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Gaming for Introducing Social Challenges and Responsibility to Young People

Igor Perko
University of Maribor, Faculty of Economics and Business, Slovenia
igor.perko@um.si

Zoraida Mendiwelso-Bendek
University of Lincoln, Lincoln International Business School, United Kingdom
zbendek@lincoln.ac.uk

Abstract

Gaming has the potential to support the development of young people's capabilities in social responsibility (SR) and, at the same time, represents a threat of developing undesired behaviour patterns. Successful integration of gaming in the lives of young people requires a systemic approach, which, to the best of our knowledge, hasn't been provided in the literature. We provide insight into this issue. In this paper, multiple methods are used. To elaborate the backgrounds on the gaming's effects and social behaviour, the literature is analysed. To assess the state-of-the art of young people characteristics, their pressing social challenges and gaming evaluation reports are analysed. The synthesis is provided and placed in the context with social responsibility properties using system dynamics. Gaming concepts, appropriate for education for SR, and relationships between young people's challenges and the players in the gaming environment in SR terms are proposed. Currently, the loop of games development is negatively propelled by the short-term games demand. We propose effective feedback loops, linking young people and their social environment, using a SR tool set to provide demands to the game providers. The experience will support the games developers to design socially constructive games, aiming to develop the desired skills and competencies in social transformation processes of young people toward SR. The proposed model provides merely an overview model, designed by the literature review and state-of-the-art analysis. To fully understand the games' effects on young people, a more detailed analysis is required.

Keywords: young people, social challenges, gaming, learning, competence building, social responsibility

Introduction

Social responsibility is mainly used in the corporate context, and, according to Fisher (2004), it was clearly differentiated from the term ethics, which is focused on a personal level. Etheredge (1999) additionally claimed that social responsibility is in conflict with the profitability, which is a company's primary objective. Contrary to this limited viewpoint, the corporate social responsibility, operationalised in the

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ISO 26000:2010 standard (ISO, 2010), is no longer limited to corporations/enterprises and connects:

– Responsibility, interdependence, and holistic approach of everybody to every life situation, and
– Seven principles of SR (ISO, 2010):
  1. Accountability;
  2. Transparency;
  3. Ethical behaviour;
  4. Respect for stakeholder interests;
  5. Respect for the rule of law;
  6. Respect for international norms of behaviour;
  7. Respect for human rights.

The SR-related limitations to the corporate environment are heavily disputed. The term "social responsibility" was expanded from corporate to all subjects in society (Mulej *et al.*, 2017). The evidence was presented that social responsibility, linking ecological, social, economic, and business viewpoints, is identified as the core factor for the long-term sustainability of an organisation (Knez-Riedl *et al.*, 2006) and society at large (Mulej, 2006; Mulej *et al.*, 2006), all the way to prevention of the Third World War (Mulej & Dyck, 2014, 2015).

The games-related research was primarily focused in evaluating the negative effects of games to the development of children and young adults (Anderson & Dill, 2000; Griffiths, 1999; McMurray *et al.*, 2000), ranging from aggressive behaviour to physical inactivity. Subsequently, new references address (Gilliam *et al.*, 2016; Hung *et al.*, 2018; Martinovic *et al.*, 2016) the learning potentials, games, i.e., video games offer for young people. It is an open question if games can be used to help young people learn that humankind current challenges require the replacement of the one-sided and short-term criteria of right and wrong and the systemic, i.e., requisitely holistic, ones (Lebe & Mulej, 2014; Mulej *et al.*, 2013, 2014).

In this report, the phenomena and characteristics of gaming, i.e., video games, and the challenges of including the young people in society and developing their social responsibility in understanding and behaviour are pointed out. We explore the possibility to use gaming to introduce social challenges—including social responsibility—to young individuals and, if so, which individual properties should we build upon, which issues can be introduced, and what kind of gaming could support the introduction.

The research is focused to elaborate on the capacity of the gaming environment to help in resolving young people challenges. In the process of resolving these challenges, young people can build on the experience of using the opportunities the environment provides for them, instead of building pathogenic behaviour patterns (Rios, 2010).

To affect behavioural patterns of young people, goals, focus points, and tools are to be identified. In this research, the improvement in social responsible behaviour patterns is targeted, the young people current state in EU is examined to detect focus points, relevant for the young people, and games are examined for the potential to provide a change. The change in the gaming environment is addressed using systems dynamics.

In the synthesis, we use social and system dynamics to elaborate on the relations between young people characteristics, social challenges, and gaming capacities. The results will apply to game providers to create socially constructive games properties, the policymakers and practitioners to appropriately include the video games in the communication channels addressing young people, and the young people use games to build skills and social competencies toward social responsibility as their human attribute.

In this paper, first the backgrounds on games, informal systemic behaviour, and social responsibility are expounded. In the next part, the reports on the current state in the young people in EU and the gaming are elaborated upon. Based on the analysis, a system dynamics model is proposed, elaborating on the players and feedback loops in the gaming environment. The paper concludes with a summary, focusing on implications for the participants, limitations, and future research challenges.

Background

The literature on using games to support social responsible behaviour is scarce. Thereby, research reports on games-related learning, social responsibility, and systemic behaviour are explored to provide the framework for the research provided in this report.

Games

The video games domain is reasonably well researched. The research ranges from purely technical to psychological findings. To better understand the effect video games have on people, we scan the research results reporting on video games effects on undesired behaviour, skills, social behaviour, and learning.

Undesired behaviour. There are multiple analyses addressing the negative effects of gamification. The most attention is focused in examining the relations between aggression in the video games and in the real life. Anderson and Bushman (2002) defined and put under the test the general

affective aggression model. Some authors argued against introducing first-person aggressive video games because of the risks of aggressive behaviour in real life; for instance, "The evidence strongly suggests that exposure to violent video games is a causal risk factor for increased aggressive behaviour, aggressive cognition, and aggressive affect and for decreased empathy and pro-social behaviour." Other authors confirmed the model (Gentile *et al.*, 2004) and provided mitigation strategies. But the newer research results downgrade the direct link between violent video games and violent behaviour (Kneer *et al.*, 2016). Arguments are posted that the effects are significant, especially for individuals already prone to violent behaviour.

Skills. Gopher *et al.* (1994) tested the transfer of skills from a complex video game to the flight performance and reported significantly better performance for pilots with gaming experience compared with the no-game group. Resultantly, video games were incorporated into the regular Air Force training programs. A study on information-processing skills examined the effects of playing domain-unrelated video games on the domain knowledge (Yuji, 1996). The author revealed no significant differences between gamers and no-gamer groups in correct responses; however, returns of players were significantly faster than those of nonplayers.

Adachi and Willoughby (2013) examined relationships among strategic video games, self-reported problem-solving skills, and academic grades. In their longitudinal study, they reported that more strategic video-game playing predicted higher self-reported problems in solving skills over time than less strategic video-game playing. In addition, the results provided support for an indirect association between strategic video-game playing and academic grades. Romero *et al.* (2015) compared the new skills, required in the 21st century, and serious video-game effects. The authors characterised the current need for 21st century skills and identified corresponding core skills. They further compared the skills with the most relevant video-game characteristics and suggested which functions should be upgraded. Building values, including social responsibility, was not tackled explicitly.

