GHItaly'17: 1st Workshop on Games-Human Interaction

Maria De Marsico
Sapienza Università di Roma
Italy
demarsico@di.uniroma1.it

Laura Anna Ripamonti
Università degli Studi di Milano
Italy
laura.ripamonti@unimi.it

Davide Gadia
Università degli Studi di Milano
Italy
davide.gadia@unimi.it

Dario Maggiorini
Università degli Studi di Milano
Italy
dario.maggiorini@unimi.it

Ilaria Mariani
Politecnico di Milano
Italy
ilaria1.mariani@polimi.it

ABSTRACT

The 1st Workshop on Games-Human Interaction (GHItaly '17) aims at bringing together scholars and industry practitioners to establish a common ground on the topic.

CCS CONCEPTS

• **Human-centered computing** → Human computer interaction (HCI) • **Human-centered computing** → Interaction design • **Social and professional topics** → User characteristics • **Applied computing** → Arts and humanities • **Software and its engineering** → Interactive games • **Information systems** → Massively multiplayer online games • **Computing methodologies** → Artificial intelligence

KEYWORDS

HCI, game design, usability, biometric measures for interaction, artificial intelligence, immersive VR systems, social interaction, distributed and online systems, player experience, storytelling, gamification.

ACM Reference format:

M. De Marsico, L. A. Ripamonti, D. Gadia, D. Maggiorini and I. Mariani. 2017. GHItaly'17: 1st Workshop on Games-Human Interaction. In *Proceedings of CHItaly '17, September 18–20, 2017, Cagliari, Italy* , 2 pages. https://doi.org/10.1145/3125571.3125578

CHItaly '17, September 18–20, 2017, Cagliari, Italy

ACM ISBN 978-1-4503-5237-6/17/09.
https://doi.org/10.1145/3125571.3125578

1 INTRODUCTION

Italy is a "weird" country in respect to the videogames industry: among the first consumer in Western countries, but quite irrelevant from the point of view of their production. Recently this situation has started – very slowly – to change, and the consciousness of the relevance of this sector to grow, even at governmental level. This novel interest recently lead to the introduction of video game design and development teaching in the Italian public university (even if with a relevant delay related to other Western countries). Nonetheless, video games and their applications in many different contexts have started to fascinate researchers belonging to a broad group of different disciplines since quite a long time (after all, video games were born in the academy [1]). Actually, video games are intrinsically multidisciplinary artifacts: they production requires the appropriate blending of many expertise: computer science, music, visual art, industrial design, project management, marketing, mathematics, physics, literature, storytelling, psychology, economy, etc.

For these reasons, the 1st Workshop on Games-Human Interaction (GHItaly'17) has been based in Italy and it aimed at bringing together scholars from many different disciplinary areas, with the goal of establishing a common ground on the topic of designing and developing video games. In particular, we tackled this issues from the point of view of the *user experience*, which is of paramount importance for an artifact whose purpose is to entertain and make its users have fun [2, 3, 4, 5]. The main goal of the workshop has been to spur discussion, exchange of ideas, and development of new ways of researching, teaching, and working on HCI applied to the design and production of video games, whose application range has been intended in its broadest sense: both entertainment and applied finalities.

2 GHItaly'17 CONTRIBUTIONS

The contributions collected by GHItaly'17 can be grouped into two main areas: "*video game design and user experience*" and "*applied games and gamification*".

The first area demonstrated how approaches and techniques borrowed from very different disciplines can be equally effective in delivering robust research approaches. Aimed at producing information and data, such approaches are useful for informing

game development on how both design and technical issues can affect the user experience. In particular, Strååt and Verhagen [6] demonstrated an interesting example of how users' attitudes towards a certain commercial game can be studied through Sentiment Analysis applied to gamers' reviews. Shifting perspective to focus on the single player, Matiassi [7] compared several different commercial fighting games from a neuroscientific perspective, with the aim of understanding not only how players' cognitive processes differ in slightly different games, but also which design flaws could interfere with the players' experience. In a similar vein, Mariani and Spallazzo [8] studied the relationships and interactions that Location Based Mobile Games activate at three different levels of implication –: social, technological and spatial –, outlining LBMG players as "interactive agents", and the design potentialities that come from a thoughtful use of the surrounding spaces, contextual/situated narratives, and mobile devices as storytellers. A more technical perspective is adopted by Begolo et al [9], whose work explores, through a prototypal game for mobile devices which allows to interact through ad-hoc communications, how technical performances issues could affect the gaming experience. Finally, Norton et al. [10, 11] work focuses on bending optimization techniques borrowed from artificial intelligence into becoming tools for increasing variety in gameplay.

