Call for Papers

Journal of Universal Computer Science

Special Issue on

Interaction in Massive Courses

Traditional lectures, especially when given to large audiences, are characterized by prevalent passivity of students as well as reduced interactivity between the lecturer and the audience. For some years, research has been devoted to exploring how new media can be harnessed to support and promote collaborative activities in large learning groups. Prominent applications that have gained much attention include social media such as Wikis, Twitter and Facebook for (informal) information exchange (Siemens, 2005), as well as audience response systems for playfully assessing students' retention and attention during lectures.

On the other side investigation of the capabilities of Technology Enhanced Learning (TEL) led to the development of Massive Open Online Courses (MOOCs) capable of providing several ten thousands of learners with access to courses over the web. MOOCs have recently gained much attention especially in the US and are now often considered the most promising form of academic teaching. While the figures indicate great success, MOOCs have yet to become subject to sharp debates criticising the educational approach and vague business models. However controversial MOOCs may be, they strikingly show the potential of social/new media to fundamentally change higher education. (Face-to-face) Lectures may no longer serve the purpose of disseminating information, which can be easily retrieved from Wikis or online courses at any time. They may instead focus on the deeper elaboration of learning materials, albeit in large groups, putting high demands on interactions among learners as well as faculty and scholars.

Nevertheless, regardless of whether the courses are offered online (MOOC) or in the traditional face-to-face situation, in general new information is presented and delivered to a mass of students. Thereby the individual learning process is disregarded and the interaction among students as well as between students and lecturers is reduced down to asking a few questions. There is a long tradition in research of learner-lecturer interaction in huge classrooms (Bligh, 1971) (Gleason, 1986). Anderson et al (Anderson et al, 2003) pointed out the big problems of such situations and summarized that there is a lack of feedback (only few response of learners during a lecture), a fear to ask questions in huge classes (students' apprehension) and a typical single-speaker-paradigm. Due to the fact that learning is a strong social and active process which proceeds by and through conversation (Motschnik & Holzinger, 2002) and interaction (Preece et al., 2002) it is exactly this topic that we would like to address in this Call for Papers.

The Special Issue aims to gather research works in the field of massive courses with a special focus on enhancing interaction between lecturers-students or students-student in face-to-face situations or completely online by using different kind of technologies (MOOC). For example, some few information systems created some years ago, summarized by the term Audience Response Systems (ARS). Here students are able to make votes on lecturers' questions by using mostly special hardware (Anderson et al, 2003). Other possibilities are the use of Web 2.0 technologies (Purgathofer & Reinhard,

2008) or Social Media (Ebner, 2011) to enhance students' engagement in live-lecturing-situations. In the last years, the above-mentioned MOOCs attracted the interest of thousands of students. Obviously this leads to new challenges on how to overcome the management of a huge number of occurring interactions and makes new strategies necessary.

Assuming that rich interactions in large groups of learners are even more critical in the development of academia this Special Issue of the Journal of Universal Computer Science is dedicated to research on media fostering interaction in massive courses.

Suggested topics this special issue will/may include (but are not limited to) the following:

- Information Systems with a special focus on interaction in large classes
- Audience Response Systems
- Field studies about interaction in large learning groups
- Interaction in massive courses (presence and distance learning)
- New and Social Media use in classrooms for enhancing interaction
- Concepts, scenarios and technologies supporting collaboration and information sharing in scope of massive courses.
- Strategies, techniques and technologies fostering peer to peer learning and community building in massive online courses
- Implicit knowledge discovery and recommender systems for enhancing collaborations within massive online courses
- Human-Computer-Interaction (HCI) concepts to enhance interactions in massive online courses
- Literature reviews on interaction in large learning groups, e.g. MOOCs
- Position and vision papers

Submission Guidelines:
All submitted full papers will be carefully evaluated based on originality, significance, technical soundness, and clarity of expression and afterwards reviewed on a double-blind review basis. All submissions must be in English, formatted according to the guidelines of Journal of Universal Computer Science (J.UCS), and submitted as pdf-files.

The submission guidelines can be found at
http://www.jucs.org/ujs/jucs/info/submissions
Manuscripts should be submitted by email to any of the guest editors.

Important Dates

Submission Deadline: June 9th , 2013
Notification of First Round Reviews: August 1st , 2013
Camera ready: November 30st, 2013
Submission of the special issue to the publisher: December, 2013
Publishing Date: January 2014

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References:

Anderson, R.J., Anderson, R., Vandegrift, T., Wolfman, S., Yasuhara, K. (2003) Promoting Interaction in Large Classes with Computer-Mediated Feedback, In: Designing for Change in Networked Learning Environments, Proceedings of CSCL 2003, Bergen, pp. 119-123

Bligh, D.A. (1971), What's the Use of Lecturing?, Devon, England: Teaching Service Centre, University of Exeter

Ebner, M. (2011), Is Twitter a tool for Mass-Education?. - in: 4th International Conference on Student Mobility and ICT, S. 12 - 18

Gleason, M. (1986) Better communication in large courses, College Teaching, 34 (1), p.20

McAuly, A., Bonnie, S., Siemens, G., Cormier, D. (2010) The MOOC Model for Digital Practice, Knowledge Synthesis Grants on the Digital Economy, University of Prince Edward Island, 2010, http://www.edukwest.com/wp-content/uploads/2011/07/MOOC_Final.pdf (last accessed January 2013)

Motschnig-Pitrik, R., Holzinger, A. (2002) Student-Centered Teaching Meets New Media: Concept and Case Study, IEEE Journal of Education Technology & Society, 5(4), p. 160- 172-24

Preece, J., Sharp, H., Rogers, Y. (2002) Interaction Design: Beyond Human-Computer Interaction, Wiley, New York

Purgarthofer, P., Reinthaler, W. (2008), Exploring the "Massive Multiplayer E-Learning" Concept, Proceeding of 20th ED-Media Conference, AACE, p. 2015-2023

Siemens, G. (2005) Connectivism: A Learning Theory for the Digital Age, International Journal of Instructional Technology and Distance Learning, Vol. 2 No. 1, Jan 2005.