Chapter 1.20
An Open Source Primer

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ABSTRACT

This chapter serves as an introductory overview of Open Source Software (OSS) and the Open Source movement. It is geared primarily for technical communicators. To provide a thorough overview, this chapter defines OSS, explains how OSS works in comparison to proprietary software, looks at the history of OSS, and examines OSS licensing types, applications in business, and overall strengths and weaknesses when compared to proprietary software. Lastly, it evaluates the practical potential of OSS as well as emerging and future trends relating to it. From this general but thorough overview the intended audience of technical communicators will gain the solid understanding needed to work successfully in an academic or professional environment where OSS continues to grow in popularity, spurring more organizations to rely on it or the Open Source ideas that have inspired and continue to drive its creation and growth.

INTRODUCTION

Eric Raymond, in his book *The Cathedral and the Bazaar* (1999), likens the key difference between proprietary and Open Source Software (OSS) development as similar to the relationship between building a cathedral and a bazaar. According to Raymond, OSS is not the product of a few "wizards or small bands of mages working in splendid isolation, with no beta to be released before its time" (p. 29). Instead, OSS develop-

ment is like a "great babbling bazaar of differing agendas and approaches" (p. 30).

Facilitated by the Internet, hundreds if not thousands of developers working on OSS projects combine their talents to create software that addresses practical needs or solves problems. OSS projects are constantly reshaping themselves. A version of the software is produced and distributed, tested, debugged, and then improved upon and re-released. All of this process takes place in the open. Errors are not kept secret, nor are improvements. The software is made available to the developers and to anyone else who wants to access it. Moreover, the software is open for others to improve upon it. Depending on the OSS license, others can even release their improvements back to the public or sell them for a profit without needing the permission or authorization of the original programmer.

OSS development has literally exploded in popularity among consumers and software developers. For example, today the most popular Web server on the Internet is Apache, an Open Source, not proprietary, product.[1] Additionally, Linux, perhaps the software referred to most often as the perfect example of OSS, is challenging Microsoft Window's once unquestioned dominance of the operating system market. Still, OSS is not without its detractors. Just as there are those who would argue for it because of its little or no cost and flexibility, there are others that would argue that it is difficult to implement and its core developers are undependable hobbyists.

Despite these misgivings, businesses and even nations (Liu, 2003) in already lean economic times are increasingly relying on OSS as a cost-effective legitimate alternative to proprietary software. In some cases, larger companies have saved millions of dollars just by switching from Windows to Linux operating systems (Koch, 2003). As long as OSS proves more affordable and as (if not more) effective than proprietary software, organizations will continue to integrate OSS into their business infrastructure, using it to power their Internet services, operating systems, and other key software applications.

As a result, technical communicators in the workplace will—to some degree—become involved (if they are not already involved) with OSS or Open Source ideas. They may write end user documentation for Open Source software that their organization has acquired and then modified for its own purposes. They may manage or participate on project teams tasked with evaluating and adopting new software for a business. They may have to explain OSS and the intricacies of its licensing and development practices to decision makers who lack technical expertise. Because of these scenarios and others, technical communicators can benefit from a solid understanding of OSS and the role it plays in business.

The purpose of this chapter is to provide that solid, introductory overview of OSS. To accomplish this, the chapter presents the following information:

- a definition of OSS and a brief look at how it is used;
- an explanation of how OSS works in comparison to proprietary software;
- a history of OSS development;
- OSS licensing types;
- OSS applications in business;
- OSS strengths and weaknesses;
- an evaluation of the practical potential of OSS in the workplace;
- emerging and future trends in OSS; and
- online resources available to conduct further research on OSS.

DEFINING OPEN SOURCE AND TRACING ITS ORIGINS

OSS is currently used in a number of different roles. Linux, as already mentioned, powers computer operating systems for businesses offering services ranging from aerospace to telecom-

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