

Analysis of Varying Levels of Open Source and Proprietary Software in Business Models

With the rise of the open source movement, software companies from global giants, like Google, to tech start-ups have begun implementing open source technology and contributing to the open source community. Because companies who produce open source software won't be able to derive revenue in the same manner proprietary companies would, they must seek alternative sources of income. This has motivated software companies to adopt and implement business models that circumvent this through a variety of means. Some companies generate revenue through charging for extra services that accompany the software, or by charging for the software as a service itself, allowing them to stay completely open source. Other companies have decided to blend open source and proprietary software to form a range of hybrid business models in which they are currently gaining funds from the proprietary software while still contributing to the open source community by open sourcing most of their code. This includes business models such as the dual licensing model and open core strategy. The interest in open source is not only held by startup companies, but is also being implemented in proprietary companies, who have managed to establish themselves as major contributors to the open source community, while still maintaining most of their products as proprietary.

This range in business models for companies who wish to contribute to the open source community has brought into question whether there exists an ideal model that allows for profit from the open source community, while minimizing the risks of failure associated with a great deal of open source companies. In this essay, I attempt to compare three different business models with varying degrees of proprietary and open source software.

One purely open source business model relies on profiting mainly by providing support services while keeping the software completely open source. By offering support, such as training, consulting, and installation at a premium, the model aims to avoid depending on revenue from the software itself, thus allowing it to remain completely open source (Meier, 2016).

A well recognized company that profits from this model is Red Hat. Established in 1993, this business started as a small software distribution vendor, but recently reported a subscription revenue of \$2.1 billion in 2017 (Red Hat, 2017). Thomas Fogwill cites alliances with industry leaders as one of Red Hat's key factors that allowed for its success (Munga, 2017). Its partnerships with corporations, such as IBM and Dell, allowed for Red Hat to widen its user base by pre-installing its software on their hardware (Pal). Although this factor has contributed to the success of Red Hat as a service-based business model, some claim that its prosperity is unique. They believe the circumstances that allowed for its rise in popularity cannot be easily recreated. Peter Levine, former CEO of XenSource, an open source company, claims that the support-based business model doesn't allow for sufficient revenue to be created to

support a company (Levine, 2014). Red Hat seems to have overcome this obstacle through a combination of branding tactics and timing. As mentioned by Nilendu Pal and T.R. Madanmohan in *Competing on Open Source: Strategies and Practise*, Red Hat's success relied heavily on its branding and manipulation of the rise of Linux (Pal). The pure play open source company managed to use the popularity of Linux to their favor as they attached their name to the company.

The open core business model is one of many models that compromises the desire to use open source and their need to gain revenue by including a combination of open source and proprietary software in their products. This model is comprised of an open source "core" software that is free for public use, and proprietary extensions that are used for generating revenue for the company. Although the proprietary extensions refine and add extra usability to the core, the open source component of the software is meant to be fully functional on its own. Controversy, however, surrounds this business model as the proprietary extensions question the legitimacy of its open source nature.

Eucalyptus Systems is an example of the open core business model. Marten Mickos, the former CEO of MySQL, another successful open source company, is now the CEO of Eucalyptus. He described the company as having a GPL v3 license, a common open source license, but with "enterprise features" that improve the product at a cost (Bort, 2010). Critics, such as Simon Phipps, claim that Eucalyptus Systems should not be considered open source companies because of these "enterprise features", as they abuse the open source community and recreate the software freedom limitations that the open source community seeks to remove (Phipps, 2010). Regardless

of ethical standpoint, Eucalyptus Systems, or any other open core business, has yet to see the success that Red Hat or any other major open source business has seen. This brings into question whether the open core business model doesn't allow for such success. Julie Bort, claims that the open core business model serves its purpose as a transitional business model. Transitional, in that it could attract corporations into the open source community (Bort, 2010). If its role is just to be a model that encourages businesses to participate in the open source movement, then which business model will we see at the conclusion of this transition?

Although not considered an exact open source business model, proprietary companies have managed to enter the open source community by funding open source projects and contributing to the community. Described more appropriately as an implementation of open source in proprietary business models, these businesses seek to minimize costs by using open source software in comparison to the more expensive alternative; proprietary.

Many tech giants, such as Google and Facebook have multiple projects in the open source community. One of the first proprietary companies that has had roots in the open source community has been IBM. With a history starting in the 1900's, IBM has long been considered a company that has sold proprietary software long before the development of open source software. Despite its proprietary foundation, IBM jumped into the open source community through a variety of projects, including Eclipse, an open source IDE. Although the Eclipse Foundation is not a company in itself, it's relationship with IBM provides an alternative to how companies implement open source into their

business models. By being detached from IBM and standing alone as The Eclipse Foundation, the foundation allows itself to be open source and not pertaining to the proprietary company. However, due to its funding from IBM, the influence from the cooperation can be seen (IBM, 2005). IBM regularly has it's working contributing to the Eclipse Foundation, as well as it's other open source projects (Pal). The proprietary company has been able to profit from the Eclipse Foundation by implementing the Eclipse in its proprietary business model. Because the software is open source, IBM was able to reduce costs, as a proprietary alternative would have been more expensive. This relationship with the open source community allows for proprietary companies to benefit, while still contributing to the community.

The variation in amounts of open source implemented bring into question the validity of the open source software. By not profiting from the software itself, Red Hat, is able to remain a purely open source company. In contrast, Eucalyptus Systems has been criticized as being a phony form of open source, in which, the open source base is used as a loss leader to attract potential customers. This abuse of the open source community brings into question whether the open core model should be considered as a combination of proprietary and open source software, or just a strategy used by proprietary software to gain an edge in the open source community.

From these examples, we can derive that the level of proprietary and open source software does not directly correlate to a company's success. As demonstrated by Red Hat, a billion dollar company, a truly open source company can profit greatly through smart business partners and branding. For these pure play open source

companies, however, it is unclear whether this business strategy can be replicated. Yet success can also come to proprietary software companies that participate in open source, as shown by IBM's investment in open source software. Eucalyptus Systems, on the other hand, like other open core models, have yet to prove that the model can provide a route to profits. Although having components of open source software and proprietary software, the open core model fails to use the advantages either strategy to produce profits. This lack of correlation between business models and gain supports Bob Young's, the founder of Red Hat, claim that both open source and proprietary companies profit in the similar manner. Both business models must have an exceptional product, marketing skills, and customer service to prosper. He states that it is extremely difficult for a business model to prosper, regardless of model (Young, 1999).

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