



Proceedings

First Workshop on Advanced Virtual Environments and Education (WAVE2 2018)

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First Workshop on Advanced Virtual Environments and Education (WAVE² 2018)

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Preface

New technologies are changing the way we learn and teach. Emerging technologies such as social semantic web, cloud computing, and the growing popularity of mobile devices, embedded devices and adaptive context-aware technologies are leading to a paradigm shift in the way educational services are provided towards a "smart learning". Mobile and smart learning environments allow for accessing and interacting with digital resources in learning systems anytime and anywhere with intelligent, adaptive and personalized guidance, support and suggestions.

Through technologies and approaches such as ubiquitous and adaptive learning, learning becomes personalized, flexible, and suitable to meet diverse and rapidly changing technologies, environments and learner needs, while opening unprecedented possibilities for education. The "WAVE²" workshop aimed to bring together researchers from industry and academia to address the challenges of the design and applications of smart learning environments, discuss new ideas and present their research to the scientific community in order to enhance the methodologies and techniques for learning environments for the 21st century.

There are benefits in creating a space of exchange that integrates researchers from distinct scientific communities as Computer Scientists, Education, Cognitive Psychology and Design. This space represents an interdisciplinary and international forum for the presentation of new concepts to an audience that can benefit from these new concepts, while in-depth analyzes of problems inherent in technology-mediated teaching practices inform the design of new solutions.

Understanding that collaboration between researchers of those communities can raise the international impact and relevance of Brazilian research on aspects related to open and distance education, the Special Commission on Informatics in Education of the Brazilian Society of Computing and the Brazilian Association of Distance Education decided to create the WAVE², Workshop on advanced virtual environments and education.

Event has the format of a workshop with the purpose of promoting intense epistemological debate around the construction of knowledge related to the practice of open and distance education. Participants are invited to interact for two consecutive days in a sequence of collective activities aimed at promoting listening, understanding, mentoring and deepening the research conducted in Brazil on open and distance education phenomena.

The objectives of WAVE² events was:

- To expand the visibility and recognition of the impact of research related to improving the quality of open and distance learning and the use of technology in teaching in the various areas of knowledge;
- To articulate interdisciplinary cooperation research and practice networks;
- To contribute to the training of young researchers from related areas who wish to integrate interdisciplinary networks;
- To be recognized as an event of excellence in stimulating interdisciplinary cooperation;

- To serve as a strategic point for the establishment and consolidation of international cooperation networks;
- To attract the best researchers from the areas related to the event, matching its relevance and impact to the best similar international events;
- To promote a consistent epistemology of an interdisciplinary approach of relevant phenomena associated with the human practice of technology-mediated teaching;
- To promote the debate and the construction of high-level knowledge on topics of high impact and social relevance associated to the activity of open and distance education;
- To orient a research agenda proposing topics of interest and establishing connections between related areas.

The first edition of the WAVE Workshop on Advanced Virtual Environments and Education took place during the week during the 24th ABED Brasil CIEAD, in parallel with the educational technology exhibition of ABED which congregates the biggest Brazilian players of technologies for the sector. The approved works had a stand space, a partnership between SBC and ABED, to present their products to visitors and entrepreneurs participating in the educational technology exhibition.

We would especially like to thank Professors Päivi Aarreniemi-Jokipelto (Finland), Jon Bergmann, creator of the concept of Flipped Learning (USA), and Tjeerd Plomp (Netherlands) participated in the WAVE jury. You have raised the quality threshold of the participants' experience during the workshop.

We want to mobilize the colleagues working with EAD to help us to transform the WAVE² in a privileged space for interdisciplinary debate and the relationship between academia and industry. Since now, we invite colleagues who work in related fields to engage in the construction of this privileged exchange space and wish to be with you in WAVE² for years to come.

Florianópolis/SC, October 2018.

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