# THE REMNANTS OF OURSELVES:

# DOCUMENT STANDARDS AS LIFE PRESERVERS

**by**

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From the perspective of a Vancouver city council employee, editability and longevity are of utmost importance. Any sane representative of a city government ought to support Harry Truman's old mantra that "those who do not read and understand history are doomed to repeat it." This mantra may be supported simply through the adoption of PDF as the city's primary document standard. However, while longevity may be sustained, editability will certainly not be with PDF. City representatives in 2045, for instance, are going to want to easily look back on a policy document created in 2010 and be able to revise it and add to it if need be. This leaves us with the logical recommendation of ODF. However, while the benefits of ODF certainly outweigh those of OOXML, we are not prepared to simply recommend the forthright adoption of ODF in this February 2010 status quo of less than one hundred percent interoperability, unclear specification documents, and lack of independent implementations. (Kesan and Shah 60) It is therefore our recommendation that the Vancouver city council refuses to implement either standard and instead invests their efforts in lobbying Sun Microsystems to develop ODF into a fully interoperable standard through conformance testing.

As Kesan and Shah point out, "governments can directly support testing by either funding testing or developing conformance tests themselves." (60) Vancouver, then, may actually partner with Sun Microsystems and chip in on the funding for the conformance testing, if Sun is willing. It is our contention that other cities will quickly begin to see the

value of the Vancouver effort and also invest funding into conformance testing. If all

major cities within Canada were to eventually take this stance, then Sun Microsystems

and other developers will realize that procurement decisions will not be made in the

country of Canada until one hundred percent interoperability is achieved. A firm stance

like this must be taken if full interoperability is ever to be achieved, as thus far

developers have devised standards that are one hundred percent interoperable with only a

few implementations - usually their own. (Kesan and Shah 58) Even ODF - the format

vaunted by IBM ODF Architect Rob Weir for depending upon "other standards that are

widely-used, widely-adopted and widely-deployed" (Weir) actually only achieves one

hundred percent interoperability with its own native implementation, OpenOffice.org.

(Kesan and Shah 58)

In much of the literature published thus far, ODF and OpenOffice are lauded as

the "good guys" in this battle against OOXML and Word. While Microsoft is certainly

guilty of creating an unwieldy and largely pointless format with OOXML, Sun

Microsystems does not seem to be going down a wholly dissimilar path. In their article

*The Importance of OpenDocument Format for Governments*, supporters of ODF write

that "a government should never be dependent on a single vendor's technology to use its

own information." (ODF Alliance) But without clearer interoperability between

implementations, developers will feel less inclined to create applications based on the

ODF standard and users will therefore have only the dominant implementation of

OpenOffice to turn to. As Kesan and Shah write, "without more pressure and funding for

testing, the promise of ODF and OOXML will be lost. Instead, users of these standards

will be locked into the dominant implementations of OpenOffice.org for ODF and

Microsoft Office for OOXML." (61) A government that mandates ODF as their standard

in this status quo, then, will likely experience a gradual devolution away from the hope of

application diversity and toward the reality of vender lock-in.

As a city within a democratic country, Vancouver no doubt has an interest in

doing its best to accommodate its disabled citizens. This means that an emphasis must be

placed on accessibility when making a standardization decision on any document format.

In Microsoft's 2008 "fact" sheet *The Importance of Document Format Choice in

Government*, they argue that OOXML "supports technologies that help computer users

with disabilities." However, in their paper *Accessibility Issues with Office Open XML*,

University of Toronto professors Stephen Hockema and Jutta Treviranus point out

numerous empirical reasons for why OOXML is in fact woefully inadequate for people

with disabilities. Perhaps the example most relevant to a city council employee would be

OOXML's inability to associate labels with form fields. (Hockema and Treviranus)

Government forms will no doubt continue to be distributed electronically to all citizens of

Vancouver and abroad for the foreseeable future. Individuals with visual and/or motor

impairment(s) must be able to reorganize form layouts to suit their needs, and the

inability to associate labels with form fields makes this need an impossibility. *(ibid.)* For

this reason alone, mandating that OOXML becomes the standard for Vancouver - or any

Canadian city for that matter - would likely result in an uprising and mass protests from

the disabled community and all other communities in support of their cause. ODF, on the

other hand, supports linking between form fields and their labels. (Cruickshank) This is a

primary reason for our recommendation of ODF over OOXML, despite ODF's

aforementioned shortcomings. In this status quo of February 2010, ODF is - simply put -

the lesser of two evils.

Perhaps in order to mobilize a real effort to make ODF one hundred percent interoperable, the citizens of Vancouver ought to be educated about why this issue actually matters. Rather than have a government simply mandate a law regardless of public support, it is always more promising for the long-term success of that law when the public actually supports it in the first place. When it comes to the issue of ODF versus OOXML, most members of the public are simply going to ask "who cares?" In response to this, Vancouver city council ought to channel computer scientist David M. Levy by reminding its citizens that documents are "talking things." (23) When seen in the aggregate, documents are "hugely powerful, helping to make meaning and order." (38) They tell us "who we are and who we long to be," Levy writes.