Social behaviour. The question of why people play video games arises. Hsu and Lu (2004) designed and tested a technology acceptance model for on-line video games. The authors concluded that approximately 80 percent of video game playing can be explained via social norms, attitude, and flow experience. Shin and Shin (2011) answered the same question for the social network games (SNG). They suggested that user acceptance of SNG model explains the players' behaviour well. Wang *et al.* (2012) researched reputation and cooperation in real life through social dilemma games. They explored the evolution of cooperation using the inferring reputation and presented a viable method of understanding the cooperative behaviour in nature.

Trepte *et al.* (2012) explored social bonding that goes beyond video games. Their results showed that online gaming may cause strong social ties if gamers engage in online activities that continue beyond the video game and extend these with offline activities. The authors further noticed a strong shift from direct human interactions to communication through devices. Indirectly, the human values, including social responsibility, are addressed by terms such as "social norms" or "attitudes."

Learning. de Freitas and Oliver (2006) explored the methods for evaluation of video games' impact on learning. The authors proposed a four-dimensional framework for helping tutors to test the potential of using video-games and simulation-based learning in their practice and to support more critical approaches to this form of games and simulations.

Tuzun *et al.* (2009) researched effects of video games on primary school students' achievement and motivation in geography learning. According to their study, students demonstrated a statistically significant higher intrinsic motivation and statistically significant lower extrinsic learning motivation. In addition, students decreased focus on getting grades and were more independent while participating in the video-game-based activities. The authors' results make us reconsider the true value of learning, i.e., gaining grades or building up combinations of competencies.

Some authors find little or no links between video games and learning scores; they question the relevancy of the current grading system. Liu and Chu (2010) analysed the effects of ubiquitous video games in an English listening and speaking course and discovered that incorporating ubiquitous video games into the learning could achieve better outcomes and motivation than using the nongaming method. Yang (2012) explored digital games for developing students' problem-solving and learning motivation. He reported that no statistically significant difference was found between the test groups and proposed the evaluation of other higher-order elements of the cognitive domain in terms of academic achievement outcomes and skills, such as critical and creative thinking.

Avouris and Yiannoutsou (2012) reviewed mobile location-based video games for learning across physical and virtual spaces. They concluded that these kinds of playful activities can have an impact on learning, especially outside the school, in the local environment, and visits in museums and other sites of cultural and historical value.

Mayer (2014) dealt with the dilemma that video games have the potential to improve motivation but may distract from learning. He proposed an evidence-based approach that is grounded in cognitive theory to balance video game features with instructional features. Kampf and Cuhadar (2015) elaborated on the effects video games have on learning about conflicts. The authors analysed the affinity toward active conflicts before and after playing conflict-related video games. For some participants, the reflections on conflicts in their environments changed, while all participants changed their attitudes on distant conflicts after playing video games along these scenarios.

Hamari *et al.* (2016) explored the effect of challenging video games on the learning results. They found that the challenge of playing a video game positively influences learning both directly and via the increased engagement. The authors suggested that the challenge of the video game should keep up with the learners' growing abilities.

Gee (2003) introduced 36 gaming principles, including active, critical learning, design appreciation, semiotics, meta-level thinking, risk decisions, committed learning, changing identity, self-knowledge, amplification of input, intrinsic achievement, incremental, repetitive and ongoing learning, limited resources management, self-discovery, hypothesis probing, multiple routes, text integration, material intelligence, knowledge transfer, intuitive knowledge, cultural models, affinity group cooperation, and a teacher principle. These principles, combined with the domain focus, have a potential to upgrade the individual understanding of the domain in a much deeper sense than by standard learning.

Social Responsibility: A Youth Perspective

Social responsibility is a human attribute that matters for individuals, organisations, and societies; young people should therefore internalise this value to comprehend the triangle of the essence of social responsibility in ISO 26000 (ISO, 2010): one's personal and organisational and societal responsibility for one's influences on society, i.e., humans and nature, ethics and practice of interdependence, and holistic approach. They are supported by the seven principles of social responsibility cited above. Social responsibility is becoming crucial for including young people in society and their will and capacity to face their current challenges; thus, without prevalence of social responsibility, humankind is in danger of instigating a Third World War (Mulej, Dyck, ed., 2014). EU supports application of ISO 26000, including economic reasons (EU, 2011).

Young people perceive social responsibility through two perspectives: how society is addressing their issues, and how to act to be socially acceptable. Hope (2016) examined relations among civic engagement, political efficacy, and social responsibility by young people. His finding pointed out that political efficacy is related to four domains of civic engagement: helping, community action, formal political action, and activism. The unresolved young people issues result in unemployment and disengagement with the social transformation. In EU, the most important social challenges are given by EU reports (European Commision, 2014, 2016a; European Commission, 2012, 2015). The reports on activities, focused in teaching young people in becoming active citizens and act socially responsible, were provided by multiple authors, among others (Mendiwelso-Bendek *et al.*, 2013; Rubio *et al.*, 2008). There is a gap in the literature on the potential of employing games to learn how to behave socially responsible.

Informal Systemic Behaviour

The expanded understanding of social responsibility is in line with the basic concepts of systems thinking as a way toward holism (Mulej & Potocan, 2007)SLO-2000 Maribor, Slovenia.
Mulej, M (reprint author, explaining what the system is, what it does, and that it guarantees its place in the environment with its activities (Andrew, 1993; Ashby, 1964). This correlates with the structure of the recursive system, from which it is evident that the higher-level goals should be aligned with the goals at the lower levels in order for the system to survive (Espejo *et al.*, 1999). They lead to participatory approaches in co-designing products, services, and the internal processes by all stakeholders (Liegl *et al.*, 2016).

Even though we could argue that the limited perception of the organisational goals only reflect the limited ethics perception and social responsibility of the people involved with the organisation, the question: "How to raise the individual ethics perception and social responsibility of the individuals, to present an articulated force that can change the organisational behaviour?" should be answered.

System dynamics (Rios, 1995) provides a tool set, where feedback loops can explain the most important parameters of the complex behaviour patterns. By providing more activities, these can be positively affected (Nechansky, 2016). Some authors report on using system dynamics to support socially responsible behaviour (Bach *et al.*, 2014) and in the gaming environment (Gomez-Gardenes *et al.*, 2011), but we could not elaborate a report on applying systems dynamic to connect games and socially responsible behaviour.

Young People and Gaming Analysis

In this part, two sides of the youth gaming are analysed: young people in EU state-of-the art analysis and the gaming analysis. In the first part, the reports on demography, education, employment, current, and future work-related competences, open issues, health, engagement, culture, and ICT skills are analysed. Analysis of the gaming social implications is focused in discovering evidences of documented opportunities and threats of the video games for young people. Additionally, reports on methods or concepts of video game design that could be used in the learning process are involved.

