

Making the Business Case for an Information System

Given that money does not grow on trees, people in organizations are constantly trying to justify spending money on anything, especially information systems. Before people are willing to spend money to build a new information system or spend more money on an existing system, they want to be convinced that this will be a good investment. Will the system provide automating, learning, and/or strategic benefits? The phrase that is used to describe the process of identifying, quantifying, and presenting the value provided by an information system is **making the business case**.

Business Case Objectives

What does making the business case for an information system mean? Think for a moment about what defense lawyers do in court trials. They carefully build a strong, integrated set of arguments and evidence to prove that their clients are innocent: they build and present their case to those who will pass judgment on their clients. In much the same way, people in business often have to build a strong, integrated set of arguments and evidence to prove that an information system is adding value to the organization or its constituents. This is, in business lingo, “making the business case” for a system.

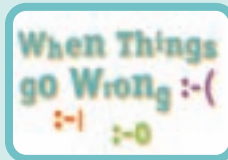
As a business professional, you will be called on to make the business case for systems and other capital investments. As a finance, accounting, marketing, or management professional, you are likely to be involved in this process and will therefore need to know how to effectively make the business case for a system and to understand the relevant organizational issues involved. It will be in the organization’s best interest—and in your own—to ferret out systems that are not adding value. In these cases, you will need to either improve the systems or replace them.

Sony's Secret

In November 2005, Mark Russinovich was testing computer security software he had cowritten when he discovered something new and uninvited hiding deep inside his PC. Russinovich is an experienced programmer who has written a book about the Windows operating system, and even he could not immediately identify the interloper. Russinovich finally traced the foreign object to code left behind when he downloaded and played a Van Zant album from Amazon.com.

The album was produced by Sony BMG Music Entertainment and had been advertised as “copyright protected” when Russinovich bought it. He later found that the “protection” consisted of code called a “rootkit,” a cloaking mechanism that was installed on his hard drive without his permission. Each time the CD was played or uploaded, the program behind the rootkit notified Sony BMG.

Russinovich posted his discovery on his blog, immediately igniting a discussion about Sony BMG’s methods. Copyright protection was one thing, the debaters said, but Sony BMG had gone too far.



The rootkit itself was not harmful to computers, experts explained, but it could serve as a hidden portal for viruses and Trojan horses. Shortly after the Sony rootkit news was publicized, virus makers did, indeed,

exploit the rootkit access to spread infection via a Trojan horse. Thereafter, Sony announced it would quit distributing CDs that contained the rootkit, and the company has since issued uninstall instructions to customers.

Sony BMG argued that it sought only to protect the copyright of songs it produced. The British company that authored the software Sony used said it had tested the program and had not found it a problem. CD customers, however, begged to differ. It was sneaky, they countered, and not only took away control of their own computers but also left them vulnerable to malicious intruders.

Which side of the debate could you argue?

Sources: Ingrid Marson, “Sony Rootkit Victims in Every State, Researcher Says,” *CNet News* (January 17, 2006), http://news.com.com/Sony+rootkit+victims+in+every+U.S.+state%2C+researcher+says/2100-1029_3-6027857.html?part=rss&tag=6027857&subj=news
http://news.com.com/FAQ+Sony+rootkit+CDs/2100-1029_3-5946760.html?tag=nl

e-Waste

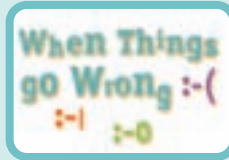
Americans bought an estimated \$125 billion worth of electronics in 2005—computers, monitors, cell phones, PDAs, DVD players, microwave ovens, and so on. Electronic products contain a mix of components that contain material, such as lead, mercury, cadmium, or PVCs, which are highly toxic when incinerated or buried in a landfill. For example, a conventional computer monitor contains 4 to 8 pounds of lead, and newer LCD screens contain mercury.

Since local landfills won't take hazardous waste, what happens to electronic gadgets when consumers no longer need or want them? (Landfills don't want them, but some consumers bury them in ordinary household garbage.) Some owners hand them down to someone else or pack them away in the back of a closet or garage. Others donate the items—whether they still function or not—to a charitable organization. But maybe the donations aren't so welcome.

In 2004 alone, Goodwill Industries International Inc. was flooded with more than 23 million pounds of electronic goods, most of which were unusable. Since recycling electronics costs money, Goodwill spokesperson Christine Nyirjesy Bragale told a reporter in January 2006, "Electronic waste is becoming a costly problem for us."

Three U.S. states—California, Maine, and Maryland—have followed examples from Europe and Japan in handling electronic waste disposal in that they impose a mandatory recycling fee either on consumers or manufacturers, they require manufacturers to take back the equipment for recycling, or they place responsibility on local governments for providing recycling centers. Although federal law in the United States prevents businesses from improperly disposing of e-waste, this law does not extend to households.

