Introduction to ODF
Basics of Interoperability

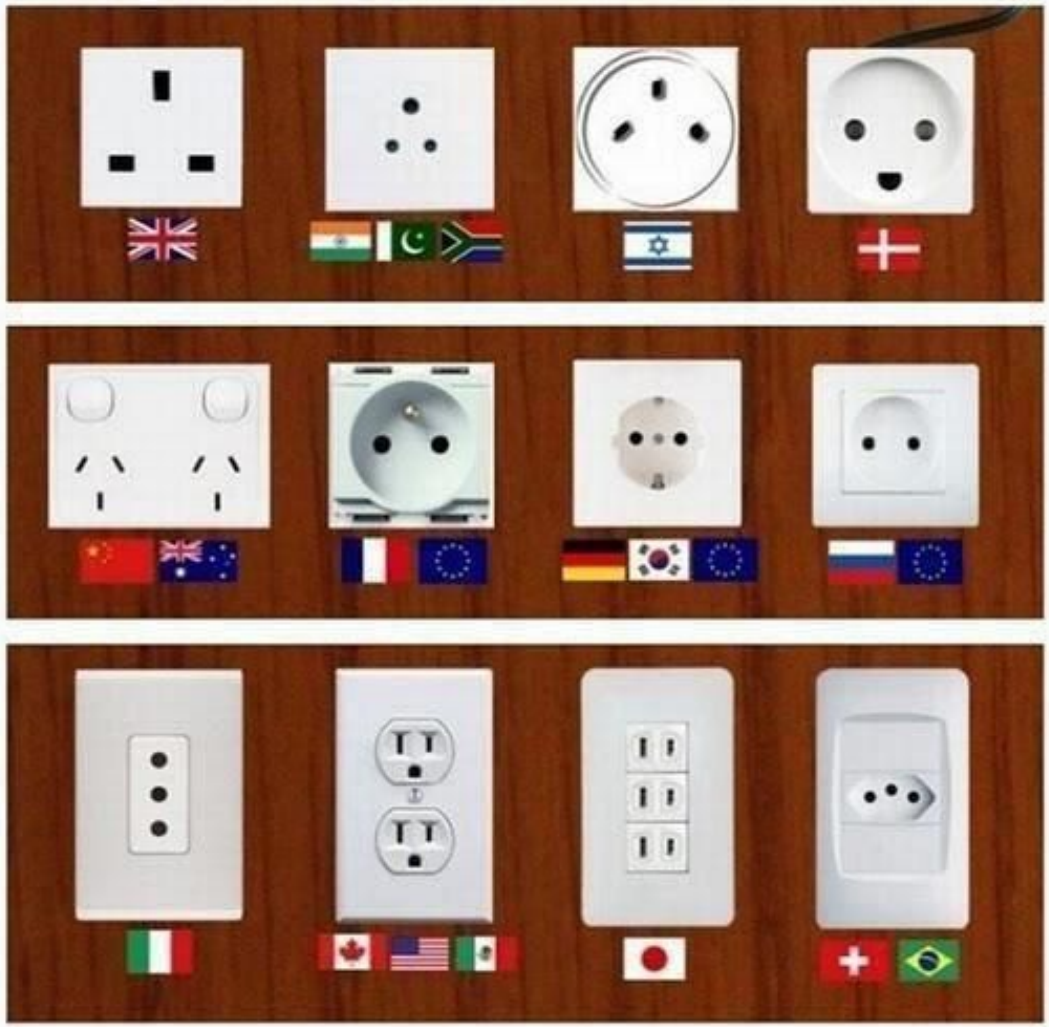
Italo Vignoli

Interoperability ?

- Although we live in a digital world, our mindset is still focused on the development of nice docs for printing
- We are not trained to the concept of interoperability
- We are not using standard formatting and fonts
- We are not taught to think in term of XML contents
- … but we complain if the doc is messed up

Basics of Interoperability

- Open document standard file format
- Focus on contents rather than visual aspect
- Use standard (repeatable) document elements
  - Use a specific document template for each task
  - Use free fonts available on any operating system
- Document characteristics must be predictable



Importance of the HTML Standard

- It was the standardization of the HTML format that allowed the web to take off. And not just the fact that it's a standard, but the fact that it's open and royalty-free...
- Had HTML not been free and open, and a proprietary technology, the business of selling HTML and competing products would have been born...
- This means we need standards, because this avoids competition over technology, and fuels the value-added business built on the platform...

