

# **BSI IST/43 Information technology for Learning, Education and Training**

## **A British Standard for the Accessibility of e-Learning Systems and Content**

### **A Proposed Work**

**An open meeting to discuss the requirements and content for the work.**

**24th May 2004, 11.00 am**

**Sheffield Hallam University,**

**Stoddart Building Room 7132**

A standard to provide a focus for recommended best practices and use of Accessibility Meta-data.

This meeting is for parties to consider and express views on potential content for the standard and to informally register interest in participating in the development of the standard. It is envisaged that some organizations may wish to both be active in the process and to put forward technical contributions to the work.

The background and suggested areas of content for the standard are discussed in the accompanying discussion paper.

Expressions of interest in attending or participating in the work to Andy Heath.

An agenda will be published nearer the time but it is anticipated the meeting may last until 2 or 3 pm.

a.k.heath@shu.ac.uk

Andy Heath, 11.3.04

# **An Initial Outline Proposal/Discussion Paper for a BSI Standard for Accessible e-Learning**

Andy Heath  
Sheffield Hallam University  
a.k.heath@shu.ac.uk

## **Executive Summary**

This discussion paper presents some outline ideas for a British Standard on Accessible e-Learning. The paper presents some outline context and discussion around an initial draft scope for what could be included in the standard. Section 1 presents the background, section 2 the proposed scope and section 3 some thoughts about the process.

### **Section 1. Background – the global and UK context.**

Across the world legislation is in place or is under construction that requires that Web and/or e-Learning content and similar systems are made accessible for all including people traditionally excluded from the vast majority of content and systems because provided access modalities do not match those they can use. This typically means those who are visually impaired, physically disabled or those with particular cognitive conditions. Legislation includes the US colloquially-named Section 508<sup>1</sup> and many European initiatives such as EC Mandates M/273 and M/283 and the eEurope Action Plan 2002<sup>2</sup>.

In the UK there is the Special Educational Needs and Disabilities Act 2001, now incorporated as Part 4 of the Disabilities and Discriminations Act 1995 (DDA). In the domain of e-Learning this requires that organizations delivering education make reasonable adjustment to content and systems so that disabled persons are not treated less favourably. Accompanying the initiative is a code of practice and practical guidance provided by the Disability Rights Commission (DRC)<sup>3</sup>. The code of practice gives examples of treatment that would be legal and treatment that would not be legal. It remains for real examples to be tested by the courts. The DRC code does not discuss technological means of providing content and systems so as to enable treatment with equal favour to all. So the UK legislation specifies what must be achieved but does not provide for how that may be achieved.

In looking at how comparable treatment may be achieved organizations face a number of difficulties.

- the diversity and complexity inherent in the accessibility domain that needs to be navigated. The many sources of diversity include the wide range and individual nature of users abilities and disabilities, a varied repertoire of devices and assistive technologies and the typical low level interfaces the devices use, the different approaches different applications and operating

systems take, the very diverse media and learning contexts and not least the abundance of standards and guidelines in the area.

- The lack of a single obvious coherent framework for decisions and to guide implementation/purchasing choices.

Providing an accessibility solution to satisfy legal requirements, in the absence of a “single” standard, can involve very complex considerations. Alternative and sometimes conflicting advice abounds and the provider has a difficult task in making choices. Sometimes the choices can be arbitrary. For example there are many ways to make PowerPoint presentations accessible, some better than others, and no obvious single source of advice or way to choose that is best in any particular situation. Solutions chosen arbitrarily, rather than in a generic framework, can also be expensive to administer and maintain.

One effective way to reduce the costs of managing these issues in organizations is with the use of standards. Standards can effectively reduce unnecessary arbitrary variation so that more things are done “in the same way” yielding benefits of scale.

In recent years there has been significant work in technology standards for accessibility including but not limited to the Web Accessibility Initiative’s guidelines<sup>4</sup> and work in IMS<sup>5</sup>. There is now sufficient work for it to be possible to say how some of the standards and practices can be used together in a coherent framework.

