Breakout Session II: Information Systems

Title: Real-World Software Engineering Experiences in the Classroom

Author: Harvey Siy, Ph.D., UNO

I am interested in collaborating to develop innovative approaches for teaching software engineering where students can experience real-world software development activities. Traditionally, projects in software engineering courses tend to be small-scale, greenfield applications developed by small co-located teams. In practice, a significant portion software engineering is carried out by multiple small teams, often geographically distributed around the world. A course involving multi-site software development with teams in different cultures and time zones would provide a rare opportunity for students to experience geographically distributed development in a software engineering course. Other courses can also involve large scale software development, such as software architectural design, evolution and maintenance of large software systems, and software verification and testing. These courses can be taught collaboratively with local and remote lectures and exercises. Lastly, I am also interested in education research related to instilling sound software development practices in students.

Breakout Session II: Information Systems

Title: New, ICT supported learning systems at UiA

Author: *Sven Åke Bjørke,* *UiA*

In 2003 UiA started its first online pilot course in "Global environment issues", with 20 students successfully participating from more than 12 countries.

The experience enabled Centre for Development Studies to build and offer a complete MSc in Development Management in 2005. A new cohort with 20-25 students has started up annually since then. Students may follow the studies from anywhere in the world as long as they have access to the Internet. There are no regular lectures, but many learning activities in an intensive virtual learning environment. The e-pedagogy developed for the study program has received two prizes for outstanding results. The grades are above average and the dropout rates unusually low. The students report of steep learning curves and a very social study period.

More information here:

http://www.uia.no/en/portals/about_the_university/economics_and_social_sciences/study_programmes/courses_in_english/master_in_development_management

http://www.ecampus.no/2012/11/12/med-blikk-pa-universitetet-i-agder-3/

Breakout Session II: Information Systems

Title: Digital testing and digital exams: recent developments at UiA

Authors: *Kristin Dale* is professor of economics at the University of Agder. Her research topics include digital testing and exams, wage formation, human capital and gender issues.

Based on previous experience with paper-based multiple choice tests, in 2007 I made a major effort to prepare and utilize digital tests in Fronter for exam requirements in two different courses at UiA. The first experience has been discussed in (Dale, 2008) titled: "Survival of the 'net'est? Experiences with electronic test tools – reduced teacher hours?" Having gained 7 years of digital testing experience with business students and social worker students, I will summarize results and reflections about benefits and costs for various parties (teachers, students, administration).   Furthermore, in December 2013 I will do a full scale digital exam for business students in my course SE-204 Macroeconomics with 285 students enrolled, as part of the Digital exam project at UiA.

At the breakout session, I want to present and discuss some of the new challenges we face, using digital test to substitute for individual, written exams. For us at UiA it is very interesting to exchange with colleagues with their testing and exam experience for instance from UNO about the pros and cons of utilizing for instance multiple choice tests in digital settings.

Breakout Session II: Information Security

Title: A Pedagogical Method for Information Technology Skills Development

**Author: *Peter Wolcott,* ** *Ph.D., UNO*

Learning information technology skills in settings that that are much more dynamic, time constrained, individualized, and context-specific than traditional classrooms requires highly adaptive pedagogical techniques. Applying principles of agile software development to technology training, agile training consists of an extreme focus on the user, a focus on demonstrated learning of useful skills and concepts, highly dynamic priority setting in a partnership between trainer and user, and "in-flight" adaptation to change. A set of five interactive techniques make up the agile training toolkit.