Tim Berners-Lee, CERN
world wide web inventor

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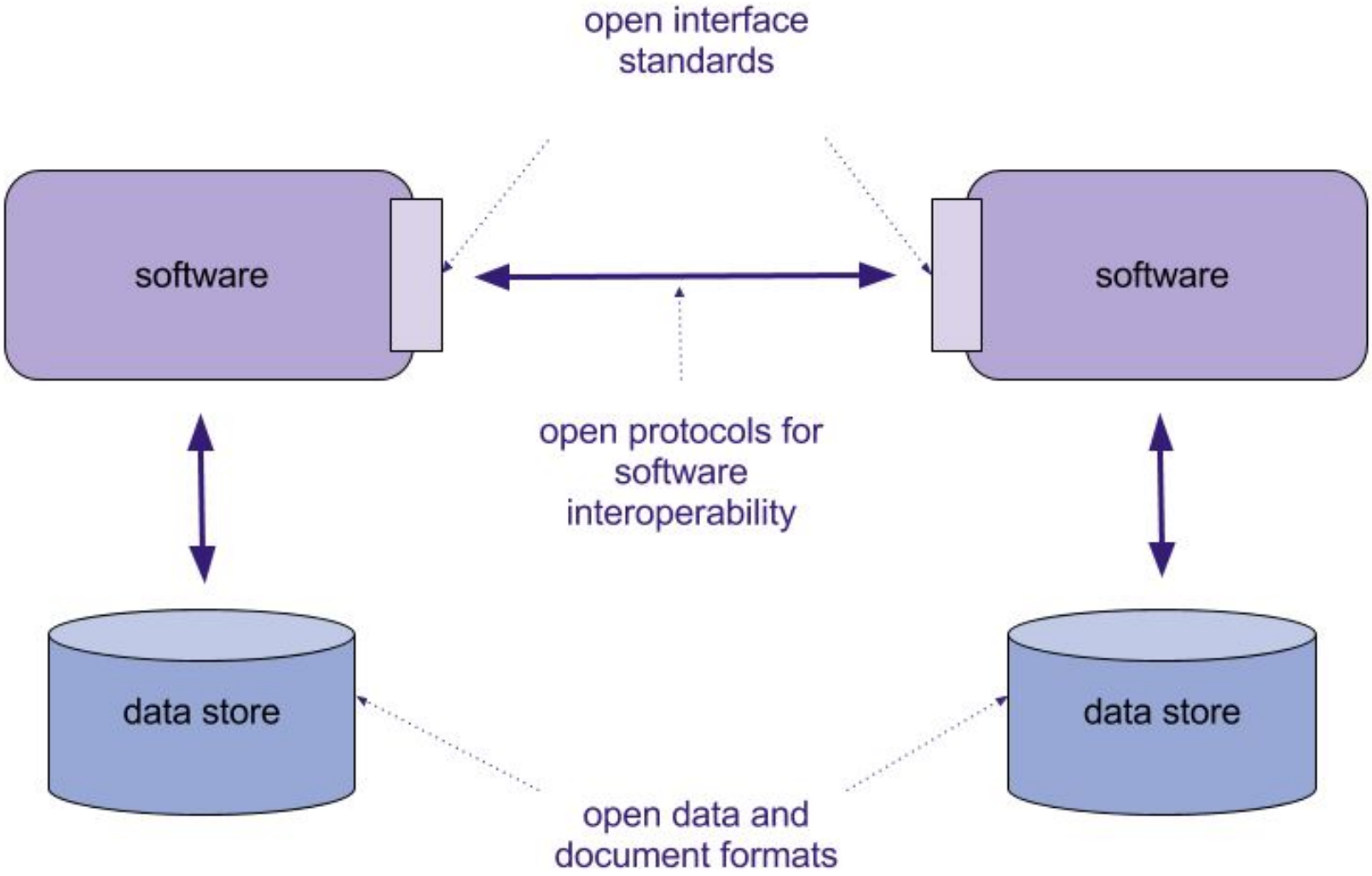
open interface
standards
software
software
open protocols for
software
interoperability
data store
data store
open data and
document formats