One standard likely to be of significant benefit to organizations providing accessible systems and content, both in improving the accessibility of their systems and in reducing costs, is the IMS Learner Information Package Accessibility for LIP<sup>6</sup> (known as AccessForAll or ACCLIP). This specification provides an effective way for a learner’s accessibility preferences with respect to display, control and content, to be recorded in a standard way. This important specification is ideal for development as a British Standard to provide one plank in a framework for implementing solutions to comply with the DDA Part 4. The central recommendation of this paper is that this specification be localized with an application profile to meet UK requirements.

During the process there would be opportunity to consider other related specifications such as the CEN-ISSS Learning Technologies Workshop Agreement on the Description of Languages Capabilities<sup>7</sup> and to develop some Best Practice recommendations in terms of Codes of Practice, roles of accessibility organizations in content and systems certification and some specific media usage recommendations and practices. Work on the latter items could be useful in providing opportunities for greater engagement of organizations participating in developing the standard and help with take-up after publication.

Though the context has been described in terms of educational systems it is likely that parts of such a standard would be useful beyond the educational domain for example in the provision of general content and public-facing government systems.

A British Standard addressing these matters could provide some steps towards a coherent framework for content and systems needing to meet the requirements of the DDA Part 4 and at the same time improve the accessibility provision for all.

## Section 2. Proposed Scope version 2

The standard will consist of

- An application profile of IMS AccessForAll to meet UK requirements
- That profile may recommend also the use of the CEN Workshop Agreement on The Description of Language Capabilities as a replacement for language elements of AccessForAll
- A list of recommended codes of practice
- Recommendations for the use of other standards possibly including relevant ones from W3C (such as XML, XHTML etc.), EARL<sup>8</sup>
- Possibly recommendations for the use of Meta-data schemes and vocabularies
- Possibly recommendations for the use of different kinds of accessibility checking tools
- Assessment?
  - Possibility producing a vocabulary of “Accommodations”
  - Best Practices for assessment design etc.

There are several sets of recommended best practices for making assessment accessible. There are also many issues that are not addressable with best practices and require a foundation of standards work to progress. A standard vocabulary of accommodations would be a useful step in the work needed to be able to treat accessibility of assessment with more rigour.

The scope shall extend to systems and content for e-Learning and other Web based content systems but excluding e-Commerce. Whilst the approach will be functional and have the aim of enabling access for all attention will be paid to ensuring the preferences of people with impairments - visual, auditory, motor and limited cognitive – can be met.

### Section 3. Process

It is anticipated that drafting of the specification will initially involve consultation with a small number of critical people and organizations and later more widespread consultation.

Initial consultation should include at least the following organizations/people. The list is not yet complete.

AbilityNet	
RNIB	
RNID	
TechDIS	Peter Rainger ?
SCOPE	
SKILL	
DSA Reading	
NLN	
X4L	
UK OU	Martyn Cooper
Ufi Learndirect	
Univ. of Sussex	E.A. Draffan

---

<sup>1</sup> US Rehabilitation Act Amendments of 1998, Section 508,

<http://www.webaim.org/standards/508/checklist>

<sup>2</sup> [http://europa.eu.int/information\\_society/topics/citizens/accessibility/web/wai\\_2002/text\\_en.htm](http://europa.eu.int/information_society/topics/citizens/accessibility/web/wai_2002/text_en.htm)

<sup>3</sup> <http://www.admin.ox.ac.uk/eop/disab/ddasenda.shtml>

<sup>4</sup> <http://w3.org/wai>

<sup>5</sup> <http://www.imsglobal.org/accessibility>

<sup>6</sup> <http://www.imsglobal.org/specifications.cfm>

<sup>7</sup> CWA 14590 Description of Language Capabilities, available from

<http://www.cenorm.be/cenorm/businessdomains/businessdomains/informationstetandardizationsystem/published+cwas/cwa+download+area.asp>

<sup>8</sup> <http://www.w3.org/2001/03/earl/>