

W4A 2008 – a review

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The 5th annual International Cross-disciplinary Conference on Web Accessibility (W4A for short) took place alongside WWW 2008 in Beijing, in April 2008. The conference venue was Beijing's International Convention Centre, next door to the Bird's Nest Olympic Stadium, and given the closeness of the conference - in location and timing - to the world's most famous sporting event, it was fitting that the conference theme looked at how accessibility can be addressed as Web user become more active, as content creators. Our theme was "One World, One Web: Surfers become Designers?"

We were particularly interested in exploring the implications on Web accessibility of the increase in numbers of authors, and the resultant dilution in technical capability of web authors. How well do web authoring tools and user agents (including AT) support accessible authoring? And how accessible are these web authoring tools - whether available publicly as part of the Social Web or as corporate business.

We accepted 12 papers, with an acceptance rate of 36%, 7 Communication papers, and 4 Web Accessibility Challenge submissions. Author representation was extremely diverse, covering all 5 continents. Using International Olympic Committee-style three letter country codes, paper authors represented AUS, BRA, CAN, ESP, GBR, GER, GRE, ITA, POR, THA, TPE, UGA, and USA.

Keynotes

The first conference keynote talk was given by TV Raman, of Google Inc, one of the most familiar and respected names in the field of non-visual software and web access. He outlined developments at Google in supporting accessibility of rich internet applications, an area of great interest, given the emergence of Web 2.0, and Google's Cloud Computing concept of distributed content storage and web applications enabling users to manage and publish their content using only their browser. Raman described how technologies such as AxsJAX are being developed and implemented in a way that helps improve rich internet application accessibility, particularly in non-graphic browsing situations, and further examples of this were provided later in a paper presented by colleague Charles Chen.

Our second keynote, given by Shadi Abou-Zahra of the World Wide Web Consortium, gave us an early indication of the W3C's activities in the area of Web accessibility for older people. With the additional sociotechnical challenges facing many older Web users, accessibility becomes an even more complex issue, and Shadi discussed the challenges of separating - and addressing - accessibility issues that are due to browser shortcomings rather than that of the Web content they present. We were particularly grateful to Shadi for stepping in at short notice to replace original keynote Mike Paciello, who was unfortunately unable to be with us in Beijing. However we hope to see Mike back at WWW2009.

Papers

We heard a range of extremely interesting papers, from academia to industry, from theory to practice. Some of the highlights are described below.

Rui Lopes and Luís Carriço contributed to the 'accessibility versus universal usability' debate by presenting an approach to large-scale accessibility evaluation of web sites, based on the concept of web interaction environments, a framework of modelling a site's audience and usage environment. They tested this approach by evaluating the accessibility of a random selection of Wikipedia pages, chosen as examples of pages with multiple authors, and argue that their findings indicate that templated authoring such as that provided by content management systems can improve accessibility.

The accessibility of Wikipedia was also the subject of Marina Buzzi and Barbara Leporini's study, where they evaluated the accessibility of the authoring process and output of Wikipedia to screen reader users. They concluded that the key barriers to accessibility included a lack of information identifying constituent parts of Wikipedia pages, usability problems with searching, and challenges in editing pages – due particularly to the complexity caused by integration of edit functionality on the same page as the actual content.

In describing MoKE, John Garofalakis and Vassilios Stefanis presented a tool for evaluating web content for usability on mobile web devices, using definitions of best practice published by the W3C. They highlighted the tool's approach to addressing the challenge of considering the 'hidden Web' – Web content normally beyond the reach of evaluation tools, such as pages presented as the results of a form-based query.

Leo Ferres and colleagues tackled the subject of improving the accessibility of graph-based content. While in theory graphs may be considered graphical rendering of numerical data, and therefore this source data can be made available to those unable to access it in graphical format, there are many situations where the source data is unavailable, or the construction of the graph may be sub-optimal. Hence an approach is needed to identify the key meta-information of a graph that is presented in an inaccessible format, and to convert this information to a more accessible format.