Open Document Format

the true document standard which offers freedom of choice

ODF Philosophy

- The philosophy behind the ODF standard document format format was to design a mechanism in a vendor neutral manner from the ground up using existing standards wherever possible
- Although this means that software vendors would need to tweak their individual packages more than if they continued down their original routes the benefits for interoperability were important enough to justify this

Basic Concepts

- ODF is solid and robust
- ODF is consistent across OS
- ODF is truly interoperable
- ODF is predictable
- **ODF is a better standard file format for users of personal productivity SW**

Open Document Format

- **Independent** from a single product: anyone can write a software that handles an open format
- **Interoperable**: allows the transparent sharing of data between heterogeneous systems
- **Neutral**: it does not force the user to adopt – and often buy – a specific product, but leaves a wide choice based on features/quality vs price ratio
- **Perennial**: protects user developed contents from the “evolution” based obsolescence of technology

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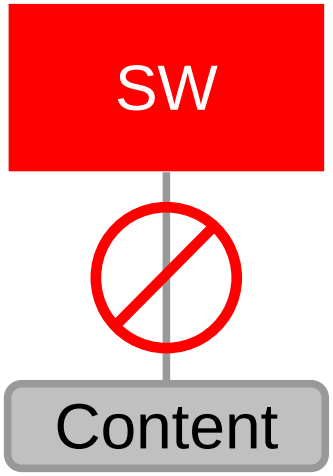
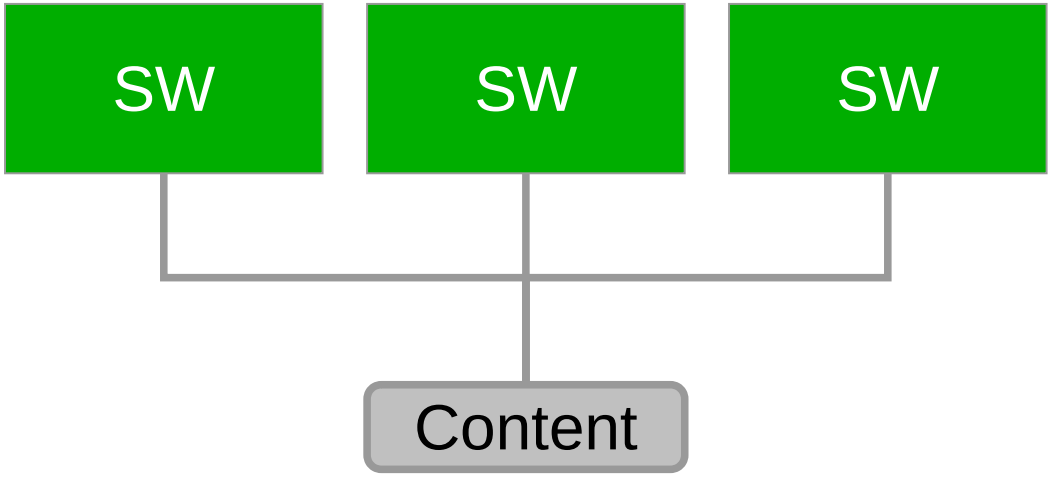
ODF Based Interoperability



Old Style

Content closely related to the application used to create it

Controlled by the application developer and not by the user



New Style

Content represented through an open standard which is not controlled by a single vendor, so many applications can create and modify it

Controlled by the user and not by the software vendor

OOXML Philosophy

- The OOXML pseudo-standard document format appears to be designed by Microsoft for Microsoft products, and to inter-operate with the Microsoft environment
- Little thought appears to have been exercised for interoperability with non-Microsoft environments or compliance with established vendor-neutral standards

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OOXML Transitional and Strict

- As of 2020, the Office default for .docx, .xlsx and .pptx is Transitional OOXML, a proprietary document format which was created as a bridge from legacy MS Office formats and the approved ISO Standard.
- OOXML Strict is the ISO approved open standard, but being the non publicized last option available from MS Office “file, save as…” menu has never been adopted, so 100% of existing OOXML files we are referring to are proprietary.

