



First ACM Workshop on

Educational Multimedia and Multimedia Education (EMME 2007)

September 28, 2007, Augsburg, Germany (in conjunction with ACM Multimedia 2007)

1st Call for Papers

Advances in multimedia capture, analysis and delivery, combined with the rapid adoption of broadband communication, have resulted in multimedia teaching systems that have advanced traditional forms of education. Research in these areas has achieved impressive results in the last few years and many actual working systems and commercial products are now routinely used by a growing number of people. However, the various web sites and lecture videos produced as part of the "e-learning hype" generally do not exploit the full potential of multimedia. The question about how multimedia can really make learning more exploratory and enjoyable is as yet unanswered, and we are just beginning to understand the real contribution of multimedia to education. In addition, new trends in multimedia technology, such as multimedia on handheld devices or advanced approaches for the automatic analysis of multimodal signals, offer novel and exciting opportunities for teaching and learning.

The growing pervasiveness of multimedia on any computing device also increases the relevance of knowledge about multimedia for computer scientists and software engineers. However, the significance of multimedia for the future of computing is generally not reflected in current curricula. For example, few universities offer dedicated courses and multimedia is often only taught as part of other courses such as computer graphics or machine learning. In addition, multimedia is a very active and rapidly changing field. New and emerging technologies can not only influence *how* we teach but also have an impact on *what* we should teach.

The goal of this workshop is to identify current and evolving trends, specify open problems, and discover challenges and prospects for new research in the broad topic of multimedia-based education. By bringing together researchers working on educational multimedia with multimedia educators, we want to establish an open discussion on these issues and create a reference for future research in this area. In particular, we invite submissions in one of the following areas:

Multimedia Education. The purpose of this track is to identify key issues and best practices for teaching multimedia as well as to look into the future of multimedia education. Potential contributions include, but are not limited to, case studies, reports on best practices, evaluated concepts, and applications that foster and innovate the education of multimedia as an autonomous topic. In addition, we welcome position papers which indicate future directions of multimedia education, for example, by discussing its relevance within common computer science and software engineering curricula.

Educational Multimedia Applications. This track asks for work on educational multimedia systems and applications that promote learning. Topics for potential contributions include:

Repurposing and reuse of educational multimedia material; content creation process; classroom note taking and whiteboard analysis; automated analysis of participant interactions in lectures and discussion; indexing and multimedia information retrieval for educational uses; and intelligent search and navigation in e-learning portals.

Submissions are not restricted to pure multimedia education; contributions on any kind of education-related technology where new media are involved are very welcome.

Emerging Trends. Novel technologies and emerging trends in computing offer new and exciting possibilities for the production and usage of multimedia learning material. Areas of particular interest include:

- *Semantic Computing*, i.e. applications and research projects that use computing methods (e.g., artificial intelligence, natural language, software engineering, data and knowledge engineering, computer systems, signal processing, etc) to extract or process the contents and semantics of multimedia, texts, services, as well as structured data to build teaching support systems.
- *Human-Computer Interaction*, i.e. new input devices, interface designs, interaction styles, and paradigms for applications where new media are used for teaching and learning. This includes research on knowledge and information visualization, interfaces for ubiquitous computing environments ("intelligent classrooms"), usability issues, and personal multimedia.
- *Mobile Computing*, i.e. infrastructure and applications for mobile multimedia devices enabling users to learn anytime and anywhere. Examples are work on advanced mobile learning applications and services, integration of mobile devices into wired learning environments, mobile collaborative learning, visualization for information access, and delivery of educational material on handheld devices.

We explicitly encourage researchers from other communities who are also working with multimedia data and multimodal signals to contribute to this workshop by submitting their research related to educational multimedia material and applications. In addition, any contribution from an emerging field dealing with education and new media is welcome. Further potential areas of interest include, among them, gaming and learning, human-centered computing, and ubiquitous computing. Information about submissions (up to 10 pages in ACM style, shorter submissions are welcome as well) will be available on the workshop's web site (see URL below). Selected papers will be invited for publication in the International Journal of Interactive Technology and Smart Education (ITSE).

(Note: This is a first, preliminary call for papers. Please consult the web pages for updated information on submissions, PC members, etc.)

Workshop Chairs

Gerald Friedland, ICSI, Berkeley, CA, USA
Wolfgang Hürst, Albert-Ludwigs-University Freiburg, Germany
Lars Knipping, Berlin University of Technology, Germany

Important Dates

Deadline: June 1, 2007
Notification: July 9, 2007
Final Version: July 23, 2007

Further information & submission instructions at
<http://emme2007.informatik.uni-freiburg.de>