Economic aspects and business models of free software

David Megías Jiménez (coordinador)
Amadeu Albós Raya
Lluís Bru Martínez
Irene Fernández Monsalve

UOC

Universitat Oberta de Catalunya

www.uoc.edu

David Megías Jiménez

Degree in IT Engineering from the Universitat Autònoma de Barcelona (UAB). Master's degree in Advanced process automation techniques from the UAB. Doctorate in IT from the UAB. Lecturer in IT and Multimedia Studies at the UOC.

Amadeu Albós Raya

Degree in IT engineering from the Universitat Oberta de Catalunya (Open University of Catalonia) and the University of Andorra, with Security, networks and distributed systems as his specialist subjects. He currently teaches, coordinates and administrates IT systems at an educational institution, is a member of the Grup de Recerca en Seguretat Informàtica i Programari Lliure (IT Security and Free Software Research Group) of the University of Andorra, and acts as a consultant for the Master's Degree in Free Software of the Universitat Oberta de Catalunya.

Lluís Bru Martínez

Irene Fernández Monsalve

Degree in Environmental Science from the Autonomous University of Madrid. International Master's Degree in Free Software from the Universitat Oberta de Catalunya. She is one of the founding partners of Haicku, S. Coop. Mad., a company for which she currently manages and implements free software in Public Internet Centres in the Sierra Norte de Madrid region.

Introduction

In our modern society, the importance of the information and communications technology (ICT) sectors, i.e. telecommunications, computing and electronics (production and consumer), has reached unprecedented heights. These industries are innovating at a dramatic pace and converging into one, handling, transmitting and reproducing information with the use of common procedures: digital technologies.

However, far more important than the changes that have taken place in the industries directly related to ICTs are the changes and improvements affecting other business activities, particularly the more traditional ones, where procedures have undergone a major overhaul. The effects on the economic fabric have led to the emergence of new business areas in order to meet new market demands that were previously unheard of.

Nonetheless, no economic legislation has changed and none of the economic phenomena related to ICTs are qualitatively new. What has changed, if anything, is the relative importance of certain economic effects on our society, such as intellectual property policies and product compatibility. If we look more specifically at the economic effects on the software industry, we will reach a similar conclusion.

Recently, in the software industry, we have seen how free software has been opened up and deployed among the general public. Free software has positioned itself in diverse sectors of the generic software market as a valid and viable alternative, and conclusively so in some specialised sectors (such as web server software). This situation has affected the proprietary-based software industry and led to the rise of new business models related to the dissemination, development, support and implementation of free software.

> The aim of the *Economic aspects and free software business models* subject is to provide the necessary knowledge to understand and implement free software economics through the study of economic aspects and analysis of the related business models, in combination with the opportunities offered by this new market.

The first module of the subject outlines the economic concepts required to analyse the economic structure of the software industry in general and to conform a specific business model based on free software.

The second module of the subject briefly describes the main features of the software market in relation to the consolidated business models and potential customers of companies based on free software.

The third module of the subject introduces software from a business angle, focusing on the market in which the different solutions compete and on the business strategy for attracting potential customers.

The fourth module explores the business models related to free software. To begin with, it analyses the classifications proposed by some authors of note. It then defines a particular classification for the subject that takes into account the most relevant financial characteristics of the business.

The fifth module examines free software development from a company perspective. Here, we will consider both the most relevant features of the software project and the special features relating to the community of free software users and their functional and legal management.

The sixth module describes the main advantages and disadvantages of the free software model for the business strategy, considering both the perspective of the customer and of the company itself and the business model it adopts.

The seventh and final module of the subject analyses free software as an economic model, focusing both on the fundamental bases of its existence and on present and future implications in relation to the free software business.

Objectives

After completing this subject, students should have achieved the following aims:

1. To identify and understand the most relevant economic factors affecting the technology industry and the free software industry in particular.

2. To understand the different business models that can be exploited in the software industry, along with their key features.

3. To obtain a detailed knowledge of the different business models related to free software and their business opportunities.

4. To understand and relate the economic, technical and legal factors needed to create and sustain a business based on free software.

5. To analyse cases of free software exploitation in the private sector and their relationship with the technology market.

6. To obtain a detailed knowledge of the strategies for developing and exploiting free software for economic gain.

7. To plan and design sound and feasible businesses based on the exploitation of free software.

Contents

1. Basis of the model

2. Characteristics of the free software model

3. Validity and feasibility of the free software model

Resources

Associations of free software companies:

- Asociación Catalana de Empresas por el Software Libre: (www.catpl.org).

- Asociación de Empresas de Software Libre de Canarias (www.eslic.info).

- Asociación de Empresas de Software Libre de Euskadi (www.esle-elkartea.org).

- Asociación de Empresas Gallegas de Software Libre (www.agasol.org).

- Asociación Madrileña de Empresas de Software Libre (www.solimadrid.org).

- Open Source Business Organisations of Europe (www.obooe.eu).

Setting up a business:

- Centro Europeo de Empresas e Innovación del Principado de Asturias: Guía para la creación de empresas y elaboración del Plan de Empresa (http://www.guia.ceei.es).

Conferences (free software and business):

- Open Source Business Conference (OSBC) (http://www.osbc.com/live/13/events/13SFO07A/SN441958/CC141932/ and http://www.osbc.com).

- WhyFLOSS (http://www.whyfloss.com/es/conference).

Corporate data:

- Spanish Chamber of Commerce (http://www.camerdata.es).

- Hoovers (http://www.hoovers.com).

Case studies:

- Avanzada7: "Business models based on Asterisk: The case of Avanzada7" (http://www.whyfloss.com/es/conference/madrid08/getpdf/64).

- IBM migration to Free Desktops (http://www.channelregister.co.uk/2007/ 02/13/ibm_open_client).

- Liferay: "Liferay Enterprise Portal: The project, the product, the community and how to extend it" (http://www.whyfloss.com/es/conference/ madrid08/getpdf/66).

- Openbravo: "Openbravo: keys to success in free software application development" (http://www.whyfloss.com/es/conference/madrid08/getpdf/49).

- Red Hat and JBoss: "Is Open Source viable in Industry? The case of Red Hat and JBoss" (http://www.whyfloss.com/es/conference/madrid08/getpdf/68).

- Various cases (www.opensourceacademy.gov.uk/solutions/casestudies).

Blogs on free software, innovation and business

Galopini, R. *Commercial open source software* <http://robertogaloppini.net/> [Consulted in March 2009]

Oswalder, A. *Business model design and innovation blog.* <http://business-model-design.blogspot.com/> [Consulted in March 2009]

The 451 group. *451 caos theory: A blog for the enterprise open source community.* <http://blogs.the451group.com/opensource/> [Consulted in March 2009]

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Woods, D.; Guliani, G. (2005). *Open Source for the Enterprise: Managing Risks, Reaping Rewards O'Reilly Media.* <http://books.google.com/books?id=f4qJiK-ytvgC&dq=open+source+for+the+enterprise>