Vivienne Conway featured in the pages of inCite in March, reporting on her research into web accessibility, for which she was awarded ALIA's Twila Ann Janssen Herr Research Award for Disability Services. Vivienne went on to win one of two coveted international Google Awards to attend the International Cross-Disciplinary Conference on Web Accessibility (W4A 2011) in Hyderabad, India during that month. These awards recognise the efforts of students "whose research was most promising in terms of its depth and potential impact". Vivienne reports on the conference and draws on her Ph.D. work and experience to provide a practical checklist for web accessibility.

The 2011 W4A conference was a two-day event, co-located within the program of the 20th International World Wide Web Conference. The theme this year was *Crowdsourcing the Cloud: An Inclusive Web by All and For All?*

'Crowdsourcing' involves working together as well as focusing on our individual spheres of interest. This theme of 'designing for inclusiveness' -rather than tacking on patches - was everyone's goal.

There were numerous papers presented describing the efforts of academics, researchers and industry in working towards the goal of an inclusive web. For me, one of the most outstanding presentations was from Dr. Manish Gupta, who described the work of IBM Research in India and South Asia with the 'spoken web'. The implications of this work have fascinated me, and it was not until he described how the people in these regions were more likely to have mobile phones than either landlines or internet connections that I realized how having a spoken web service could radically change their ability to connect to vital information.

To see the information communication change from a car with speakers driving through villages broadcasting public information to a service available from a mobile phone where people can access information anytime/anywhere is inspiring. The idea of the spoken web working in a parallel manner to the world wide web, facilitating the creation of user-content and hyperlinks will open links for people throughout the world who are semi-literate and/or do not have regular Internet access. I believe this work can significantly enhance the lives of people in less-developed regions of the world.

My particular field of interest is the evaluation of websites for accessibility including standards and evaluation techniques with a purpose of building a framework for website developers. While WCAG 2.0 evaluation tools are still being developed and refined, there is substantial work being done on how we evaluate websites, and whether the WCAG 2.0 guidelines meet the goals of being technology-independent and testable. I know this experience will affect my overall understanding of website accessibility and its implications on a much-broader scale than I had previously envisaged.

Part of the Google Award entailed me presenting my proposed Ph.D. research at the conference. To present to such an esteemed audience is rather daunting, however I received a number of very kind offers of support, as well as questions regarding methodology and purpose that will help to shape my research. The guidance I received is proving beneficial as I finalise my research proposal.

I believe that attending W4A 2011 will have a pronounced impact on my work and future research activities here in Australia. I also believe that the opportunity to attend the conference, something I would not have had without the Google Student Award, will change the impact of my research to something much larger than I originally envisioned. I have a larger goal and a more global perspective since attending the conference.

I have come home from W4A 2011 full of renewed energy for my work, encouraged by the spirit of cooperation, and inspired by the people I have met. I feel that my vision has been expanded and that what I thought of more as personal dreams and goals, are universally-shared by the people I have met. Both the honour of having been chosen, and the impact this event has had on my research and future contacts within the field have been tremendous.

Creating an accessible website: a checklist

One in five people have some kind of long term impairment that affects their ability to access information via websites. It is critical that people entering information on websites understand this and are

COMMON WEBSITE ACCESSIBILITY ERR

- images with no descriptions
- forms with no labels (you can't fill it in if yo know what is required)
- broken links
- being directed to another website or pop-u no warning (this is really frustrating if you
- markup language errors (validate your web against the W3C website)
- inaccessible PDF documents (you should a provide an alternative)
- flashing images (these can cause seizures)
- poor colour contrast (WCAG 2.0 suggests 7
- pages with no titles or the same title on ev
- lack of language specification in the metac this is not specified, screen readers don't k what language the document is created in pronunciation and/or translation)
- cluttered pages
- lack of method for skipping repetitive navi links
- pages with uncaptioned video images (You supports captioning now and it is a WCAG requirement)

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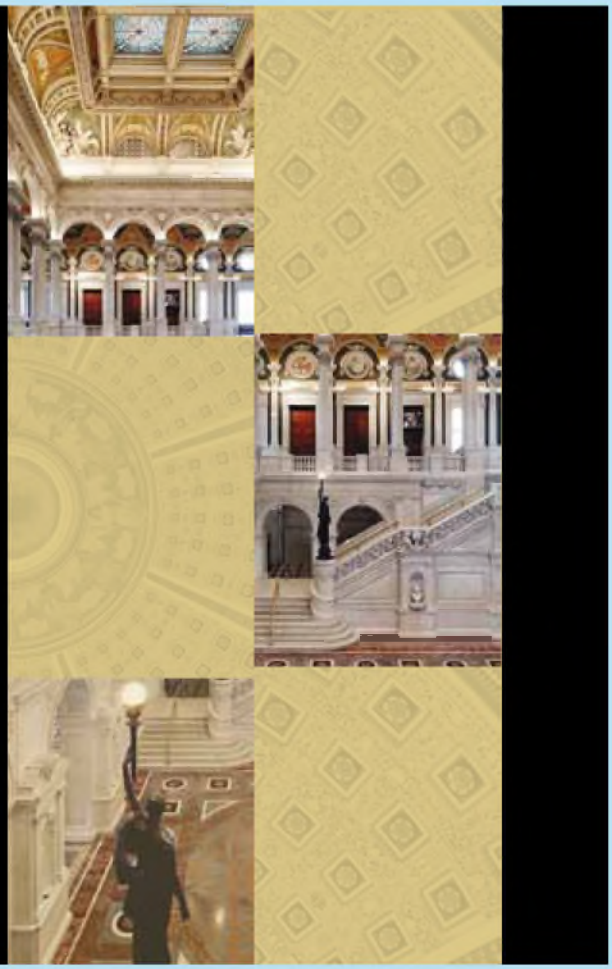

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trained in the skills necessary to create truly accessible websites. Talk to your users and find out what their needs are.

Audit your website (or get someone to do it for you) for website accessibility. The Australian Human Rights Commission requires everyone to be working towards the latest guidelines known as the Web Content Accessibility Guidelines (WCAG) Version 2.0. Websites are to be progressing towards Priority Level AA Compliance by 2014 at the latest.

Here is a checklist to get you started, and you will find more information on the W3C website, including the WCAG 2.0 Guidelines at **www.w3.org/WAI/intro/wcag**.

- Every image should have a caption – use the 'ALT' attribute, but for items requiring longer descriptions, use the' longdesc' attribute
- Avoid putting text in images
- If you need to use a CAPTCHA, you need to provide an alternative for the users with visual impairments
- Watch the wording on buttons – please do not use 'click here' or 'go', as they will not make sense to the user with screen-reading software. Make sure the link makes sense without the user being able to physically see it
- If at all possible, put in a link to enable a user to skip repetitive navigational links
- Do not rely on users to have the latest browsers – instead make sure you put in options to re-size text, view a site map, and link to accessibility guidelines for the website
- Avoid putting too much information on each page - it takes too long to load on slower Internet connections
- If you must use PDF files, you need to provide an alternative, preferably by using a Word, RichText or HTML as your primary source file with a PDF as the alternative as screen-readers have difficulty with PDF files and this means some users will not be able to read your information
- Learn how to use screen-reading software such as JAWS or NVDA - NVDA was developed in Australia and is free and able to be installed on all machines, while JAWS provides a free 40-minute demo version. NVDA has been developed by Australians and is well-supported
  - JAWs: **www.freedomscientific.com/downloads/jaws/jaws-downloads.asp**
  - NVDA: **www.nvda-project.org/**

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