Chapter 10
Concepts for Enhancing Content Quality and eAccessibility:
In General and in the Field of eProcurement

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ABSTRACT

The important aspect of interoperable content and content accessibility is still not sufficiently acknowledged in most eApplications. Although pertinent standards exist, some of them need revision and additional standards are needed for new requirements. The Recommendation on software and content development principles 2010 formulated at the 12th International Conference on Computers Helping People with Special Needs (ICCHP 2010) addresses this situation. This chapter gives an overview of the state of the art with a special focus on eProcurement. It argues that eAccessibility in eProcurement cannot be achieved without taking care of content interoperability and accessibility. This would not only help persons with disabilities (PwD) whose numbers are increasing by the day to live a more independent life and to enjoy better education, but also create new job opportunities in the ICT (information and communication technologies) and ICT-related content and service industries as well as in the field of eProcurement itself.

ENSURING CONTENT QUALITY IN E-BUSINESS STANDARDS

Particularly in the field of eAccessibility & eInclusion the use and re-use as well as re-purposing of all kinds of content across different technical platforms is a must. "*eAccessibility* concerns the design of Information and Communication Tech-nology (ICT) products and services so that they can be used by PwD, whether of a permanent or temporary nature, and by older people with age-related changes in functional capacities." (MeAC 2007) *eInclusion* aims to achieve that "no one is left behind" in enjoying the benefits of ICT. eInclusion means both inclusive ICT and the use of ICT to achieve wider inclusion objectives. It focuses on participation of all individuals and communities in all aspects of the information society. eInclusion

policy, therefore, aims at reducing gaps in ICT usage and promoting the use of ICT to overcome exclusion, and improve economic performance, employment opportunities, quality of life, social participation and cohesion. (Com (2010)) But in reality today, strongly heterogeneous content is more the rule than the exception. Kelly Washbourne of Kent State University once stated with regret "There is unfortunately no cure for terminology; you can only hope to manage it." This statement also applies for most kinds of structured content – especially linguistic one.

In practice, federated repositories of reliable structured content are needed, which are developed under the requirement of content interoperability from the outset. The creation, maintenance and updating of such content should be based on methodology standards (e.g. those of ISO/TC 37[1]). In order to achieve content interoperability, the workflows – especially, when distributed cooperative work (or participatory content creation) is applied – need to be well specified. This also requires standards for organizational interoperability. In order to assure the quality of content, specific quality management methods are emerging (e.g. in the form of the ISO 8000 series of standards). Last but not least business models (also including solutions to intellectual property rights <IPR> issues) are required in order to ensure the sustainability of such content repositories – especially with a view to maintenance over long periods of time.

While in the past the development focus was on tools (i.e. devices, computer hardware and software), it is increasingly recognized today that *communication* ultimately is the most important issue for PwD, namely:

- Communication between PwD (directly or through ICT devices),
- Communication between PwD and the tools they use, and
- Communication between the tools assisting PwD.

This finding is in line with a general shift in the ICT user needs from technology-driven to content- and service-oriented aspects. Thus it looks as if ICT applications are more and more driven by content-related requirements. Therefore, we find it justified to call this the content-oriented ICT perspective.

In this connection the standardization of content-related aspects is gaining importance. Metadata, data models, messages, protocols, conversion of all sorts, multilinguality (incl. cultural diversity), multimodality, design for all (DfA) (M473 2010) etc. have become the objective of standardization efforts in industry, by specialized organizations, in public institutions etc. (ISTSB Report 2000)

However, a lack of coordination has lead to a plethora of competing "standards" (which often geared towards the requirements of a certain user community and not aiming at global interoperability). This results in a situation, where tools loose usefulness for those who most urgently need them: persons with disabilities (PwD). Therefore, international standards for assuring different aspects of content interoperability – going far beyond technical interoperability standards – are emerging.

After successful efforts in library science, archiving, information and documentation, eBusiness today is leading the field with the standardization of structured content (in ISO terms: "database standards") and the standardization of the methodology related to such content. In eBusiness, finally, it has been recognized that only standardization approaches to structured content and its related services and tools can bring about the envisaged efficiencies and guarantees for reliable and interoperable data as well as other benefits.

As many governments are – not least due to the UN *Convention on the Rights of Persons with Disabilities* (UN/CRPD 2006) – committed to implement this Convention, public eProcurement could be a powerful lever to enforce eAccessibility & eInclusion requirements. In meetings

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