



350



Open Innovation and the Business of Software

Per Runeson, Professor Software Engineering



Digitalization turns business upside-down



Open...

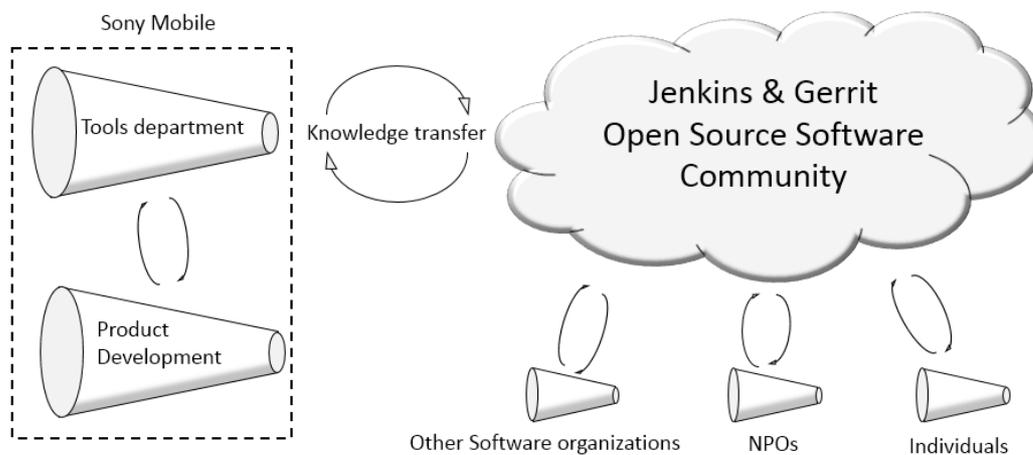
...**innovation** is “a distributed innovation process...across organizational boundaries, using pecuniary and non-pecuniary mechanisms”

(Chesbrough, 2014)



CC BY 2.0 Alan Levine @ flickr

Open Innovation Using Open Source Software



What is Special About Software Innovations?

- + Low initial costs
- + Dynamic service scaling
- + Global market potential
- Hard to protect intellectual property
- Hard to monetize
- Long term maintenance costs



CC BY 2.0 SEOpianter @ flickr

Business Models for Software

- Licence usage (IBM, Microsoft...)
- Embed in products (Volvo, Sony...)
- Sell services (Red Hat...)
- Advertizing (Google...)



Platforms and Tools

- No competitive advantage
- Share costs with all
- Open innovation provides
 - freed-up developers' time
 - better quality assurance
 - faster releases and upgrades



CC BY 2.0 Per Runeson

It is More Blessed to Give than to Receive – Open Software Tools Enable Open Innovation

Per Runeson¹, Hussan Munir¹ and Krzysztof Wnuk²
¹Lund University, ²Blekinge Institute of Technology

ABSTRACT

Open Innovation (OI) has attracted scholarly interest since Chesbrough [1], i.e. "a paradigm that assumes as well as internal ideas, and internal and external technology". However, OI remains unexplored for software in practice through Open Source Software (OSS). We investigate in particular how OSS tools impact on software-intensive firms. We surveyed the literature on SE and OI [3] and found a higher tendency to opt for OI compared to established firms assimilating external knowledge into their existing financial advantages.

In a case study, we observed how OSS tools Jenkins and Selenium enabled a software company to identify major contributors and contacted five of them for interviews about their and their views on OI and tools, which they gave a consistent picture of.

Our findings indicate that the company's transition towards OSS, while the adoption of open tools was not from management. By adopting OI, Sony Mobile achieved assurance, inner source initiatives, flexible development. Particularly, the introduction of a test framework was driven by other contributors [2]. However, the benefits are not clear and resources to the OSS community in terms of time and money.

BODY

Sharing software tools enables open innovation, but demands investments in the open community

REFERENCES

- [1] H. W. Chesbrough, *Open innovation: The new paradigm for business*. Harvard Business School Press, Boston, MA, 2003.
- [2] H. Munir and P. Runeson, Software testing in the acceptance test harness for Jenkins. In *Proceedings of the International Conference on Software Engineering*, 2015, pp. 1-10.
- [3] H. Munir, K. Wnuk, and P. Runeson, Open innovation mapping study. *Empirical Software Engineering*, 2016.

TINY ToCS TinyToCS
@TinyToCS

Följer

Sharing software tools enables open innovation, brings faster upgrades and frees up resources, but demands investments in the open community

Översatt från engelska

RETWEETS
4

GILLADE
3



07:21 - 11 mars 2016



4



3



Svara @TinyToCS

