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Alessandro De Gloria (Ed.)

# Games and Learning Alliance

Third International Conference, GALA 2014  
Bucharest, Romania, July 2–4, 2014  
Revised Selected Papers

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Alessandro De Gloria  
Electronic Engineering  
University of Genova  
Genova  
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# Preface

The third edition of the GALA Conference was held on July 2–4, 2014 in Bucharest, Romania. The conference was organized by the Serious Games Society and the Games and Learning Alliance, the European Network of Excellence on Serious Games (SGs).

The conference provided the opportunity for gathering and nurturing a community of experts on SGs, a community which is growing year by year and involves academics, industrial developers, teachers, and corporate decision makers, to promote knowledge sharing, technology transfer, and business development. This year, we also welcomed the participation of indie developers, which we believe represented a great opportunity and potential for improving and extending the technologies and applications of SGs.

As in previous years, the research presented covered a variety of aspects and knowledge fields. These have been grouped into four sessions: pedagogy, technology, design, and applications. The pedagogy session hosted studies about deployment of SGs at different school levels and on different topics. This constituted a significant advancement with respect to previous years, as it demonstrated that SGs have started to be used and deployed in authentic educational settings. One paper specifically investigates the role of the teacher in this new context.

The design and implementation session covered various aspects ranging from mobile games to multiplayer games, from formats to gamification of co-design processes and models for scaffolding game-based learning experiences.

The technology session included some very interesting papers about applying the Service Oriented Architecture paradigm to the field of SGs and multimodal emotion recognition in SGs.

Finally, the new games session presented some very interesting educational games, for instance in the field of physics, for training working memory, and for using social networks. Attention was paid in particular to special users, such as children with depression. Some papers presented interesting information on SG mechanics, which are at the core of SG design. Among them, we cite particularly virtual tutors and minigames.

This book collects the studies presented during the conference, addressing the above mentioned topics, with authors from a variety of countries and bringing knowledge from several different fields. Not only does this highlight the growing interest in SG applications in various domains, but also the multidisciplinary collaboration that is typically involved in SG design and deployment.

It is important to highlight that the papers presented at the Gala 2014 conference closely reflect this year's trend in research on serious games. In particular, we underline topics such as SG design research, rapid development frameworks, learning analytics, analysis of deployment in educational settings, brain-computer interaction, and applications in the health domain. Collaboration is targeted as well, and games are also cited as an appropriate tool within learning networks, the emerging paradigm through which

more-experienced people help less-experienced people learn new skills and form new networks and communities. Mobile games and supporting technologies are also focused upon.

Like for the 2013 edition, the selected best papers of GALA 2014 will be published in a dedicated special issue of the International Journal of Serious Games, which represents a great opportunity for the scientific/technological community and for the industrial world as well to publish original research works on SGs and to be informed about the latest developments in the field. This year, the GALA 2012 best papers were published in an Entertainment Computing special issue.

July 2015

Alessandro De Gloria

# Organization

GALA 2014 was an event organized by Carol I National Defence University and the University of Genoa, and sponsored by the Games and Learning Alliance (GaLA) European Network of Excellence and by the Serious Games Society. The organizational structure was as follows:

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