ODF vs OOXML Strategic Difference

- ODF has been designed as a document standard for the next 20-50 years, to liberate users from the lock-in strategy built into yesterday's and today's proprietary formats, and foster interoperability
- OOXML has been designed as a pseudo-standard document format to propagate yesterday's document issues and lock-in strategy for the next 20-50 years, to the detriment of users and interoperability

Document Format as a Hindrance?

- Documents are one of the most important objects that move from: (1) citizen to government, (2) government to government and (3) government to citizen
- Production, updating and reproduction of documents is extremely important
- A common problem is that documents (governed by a pseudo standard) can lock users into a particular platform (proprietary operating system & application)

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Document Format as a Hindrance?

- Government should be platform independent and allow only true document standards, as pseudo standards can be tweaked in a way not visible to users to prevent document interoperability
- In fact, tweaked standards force citizens to pay a fee to create documents (purchase of a proprietary license), or to accept the intrusive license / spying conditions of a cloud based platform
- Only standards associated to FOSS can solve this problem

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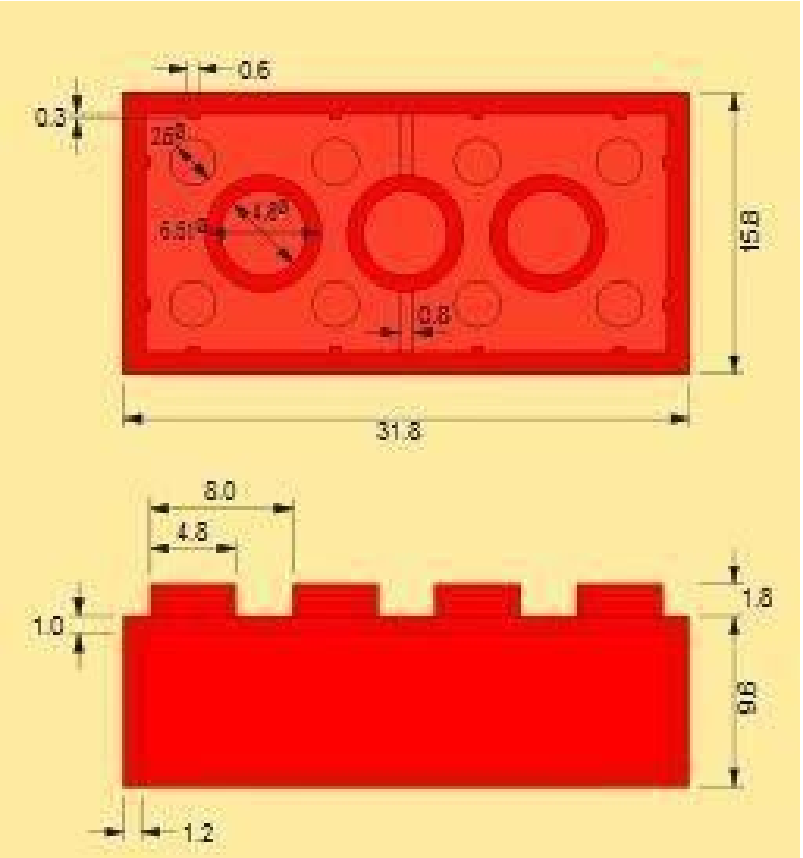
Simplicity vs Hidden Complexity

- **ODT / LibreOffice**
  - Reduced, very low or non existing complexity
  - XML files are human readable (as they should be)
- **OOXML / Microsoft Office**
  - Highest possible complexity vs technology
  - XML files are not human readable (contrary to what the XML standard language mandates)

Standard and Interoperability

Interoperability is the ability of information and communication technology (ICT) systems, as well as of the business processes they support, to exchange data and enable the sharing of information and knowledge.

