

Building the Mobile Web: rediscovering accessibility?

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Published online: 25 August 2007
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After the launch of the Mobile Web Initiative at the World Wide Web Conference 2005, awareness is emerging that, today, mobile Web access suffers from interoperability and usability problems that make the Web difficult to use. With the move to small screen size, low bandwidth, and different operating modalities, technology is in effect simulating the sensory and cognitive impairments experienced by disabled users within the wider population of mobile device users. The Third International Cross-Disciplinary Workshop on Web Accessibility (W4A 2006) was targeted to bring together different communities working on similar problems to share ideas, discuss overlaps, and make the fledging mobile Web community aware of accessibility work that may have been overlooked. The main question asked was:

“Is engineering, designing, and building for the Mobile Web just a rehash of the same old Web accessibility problems?”

This lead to addressing issues such as:

- Are the same solutions required for the Mobile Web and for accessibility and can the two communities work together to solve these problems?
- What can the Mobile Web learn from the Accessible Web and what resources created to support the Accessible Web can be used by designers in their support of the Mobile Web?
- To cross-pollinate do we need to rethink the current view of accessibility?

Therefore, the workshop brought together a cross section of designers, engineers, and practitioners working on both the Accessible and Mobile Webs; to report on developments, discuss the issues, and suggest cross-pollinated solutions.

The W4A 2006 was held on Monday the 22nd and Tuesday the 23rd May 2006 as part of the Fifteenth International World Wide Web Conference (WWW2006), running over 2 days, with 73 attendees and 20 papers accepted for presentation. This special issue is an additional outcome of the W4A 2006 Workshop, and consists of the revised and extended version of seven papers of the papers presented at the Workshop, selected on the basis of the review results. The articles presented here focus on major issues of the Accessible and Mobile Webs that advance the implementation of universal access.

The first article in this special issue is entitled *Capability Survey of User Agents with the UAAG 1.0 Test Suite and Its Impact on Web Accessibility* by Watanabe, T. and Ume-gaki, M. This article discusses capabilities of a number of Japanese user agents with respect to the User Agent Accessibility Guidelines (UAAG 1.0). This article highlights that in order to promote Web accessibility internationally, the focus should not only be on content accessibility but also on user agent accessibility.

It is a common belief that “A picture is worth a thousand words”. That might be true for someone who is sighted, but visually disabled users or users who work in environments where visual representations are inappropriate cannot access information contained in graphics, unless alternative descriptions are included. The second article, which is entitled *GraSSML: Accessible Smart Schematic Diagrams for All*, by Fredj, Z.B. and Duce, D.A., investigates accessibility of diagrams. This article presents an approach called Graphical Structure Semantic Markup

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Languages (GraSSML), which aims at defining high-level diagram description languages to capture the structure and the semantics of a diagram. This would enable the generation by transformation of accessible and “smart” presentations in different modalities such as speech, etc.

The two following articles, *Using RSS Feeds for Effective Mobile Web Browsing*, by Garofalakis, J. and Stefanis, V., and *A Web Browsing System for Cellular Phone Users based on Adaptive Presentation*, by Arase, Y., Maekawa, T., Hara, T., Uemukai, T. and Nishio, S., report results on improving universal access to the Mobile Web. The first article presents a new methodology based on Really Simple Syndication (RSS) feeds for the adaptation of Web content for use in mobile phones. This methodology is based on concrete design guidelines and this article presents the evaluation of the methodology based on a user centred evaluation technique. The second article presents the design and implementation of a novel Web browsing system for mobile devices. This system includes a Web page overview that aims to reduce scrolling operation and it also adapts the content according to the characteristics of the device at hand.

Similar to the two articles above, the following two articles focus on adapting or transcoding of Web pages, but this time for visually disabled users. The first article is entitled *Browsing shortcuts as a means to improve information seeking of blind people in the WWW* by Kouroupetroglou, C., Salampanis, M., and Manitsaris, A. This article presents a Semantic Web framework that allows both annotation creation and consumption. This framework is used to create a specialised voice browser for visually disabled users, called SeEBrowser. This article explains how SeEBrowser uses annotations of Web pages and provides browsing shortcuts, and finally presents an experimental user study that compares browsing pages with and without this browser. The second article is entitled *Personalizable Edge Services for Web Accessibility* by Erra, U., Iaccarino, G., Malandrino, D., and Scarano, V. This article mainly presents different edge services that aim to personalise and customise Web pages to meet the requirements of users and to guarantee the universal access to the Web.

Finally, the last paper in this issue is entitled *How People use Presentation to Search for a Link: Expanding the Understanding of Accessibility on the Web* by Jay, C., Stevens, R., Glencross, M., Chalmers, A. and Yang, C. This article mainly seeks to answer the question “how does the presentation of Web pages on a standard display make them easier for sighted people to use?”. To address this question, the authors report on an exploratory eye-tracking study that addresses this issue by investigating how sighted readers use the presentation of the BBC News Web page to search for a link. They show that the standard page presentation with a “text-only” version and observe both

qualitatively and quantitatively that the removal of the intended presentation alters “reading” behaviours. This article concludes that the presentation of information assists task completion, and suggests that it should be re-introduced to non-visual presentations if the Web is to become more accessible.

The guest editors would like to thank a number of people who contributed to the publication of this special issue. First we would like to thank the programme committee of W4A 2006 for their exceptional work and dedication in the review process. We would also like to thank the authors for their excellent work and kindly acknowledge the supporters of the W4A 2006: ACM SIGACCESS; ACM SIGWEB; IBM Research; ACM SIGMOBILE and the Zakon Group. Finally, we would like to thank the Editorial Board of the International Journal Universal Access in the Information Society, and in particular Prof. Constantine Stephanidis, for his support and advice throughout the preparation of this issue.

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