

How Open Source Software Benefits Business

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Abstract

Computers are only useful in business if they save expense. This includes saving time and saving effort, both of which have calculable cost. If the computers do not deliver on these savings, why should they be used? In the vast majority of business cases, it is the software installed on the computers which determines their productivity. This is the key to a successful automated enterprise.

1 The trouble with software

Much software is of unacceptably poor quality. It contains faults (known as “bugs”) and flaws in security (“holes”). It is restrictive, constraining and inflexible. It is inefficient, requiring larger, faster and more expensive hardware to perform ostensibly the same function with each revision. Its use is controlled by rigidly-enforced licence policies. It is uneconomical in every sense of the word, and yet it is still widely used.

2 The alternative

Thankfully, there is an alternative. There has been an explosive growth in recent years in **open source software** which combats all of these issues and delivers an economical product. The essential difference is that the human-readable computer programs are available to the general public. This might not seem such a major difference at first glance, but it does have hugely important consequences.

2.1 Peer review

By its very nature, open source software is open to global peer review. Even the largest software house writing closed source (or “proprietary”) software has only a small number of programmers working on the code. Compare that with the millions of people worldwide who write, contribute to and scrutinise open source software and you will clearly see how any errors are much more quickly spotted. This makes for more robust and more secure software from day one.

2.2 Customer-driven development

Since the open source business model means that the user’s demands must be met, the open source community actively encourages customer input for improvements, refinements and new features. This means that the end user can point the developers towards what would be useful in the wider world of application.

2.3 Flexibility

Given the source code, and a sufficiently open licence¹, a programmer can take a standard package and modify or customise it to do precisely what is required, rather than just a close approximation. The benefits of this should be obvious to any computer user.

2.4 A variety of options

Even at the level of the operating system, open source provides many options which are absent from conventional proprietary systems. In GNU/Linux for example, there is a choice of display systems and window managers, and themes within those managers, whereas the market-leading proprietary system offers no such options.

2.5 Efficiency

While the efficiency of the code is benefitted by the peer review, it is also improved by the fact that with open licences there is no longer any need to cram massive functionality into a single application. Many users of proprietary software run large groupware applications of which they only actually use a small fraction. The rest of the application just takes up valuable computing resources. With open source, a large number of smaller applications can be used such that only the minimum amount of system resources are occupied to perform a given task.

2.6 The true cost

Bearing in mind all of these advantages, it might be presumed that open source software is more expensive than its proprietary equivalents. In fact, nothing could be farther from the truth. A large number of open source applications and operating systems are free. A small or medium-sized business can benefit from all of the advantages of computing without spending one penny on software.

3 What can businesses do?

Taking advantage of open source software is easy - simply download and run! However, as with all changes, it is well worth discussing the options with an expert to generate the greatest possible positive effect. While many businesses move from proprietary to open source software almost none migrate in the opposite direction. By the end of the decade people will wonder why anyone ever used proprietary software.

About the author: Dr. Houston is an experienced user and developer of open source software in both academia and industry. He is an unreserved proponent of the open source model and uses open source software exclusively.

About Openstrike: Openstrike is an I.T. consultancy which assists SMEs to harness the full power of open source software and reduce their costs in the process. See <http://www.openstrike.co.uk/> for full details.

¹For example, the GNU General Public Licence (see <http://www.gnu.org/licenses/gpl.html>).