Building a Framework for Digital Interaction in Escape Rooms

Survey and Analysis Stage, COM3610

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This report is submitted in partial fulfilment of the requirement for
the degree of Computer Science with a Year in Industry by Simon Fish.

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Signed Declaration

All sentences or passages quoted in this report from other people's work have been specifically acknowledged by clear cross-referencing to author, work and page(s). Any illustrations that are not the work of the author of this report have been used with the explicit permission of the originator and are specifically acknowledged. I understand that failure to do this amounts to plagiarism and will be considered grounds for failure in this project and the degree examination as a whole.

Simon Fish

Abstract

Contents

Chapter 1

Introduction

Escape rooms are physical, interactive experiences in which a group of participants must solve puzzles to escape a locked room, solve a mystery, or otherwise meet some goal in a particular timespan. They are a phenomenon that has existed since around 2007 Nicholson (2015), and are a growing industry. Escape rooms are run both by enthusiasts as solo ventures, and as franchises across the country.

The aim of this project is to build tested tools to meet the needs of escape room owners. Research will be focused towards exploring the needs of escape room owners, such that a product can be designed and built to target one or several of these. These needs may be related to issues such as making sure a timer is visible to the group, or to processes that currently take more time than necessary, such as posting photos of teams to social media Liam (2019).

Research Questions

I have identified two research questions, which this stage of the project will be focused towards answering:

1. What do escape room owners consider their biggest timesinks?
2. What would need to be built in order to rectify these problems in a way that serves escape room owners most effectively?

I intend for this stage of the report to decide the scope I intend to tackle with the artifact I will build for this project, after which I will find the answer to the third question I have:

3. Does the solution I have developed effectively counteract an identified timesink?

Chapter 2

Literature Survey

Relevant research was very difficult for me to find in this area. I suspected this was for a variety of reasons.

The secrecy and competitiveness of the market means that "there are not resources publicly available to help those wanting to start or improve an escape room" (Nicholson (2015)). The latter case is particularly relevant to my aims, which seek to mitigate common timesinks for escape room owners. Nicholson runs a Facebook group[1] for escape room enthusiasts, encompassing both owners and participants, to which I sought and gained access as part of my work. The majority of posts, at the time of writing, seem to be from enthusiasts who report back from rooms they have attended, though I have seen posts about types of puzzles that can be implemented. I intend to survey this group, as it appears to be a central hub for what may be a sparse online community.

However, escape room blog The Logic Escapes Me reports that ERIC[2], an industry convention, has been running for three years. This year's iteration hosted talks in which such themes as immersion, a "hierarchy of needs", and an analysis of the industry in China were discussed. Opportunities such as these can expose the potential for iteration upon existing ideas (Nicholson (2015)).

The participant focus in existing research seeks to understand the sentiment of those who attend escape rooms. Often, this is with the intent of drawing conclusions about where escape room owners should focus their efforts, or the effects of an owner's design choices on their participants (Wiemker, Elumir, and Clare (2015)). These, however, do not target the more fundamental changes that can be made in how an escape room is run day-to-day, and do not expose the difficulties of running an escape room.

The novelty of the market is likely to be a large factor - escape rooms began to surge only around 2012-2013 in various parts of the world, though they have existed since as early as 2007 (Nicholson (2015)). Their relative infamy means that they have not become a widespread research target, though **their use in education** (Clarke et al. (2016)) is becoming an area in which research is growing, as gamification brings a variety of benefits to the field of education (Kiesler et al. (2011)).

Keywords

I identified the following keywords for use in my search. The search was conducted using the Google Scholar search engine.

- escape room owner
- escape room host
- escape room implementation
- escape room software

[1] https://www.facebook.com/groups/608883549212939/
[2] https://thelogicescapesme.com/news/eric-2019-a-roundup/

Chapter 3

Requirements and Analysis

Chapter 4

Progress

Chapter 5

Conclusions and Project Plan

Clarke, Samantha, Sylvester Arnab, Helen Keegan, Luca Morini, and Oliver Wood. 2016. "EscapED: Adapting Live-Action, Interactive Games to Support Higher Education Teaching and Learning Practices." In *International Conference on Games and Learning Alliance*, 144–53. Springer.

Kiesler, Sara, Robert E Kraut, Kenneth R Koedinger, Vincent Aleven, and Bruce M Mclaren. 2011. "Gamification in Education: What, How, Why Bother?" *Academic Exchange Quarterly* 15 (2): 1–5.

Liam. 2019, November.

Nicholson, Scott. 2015. "Peeking Behind the Locked Door: A Survey of Escape Room Facilities." *White Paper Available Online at Http://Scottnicholson.com/Pubs/Erfacwhite.pdf*.

Wiemker, Markus, Errol Elumir, and Adam Clare. 2015. "Escape Room Games." *Game Based Learning* 55.