governing the real world".

In the Northern world, most people are already depending upon software for very basic tasks of communication, education and work. The grade of dependency is generally lower in the Southern world today. But if the digital literacy and inclusion projects show the intended effect, the dependency will be as high, potentially even higher, as many areas aim to skip the intermediate steps of analog infrastructure and directly enter the digital world.

Much of this interaction with and dependency upon software remains unreflected and in fact unnoticed – fulfilling a prediction that Professor Weizenbaum of MIT made many years ago. Unless sitting in front of a physical machine explicitly marked as "Computer", the majority of users will often remain unaware of using software. A common example is mobile phones. With the trend towards ambient computing, this effect is likely to increase.

While access to software determines our ability to participate in a digital society and governs our ability for communication, education and work, software itself represents a reservoir of codified skill.

Software allows humankind to collectively refine and exercise sets of codified skills that most of the individuals do not possess.

An example are graphical applications, which in the scope of complex image editing make complex mathematical transformations like Fast Fourier Transformation (FFT) available to everyone capable of understanding the applications' menu symbols.

While the issues of software are centrally connected to many of the issues discussed during the World Summit on the Information Society (WSIS), the lack of awareness on all sides for software as the cultural technique of the digital age often complicated the situation.

Clash of the software models

While most governments often see software from a purely economic perspective, some large industrial players have begun understanding the amount of political power embedded in it. By propertizing the software, they gain almost absolute control over the users – be they private people, other companies or governments – and the rules they have to obey.

Proprietary software always remains under control of the licensor of the software, not the user. And in a networked world, that control can even be remotely exercised – independent of whether the user of the software is an individual or a government. That dependency on proprietary software is infectious.

Protocols are kept secret, standards are being broken. These protocols are not secret because they are valuable, they draw their value from being secret. The company Microsoft poses a very good example for both cases, as the European Commission antitrust case[1] and the modification of the Kerberos standard[2] have shown.

The countermodel to proprietary software is based on breaking that dependency and putting an equal amount of power into the hands of all people. It is defined by four fundamental freedoms: the freedom of unlimited use for any purpose, the freedom to study, the freedom to modify and the freedom to distribute the software both in original and modified form.

The original name for this model is Free Software.[3] It is sometimes also referred to as "Open Source", a marketing synonym proposed in 1998 to attract venture capital that is frequently abused these days to sell proprietary software under the guise of Free Software.

Other synonyms frequently encountered are "FOSS" – for "Free and Open Source Software" – and "FLOSS" – for "Free, Libre and Open Source Software" – which, besides being redundant terms, seek to spread the ideology that software should not be seen as a political issue.

As all these are synonyms, this paper is using the original term, Free Software.

[1] http://fsfeurope.org/projects/ms-vs-eu/
[2] http://www.nwfusion.com/news/2000/0511kerberos.html
[3] http://fsfeurope.org/documents/freesoftware.en.html

Free Software at WSIS

The Free Software groups became truly involved in the WSIS during the Intersessional Meeting in Paris in July 2003.[4] At this point, the proprietary software advocates had almost succeeded in eliminating the political issues around software from the documents by portraying them as a purely technical choice of software development.

Within civil society, software issues were part of the Patents, Copyrights and Trademarks (PCT) Working Group[5], which centrally dealt with all issues around intellectual poverty as well as equal and inclusive access to software, the digital cultural technique.[6]

In a concerted effort between the PCT working group and a handful of governments, most notably Brazil, it was possible to put an end to further erosion of software issues from the documents and revert the trend.

This positive trend continued in the following Preparatory Committee Conferences, during which Free Software and Patents, Copyrights and Trademarks (PCT) were among the most controversial issues.

While there was still a dialog going on within civil society to explain the connection of Free Software to other fundamental issues of civil society during the WSIS,[7] in a motion coordinated by the PCT working group, global civil society took a strong position for the WSIS to take a clear position on the software issue in general and Free Software in particular:

> Software is the medium of and structuring entity for the digital domain. The information age will rest upon it. Having been denounced as a technical development model, Free Software is much more than that. It is a paradigm that secures equal chances and freedom for governments, economy and civil society alike. It provides a truly sustainable model for all areas of society, bringing back competition and furthering innovation for a prosperous and inclusive information and knowledge society for all....[8]

Global civil society later chose Free Software as one of its essential benchmarks:

[4] http://fsfeurope.org/projects/debriefing-paris.en.html
[5] http://www.wsis-pct.org
[6] http://fsfeurope.org/projects/wsis/issues.en.html
[7] http://fsfeurope.org/projects/wsis/fs.en.html
[8] http://fsfeurope.org/projects/wsis/ps-20030923.en.html

> Software is the cultural technique of the digital age and access to it determines who may participate in a digital world. Free Software with its freedoms of use for any purpose, studying, modification and redistribution is an essential building block for an empowering, sustainable and inclusive information society. No software model should be forbidden or negatively regulated, but Free Software should be promoted for its unique social, educational, scientific, political and economic benefits and opportunities.[9]

Despite the massive presence of proprietary software support from both industry and several governments, in particular the United States and several European Union states such as the UK, this made it impossible to deny the political consequences and impact of software.

In the finally adopted version, both the Declaration of Principles and the Plan of Action have adopted the denomination of "software model" and the Plan of Action asks all governments to "Encourage research and promote awareness among all stakeholders of the possibilities offered by different software models, [...]"[10]

After WSIS

Free Software gained much political visibility during WSIS, but while civil society has adopted it widely as a principle, many organisations still use proprietary software themselves. The effect of this practice on developing countries has never been subject of deep research, but several consequences are to be expected.

The psychological damage of organisations telling others to follow policies that they ignore themselves can be considerable. Especially in Southern countries, this can easily create the impression of a policy trying to satisfy people with breadcrumbs while keeping the more valuable things to themselves. That would be tragic, as the opposite is indeed true.

More severely, by showing to use proprietary software themselves or even advocating use of proprietary software in Southern countries, organisations can involuntarily destroy the effect of their work.

While trying to rid Southern countries from dependency on the North and strengthening democracy, they do the opposite. To gain a seeming short-term improvement of the situation, they create strong mid-term dependencies for participation in the Information Society.

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[9] http://fsfeurope.org/projects/wsis/cs-benchmarks-03-11-14.en.html
[10] http://fsfeurope.org/projects/debriefing-geneva.en.html

That is why Sergio Amadeu da Silveira, president of the National Information Technology Institute (ITI) in Brasil likened the proprietary software model to that of drug dealers – the first shot is gratis.

So while much progress has been made, there is still need for further development on all sides: Governments, industry and civil society. As is already inherent in the Declaration of Principles and the Plan of Action, all sides will need to develop a practice of evaluating the political, social and economic side of software along with its technological capabilities.

To uphold their political independence and democratic basis, Governments will need to make deliberate efforts to further economic and social empowerment based on commercial and non-commercial Free Software. To protect their commercial interests, industry based on and active in Free Software will need to provide a counterweight to proprietary software voices. And to maintain its credibility, civil society will need to consistently use Free Software as well as advocate it.