European Interoperability Framework, IDABC



Standards for Interoperability

- A key reason for the development of ICT standards is to facilitate interoperability between products in a multi-vendor, multi-network and multi-service environment
- In addition, standards need to be designed and tested to ensure that products and services complying with them do indeed achieve interoperability

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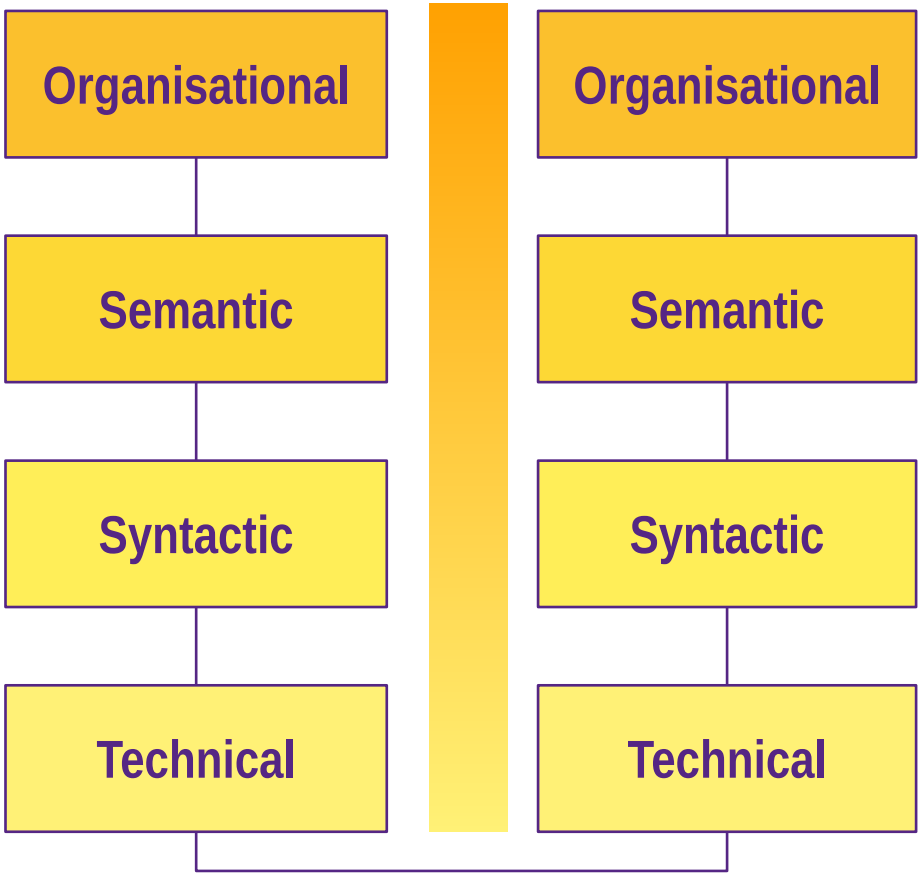
Where Are We with Interoperability?



Business processes
Resistance to change

Semantic descriptions and ontologies
Technology scoundrels

Standard document and file formats
OK

Standard communication protocols
OK

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Change of Paradigm

- Analogic Document (Past)
  - Focused on the Printed Version
  - Value in Retaining the Visual Aspect
  - Document Created for Others to Read
- Digital Document (Future)
  - Focused on Exchange of Contents
  - Value in Preserving Contents over Aspect
  - Document Created for Others to Add Value

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Elements of Interoperability (1)

- **APPLICATIONS**
- interoperable data formats
- strictly conforming mode of operation
- guidance on how to use the product for interoperability
- inclusion of templates and defaults for interoperability

- **DATA FORMATS**
- separation of content, attributes, behaviour and metadata
- reuse of existing standards
- thorough format review
- standardization

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Elements of Interoperability (2)

- **ORGANIZATIONS**
- Adoption of a single standard document format
- Adoption of applications with proven conformance to that document standard
- Training of users on how to create interoperable documents

- **USERS**
- Capture information at the highest level
- Add document metadata
- Provide annotations for accessibility
- Use named styles

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Thank You !

Italo Vignoli
Chair, ODF Advocacy
italo@libreoffice.org
+39 348 5653829