



Technomics

OOXML : The Anti-Common Man's Standard

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September 23rd, 2007 will go into the history of Indian technology as the day the Government of India decided that enough is enough and decisively put down their foot to protect the common man from the impact of economically hurtful technology standards. This was the day when, guided by Prof Phatak of IIT Bombay, Bureau of Indian Standards decided to unanimously disapprove the Microsoft promoted OOXML document format as an ISO standard.

That decision was the culmination of over six months of hard work by the Bureau of Indian standards, the premier academic institutions of India, the ODF Alliance and various organizations and business entities in India. India's vote was crucial in influencing the decision of various other countries such as China and Peru on their voting decisions.

Lets quickly revisit the issue of document format. Document formats are critical for India as documents are a commodity solution that is vital for anyone to become computer literate. With the severe digital divide that exists in India and in various other emerging economies, it becomes necessary for the government to focus on this critical aspect of the “aam admi” or common man. As famously put in by the former President of NASSCOM, Late Dewang Mehta, after food, clothing and shelter, it is bandwidth and access to computing that has become necessities of surviving in the modern digital world. However, due to a lack of a national standard on document format, access to document processing applications is largely restricted to one proprietary solution, Microsoft Office, which is available at a significant cost. Since the format in which Microsoft Office stores the documents (documents include spreadsheets and presentations) is not published, so the free open source document processing applications like OpenOffice.org get slight errors in opening documents created by the Microsoft Office.

Therefore, ISO adopted a standard in May 2006, called the Open Document Format or ODF which gained immense popularity in a very short period of time. ODF allows users to choose between various applications and seamlessly exchange documents. Thus those who do not want to spend on such an application (example the schools, home users, SME/SMB's) can adopt the open source OpenOffice.org while corporates and governments can choose more expensive solutions that have support.

Given the threat from an Open Format ODF, Microsoft quickly introduced a rival format that was based on its current proprietary document format. In fact Microsoft consistently rejected to be part of the consortium that created ODF. The consortium

included renowned scientists globally, including Indian scientists such as Dr Nagarjuna or Tata Institute of Fundamental Research. Microsoft called its format OOXML and a few months after ODF got adopted by ISO, Microsoft pushed OOXML through ECMA as an ECMA standard. ECMA is a European body and it stands for European Computer Manufacturers Association. ECMA in turn pushed for OOXML as an ISO standard with ISO in December 2006.

ISO put OOXML on a fast track adoption process with many people raising eyebrows on this decision since OOXML had not been publicly debated for any significant period of time. On an average, ISO standards are debated for atleast 3 years before being considered by ISO for standardization. Moreover, the average size of a standard of ISO is only 32 pages whereas Microsoft's OOXML was over 10,000 pages, factoring in all the relevant material.

Subsequently experts noted that ISO had flouted its own procedures to push through OOXML. The fact that for the first four months since submission, ECMA has not submitted 4000 of the 10,000 pages was completely ignored and the participating voting member countries were given only six months to decide on the OOXML even though for quite some time they did not have access to the complete documentation for what was recorded as an "oversight" by ECMA.

So what is fundamentally so wrong with OOXML and why is it anti-common man ? OOXML has two major issues. First, it is a technically flawed format. Had it gone through the public review process and a community based development process, it would not have been infested with technical flaws. It has issues like lack of support for dates prior to 1900. So how do we capture our land records that have a history of over 400 years. Moreover, OOXML violates its own design principles of backward interoperability with Microsoft's binary format since in the absence of the binary formats, it is technically impossible to have any interoperability without the support of Microsoft. In fact all implementations of OOXML till now are claimed to be only partial implementations of OOXML (including that of Microsoft Office 2007)and they have been done in agreement with Microsoft and not independent of Microsoft. Moreover, there is no independent verification of the adherence of these applications to the OOXML specifications (it would be a mammoth task to figure out adherence to a 10,000 page documentation). The only implementation of OOXML that has apparently been done without an agreement with Microsoft is that of Apple that experts has demonstrated to have severe interoperability issues with Microsoft's Office 2007.

Second, is the issue that OOXML does not qualify to be a true open standard. OOXML is not clear on how a developer will be treated if they use the Microsoft product references in the OOXML documentation. For example, the documentation says "do it like Word8". So wouldn't the developer be sued by Microsoft for violation of intellectual property rights ? This alone makes OOXML an anti-common man format as a developer will not be able to create a rival application using the OOXML format for the fear of being sued by a USD 40 billion corporate giant who has had a history of such actions. In fact the research by Prof Vigneshwara of IIT Delhi delves into the negative impact of OOXML on digital divide on the country and concludes that OOXML will significantly

contribute to the increase in digital divide in the country.

Thus when it came to Bureau of Indian Standards (BIS) to decide on whether India should vote for or against the Microsoft sponsored OOXML standard, BIS took the help of the premier academic institutions of India, including IIM Ahmedabad, IIT Bombay, TIFR, ISI Kolkata and IIT Delhi. Prof S K Gupta of IIT Delhi was quite clear on the detrimental impact of OOXML on India and was one of the first to unflinchingly state the same. Prof Nagarjuna worked painstakingly with BIS to go through a mere 10% of the 10,000 page documentation of OOMXL to cull out over 200 technical issues of OOXML. Similarly, Prof Mandar Mitra of ISI Kolkata and Prof Sivakumar of IIT Bombay pitched in with their views on the issue.

Based on the collective views of the society, the involved ministries and organizations such as Sun Microsystems, IBM, Red Hat and ODF Alliance, BIS on September 23rd, unanimously decided to disapprove OOXML at ISO. Subsequently, on getting the votes of other voting members of the ISO/IEC's Joint Technical Committee JTC1, it turned out on September 4th (2 days after the close of voting) that ISO had to reject OOXML in its current form.

This is the first step towards maintaining technological sovereignty of the country. It is for sure that the government has become more sensitive to the issues of manipulation of global standards bodies for forcing proprietary standards as global standards that extract undue economic benefit from emerging economies.