Beyond Development: 
A Research Agenda for Investigating Open Source Software User Communities

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ABSTRACT

Open source software has rapidly become a popular area of study within the information systems research community. Most of the research conducted so far has focused on the phenomenon of open source software development, rather than use. We argue for the importance of studying open source software use and propose a framework to guide research in this area. The framework describes four main areas of investigation: the creation of OSS user communities, their characteristics, their contributions and how they change. For each area of the framework, we suggest several research questions that deserve attention.

Keywords: community IS; open source community; user needs; user participation

INTRODUCTION

In recent years, the open source software (OSS) development movement has captured the attention of both information systems practitioners and researchers. The “open community model” is one that involves the development and support of software by volunteers with no or limited commercial interest. This model differs from proprietary software development, and with other open source business models such as corporate distribution, sponsored open source and second-generation open source (Watson, Boudreau, York, Greiner, & Wynn, in press). The open community model is appealing to many because of its application of community principles of governance over commercial activities (Markus, Manville, & Agres, 2000; von Hippel & von Krogh, 2003). By describing open source as a “movement,” we reflect the broader excitement about the implications of community governance processes in a knowledge economy (Adler, 2001).

Open source has rapidly become a popular area of study within the information systems (IS) research community, as evidenced by the appearance of special tracks for OSS within

Although these calls for OSS research do not limit contributions, the vast majority of the research conducted so far has focused on OSS development rather than use (Fitzgerald & Kenny, 2003). The interest in open community development reflects a desire to explain the counterintuitive practice of treating commercially valuable products as public goods rather than proprietary products for sale. Likewise, the development and maintenance of complex software products by communities of expert volunteers has piqued interest into the incentives for developers. As a consequence of the primary focus on OSS development, little research has yet been conducted on OSS use, especially by non-technical users.

The neglect of OSS use may be attributed to two false assumptions about OSS projects. First, it is known that people often become OSS developers because they intend to use the product being developed. To echo Raymond’s (2001) frequently quoted expression, OSS developers are users with an “itch to scratch,” so they are willing to devote time and expertise to develop software solutions to their own problems as users. Thus, it is commonly assumed that there is no distinction between OSS developers and users. Given the abundance of IS research that is focused on the adoption and use of software applications, one might assume that no special research program is needed for OSS use.

This assumption can be challenged by examining some differences between OSS and proprietary software. Users of OSS are typically confronted by a fundamentally different type of technical support than that found with proprietary software. Rather than relying on a vendor’s customer support, users of OSS generally need to search for community resources for help for installing, learning and using their freely acquired software. OSS users are likely to receive such help through participation in user groups or mailing lists that are supported by volunteers, similar to the communities supporting OSS development (Golden, 2005;
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