

An Accessible Web Searching: An On-going Research Project

Maria Laura MELE^{a,1}, Simone BORSCI^b, Alessio RUGO^c, Stefano FEDERICI^{a,b,d},
Giuseppe LIOTTA^c, Francesco TROTTA^c, Emilio DI GIACOMO^c

^a CIRID - Interdisciplinary Research Centre on Disability and Technologies for
Autonomy, 'Sapienza' University of Rome, IT

^b ECoNA - Interuniversity Centre for Research on Cognitive Processing in Natural and
Artificial Systems, 'Sapienza' University of Rome, IT

^c Department of Electronic and Information Engineering, University of Perugia, IT

^d Department of Human and Education Sciences, University of Perugia, IT

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Information Visualization conveys abstract information in intuitive ways by representing it with geometric models. An important and valid alternative to visual traditional methods appeared to be the sonification approach, which implements non-speech audio information to “represent data relations into perceived relations in an acoustic signal for the purposes of facilitating communication and interpretation”. WhatsOnWeb is a clustering Web search engine that makes use of visualization techniques to improve effectiveness and efficiency of Web searching. In a clustering engine, the search results are analyzed to automatically identify the topics they belong to which are then linked in a network of concepts and sub-concepts that are presented to the user by means of different visual maps. As a case study, we focus on Web search engines for blind people. To this aim, the main activities of our project are: (i) Reengineering the architecture of an existing Web search clustering engine, called WhatsOnWeb (WOW, <http://whatsonweb.diei.unipg.it:8080/wow3.2/>); (ii) Devising effective ways of interacting with the system by translating the visualization into sounds; (iii) Extending the WOW ranking algorithm to accessibility indexes; (iv) Performing a set of validation activities to demonstrate the effectiveness of the approach for visual impaired people.

References

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¹ Maria Laura Mele, CIRID – Interdisciplinary Research Centre on Disability and Technologies for Autonomy, 'Sapienza' University of Rome, IT; E-mail: marialaura.mele@gmail.com.