Open Source Business Models

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At first hand, Open Source Software (OSS) and conventional business models do not seem to match. OSS often gets the connotation of being free of charge, which is not an encouraging prejudice when one is trying to make money out of it. However, OSS can offer some new opportunities for commercial software development.

How can a firm in the sector of information technology make money out of Open Source Software, while supporting the community that thrives on free software? To start with, an entrepreneur who is developing OSS, is not simply supporting the open source community. OSS is a way of building software in collaboration with the users of the software packages, which can possibly end up in creating a product with a level of quality that could not be achieved with closed source. The user is given the ability to propose useful bug fixes and interface changes. This close interaction with the user can obviously lead to an improved product, and in many examples on the Internet, open source development is starting to beat the monopoly of commercial closed source software farms.

Open source development gives customers a much greater ability to customize software to fit their needs. Customer bug fixes and enhancements are commonly contributed back to standard open source packages, while improving upon the quality and limitations of the product. This option is not available within traditional commercial software.

Do you trust your toaster's software?

One of the most discussed results of this interaction is the increased security and reliability of OSS products. Giving away the source code of a software product will give the community of users the possibility to expose the product to increased testing, such that security problems and fixes can be discovered and distributed earlier than in a closed source model, improving the overall quality and reliability of the software package.

Entrepreneurs using OSS business models depend largely on the high reliability of their software; their software is peer-reviewed, and possibly tested more extensively than proprietary closed source software. Opening the source of a project can make the project free of bugs, and as bullet-proof as software can get when reaching a mature stage in the software's life cycle.

Advantages of OSS

Speeding up development

Allowing a product's users to be co-developers along with the product's developers seems to be in stride with conventional ideas of software development. Indeed, OSS development is based on the idea that more programmers can accomplish more than the selected few in a company's developer room. It just follows along the lines that more eyes simply see more. The more programmers are poking a project's source code, the faster bugs or

security flaws can be detected, and the faster the development process can lead to a mature product.

This interaction with the users is, however, not as easy as stated here. Users are not always happy to pay for an unfinished product. It is getting even worse when they start using it, discover flaws in the program, and then have to put energy in further development of the product.

The manufacturer of the product also has to provide an initial full version of the product to receive any interaction with other developers. From this first version, the entrepreneur can start attracting users and their developers, after which the speed in development and the evolution of the product could increase, given that the initial version satisfies the costumer such that he is willing to put money in the further development of the product.

Lower overhead

External co-developers, given the opportunity to resolve bugs, can be adopted to out source part of the work of a company's software shop. In return of fixing a bug, that costumer can be given an opportunity gain over other costumers. This allows to reduce per-project software production costs significantly. And as an extra, a small developer team can handle a much bigger project.

Closeness to costumers

It is very favorable for a company to be close to its customers. In the case of a company providing software, there is no better way than allowing your customer's engineers to be involved in the software project's development. Their involvement in the development of the source code allows them to easily fix the flaws that limits their productivity, again allowing for a better product in the end.

Open source gives customers a much greater ability to tailor software to fit their business needs. Customer bug fixes and enhancements are commonly contributed back to standard open-source packages, an option which is not available with traditional commercial software.

Broader market

Allowing a customer's engineer to be able to adapt a product, allows this user to extend the product beyond the limits of what a company originally intended with the project. If these adaptations are returned and merged with the original product, it can attract more customers to the product. As an example of this, a customer might port the code to a new platform giving him, and possibly other customers, the ability to use the product in their working environment, beyond the initial limitations implemented by the manufacturer of the product.

Public relations

Giving away (limited versions of) source code and products for free allows new users to test and compare your product to other products, which again can attract more customers to start using the full product.

Making money out of OSS

Once a software manufacturer uses OSS to create software, it is not always clear how he can make money out of the project. There are a few relatively new business models which adapt open source development and offer opportunities to make open source development worthwhile.

Supplying service and support

If a software project is distributed for free, the users of this project might not always be able to use the project to its full extent. In a commercial environment, the user can pay for service and support of the project. Even the implementation of a complex open source project could be out sourced to the creator of the original project. A good example of this business model is used by MySQL AB, which is discussed later.

Loss leader market entry

The loss leader OSS business model is often used for two purposes. Firstly, it can be used for jump starting an infant market, and secondly, it can be used to break into a market with entrenched closed

source players. Many funding in open source projects can be viewed as strategic loss leader models against popular, possibly monopolizing closed source software companies. These investments are best done at the steepest part of the product's growing curve. A good example of a company using the loss leader model, is Netscape, which opened up the source code of its Netscape Communicator web browser to attract developers and users to open up the market of Internet browsers currently monopolized by Microsoft's Internet Explorer. Netscape is also a good example of how users can adapt the project and create a much improved product, Mozilla in this case, from the free source.

Widget frosting

Many hardware manufacturers have to provide software – such as drivers or other interfacing software – along with their products. Using the open source model in the development, along with opening up the standards and technologies used in the hardware, allows the company and users to create software that works on platforms and with ideas beyond the limits the manufacturer originally intended. The production and extensibility of the software offered along with the hardware sold, might attract more buyers of the product. An obvious example of this model is that manufacturers of graphics cards for personal computers can attract more buyers because their open sourced drivers are ported to new platforms the manufacturer originally did not envision.

Accessorizing

Companies such as O'Reilly Associates, SSC and VA Research base their success on selling accessories based on open source projects available to anyone. They offer books, compatible hardware or complete pre-installed systems based on open source software. Since the software they build upon is available for free, pre-installed systems can be built with a very low cost on licensing, and the final product can stand out against systems built upon commercial software.

Examples of successful business models

A couple of successful companies, who base their business on OSS are illustrated in the remaining part of this article.

Redhat network

Redhat, among many other companies such as Suse or Mandrake Linux, is a provider of distributions of the open source Linux operating system. Specifically, Redhat network offers services to easily maintain Linux installations. The company offers service, support and training for administrators of Redhat Linux installations. A registered user can obtain updates of the operating system, and call a help desk if technical problems are encountered. On the other hand, the company also provides consulting services, such as high performance computing or web services, all based on free open source software. To satisfy their users, they have developer teams working on user interfaces and enhancements of the open source software they adopt, while supporting the community of open source developers.

MySQL AB

The German company MySQL AB originated from a group of developers who created the open source database SQL server MySQL. The company offers service solutions and training based on the free software product. The biggest part of their revenue is obtained from professional consultation for the implementations of their free product in commercial environments.

Ximian express

Ximian provides desktop solutions for the Linux operating software. Everyone is free to download their product, but a subscription allows the buyer to have priority access and higher bandwidth Internet downloads of the updates of their products.

SourceForge enterprise edition

VA Research is offering an open source version of their SourceForge product as a free software pack-

age to manage software development. Next to offering this version for free, they extend the package with other services, and the whole is sold as an enterprise edition of the free product. This enterprise edition contains extra enhancements and functionality which is not available in the core product that is offered for free. This allows the company to create a big user base, and rock solid product through open source development, to attract commercial buyers for its full product.

Others

This list can be extended with many other companies supporting and adopting the open source model. Among these are for example IBM who currently starts shipping Linux based systems, or SGI who is supporting the development of Samba, a communication interface between Unix and Windows system, while selling a commercial version of the package for its IRIX operating software users.

Discussion

Contrary to what is thought of open source as free-of-charge-software, there exist a couple of opportunities to adopt open source software in commercial environments. The advantages, however, are not always applicable to every software product, but many tricks can be used to create a software component that can be adopted both in an open source and commercial product environment, while inheriting advantages of both worlds.

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