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Games for Creative Awareness

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Abstract:

Digital media have provided us with many tools, and allowed an ever-present knowledge space that we may resort to for all endeavours. The power provided by digital tools is such that in a blush we may be lead to think of creativity as something easily attainable, often a matter of solely acquiring technical skills. Furthermore, access to a wide pool of ready-made content, although beneficial, can hinder personal motivation to pursue one's own development. Such conceptions are seen as risks capable of alienating one's perspective and creative potential. To counter this we believe that promoting awareness of one's social diversity surroundings can help achieve higher knowledge and creative wealth, something in very high demand within today's competitive setting. With this in mind, we propose a game framework to harness such resources, aimed at exploring that potential in order to develop solutions of creative excellence.

1. PURPOSE

Our research aims to enhance creative solution-finding by exploring diverse socio-cultural thinking resources through digital game frameworks. We regard socio-cultural diversity as bodies of knowledge comprised by individual skills and background found within workgroups. Also, we believe that digital games can act as ideal grounds to access and employ these resources, due to playful, experimental, exploratory and computational characteristics. Therefore, we envision games as good instruments for creative work, capable of motivating collaborative, solution-finding efforts.

Amongst these resources we may be inclined to favour specialisation skills as an advantage, yet, we argue that success in innovating can be sustained equally by expertise and experiential know-how (Verma 2013, 30). As such, by endorsing acceptance for individual contribution through digital games, we can build collaborative efforts with great beneficial creative potential. Examples of this acceptance are communal initiatives shared through digital presence (Bogost 2007, 38-39), as they actively promote an assimilation of hypotheses free of professional or social statuses (Master et al. 2017, 201). Therefore, by improving interpersonal connections and understanding, games will allow to add a critical and still quite unexplored mass resource to creative thinking.

2. BACKGROUND

This research emerges from a concern felt throughout our professional career, the importance of respectful, interpersonal communication as a creative drive, hence the attempt to promote socio-cultural diversity as critical fuel for creative thinking.

By socio-cultural diversity we refer to groups of individuals with skills obtained through formal learning and lived experience. Regardless of how skills are acquired, all knowledge is seen as being equally useful for creative purposes and for stimulating emergent thinking and collective knowledge (Brown & Harris 2014, 6). It is also important for good game design (Gee 2005, 13-14) and to stimulate motivation and behavioural change (Scott & Ghinea 2013, 122).

Play is a process for growing and keeping our intellectual abilities fit (Bergen 2009, 413), in a pleasant and rewarding way (Nachmanovitch, 1990, 42). *Fun* is a process triggered by simulations beyond reality constraints, capable of inciting exploration in controlled game settings (Koster 2005, 34-40). Plus, these simulations can become fun and relevant narratives, as significance emerges from player background and by playing the game (Zheng & Gardner 2016, 296; Neto 2016, 5).

A game is regarded here as a support system, experienced by multiple individuals, where action is key for play to happen (Galloway 2006, 2; Cardoso 2016) and to promote player adherence and immersion (Schell 2008, 55). Games are also potential instruments for real world repair, due to exploratory dimension capabilities (McGonigal 2011, 7), and where enactment is framed by rules and mechanics (Sicart 2008). Enacting and feedback are key to play, therefore, games need to provide good interaction.

Interaction is a reciprocation between players and game system (Cardoso 2016, 161-166), a potential to stimulate collaboration efforts, when players share interests. Collaboration can also enhance creative solution-finding by feeding on co-located gameplay, as joint efforts are accelerated by proximity, and, easy access to accumulated knowledge (Spinuzzi 2012, 399-441).

3. APPROACH

Developing instruments for stimulating individual contribution acceptance requires design efforts that rely both on theoretical constructs and development practices. To work with both dimensions, we will use a Design-Based Research (DBR) approach,

believed to be good for instrument fine-tuning, as theory supports development, and outcomes help refine the theory itself. Besides DBR we will also resort to ethnographic research to better assess applicability.

