On behalf of the scientific committee of the ATEE winter conference 2013 that was held in Genoa (Italy) from 7 to 9 of March, I am honoured to write the introduction of this special issue that collects the ten best papers presented at the conference.

The themes and the aims of the conference were focused on the relationship between the quality of the learning/teaching processes at any educational level, from preschool to university, and the role of media and technology in improving such processes. The teachers use various instruments to implement and improve the quality of the learning/teaching processes. In this way, the old and new media and technologies represented and still represent ways to help teachers in creating meaningful instructional experiences. The conference gathered scholars, teachers and teacher educators to find and share ideas, studies, experiences and proposals aimed at imagining learning environments where teachers and pupils are able to create and develop competence.

The conference was the result of the collaboration between ATEE (Association for Teacher Education in Europe), SIREM (Italian Society for Research on Education and Media) and the Department of Education at University of Genoa.

In particular, the Association for Teacher Education in Europe (ATEE) is a non-profit European organisation, whose aim is enhancing the quality of Teacher Education in Europe and supporting the professional development of teachers and teacher educators at all levels. ATEE tries to reach its aim through active dialogue and international exchange of research and practice in initial and in-service teacher education. ATEE’s members come from a wide variety of countries within Europe and beyond. As a result, ATEE is a multicultural association with a wide expertise on the various fields of teacher education and tries to increase the co-operation between individuals and institutions involved in Teacher Education both inside and outside Europe by promoting international networks (for further information about ATEE and membership, you can visit the website: http://www.atee1.org/home).
The title of the conference **Learning & Teaching with Media & Technology** was intended to encourage submissions for papers addressing the various aspects of the use of ICT and Media in the educational contexts. We received contributions focused on three different angles – policy, practice and research – as well as papers which were the result of collaboration of policymakers, researchers and practitioners.

During the conference, a variety of activities took place to ensure both the exchange of academic research as well as reflection on policy and practice, such as expert keynote presentations, paper presentations of research, and sessions which share the experience of academics, teachers and teacher educators.

The scientific committee of the conference was composed of international scholars and the keynote speakers presented the most current studies on educational media and technologies. In particular, we were delighted to meet:

- **James Paul Gee**, from Arizona State University, who talked about “Video Games, Digital Learning and New Literacies”. He is author of “What Video Games Have to teach us about learning and literacy” (2008), “New Digital Media and Learning as an Emerging Area and Worked Examples as One Way Forward” (2009), “Language and learning in the digital age” (with Elisabeth R. Hayes, 2011);
- **Mary Kalantzis and William Cope**, from University of Illinois at Urbana-Champaign; their speech has underlined the theme “Ubiquitous Learning. Changes and Challenges for Educational Environments”; they are authors of “Literacies” (2012), “Ubiquitous Learning” (2010), “Towards a Semantic Web: connecting knowledge in academic research” (2010) and “New learning: elements of a science education” (2008);
- **Vitor Reia-Baptista** from Universidade do Algarve, Portugal, who analysed the issue of “Media Pedagogy, Education and Media Literacy. Who Educates Whom?”.

The conference was attended by 155 participants from 28 different countries of the five continents. We received 140 papers in all, but the scientific committee accepted 117.

During the three-day conference, the authors presented their studies split in 4 different parallel sessions:

- Teaching and assessing with ICT in the classroom.
- Mobile, web 2.0 and social networking in education.
- Games, videos and simulations for learning.
- ICT in higher education contexts.

After the conference, the scientific committee selected the 10 best papers presented at the conference for this special issue. Each paper was evaluated by three different members of the scientific committee. The criteria used to evaluate the papers were as follows:

- **Originality**: the paper was focused on fields that have to be investigated in depth.
- **Theoretical framework**: the reference literature was relevant and well explained.
• Research questions: the research questions were focused on relevant issues that promote the knowledge in the Educational technology research field.
• Reliability: the research design was strong and well structured; in addition, the research procedures and instruments were explained effectively.
• Report quality: the language was clear and the contents were well organized.

The list of selected papers is as follows split in three parts:

**Media, ICT and teacher education**

**Teaching and assessing with ICT**

**Communication, tools and higher education**

The first paper is aimed at investigating some features characterising the profile of the student teachers at the end of their pre-service training; the authors analyse the teachers’ technology proficiency and beliefs in the value of technology in teaching and learning.

The second paper aims at comparing the effects of film analysis course specially designed for teacher education on developing critical thinking disposition skills.

The third paper highlights the pedagogical value of a video and how to make a teaching video from the idea stage through various choices and practices to a ready-made product.
The fourth paper is aimed at presenting experimental evidence in support of the idea that an “embodied-centered” teaching approach based on multimodal sensory grounding should be more effective than a classic verbal-centered teaching approach.

The fifth paper describes an experiment carried out with young learners of English so as to determine the effects of using word processing on the cognitive and metacognitive activity of these children. The data analysis makes it possible to estimate the degree of cognitive overload in relation to the use of the computer and the benefits of a cognitive tool in particular for weaker children.

The sixth paper discusses the possibilities of the development of creative writing skills of primary school pupils while using the interactive whiteboard.

The seventh paper investigates the role of clickers in some classes of middle secondary schools to verify differences posed by the use of technology regarding learning outcomes, student engagement and student’s evaluation concerning learning conditions.

The eighth paper performs an exploratory meta-analysis in order to quantify the existing amount of research evidence about the tested effectiveness of Universal Design for Learning (UDL), a framework mainly focusing on the concept of variability in learning, providing guidelines for content creation, class teaching and assessment.

The ninth paper reports the results of a two-year project where a multidisciplinary team has developed a toolkit to help all teachers and students in higher education with conceptualizing and developing strategic, multimodal communication designs for real-world situations.

Finally, the tenth paper is about care-based teaching aided by technology, in particular the authors underline the pedagogical features of ELM, a software tool serving as a communication channel between teachers and each one of their students, on which the students report weekly on their learning situation and state of mind.

Ultimately, we are satisfied for the high scientific level reached by the conference. In this special issue you can read ten interesting papers from different countries (Italy, Lithuania, France, Turkey, Israel, Belgium and Finland). They show several perspectives on the use of Media and Technology in the educational contexts but an only and mutual aim: improving the learning/teaching processes through an intelligent and aware use of educational technologies.

The reader will be able to find the other papers presented at the conference in the conference proceedings that will be published in autumn 2013. They will be freely available in the websites of the conference (http://www.ateegenoa20-13.sdf.unige.it/), the ATEE (http://www.atee1.org/home) and the SIREM (http://www.sirem.org/).