Frontiers in Cognitive Accessibility and the Web

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Highlighting Needed Information

- I.V. Ramakrishnan's group is finding ways to identify *what part* of a Web page is most likely of interest to a user

- This technique can cross over from supporting screen reader users to others

Raising the Floor

- An initiative led by Gregg Vanderheiden and Jim Fruchterman to build accessibility and assistivity into Web infrastructure
- All browsers could provide spoken output for users who benefit from it
- Software to be open source

Fluid Project

- University of Toronto Adaptive Technology Resource Centre and others
- creating pluggable user interface components, and profile-driven tailoring of presentations
- aimed at Higher Ed applications like Sakai
- user profile can ask for no-frills presentation
- community (open) source

Single System Signon

- facilities like OpenID make it easier for people to establish identity online

- we need to make it possible to include information presentation preferences in one's online identity

Web on the Phone

- Increasingly, Web content will be viewed on small mobile devices

- Increased openness of phone platforms allows development of accessibility technology for them

- Key software now open source

AccessMonkey and AxsJAX

- Bigham and others, Univ Washington
- Raman and Chen
- Allow third parties to increase accessibility of Web sites by creating scripts that change the presentation

Language Engineering

- may allow confusing language to be rewritten
- major technical challenges!

ADA for the Web?

- Mandate for accessibility in cyberspace remains uncertain in the courts

- Association for Computing Machinery is calling for coverage

- New legislation may be needed to promote accessibility for all in this vital medium

Cognitive Accessibility Guidelines

- Application Note on cognitive accessibility being drafted for W3C WAI to accompany new version of Web Content Accessibility Guidelines

- contact me to join the effort

A Role for Universities

- Developments like Raising the Floor and the opening of phone platforms create huge opportunities for students to contribute to community source projects
- We need to organize!

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Links

- Stony Brook work on context in browsing: http://www.cs.sunysb.edu/~jmahmud/iui2008.pdf
- Raising the Floor: http://benetech.blogspot.com/2007/06/raising-floor-op-ed-in-sacramento-bee.html
- Fluid: http://fluidproject.org/
- OpenID: http://openid.net/
- Android: http://code.google.com/android/ ; Colorado/Jackson State work at http://portal.acm.org/citation.cfm?id=1414471.1414530&coll=ACM&dl=ACM&CFID=9891963&CFTOKEN=78951129
- Nokia: http://www.informationweek.com/blog/main/archives/2008/06/nokia_takes_ini.html ; http://www.symbianfoundation.org/
- Access Monkey: http://webinsight.cs.washington.edu/projects/accessmonkey/
- AxsJAX: http://code.google.com/p/google-axsjax/
- ACM and Web accessibility: http://www.acm.org/public-policy/accessibility
- Student projects at Toronto: http://scyp.atrc.utoronto.ca/about.htm