

Case Study Research Assignment

Proprietary software vs. Open source software

Course: Program Design Methods

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I. Background Information

Open-source is a form of license that permits users to freely alter a work, use it in new ways, integrate it into a bigger project, or create a new work based on it. Examples of open-source products include operating systems like Linux and Android or even internet browsers like Mozilla and Chromium.

Proprietary software, like Microsoft Windows, macOS, or the Adobe line of products, have set restrictions on use and can be very expensive, whereas open source software is freely available to use as is or to change, improve, and redistribute. While proprietary software has been the standard, in recent years, open source software has become acceptable as a cost-effective alternative to proprietary software.

II. The Problem

The problem for this case study is to determine which is the best choice between proprietary software and open source software. Through this case study, we will be outlining the positives and negatives surrounding both open-source and proprietary business models.

III. Short Literature Review

On the topic of open-source software versus proprietary software, there has been research done by Dalle et.al. (2002) that states that in some cases, open-source software can outperform proprietary software. This, however, is not always the case. Their research shows that open-source software success is heavily reliant on internal (organizational efficiency) and external (public support and competitiveness in the market with existing proprietary standards) factors. Although the openness of the sources determines the foundations of this structure, it also relies on the developer community and internal organization. Their research also references that a hybridization between an open-source and proprietary product, like Linux and Windows, could play a part in increasing open-source development efforts.

From this, we conclude that the success of open-source and proprietary software are heavily reliant on how their respective parties manage their resources, efficiency, and data and that it is still an open question on whether one is better than the other.

IV. Findings and Discussions

Open-Source Proponent

Open source is a developing app which is not coordinated by individual or central agency, but by people who work together by utilizing the source code that is spread and freely available (usually using internet communication facilities).

Ø Benefits of Open-source contributions :

- The main advantage of using open source software, because it is more cost effective. This is very different from commercial software which charges a fee for their products because they also need funds to protect their software from piracy.

- High Security Level. Many Developers regularly maintain open source software. Therefore they will find and fix bugs directly, which indirectly also eliminates security holes
- Stable software. Open source software rarely causes older software to crash or not work. For example, the Linux operating system that supports almost all existing programs. Very different from certain Windows versions of applications which often cannot run on other versions of Windows

Ø Disadvantages of open source

- Relatively limited features. Open source software sometimes doesn't have the features available in paid software. For example, the facilities in Inkscape are not as many as the facilities in Corel Draw
- It's Complicated to Learn at First. Open source software, although similar to Windows, requires more time and effort to learn. For example we need time to learn how to use the ubuntu desktop interface
- Limited Support. Support when using open source software is sometimes not as much available compared to paid software. So when we look for support, first try to join the community on the website.

Last but not least, why do we have to choose open source software? There are 5 main reasons why OSS is the best choice. The biggest advantage is that open-source software is usually free. Second, Open-source software is open to the world. Security problems are not an issue. Third, you can integrate open-source software quite easily compared to commercial software

The next one is the quality. The thing that makes open-source software solutions better than the alternative is the number of eyes looking at them.. The last reason is availability of source code.

Proprietary Developer

What is proprietary software?

Proprietary software, also known as closed source software or commercial software, is a software that legally remains as property of the developer party, thereby bears limits against use, distribution and modification, unless otherwise stated in the End User License Agreement during installation.

Features of proprietary software

- Source code is kept away from users due to intellectual property rights, therefore only developer has control over its development
- Use and distribution comes with a cost bared by the user, in other words product is created for profit

Examples of proprietary software include:

- System software: Windows and OS X operating systems
- Application software: Microsoft Office suite, Adobe Creative Suite productivity software, login music creation software, paid-for games for consoles.

Benefits of proprietary software

The stakeholders discussed: developers, end user

- For the company or individual developer, licensing of computer software provides an alternative business model to monetize computer software.
- Proprietary software tends to be designed with the user in mind, in order to maximize profits, meaning that the interfaces are usually simple to use and include the features that users need/want.
- The product rarely has bugs as end users get the best for what they pay for. Any existing bugs will be fixed in updates known as patches, which are often provided free of charge.
- End users can seek help from the developer company, usually with a '?' button, if problems occur.
- Feature updates extending the software's facilities are often provided, although usually at a cost.

For example, The Sims 4 Game Packs, Extension Packs, Stuff Packs improve the gameplay by adding more content with a small fee (Ranking the best Sims 4 expansion packs you can buy, 2021).