Young People Current State

European young people (aged 19– 25) reflect the potentials delivered by society in their capabilities, activities, and issues. Their inclusion in society depends on society's capacity to present them with viable solutions using the channels and communication models they consider native.

Multiple recent studies address young people's current state of affairs in EU (European Commision, 2016a). To present a requisitely holistic picture, we create insights from multiple perspectives, to discover relevant topics in EU related to young people and their social responsibility.

Demography. On the January 1, 2014, almost 90 million young people aged between 15 and 29 years lived in the European Union. This presents around 18 percent of the total population but has suffered a 7 percent decrease over the earlier three years (European Commision, 2016b; Eurostat, 2014).

The steady decrease in the youth population living in the EU over the last decades has been subdued by the growth of immigration from non-EU countries. This phenomenon has occurred during the last two decades and has continued over most recent years (European Commision, 2016b; Eurostat, 2014).

Education. European children and young people, on average, spend over 17 years in formal education, and this period has been increasing in recent years. Young people are formally higher qualified than the older generations. In 2013 in the EU-28, 81.1 percent of young people aged 20–24 had completed at least the upper secondary education (European Commision, 2016b; Eurostat, 2014).

Despite this positive trend in educational attainment, a significant share of young Europeans still face difficulties in the education system and feel compelled to leave prematurely without having gained relevant qualifications or a school certificate.

Among communication skills, the most important, enabling mobility, is using foreign languages. The European member states show low proportions of young people learning at least two foreign languages, although in smaller EU member states (i.e., Czech Republic, Luxembourg, Romania, Slovenia, Slovakia, Finland, and Lichtenstein) the proportion is much higher, nearly 100 percent (EU, 2014).

Learning mobility (EU, 2014) is generally seen as a valid contribution to the development of a wide range of skills and competencies of young people. Most importantly, transversal skills such as language competencies, communication, problem-solving, and intercultural understanding are found to be improved by study periods abroad (EU, 2014). In the academic year 2012/13, 212,522 students participated in the Erasmus+ exchange programme (EU, 2014).

Employment. In 2014, over 8.5 million young people aged 15–29 were unemployed (European Commision, 2016b; Eurostat, 2014). The EU-28 unemployment rate among young people in 2014 was 26.3 percent for those aged 15–19, 20.6 percent for those aged 20–24, and 13.6 percent for the oldest age group (25–29). The high level of unemployment recorded for the 25–29 age group shows an increasing difficulty in entering the labour market for young people, who have completed their education.

As for the 25–29 age group, the unemployment rate exceeds 30 percent in only three countries, Greece (40.8 percent), Spain (30.3 percent), and the former Yugoslav Republic of Macedonia (39.3 percent). For 13 countries, this unemployment rate is below 10 percent (European Commision, 2016b; Eurostat, 2014). Especially worrying is the rise of the number of the unemployable young people (aged 25–29) who have completed tertiary education between 2011 and 2014 (+12.9 percent) (European Commision, 2016b).

Young people are likely to be employed on a temporary contract or on a part-time basis. In 2014, nearly one in three 15- to 24-year-olds in employment worked part-time. Part-time work of young people may imply apprenticeship either in the context of a vocational education programme or directly with an employer, combining work and studies, and to accommodate family needs. Most trainees (71 percent) were not offered an employment contract when they finished their most recent traineeship (one of the temporary contract forms) (European Commision, 2016b; Eurostat, 2014).

Work-related competencies and skills. In Table 1, the relation between skills acquired in youth work and the requirements of the labour market are presented. The skills

and capabilities acquired in youth work are often more appreciated than formal education qualifications.

The currently recognised skills are projected for the future, where the drivers, e.g., information overflow, visualised through multimedia, smart devices, new forms of organisations, and worldwide connectivity environment, promote and require development of new skills such as social intelligence, adaptive thinking, cross-cultural competencies, multimedia literacy, virtual collaboration, and others (Scott & Bansal, 2014).

The demographic, educational, and employment data on the current state of affairs implies that fully educated young people will better understand the relevance of social responsibility for their successful integration in the society.

Active citizenship-related competencies and skills. Active citizenship learning plays a significant role in engaging youth via the experiencing processes. Freire's approach to community education and experiential learning is a cornerstone in active citizenship learning international programs. Its approach is based on constant dialogical and dialectic reflection, along with observation and understanding of the power structures. It enables individuals and collectives to develop an understanding of their realities and contexts to develop strategies for social transformations (Freire, 1972). It is offering opportunities within the learning in processes that influence decision-making (Mendiwelso-Bendek, 2015).

According to the multiple aspects of active citizenship learning, personal identity, community relations, civil and civic participation, we can find diverse learning processes and citizenship outcomes (Mendiwelso-Bendek *et al.*, 2013).

In Table 2, the connections between citizen learning and the citizenship outcomes are presented. These skills and capabilities are essential for active involvement in EU environment.

Engagement. Volunteering activities are addressed in the core contents of social responsibility in ISO 26000 (ISO, 2010). Young people interests in politics amounted to 33 percent % (EuropeanSocialSurvey, 2012). They reported to be active in nongovernmental organisations and/or local organisations, which address local issues rather than in political parties (European Commision, 2015). Because young people use the Internet—especially mobile media as a communication media—well-prepared channels can support their active engagement, either to share their views or to influence their activities in the environment. Mobile and social media can reach and help engage even otherwise hard-to-reach young people.

Voluntary activities were reported by 25 percent of young people (FlashEurobarometer, 2014), especially if these are organised by families, schools, religious communities, or sporting or other local organisations, which provide them formal and informal recognition for their engagement (European Commision, 2015). The key drivers for young people to engage in a volunteer activity include understanding of the activity goals and one's role in their accomplishment, a group support to their activity, an invitation to join, the expectancy of a good organisation (also covering the expenses), and a recognition by people with reputation.

