E-Learning in Mathematical Subjects (ELMS) is a research seminar series at Nottingham Trent University. Talks cover a range of topics in technology based teaching and learning in subjects which include mathematical content. ELMS benefits from a grant awarded via the IMA Small Grants Scheme.

The ELMS website experienced an extended period of technical difficulties but is now back online. Below are details of ELMS seminars recently added to the website for free online viewing at: http://www.elms.org.uk.

“Visual Impairment in Maths and Computing Based Subjects”

Emma Rowlett, University of Nottingham

This talk is a result of both Emma’s PhD, entitled “Accessing Materials: making appropriate and effective ‘reasonable’ adjustments for print impaired students in higher education”, and a project she has been working on called “AccessMSOR: LaTeX and Braille”. Both of these have investigated the experiences of students with visual impairments taking computing and maths based subjects. The talk will present the findings of this work and provide some hands on simulations of what it might be like to be visually impaired and complete maths and computing based tasks.

“AccessMSOR: LaTeX and Braille” is funded by the Higher Education Academy Maths, Stats and OR Network and operated through Physics & Mathematical Sciences, School of Science and Technology, Nottingham Trent University.

“I did this in my class and it (mostly) worked: GeoGebra”

Dr. Chris Sangwin, School of Mathematics, University of Birmingham/
Higher Education Academy Maths, Stats and OR Network

GeoGebra is computer software which is designed as “dynamic mathematics for schools”. It is simple to use and free to install. This talk will examine the software and report on its use by myself in university mathematics courses.

(i) What is GeoGebra and what can it do?

(ii) To what extent can GeoGebra be used in university mathematics, by staff and students?

(iii) What are the pitfalls and limitations of this software?
Although relatively simple, the software has a surprising range of uses - allowing dynamic mathematical diagrams to be easily created and used during lectures, tutorials and by students as homework assignments. I conclude this is a very useful additional tool, which can be relatively easily incorporated into existing practice.

“Implementing a VLE in a 14-19 College”

Ted Walker, Rawlins College

Ted Walker is Assistant Principal (Director of e-learning) at Rawlins Community College, Quorn, Leicestershire. Rawlins was an early adopter of whole school use of a VLE, having identified the decentralising and empowering pedagogical principles behind Moodle. Although the vision and transformational potential of the use of Moodle at secondary level is well understood, there are many strategic and operational challenges to be faced before successful implementation leads to meaningful use. The VLE at Rawlins is a well established central part of College life, impacting widely, as well as a basis for improved local collaboration, and the real ambition now is to move beyond the electronic filing cabinet and into the territory of emerging, innovative and exciting educational opportunities.

“Yes? No? Don’t Know? Votes for all, plus the tale of the mouse.”

Sidney Tyrrell, Department of Mathematical Sciences, Coventry University

Sidney Tyrrell is a National Teaching Fellow who has frequently experimented with technology when teaching. Imagine her surprise to find technology (a mouse) that worked first time every time, in whatever room with whatever PC, revolutionised her classroom approach to teaching, and cost only approximately £100.

Participants were invited to try out the gyro mouse with the long long range during this talk not on mice but on interactive voting systems. Have they a place in our lectures? Are they worth the effort and what could they offer us? Participants voted on this and other issues using the Turning Point interactive voting system, portable enough to port from Coventry under one arm, for the occasion.

ELMS is coordinated at Nottingham Trent University by Peter Rowlett and David Fairhurst of the School of Science and Technology and Pete Bradshaw of the School of Education. ELMS is supported by the Institute of Mathematics and its Applications, the Higher Education Academy Maths, Stats and OR Network and Nottingham Trent University. Seminars are videoed by Chris Shaw of Nottingham Trent Visual Services. Thanks due, of course, to all the speakers.

Recent ELMS videos available online – Peter James Rowlett