Drawbacks of proprietary software

- Initial or ongoing cost for subscription to use the software

For example, Subscription to Adobe Creative Cloud, includes Adobe Photoshop, Adobe Illustrator costs \$69.72, a month (Adobe premiere pro, n.d.).

- Software cannot be adapted to meet the needs of the user as they do not have access to its source code.
- It can be limited to a single computer or network, so unless the license allows it, a user cannot redistribute the software.

For example, Microsoft offers their software for 1x purchase for 1 device (Pengunduhan & Harga, n.d.)

- Software updates can take time as only a single party is working on it

Proprietary software has plenty of benefits, including technical support, and user friendliness for usability and functionality, deeming it a popular choice amongst individuals and businesses alike. However, its disadvantages when using proprietary software should be carefully weighed up before making a decision as to the best type of software to choose.

Arbitrator

As the arbitrator, I am tasked with promoting dialogue between the two parties in order to reach an agreement. With that in mind, I will start this discussion with the results of my research concerning types of software in general. Most software falls under proprietary software, and OSS (Open-Source Software) (*Software Licenses*. 2020).

From the perspective of a user, it is easy to assume that OSS is the more convenient and accessible option. However, it is not as clear cut as that. In fact, there are some things to consider, like quality, longevity, and the support provided by the product's provider.

Except for Commercial Open-Source Software (COSS), which has a single entity owning the rights, OSS is open and free for anyone to contribute, fork, or use. This lack of protection can lead to problems like the Streamlabs controversy. Where consumers can be misled and confused, just because of the gray area of trademarks and copyright it is in.

According to an article by Diaz (2021), it started from a post by the Lighstream twitter account comparing the strikingly identical Streamlab website layout to the Lighstream website, down to user reviews, photos, and layout. In addition, the OBS twitter account claimed that Streamlabs had used the OBS name without their consent.

Most consumers who purchase proprietary software do so with the anticipation of receiving the greatest possible experience. This view stems from statistics that show that most proprietary software is owned and generated by larger corporate entities, such as Microsoft.

From a consumer's perspective, proprietary software has the advantage of originating from a reputable and well-known corporation, such as Microsoft or Apple. Consumers find proprietary software appealing because of its brand recognition and dependability, but it comes at a cost. Adopting a proprietary software model will be a significant financial investment for developers, but if it succeeds, it can become a standard in the industry and profitable.

Though open-source software is shown to be gaining more traction nowadays, with most consumers under the assumption that open-source software is better than their proprietary counterparts, "neither business model can be said to be the absolute best and most businesses can be successful with either or utilizing both approaches simultaneously" (Optimus Information, n.d.). It boils down to your own principles, philosophies, and viewpoints.

V. Conclusion and Recommendation

After debating and analyzing the facts and data collected from our research, our team has concluded that Open Source Software is the greatest option for users (OSS). The open-source model, according to the open-source proponent, is more appealing to a user because of its reduced cost, code transparency, and collaborative environment.

Overall, the creator's needs, product scenario, and desire will determine whether or not to choose either business model. Developers should establish and analyze their product's and target audience's needs, as well as what they are comfortable with. Then, to establish the best environment for developing and marketing their product, they should determine which business model(s) corresponds with their data and findings.

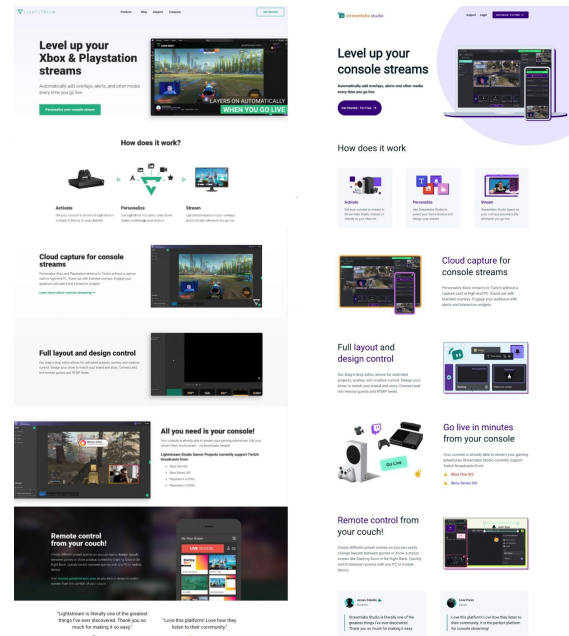


Figure 1: Comparison of Lightstream (left) and Streamlabs (right) website

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