Table 1. Correspondence between Skills in Youth Work and the Labour Market

Overarching Skill Categories	Outcomes Identified in the Research Literature	Skills Identified by Employers
Personal (confidence and self-esteem)	• Increased confidence and self-esteem • Self-awareness (personal and social) • Readiness to take on new and more diverse experiences	• Adaptability and flexibility
Interpersonal (social and communication skills, teamwork, assertiveness)	• Improved teamwork • Increased communication • Improved pro-social behaviour • More open to people from diverse backgrounds • Positive peer relationships • Enhanced leadership	• Leadership • People management and teamwork • Influencing • Communication
Self-management skills (e.g., reliability)	• Motivation, commitment, resilience • Increased life skills	• Innovation and entrepreneurship
Competencies in initiative and delivery (planning, problem-solving, prioritising)	• Critical thinking skills • Planning, decision-making • Developed and focused career aspirations	• Change management • Project management • Decision-making • Time management

(Bamber & Group, 2012)

Table 2. Aspects of Active Citizenship

Aspects of Active Citizenship	Citizen Learning I feel able to ... I know more about... I know how to ...	Citizenship Outcomes Local, national, European and global dimensions
Personal	• Value my own skills, knowledge and confidence • Know where to go to get what I need • Communication skills, negotiation skills, lobbying skills • Feel able to have a voice	• People identity and articulate their issues and problems • People take leadership roles in their community • People have the power and will to make choices in their life • People voice their concerns
Community relations	• Recognise that social exclusion is the responsibility of everybody • Understand how their behaviour affects others • Know the basis of inequality and how power operates • Understand more about people, different from themselves • Feel more confident in asking	• Improved relations between diverse groups of people • Community projects are inclusive of people with different backgrounds • Increased points of contact between different communities • Increased networking between communities
Civil participation	• Understand how groups/networks work • Know how to encourage fair and democratic decision-making • Understand how to encourage support and develop volunteers • Know the importance of networking and delivering change • Chairing, meeting and facilitation skills • Negotiation and campaigning	• More civil society groups active in community-led service provision • Well-run democratic community groups • Increased informal community organising • Increased networking between community and voluntary groups • Effective representation in partnership and involvement with public bodies • Increased volunteering opportunities
Civic engagement	• Knowing how the external world operates • Understand my current democratic position and the opportunities for change • Understand the rules of engagement • Aware of the range of opportunities for civic participation • Understand role of the elected representatives and how to lobby them/ work with them • Know how public meetings work • Feel able to contribute and ask questions at a public forum • Recognise how to influence policy and practice at a European, national, regional or local level	• More people want to and feel able to have a responsible role in formal democratic structures • More people play an active role on a community/ neighbourhood level • Citizens work with public bodies to define and achieve common goals • Improved relations between citizens and statutory agencies • More people take part in dialogue with decision-makers • People lobby for change in the way forums and other structures operate • People campaign and petition

(Mendiwelso-Bendek *et al.*, 2013)

Culture. The engagement in traditional cultural activities, such as visiting museums, theatre, or movies is declining (FlashEurobarometer, 2014). Two reasons are given, i.e., the lack of financial resources and the lack of interest. The lack of interest could be better explained by a shift of interest where media devices have largely replaced on-site participation with content shifting from the traditional themes to instant entertainment.

ICT skills. The decrease in using desktop computers is compensated by mobile technologies, providing access to advanced Internet and cloud services. Mobile technologies are adapted by virtually the entire young population and are redefining the concepts of communication, information processing, education, and entertainment for all—not only for the young population. The accessibility of mobile devices and services enables connections to hard-to-reach individuals and provides a new means of equality.

Gaming

Video games are constantly changing, according to user feedbacks, trying to find new niches. Complexity of the gaming domain is growing exponentially in volume, the channels, and the games themselves. It is beyond the capacity of this paper to address the complexity of the gaming environment, though a few important perspectives are elaborated upon.

Addictive behaviour. According to World Health organisation, gaming disorder has been added in the classification of diseases (WHO, 2018). Gaming disorder is manifested by, first, impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); second, increasing priority is given to gaming to the extent that gaming takes precedence over other life interests and daily activities; third, continuation or escalation of gaming despite the occurrence of negative consequences. The behaviour pattern

is sufficiently severe to result in significant impairment in personal, family, social, educational, occupational, or other important areas of functioning. The pattern of gaming behaviour may be continuous or episodic and recurrent (WHO, 2018).

In several reports, addictive games are reviewed. Green (2018) lists the "10 most addictive PC games that will destroy your social life." Among these, 40 percent of the games are first-person shooter games, sometimes equipped with strategy and team coordination elements; 30 percent are in the category of multiplayer online battle arena; and 10 percent are massively multiplayer games. These games are focused in using violence to overcome a computer simulated or real-life enemy. Interestingly, 20 percent represent simulation games, where you either focus on managing a system to dominate the environment or, as in the case of "The Sims," elaborating on your virtual environment (ibid). In the mobile environment, puzzle and arcade games are reported to be the most addictive (Google, 2018). Obviously, the main goal of games providers is to attract games to produce addiction; thereby, active feedback loops are established with the single goal: to support addictive behaviour. To mitigate the addiction, it is imperative to redesign feedback loop mechanisms, preventing addictive behaviour and directing the players to the real-world experiences. The redesigned feedback mechanisms should actively involve games providers, participants with supporting communities and regulators.

Skills and learning. The focus in educational games is directed to young children, building up their basic skills language, coordination, mathematical, and digital skills (Education.com, 2018). For students and adults, fewer games are available, focusing on building a limited number of capabilities.

By comparing the educative and commercial games, user-experienced differences can be identified. The vast majority of educational games do not systematically collect user feedback; further, they are not continually developed after publishing, resulting in the decline in user experience. A player gets the impression of not really being taken care of, although exceptions to the rule exist. Duolingo (2018), for instance, provides a personalised approach to support learning of foreign languages and constantly seeks feedback by the learners.

Social behaviour. Players learn by through active interaction with a game. Games providing social skills can be divided into two categories: simulations and multiplayer. Simulations provide an environment, resembling situations upon which the gamer should react. The variety of situations is limited by the game and player capacities. Simulation games usually focus in operating a device (plane, car) or in developing and managing an organisation (a world, zoo, etc.). They mimic some properties related to the real world, but the properties are synthesised and therefore often lack the complexity to resemble social relations (CulturedVultures, 2018).

Multiplayer games provide challenges for players to interact with other players to overcome the challenges. The vast majority of these games is focused on using violence to overcome obstacles, with occasional contact with other players (OverpoweredMediaGroup, 2018). The complexity of the situations is still largely managed by the game scene play and not by the interactions with other players. To compensate for this, a large part of the communication is conducted via automated in-game characters. We can safely conclude that the game complexity is limited to the game screenplay, often limited to domination of the environment either by force or by management.

The 36 gaming principles, introduced by Gee (2003), are not yet used by the profit-driven gaming industry. Game complexity can be adequate to learn basic skills, and, with repetitive behaviour, these skills can be learned thoroughly. Respectfully, the games do lack the complexity required to learn complex sociological skills. Even by involving multiple players in the game, the interactions are limited; therefore, the social relations are only simulated superficially. To successfully learn complex skills, the games should significantly increase the situational variety or invoke real world situations, players, and relations among players (real world gamification).

Comparison

In this section, young-people-related issues are extrapolated and compared with the list of video games' social features. The lists of properties have distinct origins, while the complexity of relations among them exceed the table presentation capacity. The lists are presented side by side to present the reader to individually compare young people challenges with the video-games-related social figures.

The list of young-people-related topics ranges from the capacity to act as individuals, efficiently using the resources, provided by the digital media, through connecting in heterogenic teams—real or virtual—to actively reshape their environment. We can find that young people are facing constraints they are incapable of coping with.