Unfortunately, although the export of hazardous waste to developing countries was banned in 1992, between 50 and 80 percent of America's e-waste continues to be shipped to Third World countries,



where environmental standards are less strict. So much e-waste has been deported that, in 2002, China banned its import.

To reduce the environmental impact and to facilitate recycling efforts, as of mid-2006, the EU has banned toxic ingredients, such as lead, mercury, cadmium, and so on, from electronics, appliances, lighting equipment, medical equipment, and other consumer products. Prior to the EU mandate, a sparse few companies were concerned with the production of "green" hardware. Now, however, since Europe represents about 30 percent of the world market for electronic equipment, manufacturers are rushing to comply with the EU directive.

The need for stricter regulations concerning e-waste disposal has been recognized in the United States, and in January 2006, Congress had appointed a working group to determine a course of action. Legislation could take a while, however, but in the meantime more states may decide to formulate their own legislation. Clearly, disposing properly of e-waste is a problem that needs a solution if the environment is to be protected.

Sources: <http://www.intel.com/technology/mooreslaw/index.htm>
<http://www.strategiy.com/news.asp?id=20051130063030>

Sherry Watkins, "E-Waste Epidemic," *Government Technology* (January 2, 2006), http://www.govtech.net/magazine/channel_story.php/97724

<http://www.canada.com/topics/technology/story.html?id=e8def77a-3a8f-420b-ad29-a9e08d03fca0&k=4739&p=3>

Anonymous, "Is America Exporting a Huge Environmental Problem?," *ABC News* (January 6, 2006), <http://www.abcnews.com/2020/Technology/story?id=1479506>

http://www.wired.com/news/technology/0,57151-1.html?tw=wn_story_page_next1

<http://www.cnn.com/2006/TECH/ptech/01/18/recycling.computers.ap/index.html>

<http://www.mercurynews.com/mld/mercurynews/news/local/states/california/peninsula/13697994.htm>

<http://europa.eu.int/scadplus/leg/en/lvb/l21210.htm>

Wikipedia

If you have ever researched a paper for a class (and who hasn't?), you undoubtedly used a Web search engine, and you more than likely were referred to Wikipedia, a free online encyclopedia with almost 4 million entries. In Wikipedia, any user can create or edit articles, but if anyone can write entries (called "Wikies," derived from the Hawaiian term "wiki wiki," which means "quick"), you might ask, Are the entries accurate?

A 2006 expert-led study reported in the journal *Nature* compared the accuracy and quality of science articles in Wikipedia with science articles published in the *Encyclopaedia Britannica*. The study found numerous errors in both encyclopedias, but in the 42 science articles compared, differences in accuracy were not alarming. The average number of inaccuracies for science articles in Wikipedia was four, three in *Britannica*.

"I'm pleased," said Jimmy Wales, cofounder of Wikipedia and president of the resource's parent organization, the Wikimedia Foundation of St. Petersburg, Florida, in *Nature's* report. "Our goal is to get to *Britannica* quality, or better."

In some cases, however, incorrect Wikipedia entries have remained undetected for a while, until they are spotted and a new editor changes them. On other occasions, writers have used the "anyone can edit" feature to input biased information. For example, journalist John Seigenthaler found that he was linked to the assassinations of John and Robert Kennedy in his Wikipedia entry. The entry remained unchanged for



over four months, until Seigenthaler alerted Wales.

In another instance, podcasting expert Adam Curry was accused of editing out references to his competitors in his Wikipedia entry. Curry said he had intended only to make the article "more accurate."

In yet another case, entries in the German Wikipedia site were copied from old East German encyclopedias. Not only did this infringe on the encyclopedias' copyrights, but many of the articles were written to conform to Marxist-Leninist ideologies, popular during the socialist regime in East Germany.

One of the most striking cases involving modified Wikipedia entries is currently being investigated by Wikipedia staff, who found that changes to entries about U.S. senators and state representatives were made from Internet addresses originating within the Senate or the House of Representatives. Changes consisted mostly of correcting spelling or grammatical flaws, but, in addition, negative comments were removed or replaced by politicians' campaign material. Clearly, opening up an encyclopedia's editing process to all may not be the best way to ensure accuracy.

Sources: <http://www.nature.com/nature/journal/v438/n7070/full/438900a.html>

http://www.boston.com/news/globe/ideas/articles/2005/12/18/the_wiki_effect?page=1

http://www.tgdaily.com/2006/01/31/wikipedia_investigates_congressionaledits/

<http://www.dw-world.de/dw/article/0,2144,1796407,00.html>