Knut och Alice Wallenbergs Stiftelse

Wallenberg global learning network

Harnessing Technology for Learning – University and School Partnership

Demo sessions March 31

Project: **RealSimple**
Presented by: Sten Ternström and Kahl Hellmer, Kungliga Tekniska Högskolan, Stockholm
Place: The beta laboratory, A116
Time: 12.30-16.00

RealSimple is a teachers' resource for acoustics experiments at the upper secondary (gymnasium) and tertiary levels, appealing to students' interest in sounds and music. It combines benchtop reality, computer visualisations and simulations of acoustic phenomena. The software is free, and materials are inexpensive, easy to find in stores, and easy to assemble. The demo is given on Monday only. (http://www.speech.kth.se/realsimple) (http://ccrma.stanford.edu/realsimple)

Project: **MathViz**
Presented by: Ambjörn Naeve, Kungliga Tekniska Högskolan, Stockholm
Place: H135a, next to the Auditorium
Time: 12.30-14.30; 15.30-(approx)17

I will demonstrate our work with interactive mathematical visualizations within the MathViz, FLIT and Matriks projects. I will also show how this work has been integrated into our ongoing construction of a global, asynchronously accessible, networked learning environment involving national and international school-university collaboration based on our concept browser Conzilla (www.conzilla.org) and our electronic portfolio system Confolio (www.confolio.org), developed partially with WGLN support within the PADLR (http://www.l3s.de/english/projects/padlr.html) project.

Project: **Activboard**
Presented by: Ann-Charlotte Markman, Rörsjöskolan, Sollentuna and Roger Carter, Activboard
Place: H135b, next to the Auditorium
Time: 12.30-14.30; 15.30-(approx)17

We aim to discuss and demonstrate the influence Activboards, an digital whiteboard, has had in our school. We also want to share our thoughts and ideas as regards Activboard and it´s effect on the pupils. We wish to question the development within schools as regards technology and the differences between technology at home and in school. We also wish to briefly show how the system can be used and how this technology is more in line with the pupils own reality towards ICT and the possibility to arouse interest and motivation in all subjects through the system.

Project: **The LIKA project**
Presented by: Eva Fors and Mats Hanson
Place: The Humanist Laboratory
Time: 12.30-14.30; 15.30-(approx)17

Presentation of The LIKA project - an unique collaboration for digital competence in teacher education In this presentation will demonstrate and give examples of result of the on-going LIKA project. The project is a six year project financed by the Swedish Knowledge Foundation, participating Universities and external partners. LIKA aims at integrating digital competence in courses to strengthen actuality, relevance and quality in teacher education on a long-term basis. ICT should be an integrated and natural part in the profession of teaching. LIKA stands for the processes of Learning, Information,

Communication and Administration which require digital competences for every day teaching and learning activities.

Partners:Royal Institute of Technology (KTH); Swedish School of Sport and Health Sciences (GIH); Royal College of Music in Stockholm (KMH); Stockholm Institute of Education (LHS)

Project: **Demos of various projects within the Humanist laboratory, Lund university**
Presented by: Victoria Johansson, Susanne Schötz and Jonas Granfeldt
Place: The Humanist Laboratory
Schedule:
12.30 Direkt profil
13.00 ScriptLog
13.30 Say after me
14.00 Direkt profil
14.30 ScriptLog
15.00 Say after me

Direkt Profil is a computerized system for assessing development of French as a foreign language. The idea is that students of French can automatically assess their level of French on the basis of their own written production. No other system can currently do this. Direkt Profil carries out a grammatical and lexical analysis of all sentences in any French text. Structures known to be subject to a specific development in French as foreign languages, are identified, colorized and counted. The result is a lexical and grammatical profile of the analyzed text. Last, the system's algorithms suggest a stage of development for the learner text together with a brief explanation of its characteristics. Direkt Profil can currently be used by students as a diagnostic self-assessment tool or by teachers of French as a mean of rapidly getting an idea of the proficiency level(s) in a group of learners.

ScriptLog is a program that allows for registrating everything during a writing session. Afterwards, a researcher can study for example editing, deletions and pause patterns during writing. To the writer the program looks like a simple word processor. ScriptLog has been used to study first and second language development in writing, but can also be used as a general evaluation tool for anyone interested in using writing as an evaluation method. The program works on pc computers, and can be downloaded for free from www.humlab.se/programs/scriptlog.

Say after Me is a web based program for pronunciation training. It allows students to listen to native language examples, record themselves and compare the two. It also shows the pitch contours to aid students while learning for example Chinese where intonation of words are important. The program is constructed to be simple to use and only require a web browser, Java and a headset.

Project: **Research on learning using eye-tracking methods**
Presented by: Kenneth Holmqvist
Place: The Humanist laboratory
Time: 12.30-16.00

We have set up drop-in stations in the Humanities Laboratory, where you can meet researchers and see how we work with this technology. We will show three projects that are either in progress, or in the planning phase:
1) How to evaluate reading of second-language English (and other languages), and also courses in English.
2) How to study problem solving in mathematics.
3) How to evaluate textbooks in the sciences, in particular the tricky integration text and pictures/graphs.

We will show both how to record data in these projects, and how we can analyse and visualise the results.

Demo sessions April 1

Project: **Who plays the math game best – you or the agent you just taught?**
Presented by: Lena Pareto, University West – Trollhättan
Place: The beta laboratory, A116
Time: 12.30-15.00

Learn arithmetic by teaching an agent play a math game without digits and numbers?!? This project is about how to inspire to conceptual understanding of arithmetic, by playing a computer game. We have combined a math game based on Graphical Arithmetic Microworld with the concept of Teachable Agents, resulting in a prototype web based application. A pilot study show promising results, and that the teachable agent enhances the engagement and reflection further compared to the already engaging game.

A WGLN project (http://www.wgln.org/projects/2006-2007.html), by Daniel Schwartz (Stanford) and Lena Pareto (University West).

Project: **Learning Radiology in Simulated Environments**
Presented by: Jan Ahlqvist, Umeå university and Patricia Yougblood from SUMMIT, Stanford University
Place:H135b, next to the Auditorium
Time: 12.30-15.00

A combination of simulation technique developed in Umeå and three dimensional modelling performed at Stanford has resulted in radiology simulators for training radiographic examinations in radiation free environments. Results from learning experiments on students show that the simulator training gives better understanding of radiographic depiction of complex anatomy. Examples of different applications will be demonstrated.

Colaboration between Oral and Maxillofacial Radiology, Department of Odontology, Umeå University and Stanford University Medical Media and Information Technologies (SUMMIT), Stanford University

Project: **PIS – Podcasting in School**
Presented by: Tomas Bergqvist, Umeå University/Rektorsakademin
Place: Place: H135a, next to the Auditorium
Time: 12.30-15.00

In this project the main goal was to analyze if the students' interest in mathematics was affected if the mathematics was made accessible via podcasts and iPods. Teachers at eleven schools were encouraged to produce podcasts as a part of their mathematics teaching in school year eight. The results indicate an increased interest in mathematics and the learning of mathematics among the students. We also found that the technical difficulties for the teachers were underestimated in the project, and that teachers had difficulties in finding time for the production of podcasts.

Project: **Demos of various projects within the Humanist laboratory, Umeå University**
Presented by: Patrik Svensson
Place: The Humanist laboratory (PC)
Time: 12.30-15.00