

WEBWORDS 27

Internationalisation and internationalism

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The most important thing about the World Wide Web is that it is universal. By exploring this idea along its many axes we find a framework for considering its history, its role today, and guidance for future developments...From its beginning in a laboratory run by over a dozen collaborating countries, the Web had to be independent of any inherent bias toward one given country... (Berners-Lee, 2002)

The necessity for the Internet to be independent of nation and location is nowhere as clear as in the international community-building now burgeoning on the web in the field of communication disorders. At the same time, the increasing need for the best possible Internet accessibility for people with disabilities; those with issues associated with ageing; and individuals in the non-industrialised world who can't just sit at a computer and get on with the technology, is nowhere more obvious than in the speech-language pathology/audiology (SLP/A) related international listservs that have gained popularity recently. And nowhere is it more apparent that it is the successors of the architects and systems programmers who innocently imposed the obstacles in the first place who can effectively dislodge them, than in the annals of the *W3C Internationalisation Activity*, and the *W3C Web Accessibility Initiative*.

Founded in 1994 by Tim Berners-Lee, the web's inventor, the *World Wide Web Consortium* or *W3C*¹ is an international group where member organisations, a full-time staff, and the public work together to develop web standards. Its objective is to lead the WWW to its full potential by developing protocols and guidelines that ensure long-term growth for the web. As projects go, web *internationalisation*² and *accessibility*³ are all about breaking down the barriers imposed by disability, ageing, geography, culture, language, character set, and even the direction in which text travels on a page.

i18n and a11y

Internationalisation (or i18n) is the process of designing language-and-locale-neutral applications software (also called end-user programs) so that they can be adapted to a range of languages and regions without the need for engineering (or "code") changes. Applications software includes database programs, word processors, and spreadsheets. It relies upon systems software because it is unable to run without an operating system and system utilities, and *they*, in turn, will not run without adequate computer hardware. This hierarchy is displayed in figure 1.

The internationalisation process often involves massive numbers of skilled personnel with a range of expertise in implementing large-scale phased strategies. These dedicated teams gradually ease the migration of applications with *legacy encoding and character sets*⁴ (like ASCII) to *Unicode*⁵, and from monolingual to multilingual user interface and content.

Once it is internationalised, a program can be localised quickly, allowing executable files to run worldwide. This means that culturally dependent data such as text translation, images, sounds, dates and currencies will appear in web browsers and email in formats that conform to the end user's region and language. When this has been done, geopolitical locale conventions can be attended to efficiently. Such

conventions might include language and cultural preferences such as spelling, character encoding, keyboard layout, number formatting, systems of measurement, paper sizes, and sort orders.

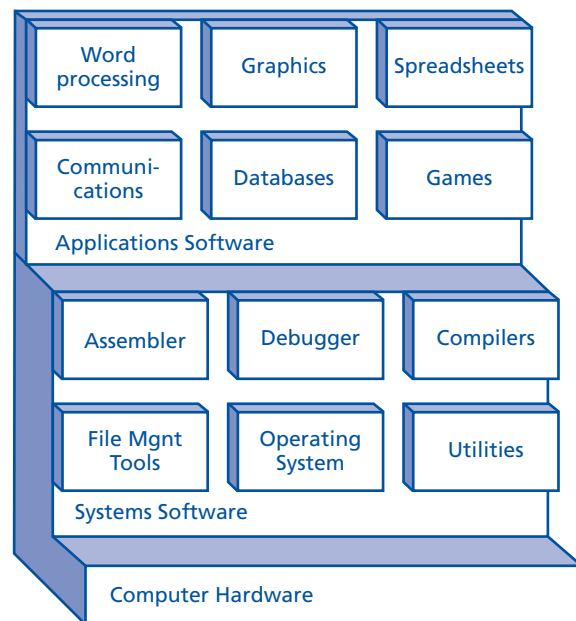


Figure 1: Applications and systems software
Source: Image courtesy of Jupitermedia Corporation

The mission of the W3C Internationalisation Activity is to ensure that W3C's formats and protocols are usable worldwide in all *languages*⁶ and in all *writing systems*⁷. Meanwhile, the aim of the web accessibility initiative is for people with disabilities to have the best possible chance to perceive, understand, navigate, and interact with the web, and to contribute to it. Important side benefits of the initiative are that older people with changing capacities and abilities due to ageing, and people with low levels of literacy, can take advantage of some of the resources.

Numeronyms

The number-based word or numeronym, "i18n"⁸ is an industry standard abbreviation for "internationalisation". It is derived from its spelling: the letter "i" followed by 18 letters and then "n". Predictably enough in nerdy circles, "localisation" is "l10n", "globalisation" is "g11n", and "accessibility" is "a11y"! Speech pathologists with word-smithy tendencies have to be careful of these, of course, and not just generate new ones without thinking. "B6t", for instance, is already taken for a turbo-charged, fuel-injected and inter-cooled, 16-valve very fast car engine with double overhead camshafts. Sensible folk will concede that in order to avoid ambiguity it is best not to use it in cloze sentences like "Numeronyms are a load of old ___".

Community building

Tim Berners-Lee has always maintained that the Internet is more a social creation than a technical one (Berners-Lee &

Frischetti, 1999), and it is true that people with small budgets, little specialist IT knowledge, and appropriate computers for their individual needs can communicate easily and globally with other people with the same advantages via this remarkable network of networks.

