Introduction to Gamification: Motivations, Effects and Analytics Minitrack

Juho Hamari  
Game Research Lab  
School of Information Sciences  
University of Tampere  
juho.hamari@uta.fi

Petri Parvinen  
E-sales Research Group  
University of Helsinki  
& Aalto University  
petri.parvinen@aalto.fi

During the last decade games have become an established vein of entertainment, and consumer culture, and essentially, a common part of people’s daily lives. In the United States alone 59% of the population plays computer games while revenues of the computer games industry exceed US $15 billion (ESA, 2014). However, in addition to the increased penetration of games, also the ways in which people play and employ games have become more varied. The long-tail is getting longer: there are more different kinds of games available for a multitude of different platforms that cater for differing gaming needs for widening audiences, and which use a wide variety of business models.

Perhaps the most prominent advancement stemming from these developments is “gamification” which generally refers to the increased convergence of games and everyday life. More particularly and practically, gamification commonly refers to the process of enhancing services and systems so that they increase enjoyable and intrinsically motivated use as well as support further behavioral change by employing elements characteristic of games - “Transforming Homo Economicus into Homo Ludens”.

The “Gamification: Motivations, Effects and Analytics”-minitrack was established to address this growing junction of interests of both scholars and practitioners where games, services and information systems meet and merge. Even though this minitrack is featured at HICSS for the first time and there were two other minitracks competing for game-related submission, this minitrack managed to receive more submissions than the competing tracks as well as an amount of submission that is on par with other popular, more established minitracks. Ultimately, six high quality papers that cover gamification from diverse perspectives were accepted to be presented across two sessions.

Gamification is still a rather novel development that suffers from growing pains, and therefore, it has still been under significant conceptual chaos and theoretical turbulence. In “Reimagining gamification through the lens of Activity Theory”, Hendranus Vermeulen, James Gain, Patrick Marais and Siobhan O’Donovan seek to contribute to the conceptual and theoretical understanding of gamification by identifying some of the pitfalls in how gamification has been currently conceptualized and perceived, and offering an alternative dialectical perspective for gamification that is based in activity theory.

Even though gamification has been very transparently and pervasively acknowledged to be one of the big technology trends during the recent years both in academia and in industry, it has remained opaque as to what kind of technology is being developed around it as well as what kinds of patents companies are filing related to gamification. In “Monitoring Gamification in International Patent Documents: Technology Classes, Firms and Preliminary Value Indicators”, Patrick Julian Höflinger and Eric Zimmerling investigate the international patent documents (from EPO, USTPO and Google Patents) in order to discover what kinds of patents are been filed related to gamification, in which classes of patents and who is filing them. The analysis provides interesting insights in the otherwise previously unexplored area of patents and company interests related to gamification.

Increased competition is repeatedly touted as a detrimental side effect of leaderboards and other competition-inducing game mechanics. On the other hand, competition can also potentially increase task performance (at least on the short term). Therefore, competition is a complex issue, and currently, there has been a gap in our knowledge concerning the benefits and detriments of competition. In “When Competition is the Loser”, Robin Brouwer untangles how intra-team competition affects perceived task complexity, perceived psychological safety, level of team conflict as well as team performance.

The use of information systems and services in healthcare is one of the largest and most impactful areas in HICSS-related sciences. Gamification especially can be seen as a crucial development in this area since one of the main strengths of gamification
has been deemed to be its ability to motivate people to take on and maintain difficult habits. In “Design Strategies for Gamified Physical Activity Applications for Older Adults”, Dennis Kappen, Lennart Nacke, Kathrin Gerling and Lia Tsotsos explore and suggest design guidelines as to how playful and gameful systems could be harnessed to motivate older adults to maintain physical activity and wellbeing. The authors specifically investigate needs and preferences regarding technologies that support physical activity via semi-structured interviews with 19 older adults and a focus group.

Similarly, another promising application areas of gamification has been regarded to exist in supporting sustainable and safe behaviors. In “The Impact of Gamification-Induced Emotions on In-Car IS Adoption – The Difference between Digital Natives and Digital Immigrants”, Carolin Ebermann, Everlin Piccinini, Benjamin Brauer, Sebastian Busse and Lutz Kolbe investigate how users’ experiences and interactions in an in-car gamification system vary based on their ‘digital nativeness’ and thus attempt to find optimal ways to design driving-related gamification systems for different kinds of users.

Alongside with more traditional game design elements, virtual economies with their virtual currencies and virtual goods have also been shaping gamification designs. In “Why do People Buy Virtual Goods? A Literature Review”, Juho Hamari and Lauri Keronen seek to address the question of why do people purchase virtual goods by investigating and synthesizing past (quantitative) literature. Firstly, the study provides an overview to the literature; what, how and where the phenomenon has been studied before. Secondly, by combining results of past literature, the study aims to provide a more reliable, literature spanning look at which factors drive purchase behavior towards virtual goods.