We will seek involvement within creative communities next, using theory to appoint case studies, attempting to develop game prototypes capable of addressing creative needs and expectations. Instrument development will use simple construction resources, an approach regarded as an open field to explore creative and functional possibilities (Papert 1993, 121-122).

Finally, throughout iterations we will code practices into a database, the subsequent data analysis and evaluation will use grounded theory, grid techniques and triangulation credibility.

4. EXPECTED CONTRIBUTIONS

Game frameworks can increase efficiency for creative solution-finding, by capitalizing on playful, experimental and exploratory game characteristics, and, on a broadened acceptance for individual contribution (Agogu e et al. 2015, 20-23; McGonical 2011, 212-215).

We regard game frameworks as capable of supporting player suggestions as favourable means to catalyse creative solutions, and in ways that might not be reached easily otherwise. Also, favourable lived experiences can foster our own self-worth which can be further reinforced by relating game activities to real world roles (Scott & Ghinea 2013, 119). As games are both fun and capable of providing meaningful experiences, they can also stimulate motivation (Koster 2005, 40; Frasca 2007, 78). Plus, by using the proposed framework, creative communities can also expand beyond their initial scope, in the same manner as casual games reach out for new players (Juul 2010, 2).

Game-sustained frameworks are seen here as good common grounds to improve interpersonal connections, a process enhanced by accepting social-cultural diverse individuals, capable of fostering understanding (Koster 2005, 68). Interpersonal collaboration also benefits from added iterating computational value to semantic and ontological human contributions (Boden 2004, 20).

Finally, promoting interpersonal connectivity within knowledgeable, co-working spaces increases the array of available thinking resources (Clifton et al. 2016, 29-33), which we intend to harness more efficiently through digital games, allowing individuals to build versatility and creativity skills.

5. PROGRESS

We are currently delving on a systematic review that addresses both theory and practices within the field of Game Studies and starting to get involved within community practices.

To this end, we have jointed efforts with INESC TEC¹ to refine the ongoing pervasive learning game BEACONING² platform. This project is aligned with our own goals, i.e., to provide multiple learning dimensions through digital games, while exploring collaborative and creative potentials. Another possible partnership integrated by INESC TEC is the FEEdBACK³ project. It aims to foster behavioural change through gamification, while promoting motivation and focused group efforts.

Yet another possible collaboration is the Mu.SA⁴ project, aimed at addressing the emerging needs that emerge from digital media potentials and impacted the contemporary Museum. We find that game instruments can prove beneficial within this field, both for professionals and audiences, due to learning, playful, and collaborative capabilities.

1. INESC Technology and Science – Associate Laboratory is a private non-profit research institution, at the intersection of academia, companies, public services and society, and aiming at building added value and significance. Homepage accessed April 19, 2018, from: <https://www.inesctec.pt/>

2. BEACONING is a location-based game platform geared at providing different student groups with anytime and anywhere Science, Technology & Maths (STEM) lessons. Project homepage accessed April 19, 2018, from: <http://beaconing.eu/>

3. The FEEdBACK project aims at endorsing efficient energy use through behavioural change, fostered by a gamified pervasive application. Project homepage accessed April 19, 2018, from: <http://www.feedback-project.eu/>

4. MuSA stands for Museum Sector Alliance, amongst other goals this is a project that aims to address the growing disconnection between formal education, training and practical work at Museums, and whose contours shifted through the emergence of new digital media and Tech. Project homepage accessed April 19, 2018, from: <http://www.project-musa.eu>

Other favourable community involvement settings are University of Porto's Science and Technology Park partnerships, due to entrepreneurship potential, creative incubation and continuous renewal of community human resources.

All these institutions offer the advantage of proximity to this doctoral programme. We are also taking some steps towards an early prototype, developed with analogue resources. However, this has yet to be properly refined, tested and published, something we aim to accomplish in the near future.

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