Video games could be an efficient tool to develop individual skills, practise cooperation, and explain relations between the paradigms of the real world. By using simulations, the understanding of the processes and background information

Table 3. Young People Related Challenges and Games Social Features Lists

Young people related challenges	Games related social features	Current emphasis
Decrease in native young population	Skills development	Yes
Immigration from non-EU countries	Hypothesis probing and multiple routes examinations	Yes
Highly qualified young people	Self-reported problem-solving skills	No
Temporary contracts	Ubiquitous cooperative behaviour	No
Foreign languages	Building social ties	No
Learning mobility	Cooperation in virtual teams	No
Local and regional unemployment	High intrinsic motivations	Yes
Premature absence from the education system	Reduced extrinsic motivations and impedes from standard learning	Yes
Inappropriate jobs	Building up combinations of competencies	No
Adaptability and flexibility	Disinterest in gaining high grades	Yes
People management and teamwork	Incremental, repetitive, committed and ongoing learning, active, critical learning	Yes
Innovation and entrepreneurship	Integration in the local environment	No
Change and project management	Video game design principles	Yes
Cross-cultural competencies	Risk decisions, Limited resources management	Yes
Mobile computers science	Meta-level, critical and creative thinking	No
Multimedia literacy	Self-discovery and role identification	No
Virtual collaboration	Fast adaptation	Yes
Policies engagement	Text integration and material intelligence	Yes
Voluntary activities	Knowledge transfer and intuitive knowledge	No
Recognition of achievement	Cultural models, design appreciation	No
Culture affinity	Affinity group cooperation	No
Civil participation	Teacher's role	No
Substance abuse	Video game addiction	Yes

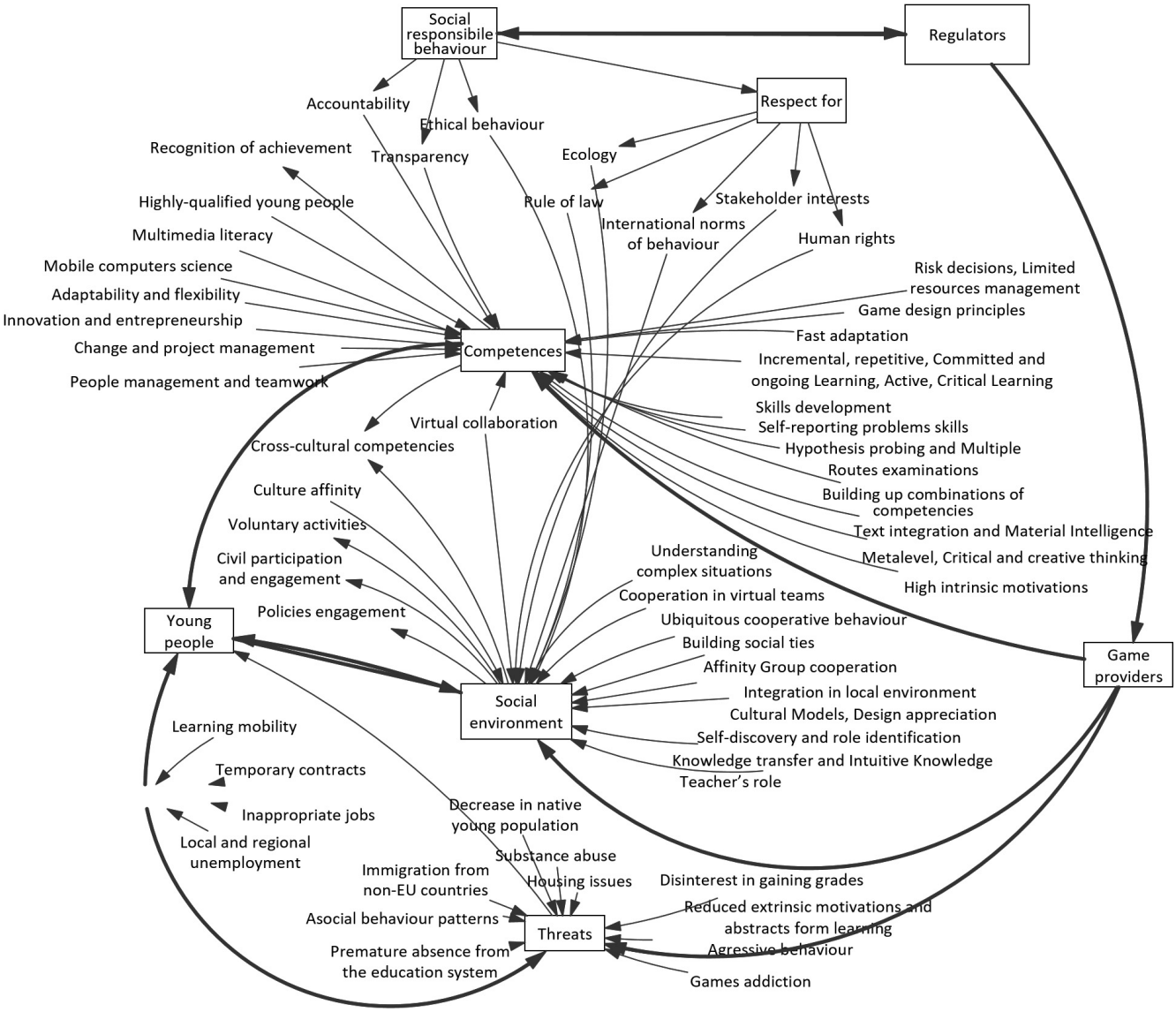
and the capacity to act in certain situations can be quickly developed up to the point, where their knowledge can be used in the real world. Gamers could be trained to cooperate in teams, thus taking the lead or supportive role in virtual teams and support communication. On the other hand, the high acceptance rate of the virtual environment can lead to addiction and to ignorance of the challenges, as posted in the real world. Inappropriate world representation in the gaming environment can lead to misunderstandings of the real world environment, including the human values of social responsibility.

Although the lists in Table 3 do provide young people challenges and video games features, they do not provide relations amongst those; further, they are unstructured and do not include the agents capable of modifying the system. To offer insight into these, a system dynamic diagram is presented in Figure 1.

In Figure 1, an overview of the relations among socially responsible behaviour, video game providers, and young people is presented. Because the complexity of the system is high, competencies, social environment, and threats are used as integration points. The diagram presents a high-level overview, where multiple important entities and relations are disregarded to allow the reader to identify and assess the highlighted relations.

Digital environment posts multiple requirements to young people, ranging from being highly qualified for certain tasks, through multimedia literacy to virtual collaboration. Young people, on the other hand, seek instant recognition of their achievements. The social responsibility top parameters of accountability and transparency can have a positive impact on the young people's competencies development. Video games potentials are highly concentrated in supporting the building of young people's low-level competencies. The

Figure 1. Relations among Competencies, Social Environment, and Threats



offered training includes the form of incremental, repetitive, committed, and ongoing learning, active, critical learning, taking risk decisions with limited resources, self-analysis, meta-level models and scenarios construction, and high intrinsic motivation.

