

Open Standards - Definitions and Background

Open Standards

Standards (in the context of technology) are a set of definitions, rules, or specifications which allow interoperability.

Standards can be open or closed. Open standards are distinguished from closed standards in that anyone is allowed to **know and use** an open standard while closed standards are kept secret and/or have significant encumbrances upon their use.

Open standards are typically arrived at through negotiation and consensus within the community affected.

The Wikipedia article on open standards contains additional accurate information:

http://en.wikipedia.org/wiki/Open_standards

“Open standards are publicly available specifications for achieving a specific task. By allowing anyone to use the standard, they increase compatibility between various hardware and software components, since anyone with the technical know-how and the necessary equipment to implement solutions can build something that works together with those of other vendors.”

Occasions when a choice between open/closed standard occurs

You wish to distribute a document to a large group of colleagues. You select the format for this file. If you select an open standard (eg ascii/txt, rtf, pdf, odf), it is likely that all users will have an appropriate viewing application. If you choose a closed standard (eg MS doc), it is likely that a fraction of your colleagues will not be able to view your file. In particular, Microsoft does not have a version of Word for Linux and has gone back and forth on whether it will provide a version for Macs (the current plan is to support macs). Alternative viewers such as OpenOffice sometimes cannot display a document and frequently display the document in a manner which is not as the author intended.

You are moving from one Learning Management System to another (perhaps because your current LMS vendor has drastically increased cost). If both utilize an open standard (eg SCORM), the content can be saved and directly imported to your new LMS with little difficulty. On the other hand, if either or both utilize a closed standard it is likely that significant work will need to be done to perform this conversion. In fact, you may need to rely on vendor supplied tools.

You want to be able to store music in an electronic format. If you use an open standard (eg mp3) then a wide variety of players can be manufactured by many different companies. If you use a closed standard, then only the company/entity which developed the standard (and those it wishes to cooperate with) can provide players.

You want to be able to share information with the world by placing it on the internet (perhaps by using something like a web page). If you utilize an open standard (eg html), it is likely that a variety of viewers/browsers will be written to allow people to view your information on any platform. If you instead use a closed standards (eg non-standard features implemented by one particular browser), you limit your information to those using that particular browser.

You want to have a common login for all campus computing resources. If you utilize an open standard (eg LDAP), it is likely that all computers either are or will be able to be configured to use this common login. On the other hand, if you utilize a closed standard then you are dependant upon the vendor to provide a specific application for each operating system.

You want to create a worldwide network of computers which can communicate with one another. If you use open standards for your underlying infrastructure (eg TCP, IP, DHCP, ARP) and open standards for your applications (eg telnet/ssh, ftp/sftp) then appropriate software can (and has) been written to allow virtually any computing device to be connected.

Questions

1. Is the purpose of this resolution to require the use of open source software.
No. The resolution says nothing about the ability to view the source code of the application.
2. Is the purpose of this resolution to restrict the products that I personally can use?
No. The intent is to avoid forcing anyone to use any particular product. For example, it does not matter whether you create a document using MS Word, Corel WordPerfect, LaTeX, or any other application. However, when distributing a document to a significant portion of the campus community, you should put it into a format based upon an open standard rather than forcing the campus community to use your particular application. Similarly, it does not matter what application you use to create web content, but by using an open standard any browser can be written to properly use the content.
3. Is the purpose of this resolution to require/increase the use of a particular operating system?
No. If an open standard is used then an application using that standard can be written for any operating system.
4. Why would a product utilize a closed standard?
Typically, a closed standard is used to create vendor lock in and/or to extend a monopoly. To replace a product using an open standard with another using the same open standard is usually far easier than replacing a product using a closed standard, since competing products can not and will not use the same standard.
5. Is this a left (right) wing political statement?
No. There are people of all political stripes who believe in open standards.
6. Is this resolution anti-corporate/anti-profit/anti-capitalist?
No. A company which has a widely used application employing a closed standard can often use this position to extract additional profit. However, an open standard allows competition which usually leads to better products and greater benefit to society. This benefit means greater profits to corporations, although this profit is usually divided between more companies.
7. Has the use of products using closed standards been a problem in the past?
To some extent, yes. Initially PORTAL/SOLAR would only work reliably with the Microsoft Internet Explorer web browser. If it had been written to open standards then any browser which implemented the open standard could have been used. Another example is that some members of the campus community do not own/use Microsoft Office. Alternative applications (such as Open Office) often display .doc files poorly. If details of the format of .doc files were openly available then the developers of these alternative applications could make them display properly.

Resolution on Open Standards

WHEREAS the proper functioning of California State University Northridge requires the effective interaction of many individuals and groups which use a variety of hardware and software; and

WHEREAS open standards promote the greatest possible degree of interoperability; and

WHEREAS open standards generally result in lower cost solutions and avoid reliance upon a single vender; and

WHEREAS open standards are usually reliable and robust due to community involvement in developing the standards; and

WHEREAS a university should support the broad availability and widespread dissemination of knowledge and should resist attempts to create “secret knowledge”; and

BE IT THEREFORE RESOLVED that, in the absence of a significant and compelling financial or technical reason, the Academic Technology Committee recommends and encourages all California State University Northridge administration, faculty, and staff to preferentially select products and formats which adhere to open standards in any circumstance where a significant portion of the campus community will be affected.