Game Design Inspiration in Global Game Jam

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ABSTRACT
This paper presents a pilot study on the connectivity of ideas at the Global Game Jam. After the 48-hour game development competition, a survey was administered by the Game Jam committee. Drawing from the free-response data, the authors investigated the idea formation of teams in a time-limited competition. The authors will present a visualisation demonstrating the connectivity of ideas and their findings for an inspiration network. Future work includes a broader study of idea generations through background data collection.

Keywords
game design, game development, game jam, inspiration network, design process

INTRODUCTION
Global Game Jam is an annual global game design competition aiming at making a game in just two days. Participating jammers are given a central theme to incorporate into their games. This Global Game Jam (2014) attracted 23,198 game developers in 488 jam sites located in 72 countries to make a game in 48 hours. Due to time constraints imposed on the participants by the rules, the resulting games have short gameplays and are generally simple in terms of game design. This relative simplicity presented a suitable window to investigate the idea generation process at a time-limited competition.

This working paper describes a pilot study on diverse game design inspiration and how ideas are connected through a self-reporting survey. The authors will present the data set collected from Global Game Jam with extracted statistical significance and an artful visualisation (Lombardi 2000) to demonstrate connectivity of ideas (Popova 2011).

Following the jam event, participants were asked to fill out a structured survey prepared by the Global Game Jam Research Committee about their experience, team dynamics,

technological choices, and idea formation. In particular, the survey asked the participants if the theme was inspiring, how many ideas the team went through before making the cut, and how the idea came to being. To identify participants who belong to the same team, the survey asked for their group name for synthesising responses from the same team. Using free-response questions in a structured survey allows the participants to share a healthy amount of information focused on the question or topic. At the time of writing, Global Game Jam is the world's largest game development event with a growth rate of approximately 150% per year (Fowler et al. 2013), allowing this investigation of game design inspiration at a large scale.

The game jam hosted a central theme and required the participating teams to incorporate it into their games, but no two games were made the same. The amount of diversity in game design was visually apparent. It is this diversity that created a challenge in the study: too much generalisation would diminish the value of individual sources of inspiration, and presenting too little organised information might generate poor results due to information overload.

To overcome this problem, the authors use a mixed method to analyse the survey data for sources of inspiration. The textual data is first encoded by notions of inspiration: new vision, motivation and action (Thrash & Elliot 2003) as well as categories like game mechanics and genres (Zook & Riedl 2013). The majority of inspirations come from personal experience of the game developer and their culture; it is this personal experience that could become an inspiration to design for player experience in games (Hagen 2012).

Encoded textual data are grouped by categories as well as similar or identical products or features, which are the foundations to finding the connections between synonymous ideas. This connection can be drawn in a graphical layout to visually examine influences and idea formations, as well as central themes and popular trends. Representing the data through a visualisation makes it more user-friendly as people prefer and are more capable of reading graphics than tables (Samsel 2013). Choosing an artistic style for the visualisation can further help to evoke more reflective and interpretative engagement with the data compared to an analytic visualisation style (Vande Moere et al. 2012). Insights derived from the free-reporting survey can contribute to future research in understanding idea generation in a rapid game design process.

In closing, the Global Game Jam survey has presented an excellent opportunity to study inspiration in game design at a large scale. Future work in this area includes statistical analysis of ideation cycles and a deeper investigation into the idea generation process through background data collection.

BIO

Graduated from Griffith University with a University Medal for Bachelors of Engineering (Software Engineering with Advanced Studies) with Class I Honours, Xavier currently pursues his Doctor of Philosophy at Design Lab, University of Sydney under the supervision of Martin Tomitsch and at CSIRO Computational Informatics with Tomasz Bendarz. He is an assistant lecturer at the Faculty of Engineering and IT at the University of Technology, Sydney. In his free time, he works on a Kickstarter project to publish a fantasy campaign setting named Aereon, and he plays a lot of video games.

Dr Martin Tomitsch is a Senior Lecturer at the University of Sydney. He is the Director of the Design Computing program, research member in the Design Lab, founding member of the Media Architecture Institute, state co-chair of the Australian Computer-Human Interaction Special Interest Group (CHISIG), and visiting lecturer at the Vienna University of Technology's Research Group for Industrial Software. His research on interaction design and media architecture has been published in three books and over fifty conference and journal articles.

Dr Tomasz Bednarz currently works as a Computational Research Scientist at CSIRO's Computational Informatics division. He is actively pursuing activities in the field of Computational Imaging and Visualisation - his broad range of expertise spanning from image analysis, through numerical simulations and experiments with fluids, visualisation, computer graphics, games development to demoscene is evidenced by the quality and number of publications. Currently he leads project on Big Data Analytics and Visual Analytics.

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