Social environment emphasises cooperation over competition. To match these needs, young people combine a culture of affinity with cross-cultural competencies and virtual collaboration. They are expected to reshape society with voluntary activities, civil participation, and engagement with existing and future policies. The social responsibility parameters of ethical behaviour, respect for international norms of behaviour, ecology, rule of law, stakeholder interests, and human rights are in line with the desired concepts and support young people's active roles in the social environment. Video games provide supportive tools and techniques, ranging from understanding complex situations, cooperation in virtual teams, building social ties, through self-discovery and role identification to taking the teacher's role in the knowledge transfer. However, values are less addressed than skills.

We can find the least coverage in the threats faced by young people. These range from housing and work-related issues, through a decrease in native young populations, partly compensated with immigrations, all the way to substances abuse, asocial behaviour patterns, and premature absence from the education system. Socially responsible behaviour is not directly addressed, while the gaming industry provides additional threats, mostly in supporting the development of undesired behavioural patterns, prohibiting successful integration of young people in the society.

The effects of video games on young people and the implication on their social responsibility in the processes are

supervised by regulators and driven by direct short-time feedback loops. Based on the assessment of the complexity of the underlying processes, we find the variety of the regulators inadequate to successfully direct the games industry to provide adequate support for the young people. A long-term feedback loop from the young people and their social environment, guided by the social responsibility concepts should be established, to drive the further development of the games industry in the right direction.

We find that some young-people-related issues, especially those connected with the undesired behavioural patterns, could be addressed using video games. To help people in learning how to deal with the real-life and develop socially responsible behaviour, the complexity and the variety of the games should increase significantly, i.e., a direct link with real-world situations might provide added value.

Summary

In the provided report, two independent analyses are executed and put in inter-relation: the young-people related challenges and the video games as social features. Because both analyses offer interesting results and provide an overview of the research fields, the lists are set one next to another.

A model, highlighting relations between the main players in the video games domain is proposed and commented. Young people competencies, social environment, and threats are used as integration points to reduce the complexity of the proposed model and to enable a visual elaboration by the reader. The young people competencies and social environment topics are aligned with the social responsibility parameters and video games potentials while the real life threats are not resolved. Quite opposite: the threats posted by the video games have the potential to multiply the negative effects of undesired behaviour.

In the elaborated model of the current state, the feedback loop, focused in supporting the young people challenges is supported mainly by regulators. We find this inadequate and propose to develop feedback loops, originating from the young people and their social environment, using social responsibility tool set as the articulation tool to give demands to the game providers.

The implications of designing games that support social responsible behaviour are substantial. Most importantly, players would experience the near real life environment, where they could test their activities and the environmental feedback. Game developers would get in touch with the community capable and be willing to give feedback and potentially co-develop the gaming environments. The regulators could support the positive feedback loops, focused in learning and practising active citizen skills. Researchers would benefit by the feedback loops embedded in a game's structure that allows them more detailed insight into the individual and group behaviour concepts.

In this report, an overview model, designed based on the literature review, is proposed. To fully understand the video games' effects on young people and to propose a set of feedback mechanisms, which could help to align the gaming industry maintain social responsible behaviour, more research efforts should be involved.

References

Adachi, P. J. C., & Willoughby, T. (2013). More than just fun and games: The longitudinal relationships between strategic video games, self-reported problem solving skills, and academic grades. *Journal of Youth and Adolescence, 42*(7), 1041–1052. https://doi.org/10.1007/s10964-013-9913-9

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51. https://doi.org/10.1146/annurev.psych.53.100901.135231

Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology, 78*(4), 772–790. https://doi.org/10.1037//0022-3514.78.4.772

Andrew, A. (1993). Tribute to the life and work of Mcculloch, Rook. *Kybernetes, 22*(3), 4–4. https://doi.org/10.1108/eb005965

Ashby, W. R. (1964). *An introduction to cybernetics*. London: Methuen & Co Ltd.

Avouris, N., & Yiannoutsou, N. (2012). A review of mobile location-based games for learning across physical and virtual spaces. *Journal of Universal Computer Science, 18*(15), 2120–2142. Retrieved from <Go to ISI>://WOS:000313204700003

Bach, M. P., Zoroja, J., & Merkac-Skok, M. (2014). Social responsibility in tourism: system archetypes approach. *Kybernetes, 43*(3–4), 587–600. doi:10.1108/k-09-2013.0195

Bamber, J., & group, E. (2012). Developing the creative and innovative potential of young people through non-formal learning in ways that are relevant to employability. Retrieved from http://ec.europa.eu/youth/library/reports/creative-potential_en.pdf

CulturedVultures. (2018). Simulation-games. Retrieved from https://culturedvultures.com/new-simulation-games-of-2018-beyond/

de Freitas, S., & Oliver, M. (2006). How can exploratory learning with games and simulations within the curriculum be most effectively evaluated? *Computers & Education, 46*(3), 249–264. doi:10.1016/j.compendu.2005.11.007

Duolingo. (2018). Manifesto. Retrieved from https://www.duolingo.com/info

Education.com. (2018). Games. Retrieved from https://www.education.com/games/

Espejo, R., Bowling, D., & Hoverstadt, P. (1999). The viable system model and the Viplan software. *Kybernetes, 28*(6–7), 661–678. https://doi.org/10.1108/03684929910282944

Etheredge, J. M. (1999). The perceived role of ethics and social responsibility: An alternative scale structure. *Journal of Business Ethics, 18*(1), 51–64. https://doi.org/10.1023/A:1006077708197

EU. (2011). Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions a renewed EU Strategy 2011-14 for Corporate Social Responsibility. Retrieved from http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52011DC0681

EU. (2014). Erasmus Impact Study: Effects of mobility on the skills and employability of students and the internationalisation of higher education institutions. Retrieved from http://ec.europa.eu/dgs/education_culture/repository/education/library/study/2014/erasmus-impact_en.pdf

European Commision. (2014). Digital Agenda Europe. Retrieved from http://ec.europa.eu/digital-agenda/digital-agenda-europe

European Commision. (2015). Special Eurobarometer 429: Attitudes of Europeans towards tobacco and electronic cigarettes. Retrieved from http://ec.europa.eu/public_opinion/archives/ebs/ebs_429_en.pdf

European Commision. (2016a). EU youth document library. Retrieved from http://ec.europa.eu/youth/library/index_en.htm

European Commision. (2016b). *EU youth report 2015*. Retrieved from http://ec.europa.eu/youth/library/reports/youth-report-2015_en.pdf

European Commission. (2012). Excellence in public administration for competitiveness in EU Member States. Retrieved from http://ec.europa.eu/

European Commission. (2015). Find-er. Retrieved from http://ec-europa-finder.hosted.exlibrisgroup.com/

European SocialSurvey. (2012). Europeans' Understandings and Evaluations of Democracy. Retrieved from http://www.europeansocialsurvey.org/

Eurostat. (2014). *Youth (yth)*. Retrieved from: http://ec.europa.eu/eurostat/web/youth/data/database

Fisher, J. (2004). Social responsibility and ethics: Clarifying the concepts. *Journal of Business Ethics, 52*(4), 391–400. Retrieved from <Go to ISI>://WOS:000225103400007

FlashEurobarometer. (2014). European Youth. Retrieved from http://ec.europa.eu/public_opinion/flash/fl_408_en.pdf

Freire, P. (1972). *Pedagogy of the Oppressed*. Harmondsworth: Penguin.