And on a less lofty level, citizens ought to be reminded that although the existing formats may remain popular throughout their lifetime, they may not last indefinitely. Those concerned with leaving behind some kind of a legacy in written form should realize that contemporary software may one day become obsolete, however unlikely it may seem now. If it is not specified clearly and openly how to build an independent application in support of a particular format, then not only will digital files be fading away into oblivion but any remaining trace of a person's life work will quite possibly be as well. Additionally, this lack of one hundred percent interoperability between applications and the use of different standards may in fact result in harsh realities, as in the case of the 2004 Thailand tsunami in which "international agencies were unable to [quickly] share and secure access to information essential to the relief effort because each used different data and document formats." (ODF Alliance)

If one hundred percent interoperability is achieved for the ODF standard and

actively maintained to be completely interoperable between applications, then the scope

of this policy may be limitless. It is true that certain schools, for instance, may prefer to

mandate one application while certain private companies may prefer to mandate another

application. In the status quo, this is in fact problematic because while ODF may be

completely compatible with the school's choice application, it may be only ninety percent

compatible with the private company's choice application. It would be unwise and

detrimental to certain individuals, then, to mandate ODF in this status quo. However, if

ODF were to become one hundred percent interoperable, this issue would dissipate and

mandating ODF as the standard would not unrightfully hinder certain user groups

because all applications would be able to use the format to its fullest extent.

We must now address this issue of unclear specification documents. People love

to attack OOXML for having an overlong specification document at 6,000 pages.

(Hockema and Treviranus) However, renowed software programmer Miguel de Icaza has

pointed out that OOXML devotes 324 pages to spreadsheet formulas and functions, while

ODF devotes merely 10 pages to them. He argues that "there is no way you could build a

spreadsheet software based on this [ODF] specification." (Tirania) It appears, then, that

the ODF standard may be a little too succinct. It would therefore be more intelligent for

the city of Vancouver to again put pressure on Sun Microsystems to develop a clearer

specification document so that applications may be built as easily as possible using the

standard. The lack of an index for the OOXML standard, however, is no doubt ridiculous

and therefore OOXML should not be entirely considered a model to follow. Instead,

effort needs to be made to find a more appropriate balance between OOXML's verbosity

and ODF's brevity.

In May 2009, Vancouver officially adopted a resolution that endorses "open and accessible data, open standards, and open source software." (Geist) We would now like to call attention to the last subject of that endorsement - open source software. Mandating that open source software be used for Vancouver contradicts one of the main principles behind open standards - choice. And Kesan and Shah remind us:

> "The lack of good performance by open source implementations is significant. Many governments and organizations are considering or mandating the use of open source products. The results here indicate that if people want open source implementations, they need to provide more resources to these projects." (60)

One advantage of proprietary software is that it is usually developed in a very well-defined environment with plenty of resources and in which only experts who do software development for a living are contributing code to the product. Proprietary software, then, is often more stable and reliable than open source software. Sun Microsystems CEO Jonathan Schwartz adds to this point by writing "making the source code open and available is good, but it doesn't necessarily mean that everything the community produces will be compatible." (Schwartz) Vancouver private companies or even divisions within the city council may want to make revisions to an open source application for a variety of business reasons. But - under the principles of open source - this revised application will not necessarily continue to be one hundred percent compatible with ODF, for example. Mandating that open source software must be used unilaterally only ignores the reality of different contexts.

And in terms of impact to the city budget, let us remind ourselves that open source does not necessarily constitute a cheaper choice. The upfront cost will certainly be lower, as no subscription fees will have to be paid. However, the cost of maintaining open source software may be even higher than proprietary software in the long run. A technical support specialist on ZDNet reminds us: "admittedly open source can be cheaper if you think of the code itself [as] not costing anything. However nothing is free, time and therefore money will have been spent creating and modifying that code." (ZDNet) The user communities that help with open source developments pro bono may prove insufficient, especially in the government context where deadlines are crucial. Simply having the Vancouver city council wait around for that selfless soul in the open source community to come along and help with their project is rather impractical. City council will, inevitably, feel the need to pay technical staff to come in and get the job done on time. The costs associated with open source software may therefore prove to be significant. It would be in the best interests of Vancouver, then, to amend this policy so as to not shut itself out of the option of using proprietary software in situations where it may actually be more appropriate than open source.

In enacting this conformance testing project, Vancouver city council ought to involve the most qualified individuals from organizations in both the public and private sectors. We have seen evidence in the past of conformance testing turning out poorly because only one organization was used to carry out the testing, as in the case of Microsoft's inability to ensure one hundred percent compatibility between all implementations of OOXML. (Kesan and Shah 59)  After all, it was in this democratic spirit that the ODF standard was developed by OASIS in the first place. The whole

purpose of the OASIS global consortium is to decide on standards "through an open, democratic process." (Wikipedia) We should counteract the imminent risk of losing sight of this original democratic vision by not merely leaving it up to individual vendors such as Sun Microsystems to preserve interoperability. Rather, the citizens and governmental bodies of major cities such as Vancouver ought to be proactive about demanding one hundred percent interoperability and funding conformance testing projects that are truly democratic in nature.

Microsoft, on the other hand, made no attempt to create their standard through an open and democratic process – instead, OOXML was essentially developed by Microsoft employees behind closed doors with "no public call for participation." (Hockema and Treviranus) Naturally, then, we do recommend the more democratically developed ODF over OOXML, although we contend that ODF is currently inadequate for full-on governmental standardization and that ODF could in fact learn from OOXML in certain areas. It is only through the creation and ongoing maintenance of standards that support one hundred percent interoperability between applications that our documents – and, thereby – the remnants of ourselves will adequately be preserved for the long-term.

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