Chapter 8

Building Teams and Developing a Career in the FOSS Industry

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ABSTRACT

The world has been recovering from the COVID-19 pandemic and is coming towards its post-pandemic era. Although many IT companies have experienced big growth during the pandemic caused by the increasing demand of several kinds of services, finding highly skilled IT professionals is essential to the expansion of the business and was never an easy task, even before the pandemic. The leveraging of remote work during the last years collaborated substantially with companies in order to expand their teams across the globe and find talented people that would never have been found within the pre-pandemic environment. However, apart from the new working models and environments in the IT sector, the FOSS model always posed as an outstanding framework not only to leverage projects but also to help in finding talented people throughout the world. This short chapter presents a brief overview about how FOSS can be used to help companies leverage their businesses and expand teams by reaching professionals with a good matching profile.

PROFESSIONAL CAREER

Although terms such as Open Source, Free Software, and Pervasive Computing might still sound like innovation for many people, they were coined decades ago. By the time the Open Source definition was coined in 1998 (Stone et al., 1999),

Free Software Foundation was more than 10 years old and GNU GPL licenses(GPL-Compatible Free Software Licenses, 2023) were well established even though the computing market was still dominated by proprietary software and business models. The hardware evolved fast and the development of microelectronics and manufacturing techniques of integrated circuits leveraged embedded systems and portable platforms, allowing miniaturization, reducing costs, and making them accessible to the general public. As a consequence, there was a boom of computer devices in our society: routers, smartphones, TVs, tablets, sensors, and several other devices became common in most environments and transformed the pervasive computing, already discussed and predicted years ago(Satyanarayanan, 2001), into a reality. In this context, FOSS also evolved through countless successful projects which have paved the way for newer (non-proprietary) business models, innovation, and acceleration of software development. Nowadays Open Source is everywhere, from robotic toys (Personal Robots, 2019) to Satellites(Labrèche et al., 2022), driving cloud and internet infrastructure, and running on billions of devices such as smartphones and TVs. Some of its main advantages are:

- The huge availability of high-quality FOSS: in 2023 there are more than 300 million of repositories hosted only by GitHub, where around 31 million are public(GitHub, 2023). Is easy to infer from this massive number that even considering only a small portion of all this software to be high quality, it still represents a big amount of artifacts, tools, and components that can be easily used by companies in their own business. However, this number can be much bigger considering the nature of Open Source, which usually counts on the collaboration of a community of developers working on several aspects of the software development process other than coding, such as reviewing, testing, and writing documentation, this joint force collaborates to improve the quality of the final product, bug fixes and evolution of the project throughout its lifetime. Also, it is worth mentioning that there are many other platforms hosting FOSS code apart from GitHub, which makes it harder to estimate the real numbers.
- Increase security: due to the FOSS working model, big projects draw a lot of attention of the community, which means that a lot of developers will not only code new features, but also review, test, find and fix bugs that could not be easily revealed by a smaller (corporative) team of developers. While the openness of the source code allows anyone to study it and find security flaws, it also allows a quick response from the community, providing fixes faster.
- Faster time-to-market: using available Open Source software can accelerate the development process by allowing companies to reuse FOSS artifacts

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