Gee, J. P. (2003). *What Video Games Have to Teach Us About Learning and Literacy*. Basingstoke: Palgrave.

Gentile, D. A., Lynch, P. J., Linder, J. R., & Walsh, D. A. (2004). The effects of violent video game habits on adolescent hostility, aggressive behaviors, and school performance. *Journal of Adolescence, 27*(1), 5–22. https://doi.org/10.1016/j.adolescence.2003.10.002

Gilliam, M., Jagoda, P., Jaworski, E., Hebert, L. E., Lyman, P., & Wilson, M. C. (2016). "Because if we don't talk about it, how are we going to prevent it?": Lucidity, a narrative-based digital game about sexual violence. *Sex Education-Sexuality Society and Learning, 16*(4), 391–404. https://doi.org/10.1080/14681811.2015.1123147

Gomez-Gardenes, J., Vilone, D., & Sanchez, A. (2011). Disentangling social and group heterogeneities: Public Goods games on complex networks. *Epl, 95*(6). https://doi.org/10.1209/0295-5075/95/68003

Google. (2018). Games leaderboard. Retrieved from https://play.google.com/store/apps/collection/promotion_3003088_games_leaderboard

Gopher, D., Weil, M., & Bareket, T. (1994). Transfer of Skill from a Computer Game Trainer To Flight. *Human Factors, 36*(3), 387–405. Retrieved from <Go to ISI>://WOS:A1994PL89200001

Green, O. (2018). 10 most addictive pc games that will destroy your social life. Retrieved from https://www.gamebyte.com/10-most-addictive-pc-games-that-will-destroy-your-social-life/

Griffiths, M. (1999). Violent video games and aggression: A review of the literature. *Aggression and Violent Behavior, 4*(2), 203-212. https://doi.org/10.1016/S1359-1789(97)00055-4

Hamari, J., Shernoff, D. J., Rowe, E., Coller, B., Asbell-Clarke, J., & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. *Computers in Human Behavior, 54*, 170–179. https://doi.org/10.1016/j.chb.2015.07.045

Hope, E. C. (2016). Preparing to participate: The role of youth social responsibility and political efficacy on civic engagement for black early adolescents. *Child Indicators Research, 9*(3), 609–630. https://doi.org/10.1007/s12187-015-9331-5

Hsu, C. L., & Lu, H. P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information & Management, 41*(7), 853–868. https://doi.org/10.1016/j.im.2003.08.014

Hung, I. C., Kinshuk, & Chen, N. S. (2018). Embodied interactive video lectures for improving learning comprehension and retention. *Computers & Education, 117*, 116–131. https://doi.org/10.1016/j.compedu.2017.10.005

ISO. (2010). ISO 26000 - Social responsibility: ISO.

Kampf, R., & Cuhadar, E. (2015). Do computer games enhance learning about conflicts? A cross-national inquiry into proximate and distant scenarios in Global Conflicts. *Computers in Human Behavior, 52*, 541–549. https://doi.org/10.1016/j.chb.2014.08.008

Kneer, J., Elson, M., & Knapp, F. (2016). Fight fire with rainbows: The effects of displayed violence, difficulty, and performance in digital games on affect, aggression, and physiological arousal. *Computers in Human Behavior, 54*, 142–148. https://doi.org/10.1016/j.chb.2015.07.034

Knez-Riedl, J., Mulej, M., & Dyck, R. G. (2006). Corporate social responsibility from the viewpoint of systems thinking. *Kybernetes, 35*(3–4), 441–460. https://doi.org/10.1108/03684920610653737

Lebe, S. S., & Mulej, M. (2014). Editorial for SI: Tourism management - a holistic approach. *Kybernetes, 43*(3–4), 343-345. Retrieved from <Go to ISI>://WOS:000334146900002

Liegl, M., Boden, A., Buscher, M., Oliphant, R., & Kerasidou, X. (2016). Designing for ethical innovation: A case study on ELSI co-design in emergency. *International Journal of Human-Computer Studies, 95*, 80–95. https://doi.org/10.1016/j.ijhcs.2016.04.003

Liu, T. Y., & Chu, Y. L. (2010). Using ubiquitous games in an English listening and speaking course: Impact on learning outcomes and motivation. *Computers & Education, 55*(2), 630–643. https://doi.org/10.1016/j.compedu.2010.02.023

Martinovic, D., Burgess, G. H., Pomerleau, C. M., & Marin, C. (2016). Computer games that exercise cognitive skills: What makes them engaging for children? *Computers in Human Behavior, 60*, 451–462. https://doi.org/10.1016/j.chb.2016.02.063

Mayer, R. E. (2014). *Computer Games for Learning: An Evidence-Based Approach*. Cambridge: MIT Press.

McMurray, R. G., Harrell, J. S., Deng, S. B., Bradley, C. B., Cox, L. M., & Bangdiwala, S. I. (2000). The influence of physical activity, socioeconomic status, and ethnicity on the weight status of adolescents. *Obesity Research, 8*(2), 130–139. https://doi.org/10.1038/oby.2000.14

Mendiwelso-Bendek, Z. (2015). Community-based research: enabling civil society's self-organisation. *Kybernetes, 44*(6–7), 903–912. https://doi.org/10.1108/K-02-2015-0056

Mendiwelso-Bendek, Z., Recknagel, G., Hartley, T., Rooke, A., Mayo, M., Packham, C., & Milburn, K. (2013, 2016). TAKE PART UK Learning Framework Retrieved from http://takepartresearchcluster.blogs.lincoln.ac.uk/files/2013/07/13946_Take-part-learning-framework-final-2011.pdf

Mulej, M. (2006). Systems, cybernetics and innovations - Introduction. *Kybernetes, 35*(7–8), 939–941.

Mulej, M., & Dyck, R. (2014,2015). *Book Series Social responsibility beyond neo-liberalism and charity* (M. Mulej & R. Dyck Eds.). Shirjah: Bentham Science.