The second area shifts the attention from video games in general to a specific application area: that of applied games and of gamification. A relevant application field is that of affecting learning processes by making them more effective and less boring. An interesting case study is that presented by Gaggi and Favaro [12], whose work presents a voice therapy protocol which is able to help the patient when performing exercises at home and exploits gamification to encourage the patient to hold on. But learning through gameplay or gamified activities happens in a variety of ways and applies both to a single person and to collaborative environments. In these cases, how Knutas et al. [13] underline, a context-aware and personalized gamification approach is needed, and it can be automatically created by using appropriate ruleset. In a similar vein, Origlia et al. [14] developed a software architecture designed to present discrimination tests to pre-school children in the form of gamified tasks, which are customized on the basis of the child's performance. Approaches rooted into games can be exploited also to foster the culture of participation in design activities, as Fogli et al. [15] explain by describing a possible way to foster the learning of Computational Thinking skills by gameplay with tangible user interfaces and virtual reality. Origlia et al. [16] advocate for the need of a methodological approach to the design of games for museums aimed at promoting the value of cultural experience as it is, countering the plethora of technological instalments that often risk averting the attention from the collection.

3 CONCLUSIONS

Video game design is a fascinating topic involving issues from different disciplines, from interface design to neuro computing and psychological research. Therefore, many research lines can leverage it by investigating its rich set of interconnected facets. Among the most recent involved aspects it is worth mentioning mobile video game design, where playability itself can be hindered by some lack of resources still affecting mobile platforms compared with desktop ones. This workshop aimed at representing a meeting venue for researchers in the different areas involved, and this short summary was an attempt to provide a glance at the interesting discussed topics.

REFERENCES

[1] Mark Wolf 2007. *The Video Game Explosion*. Westport, CT: Greenwood Press.

[2] Mihaly Csikszentmihalyi. 1991. *Flow: The Psychology of Optimal Experience*. Harper Perennial.

[3] Tracy Fullerton 2014. *Game Design Workshop: A Playcentric Approach to Creating Innovative Games* 3rd ed., CRC Press. ISBN-13: 978-1482217162.

[4] Raph Koster. 2005. *A Theory Of Fun For Game Design*. Paraglyph Press.

[5] Lee Sheldon. 2004. *Character Development and Storytelling for Games*, Boston: Thomson Course Technology PTR.

[6] Björn Strååt and Harko Verhagen Using User Created Game Reviews for Sentiment Analysis: A Method for Researching User Attitudes. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[7] Alan Mattiassi Command Systems And Player-Avatar Interaction In Successful Fighting Games In Light Of Neuroscientific Theories And Models. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[8] Ilaria Mariani and Davide Spallazzo Interactive Players. LBMGs - Location Based Mobile Games from a Design Perspective. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[9] Marco Begolo, Sebastiano Valle, Marco Zanella, Armir Bujari, Ombretta Gaggi and Claudio Enrico Palazzi Implementation and Evaluation of a Multiplayer Pong Game. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[10] Daniele Norton, Laura Anna Ripamonti, Mario Ornaghi, Davide Gadia and Dario Maggiorini Monsters of Darwin: a strategic game based on Artificial Intelligence and Genetic Algorithms. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[11] Andrea Guarneri, Dario Maggiorini, Laura Anna Ripamonti, and Marco Trubian. 2013. GOLEM: Generator Of Life Embedded into MMOs. In *Proceedings of the Twelfth European Conference on the Synthesis and Simulation of Living Systems: Advances in Artificial Life, ECAL*. 585–592.

[12] Ombretta Gaggi and Nicola Favaro Euphoni: a system to support speech therapy. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[13] Antti Knutas, Rob van Roy, Timo Hynninen, Marco Granato, Jussi Kasurinen and Jouni Ikonen Profile-Based Algorithm for Personalized Gamification in Computer-Supported Collaborative Learning Environments. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[14] Antonio Origlia, Piero Cosi, Antonio Rodà and Claudio Zmarich A dialogue-based software architecture for gamified discrimination tests. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[15] Daniela Fogli, Federico Danesi, Alessio Malizia, Tommaso Turchi and David Bell Sustaining Cultures of Participation by Fostering Computational Thinking Skills through Game-Play. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*

[16] Antonio Origlia, Dario Di Mauro, Maria Laura Chiacchio and Francesco Cutugno Establishing a theoretical background for a museum-centric entertainment system. To be published on CEUR in *Proceedings of GHItaly '17 – (Games-Human Interaction Italy '17) Workshop.*