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Recent ELMS talks – Spring 2007

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E-Learning in Mathematical Subjects (ELMS) talks take place regularly at Nottingham Trent University. ELMS aims to appeal to a wide range of subject areas and allow discussion on issues in mathematical e-learning that are shared over diverse disciplines. The Spring 2007 ELMS talks, which (coincidentally) had an accessibility focus, are available to view online at www.elms.org.uk

“Accessible for All: Powerpoints”

**Dr. Lindsay Evett of School of Computing and Informatics,
Nottingham Trent University (7 February)**

The World Wide Web Consortium’s (W3C) Accessibility Guidelines (WCAG) are a recognised international standard for web design for accessibility. Evett and Brown [1] produced a set of guidelines for producing text which promotes Universal Accessibility. They are consistent with both the aims and the recommendations of the WCAG. The guidelines have been applied to Powerpoint presentations [2], and a recent case study has extended their coverage of potential PowerPoint content. The talk describes the case study and the refined guidelines produced. Content accessibility is discussed.

“How is technology impacting on the accessibility of mathematics and science for the visually impaired?”

**Michael Whapples of School of Physics and Astronomy,
University of Nottingham (7 February)**

Michael Whapples is a visually impaired student of physics at The University of Nottingham. Within this talk, the affect of the use of modern technology on the accessibility of mathematics and science was discussed. It covered how technology has altered the way visually impaired people access maths and science, how modern technology can be used to improve accessibility and what currently is not possible and why.

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“Accessing Materials: common problems experienced by students with visual impairments”

Emma Wright of University of Nottingham (14 March)

Emma Wright is a PhD student at The University of Nottingham, researching the difficulties experienced by students with print impairments and the types of adjustments universities make for such students. This talk explored some of the common problems experienced

by students with visual impairments when it comes to accessing course materials, and aimed to suggest solutions. The formats that may be required were outlined, for example: large print, electronic, and Braille. The main focus was on electronic formats as read by screen-reading programs, and on mathematical formulae in particular.

Demonstrations were provided of how the JAWS (Job Access for Work) screen-reader handles such information, and suggestions were made as to how its accuracy can be improved in some cases.

References

1. Lindsay Evett and David Brown, 2005, “Text formats and web design for visually impaired readers - Clear Text for All”, *Interacting with Computers*, 17, 2005, 435 – 472.
2. Lindsay Evett, David Brown, Pauline Smith and Richard Hibberd, 2006, “Cleaning up the environment - Accessible PowerPoint Presentations”, *NTU’s 6th Annual Learning and Teaching Conference*, March 2006.