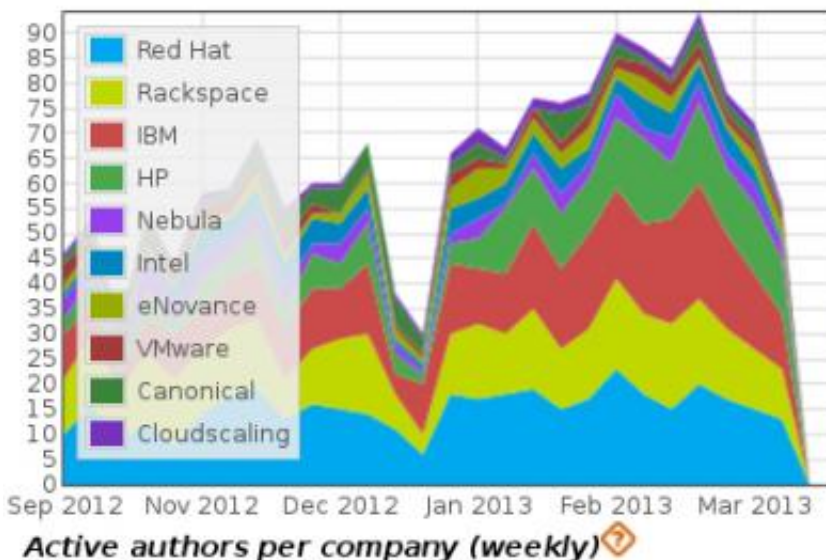


New quantitative analysis for open source software projects

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Evolution of the number of developers per company, in the latest version of OpenStack

Open source software is that which, once it is received, can be used any way one wishes: it can be redistributed (for free or for a fee) and modified, if one knows how to do so. Bitergia, whose business is based on the data offered by development tools, has produced a series of tools that enable the extraction and later analysis of information. The objective is to allow clients to make decisions based on objective data rather than on subjective perceptions of a project.

There are different types of tools for evaluating the information related to free software projects. "We use the information available in the development repositories, which store the tools used to coordinate the projects", explains one of the developers of this new company, Jesús M. González Barahona. Afterwards data extraction and mining techniques are used, and those data are then treated in order to respond to concrete questions. In fact, the researchers have their own tools to help them in this process, MetricsGrimoire and vizGrimoire, as well as free software. "Currently, nobody is developing this type of [tool](#) as [open source](#), and this allows us to offer our users and clients greater trust and [transparency](#)," he adds.

The main advantage for companies when they participate in [open source software](#) projects is that, because they are participating in a development community, they are sharing costs with the other participants, so company resources can be used more efficiently. "The risks come from there as well: you are dependent, as least partially, on how well, or how poorly the development community behaves," warns the researcher.

Open source and proprietary software

The difference that exists in the evaluation process with respect to proprietary software is that, in the majority of open source software projects the data sources are public, because these projects are very interested in transparency. This makes it possible for anyone to analyze reliable data without the need to even have agreements with the projects. In the case of [proprietary software](#) this is impossible: it is only for authorized users who have a special agreement with the program's producer.

In Bitergia they are dedicated to developing tools that can quantitatively evaluate open source software for everyone. So, what benefits can they obtain? "Our company's focus is knowledge," its technicians respond.

Their tools aid them in the process of data collection, analysis, and visualization, but it is essential to have sufficient knowledge to know how to use them, to know which data are relevant to each project and which methods should be used to get the right answers and interpretations. "This is where we hope that what our company offers will stand out, and we aspire to be one of the companies with the most experience and knowledge in this field, globally speaking," they clarify.

This company has recently gone to work on several notable projects. They recently analyzed the [development](#) community OpenStack, one of the most important systems for setting up cloud computing infrastructure. They have also done an analysis of the community WebKit, which is very interesting due to the participation of many large companies that are competitors in other fields, such as Apple and Google, but which in WebKit have worked in collaboration to create the foundation of some of the main web navigators (Safari and iPhone's navigator in the case of Apple; Chromium and the one for Android, in the case of Google). "In fact," comes the comment from Bitergia, "this community has recently received a lot of attention because Google has decided to create its own community, Blink, breaking it off from WebKit. It's going to be very interesting to analyze how these two projects work together in the future," they conclude.

Provided by Carlos III University of Madrid

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