The International Directory of Communication Disorders (IDCD⁹) provides an encouraging example of how feasible it is, when an enthusiastic team applies itself, to facilitate international connections between professionals in speech-language pathology and audiology. It is interesting to read about¹⁰ the origins of the IDCD site (Bleile, Ireland & Kiel, 2006) and to explore it. Current features, and there are more to come, include comprehensive accounts of national and international associations and “contacts”, health and travel guides, overseas study opportunities, volunteer and work openings, and fascinating personal accounts of SLP and audiology life in many parts of the world. Anyone is free to access the site, to register interest, and to sign up for updates.

Other examples of internationalism within the professions, and the web being used to promote it, are the very new Asia Pacific Society for the Study of Speech, Language and Hearing site¹¹; the CEFAC¹² site in Brazil – second only to the US in terms of its number of student education programs in communication disorders; the well-established CPLOL¹³ site representing 25 SLP professional organisations in 23 European countries; and, the granddaddy of them all and still looking good: IALP¹⁴ – the oldest international association focusing on communication disorders.

The work of many hands

The people engaged in the i18n Activity seek the unpaid participation of individuals and organisations around the world to help improve the appropriateness of the Web for multiple cultures, scripts and languages. Similarly, the a11y Initiative invites individuals and organisations everywhere to help improve Web access. There are volunteer opportunities to implement, promote, and review guidelines, to become involved in interest groups, and to join working groups.

Like the i18n and a11y projects, the International Directory of Communication Disorders is very much “under construction”. Describing it as the work of many hands, Ken Bleile, Sadanand Singh and others involved with the IDCD have issued a standing invitation for any member of the professions to offer information, share experiences and provide alternative points of view.

Location, location

But maybe you are in a “location”, pro tem, in which volunteering is out of the question. The assortment of synonyms Roget’s New Millennium Thesaurus¹⁵ provides for “location” includes: fix, hole, point, scene, situation and position. Sidetracked again by the urge to concoct cloze sentences, I tried some of them with the carrier phrase, “I am in a ___”. “I am in a fix”, “I am in a hole ... a situation ... a rut ... a bind ... a ...”.

It evoked recollections of the life stages in which volunteering and give-give-give, beyond the parameters of family and employment were just *not* on. The stressful times: located somewhere between a rock and a hard place, of loss or difficult change when learned resilience¹⁶ became essential, anxiety was high, burnout or depression were on the cards, and help was freely offered and welcomed eagerly.

A web innovation that has enormous power to reduce isolation and provide support on the work front is the dedicated, international professional listserv. Several of these are listed on the Speech Pathology Australia website,

including the phonologicaltherapy¹⁷ list on child speech development and disorders which has been around since late 2001, and a more recent addition, the a-p-d¹⁸ list on auditory processing disorder, hosted by ACQ co-editor Chyrisse Heine since July 2005.

People join these listservs for a variety of reasons. Some enjoy sharing their knowledge, many love a good discussion, and lots like to ask questions and have them answered (and they usually *are* answered on a well-run list). Others, especially those in academic settings, are keen to stay in touch with the “clinical reality” and keep apprised of what clinicians in the field are thinking and doing. People in isolated work-settings join for support and contact with peers and so do professionals re-entering the workforce or updating their knowledge in specific areas. Many members appreciate, and constantly access, extensive collections of links and informational files, including journal articles, available on many groups’ websites. Little technical expertise is required, beyond knowing how to use email, and there are no penalties for lurking! Discussion and debate is generally friendly, with occasional fireworks, and the rewards in terms of mutual information sharing, peer support, informal mentoring, and cross-disciplinary and international networking are substantial, and above all it’s fun!

References

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- Berners-Lee, T. (2002). *The world wide web – Past present and future: Exploring universality*. Commemorative lecture. Retrieved 12 Feb. 2007 from <http://www.w3.org/2002/04/Japan/Lecture.html>
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- Roget’s New Millennium™ Thesaurus* (1st ed. [v. 1.3.1]). Retrieved 14 Feb. 2007 from <http://thesaurus.reference.com/browse/location>

Links

- <http://www.w3.org/>
 - <http://www.w3.org/International/>
 - <http://www.w3.org/WAI/>
 - <http://scripts.sil.org/IWS-Chapter03>
 - <http://www.unicode.org/standard/WhatIsUnicode.html>
 - <http://www.ethnologue.com/>
 - <http://www.omniglot.com/>
 - <http://www.i18nguy.com/origini18n.html>
 - <http://www.comdisinternational.com/welcome.htm>
 - <http://www.asha.org/about/publications/leader-online/archives/2006/061226/f061226b.htm>
 - <http://quixote.shrs.uq.edu.au/asiapacific/>
 - <http://www.cefac.br/publicar/>
 - http://www.cplol.org/default_.htm
 - <http://www.ialp.info/site/>
 - <http://thesaurus.reference.com/>
 - <http://www.apahelpcenter.org/featuredtopics/feature.php?id=6>
 - <http://health.groups.yahoo.com/group/phonologicaltherapy/>
 - <http://health.groups.yahoo.com/group/a-p-d/>
- Find Webwords 27 with lots of live links at <http://speech-language-therapy.com/webwords27.htm>