Chapter IX
The Social and Economical Impact of OSS in Developing Countries

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ABSTRACT

Computing practices in developing countries can be complex. At the same time, open source software (OSS) impacts developing countries in various ways. This chapter examines the social and economic impacts of OSS on three such nations: China, South Korea, and India. In so doing, the chapter discusses and analyzes benefits as well as downsides of the social, political, and financial impacts on these developing countries. Topics covered in this chapter are piracy, software licensing, software initiatives, social and political components involved in OSS implementation, and software compatibility issues.

INTRODUCTION

Some countries, particularly the economically challenged, are still behind regarding hardware and software technologies. This chapter looks at the social and economic impacts of OSS on three technologically developing countries: China, South Korea, and India. The focus of the chapter is on how OSS is changing the social and economical structures in each of these countries. This chapter discusses and analyzes benefits as well as downsides of the social, political, and financial impacts on these developing countries. Topics covered in this chapter are piracy, software licensing, software initiatives, social and political components involved in OSS implementation, and software compatibility issues.

BACKGROUND

OSS in Developing Countries

Open source software impacts developing countries in various ways. Some impacts are positive for example, cost savings, flexibility of software, obtaining negotiation power against big software companies, fighting piracy, building its own software industry, and even increase national security by less dependence on a few foreign companies. The negative impacts would be maintaining the software quality and providing updating or service when the software environment is changed.

Many international governments are increasingly supportive of the use of OSS. "Open source software is often touted to be ideal for accelerating the growth of low-income countries' IT sectors, with the expectation that it will increase their propensity to innovate" (Kshetri, 2004, p. 75). In countries like China, Japan, South Korea, and India, there is political incentive toward the use of OSS. To insure commitment in the use of OSS, these governments have enacted policies and laws. In June 2002, the European Union's position on this issue was that governments (or public administrations) are not promoting OSS over proprietary software, but are optimizing investments in sharing developed software (Drakos, Di Maio, & Simpson, 2003). Whereas each government has its own political motivation toward the adoption of OSS, the decision must be carefully examined. Governments, specifically in developing countries, that are quick to implement OSS over commercial software for development must take into consideration whether the choice will bring about the required end results.

The popularity of OSS is driving vendors to meet the high demands, especially from the developing countries. For example, Sun Microsystems' executives have suggested that they are considering making their entire software stack open source over time (Galli, 2005). However, future changes in the way OSS is distributed (i.e., different types of licensing fees for support and maintenance, compatibility issues with other software and hardware technologies, licensing issues in software development) will bring about major changes in structure and costs.

Most open-source companies have long offered their software free and built business around value-added services and support. A much smaller number have been selling open-source software with premium-level add-on components for years; that model is not new. But the number of companies falling into the latter category appears to be increasing, which could eventually change the underlying structure of the open-source community, as we know it. (Preimesberger, 2005, p. 1)

With possible changes in the marketing and applications of open source software, the need for reassessment of policies will be eminent for developing countries in order to stay in the competitive technological global market.

MAIN FOCUS OF THE CHAPTER

Open Source Software and China

IT Status in China

China has presented a constant GDP growth of 8% over the past decade. China's GDP was more than $1.7 trillion in 2005. In addition, China's information technology industry has increased. Information technology (IT) in China has been moving forward as planed in their tenth Five-Year Plan (2001-2005) for economic development. The plan states "Information technology should be used extensively in all circles of society and the use of computers and Internet should be wide spread" (http://news.xinhuanet.com/zhengfu/2001-10/30/content_82961.htm). The tenth Five-Year Plan earmarks 1.7 trillion yuan (about $200 billion) for spending on information and communica-

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