3° Workshop on advanced virtual environments and education - WAVE² 2021

Third Workshop on Advanced Virtual Environments and Education—WAVE²
2021 (http://wave.cin.ufpe.br/2021) in conjunction with the 26th CIAED
Congresso Internacional ABED de Educação a Distância—CIAED 2021 ,
Fortaleza, CE, Brazil.

Proceedings

Third Workshop on Advanced Virtual Environments and Education (WAVE 2020)

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March 21–24, 2021
Fortaleza, CE, Brazil

SBC
Sociedade Brasileira
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26th CIAED Congresso Internacional ABED de Educação a Distância (CIAED 2020)

Third Workshop on Advanced Virtual Environments and Education (WAVE² 2020)

https://wave.cin.ufpe.br/2021/
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October 21–24, 2021
Fortaleza/CE, Brazil

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Brazilian Association of Distance Education
(*Associação Brasileira de Educação a Distância, ABED*)
Special Commission on Informatics in Education of the Brazilian Computing Society
(*Comissão Especial de Informática na Educação da Sociedade Brasileira de Computação, CEIE/SBC*)

Preface

> "We wish to promote the culture of innovative entrepreneurship in the Education sector." Chairs.

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

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 for real conditions, discuss new ideas and present their research to the scientific community to enhance the methodologies and techniques for learning environments for the 21st century. We want to mobilize the colleagues working on designing new conceptual models to meet in a privileged space for interdisciplinary debate and the relationship between academia and industry.

WAVE events promote the culture of innovative entrepreneurship in the Education sector. The event got designed to attract studies on the effectiveness of new products in real contexts of use. The first edition of the WAVE Workshop on Advanced Virtual Environments and Education took place during the week of the 24th ABED Brazil CIEAD, Floranópolis, SC, Brazil. The Second edition got hosted on the 24th ABED Brazil CIEAD, Poços de Caldas, MG, Brazil. Both in parallel with the educational technology exhibition of ABED, which congregates the most prominent Brazilian players of technologies for the sector.

The event has the format of a workshop to promote intense epistemological debate around the construction of knowledge and design of new platforms for the practice of active, hybrid, open, and distance education. Participants got invited to interact for two consecutive days in a sequence of collective activities promoting listening, understanding, and deepening the research. On the other hand, holding the event in the programming of one of the largest educational technology fairs in Latin America, CIAED ABED, creates fruition between the creators of the technologies with a consumer audience. The interaction with the consumer public is an opportunity to promote their brands and products and listen to the real and current demands of the sector's practitioners.

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 presenting new concepts to an audience that can benefit from these new concepts. At the same time, in-depth analyzes of problems inherent in technology-mediated teaching practices inform the design of new solutions. Collaboration between researchers of those

communities can raise the global impact and relevance of Brazilian research on open and distance education aspects. The Special Commission on Informatics in Education of the Brazilian Society of Computing and the Brazilian Association of Distance Education decided to create the WAVE, Workshop on advanced virtual environments and education.

Fortaleza/CE, March 2021.

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