

Brief report on work undertaken in Santiago de Chile, Universidad Diego Portales:

The Chilean Mi Primer PC (MPPC) initiative, the digital divide and the role of software provision

A fundamental component to the success of e-government in general is the ability of citizens to use and access the ICTs which enable its deliverance.

Taking this point as a baseline, this research examined the significance of the Chilean *Mi Primer PC* (MPPC) initiative, which was intended to increase the number of people able to access the resources provided through the Internet.

An argument is made characterising elements of the strategy as facilitating the attempts by proprietary software producers to counteract the threat that Free and Open Source software (FS & OSS) poses to their existing business models.

The research took five main parts:

1. an examination of the actual initiative and its place in the Chilean government's 'Digital Agenda'
2. a brief analysis of the digital divide(s)
3. an attempt at providing a theory to explain what actually may be taking place
4. alternative solutions through the use of FS & OSS
5. conclusions.

A brief description of each section is now provided, with references and footnotes kept to a minimum.

I The Chilean MPPC Initiative

The MPPC initiative is a private sector venture aimed as a response to the goals outlined in the Chilean Government's Digital Agenda (2004)¹. The relevant proposal, in relation to this work, sought to encourage manufacturers, retailers, banks and telecommunication firms to provide economic alternatives enabling families to invest in PCs and connect to the Internet. It attempts at providing the technology needed to address some of the problems associated with the digital divide.

II The Digital Divide

The complexity of the problems are discussed with reference to Korupp & Szydluk's (2005:409) findings that human capital, family context and social context all relate to the ability to access the Internet. Further analysis is provided by Chaudhuri et al (2005: 731) arguing that subsidies (or reduced costs) for basic access are unlikely to be a highly effective tool in bridging the 'digital divide' and Wilbon's (2005: 83) assertions that personality composition-motivation, self esteem and learning styles all contribute to the digital divide problem.

It is then argued that despite these arguments, part of the problem *is* in the provision of the tools to access the Internet and that one of the most efficient ways to solve this problem is to involve the solutions provided by FS & OSS, primarily in reducing the overall fee for a package (James, 2003) similar to that on offer by the MPPC initiative but with associated benefits such as providing a more powerful tool than that offered by proprietary software and the possibility of transforming the 'consumer' to a 'user' to

¹ See http://www.cinver.cl/index/plantilla4.asp?id_seccion=33&id_subsecciones2=8 for an assessment from a foreign investment perspective.

a 'user-producer' (Benkler, 2002; Lerner & Tirole, 2002)

III Theoretical Underpinnings

Thorstein Veblen (1904) and Galbraith's (1987) analysis of his work, provided the initial impulse to the theoretical underpinning of the argument:

business interests react to restrict the influence and production techniques of 'scientists' and 'engineers' in order to maintain prices and maximise profits (Galbraith, 1987: 172) ²

Or, to state baldly, proprietary software manufacturers see the FS & OSS model as being a threat to their continued ability to maintain profits. Even though the FS & OSS products are often superior and cheaper, the business control of proprietary software will limit the more efficient and technologically superior software produced by the FS & OSS model.³

In relation to the MPPC initiative, it has been successful in providing access to users who would not otherwise have had access, but the fact that access to the Internet is through Windows XP Home Edition means that a reliance has been initiated on this type of product⁴. This idea being expanded in reference to how such software contributes to the well known lock-in effect, through the use of a restrictive fee-paying license structure, whereby users become so used to a product and its idiosyncrasies that it eventually results in prohibitive transaction costs should they wish to migrate to a different platform (FS & OSS) in the future.

IV Alternative Configurations

An examination of various GNU/Linux operating systems was undertaken to see if it was possible to use a non-proprietary operating system with equivalent or superior performance at zero cost.⁵

Ubuntu Linux was concluded as being the most advantageous system to use based on a combination of ease of use, install complexity community support and sophistication of packages on offer and general look and feel of the system⁶

V Preliminary Conclusions

The MPPC initiative provides a mechanism for proprietary software business to exploit a hitherto unavailable marketplace: access to those who had hitherto found it prohibitively expensive to obtain the technology to exploit the opportunities provided through the Internet.

The heavy involvement of the type of private sector company in the provision of software ensures that the MPPC initiative provides two core benefits: one to the obvious and proposed beneficiaries; and the second to the proprietary software companies that are providing the software to run the machines.

² to explain the existing proprietary software manufacturers strategies

³See http://www.dwheeler.com/oss_fs_why.html for an exhaustive treatment

⁴See <http://www.microsoft.com/windowsxp/home/default.msp> for technical specifications. It must be emphasised that the GNU/Linux platforms offer a full operating system with full network capability at zero cost. Indeed, Ubuntu support is now guaranteed for the next three years

⁵the following systems were installed on a variety of platforms from a PIII running at 700 MHz to a PIII laptop running at 1.8 GHz. The pc was valued at around 70 Euro and the laptop 450. Both systems having 256 RAM. the Linux distros assessed were DSL, Linspire, Mandriva and Ubuntu. See <http://www.damnsmalllinux.org/>; <http://www.ubuntu.com/>; <http://www.mandriva.com/>; <http://www.linspire.com/>. for further details and the associated Wikipedia entries at <http://www.wikipedia.org/>

⁶The most basic system worked without problem offering Internet access and email for 70 EURO. This is of course before training or broadband access was taken into account. In fact DSL runs on 256 meg and can run in RAM offering the possibility of Internet access and email on a simple terminal for next to nothing.

From this viewpoint, the initiative provides a Trojan horse mechanism for proprietary software companies to enter an otherwise untapped market: those who would otherwise be too poor to obtain the technology allowing a connection to the Internet. The particular method of deployment is a strategic and subtle exploitation of those in no position to object.

An alternative would be to use FS & OSS to lower the cost (though this is one minor facet of the problems associated with the digital divide) of the overall package and contribute to the diversification of the software marketplace.

It is possible that this enabling alternative can reduce cost, increase the technical longevity of the MPPC package and provide the opportunity for increased dialogue between user and machine and user .

VI References

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