Mulej, M., Hrast, A., Potocan, V., Ecimovic, T., & Zenko, Z. (2017). Sustainable future replaces sustainable development concept by systemic behaviour via social responsibility. *International Journal of Continuing Engineering Education and Life-Long Learning, 27*(1–2), 147–159. https://doi.org/10.1504/IJCEELL.2017.10001977

Mulej, M., Hrast, A., & Zenko, Z. (2013). Editorial: Social Responsibility-Measures and Measurement Viewpoint. *Systemic Practice and Action Research, 26*(6), 471–473. https://doi.org/10.1007/s11213-013-9297-5

Mulej, M., Hrast, A., & Zenko, Z. (2014). Complexity of open innovation and social reponsibility. *2014 Second World Conference on Complex Systems (WCCS)*, 749–755. https://doi.org/10.1109/ICoCS.2014.7060976

Mulej, M., Kajzer, S., Potocan, V., Rosi, B., & Knez-Riedl, J. (2006). Interdependence of systems theories - potential innovation supporting innovation. *Kybernetes, 35*(7–8), 942–954. https://doi.org/10.1108/03684920610675003

Mulej, M., & Potocan, V. (2007). Requisite holism - precondition of reliable business information. *Kybernetes, 36*(3–4), 319–332. https://doi.org/10.1108/03684920710746986

Nechansky, H. (2016). The four modes of coexistence in psychology and group dynamics. *Kybernetes, 45*(3), 371–392. https://doi.org/10.1108/K-09-2014-0193

OverpoweredMediaGroup. (2018). Perfect-ten-20-multiplayer-games-to-watch-in-2018. Retrieved from https://massivelyop.com/2017/12/27/perfect-ten-20-multiplayer-games-to-watch-in-2018/

Rios, J. P. (1995). System dynamics and regional analysis: A computer simulation program. *Mission Earth: Modeling and Simulation for a Sustainable Future*, 97–103.

Rios, J. P. (2010). Models of organizational cybernetics for diagnosis and design. *Kybernetes, 39*(9–10), 1529–1550. https://doi.org/10.1108/03684921011081150

Romero, M., Usart, M., & Ott, M. (2015). Can serious games contribute to developing and sustaining 21st century skills? *Games and Culture, 10*(2), 148–177. https://doi.org/10.1177/1555412014548919

Rubio, C. V., Diaz, R. P., & de Pablo, P. C. (2008). From the european education programme "Socrates" (2000–2006) to the lifelong learning programme (2007–2013): A new frame for the european teaching space. *Xvii Bienal De La Real Sociedad Espanola De Historia Natural*, 249–253.

Scott, B., & Bansal, A. (2014). Learning about learning: A cybernetic model of skill acquisition. *Kybernetes, 43*(9–10), 1399-1411. https://doi.org/10.1108/K-07-2014-0157

Shin, D. H., & Shin, Y. J. (2011). Why do people play social network games? *Computers in Human Behavior, 27*(2), 852–861. https://doi.org/10.1016/j.chb.2010.11.010

Trepte, S., Reinecke, L., & Juechems, K. (2012). The social side of gaming: How playing online computer games creates online and offline social support. *Computers in Human Behavior, 28*(3), 832–839. https://doi.org/10.1016/j.chb.2011.12.003

Tuzun, H., Yilmaz-Soylu, M., Karakus, T., Inal, Y., & Kizilkaya, G. (2009). The effects of computer games on primary school students' achievement and motivation in geography learning. *Computers & Education, 52*(1), 68–77. https://doi.org/10.1016/j.compedu.2008.06.008

Wang, Z., Wang, L., Yin, Z. Y., & Xia, C. Y. (2012). Inferring reputation promotes the evolution of cooperation in spatial social dilemma games. *Plos One, 7*(7). https://doi.org/10.1371/journal.pone.0040218

WHO. (2018). *Classification of diseases* Retrieved from http://www.who.int/classifications/icd/en/

Yang, Y. T. C. (2012). Building virtual cities, inspiring intelligent citizens: Digital games for developing students' problem solving and learning motivation. *Computers & Education, 59*(2), 365–377. https://doi.org/10.1016/j.compedu.2012.01.012

Authors

Igor Perko is an assistant professor at the University of Maribor, Faculty of Economics and Business, Slovenia; he is the WOSC director general and co-editor in Kybernetes. His research interests include Business intelligence systems, planning and developing information systems, focusing especially on information support to business cooperative systems. His PhD thesis was "Intelligent agents in management information systems". He is connecting the use of intelligent agents, knowledge management structures, business data sharing, Big data', cloud technologies, and data mining to provide business intelligence systems for the support of trans-business processes. He is an author of multiple professional and scientific papers and is actively involved in business ICT development.

Zoraida Mendiwelso-Bendek is a Senior Researcher in citizenship in the Lincoln International Business School, UK, where she is the leader of community-based research programmes. Her research area is community-based research, university and community partnerships, and systems thinking – self-organisation. She has contributed to projects to enable the influence of civil society organisations in policy-development processes as well as to projects to enable civil society organisations to research the impact of participative approaches to strengthen democracy. This research has contributed with evidences to support the production of a National Learning Framework for Active Learning for Active Citizenship (2006/2011) This research has been funded by the ESRC research programme "Take Part" a partnership of HEIs, (hosted by Lincoln), 2008–2014. The research programme contributes to European and global community-based research programmes. The research finding of this programme are published in the latest book Mayo, M., Mendiwelso Bendek, Z., and Packham, C. (eds.) (2013) *Community Research as Community Development*, Palgrave, London.

Igre za predstavitev družbenih izzivov in odgovornosti mladim

Izvleček

Igre bi lahko pomagale razvijati sposobnosti mladih v smeri družbene odgovornosti (DO). Obenem lahko višajo tveganje razvoja nezaželenih vzorcev obnašanja. Uspešna integracija igranja v življenje mladih zahteva sistemski pristop, ki ga do sedaj v literaturi še nismo zasledili. Namen tega prispevka je raziskati to področje. V prispevku so uporabljene in povezane tri raziskovalne metode. Za pojasnitev trenutnega stanja razvoja raziskav na področju učinkov iger na družabno obnašanje smo raziskali trenutno relevantno literaturo. Da bi ugotovili, s katerimi izzivi se mladi soočajo in kakšno je stanje razvoja v industriji iger, smo analizirali poročila, ki ocenjujejo ti tematiki. V sintezi smo primerjave postavili v kontekst načel družbene odgovornosti in s sistemsko dinamiko orisali glavne povezave. Predlagamo spremembo konceptov in načina razvoja iger, usmerjenih v izobraževanje DO in redefinicijo razmerij med mladimi, industrijo iger, družbenim okoljem, ter ukrepe, ki bi lahko vodili k njim. Trenutno je povratna zanka razvoja iger usmerjena h kratkoročnim zahtevam do iger. Predlagamo povratne znake, ki povezujejo mlade in njihovo družabno okolje, da bi ustvarili z DO povezane zahteve do industrije iger.

Z DO usklajena uporabniška izkušnja bo pomagala pri razvoju iger, ki so družbeno konstruktivne in usmerjene k razvoju želenih veščin in kompetenc v komunikaciji, in pri skupnem reševanju problemov skozi igro. Predlagamo zgolj pregledni model, oblikovan na osnovi trenutnega stanja v literaturi in splošnem pregledu. Da bi lahko podrobneje predlagali razvoj posameznih iger, bi potrebovali natančnejše mehanizme analize stanja.

Ključne besede: mladi, družbeni izzivi, igre, učenje, razvoj kompetenc, družbena odgovornost