Stefano Ferretti, Silvia Mirri and colleagues considered the impact on accessibility of the emergence of the 'prosumer' in an e-learning context, and propose a tool to enable shared production of accessibility features, such as text alternatives, to e-learning content. This distributes the task of improving the accessibility of existing e-learning resources in a way that supports adaptation of resources to suit a learner's specific learning needs.

Jeff Bigham described work he and colleagues have conducted in developing WebAnywhere, an online screen reading application that enables users to access web content in audio format from a computer without a screen-reader installed. This, they argued, can help overcome financial and technical barriers that can limit the availability of screenreading technology to those who need it.

We also heard about initiatives supporting Web accessibility around the world – including in Thailand and in Taiwan. Andre Freire gave us results of a survey on web developers' awareness of accessibility in Brazil, an extremely interesting insight into levels of awareness in different sectors.

As we move ever closer to the publication of version 2.0 of the Web Content Accessibility Guidelines (WCAG), members of the WCAG 2.0 working group Loretta Guarino Reid and Andi Snow-Weaver provided a timely overview of the guiding principles behind WCAG 2.0, and the changes in organisation and content from WCAG 1.0.

For more details on the above, and all other W4A 2008 papers, visit the W4A web site, at: <http://www.w4a.info/2008/> or the ACM Digital Library; while authors of selected papers have been invited to contribute to a special issue of the New Review of Hypermedia and Multimedia, edited by Leo Ferrés.

W4A 2008 Roll of Honour

2008 Best Paper Award: Rui Lopes and Luis Carrico; for The impact of accessibility assessment in macro scale universal usability studies of the web

2008 John M Slatin Award for Best Communication Paper: Carlos A Velasco, Dimitar Denev, Dirk Stegemann, and Yehya Mohamad; for A web compliance engineering framework to support the development of accessible rich internet applications

2008 Web Accessibility Challenge sponsored by Microsoft:

- **Judges' Award:** Darren Lunn, Sean Bechhofer, Simon Harper; for The SADle transcoding platform
- **Delegates' Award:** Jeffrey P. Bigham, Craig M. Prince, Sangyun Hahn, Richard E. Ladner; for WebAnywhere: a screen reading interface for the web on any computer

W4A 2009

W4A 2009 will take its usual place, co-located with the annual WWW conference, on April 20 and 21, in Madrid, Spain. Our theme will be 'Web Accessibility for Older Users: Are We There Yet?', and as such we will be particularly interested in receiving submissions that look to address aspects of the challenge of improving accessibility of the Web to older people. Details of the conference, including submissions, are available on the W4A web site at: <http://www.w4a.info/>

We look forward to seeing you there!

David Sloan (Programme Chair W4A 2008, General Chair W4A 2009)

Yeliz Yesilada (General Chair W4A 2008)

About the authors



David Sloan is Project Lead of the Digital Media Access Group, a research and consultancy unit based in the School of Computing at the University of Dundee, Scotland. He has been involved in the field of web and software accessibility since 1999; and received his PhD in 2006 for a thesis exploring the impact of web accessibility audits on organisational and individual awareness of and attitudes to inclusive design. In his spare time he enjoys cycling, orienteering and hiking in the forests and hills of Scotland, and when it's too cold for that he prefers to be in the kitchen, cooking, drinking good wine and listening to good music.



Yeliz Yesilada is a postdoctoral research associate in the School of Computer Science at the University of Manchester. Her research interests include human centred Web, Web accessibility, mobile Web and Semantic Web. She is currently working on the EPSRC funded RIAM (Reciprocal Interoperability between the Accessible and Mobile Webs) project which aims to investigate ways in which to integrate research into the Accessible and Mobile Webs. She received a PhD in computer science from the University of Manchester. She is a member of the ACM (SIGWeb and SIGACCESS)