THE DESIGN OF AN ALTERNATE REALITY GAME AS CAPSTONE COURSE IN A MULTIMEDIA POST-GRADUATE DEGREE

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Introduction

• Technology effects our everyday lives
• ICT evolves and so does multimedia technologies
• Students need to be transliterate
• Students need to be able to cope with all the technologies
Introduction

- Multimedia degree’s fourth year of study
- Students consolidate 3 years of learned skills
- Develop an Alternate Reality Game

- The paper propose the students design the ARG to supplement library literacy skills taught in Academic and Information Management module
What is an Alternate Reality Game

• ARGs are games
• A game
  – Collection of activities
  – Guided by artificial rules
  – Overcome obstacles
  – Achieve specific goals
What is an Alternate Reality Game

• The context of an ARG is our reality
• Interactive fiction
  – Player driven narrative
• Complex obstacles
  – Requires collaboration between players
• Use multiple types of media and platforms
• Puppet masters – The facilitators of the game
• Rabbit hole – The starting point of the game. What grabs the players attention to start of.
Skills acquired in the Multimedia degree: First year

- basic HTML and HTML 5;
- basic image editing and creation skills (Photoshop, GIMP);
- basic design skills;
- basic programming skills (Java, C#, C++);
- introduction to animation (Adobe Flash);
- introduction to sound editing (Adobe Audition).
Skills acquired in the Multimedia degree: Second year

• advanced web development skills (JavaScript, jQuery, PHP etc.);
• usage of web based technologies (Web 2.0 technologies);
• advanced programming (C++, Java, C#);
• relational database development (SQL);
• theoretical basis of multimedia basics (hypermedia, information architecture and trends);
• video editing and creation (Adobe Premier).
Skills acquired in the Multimedia degree: Third year

• Computer Science skills vary depending on the students individual subject choice and varies from computer security, artificial intelligence, computer graphics, programming language, etc.

• a theoretical base of multimedia trends (Social media and education, etc.)

• advanced video editing (Adobe Premier, Adobe After Effects);

• Human Computer Interaction (Gesture based interaction, Multiuser interfaces, etc.);

• Game design theory.
Student ARGs: Number 13

• Developed and ran in 2010
• Narrative: Save a student’s sister from a Free Mason sect.
• Rabbit hole: The university website for the Multimedia degree was “hacked”
• Gameplay: Treasure hunts, puzzles
• Technology: Web, interactive maps, timers, video editing, audio
• Considered successful by players and puppet masters
Student ARGs: Colossus Innovation

• Developed and ran in 2011
• Narrative: Giant corporation dabbling in pseudo science wants to stop/cause the end of the world.
• Rabbit hole: Advertising and recruitment on campus by CI
• Gameplay: Interactive puzzles, logic puzzles, narrative based mechanics.
• Technology: Web, video editing, audio
• The game did not successfully complete but students (puppet masters) still achieved the learning objectives
Student ARGs: Campus Ghost

- Developed and ran in 2012
- Narrative: Campus ghost story myths. Help a ghost to set the other ghosts free.
- Rabbit hole: A metallic structure with a electronic timer counting down.
- Gameplay: Treasure hunts, puzzles, encryption (inside images)
- Technology: Web, video editing, audio, physical electronics, image editing
- Considered successful by players and puppet masters
Examples of ARGs

- The Beast – considered to be the first successful ARG
  - Created for Stephen Spielberg’s movie AI
  - Created by Microsoft employees in 2001
- Ingress – currently being run by Google
  - Created by Google for the purpose of crowdsourcing (guessed)
  - Use current technology like Augmented Reality
The difference between games and gamification

• Gamification – “Gamification is the use of game thinking and game elements in a non-game context in order to engage users and solve problems”
• Gamification enhances the experience of using an existing system by borrowing from games
• Games are developed from the ground up
ARG: advantages to the designers and the players in the learning environment

- Designer employ previously learnt skills in real world applications
- The designer and player both have to find information from a variety of places, evaluate the relevance of the information, and apply the information to solving the current problem
- The players are provided with an immersive experience that arguably better simulates the reality of information distribution
- Interactive nature - promotes active learning environment for the player
Challenges when designing an ARG

• Limited time in designing and implementing a comprehensive ARG
• The ability of the designer group to effectively work together
• Successful play cannot be guaranteed
• Limited funds
• Available technology to the player base
Possible future application of ARG in Library Literacy training

- It is essential for education institutions to equip people with the skills and means to become information-literate and to enable them to locate, access and evaluate information (Mchombu & Cadbury, 2006).
- A compulsory module in Information Literacy in Academic and Information management is presented at University of Pretoria.
- An ARG can supplement the skills taught in the module
  - Simulate information distribution
  - Seek, locate and evaluate information
  - Learned skills will be incorporated into the game puzzles
Possible future application of ARG in Library Literacy training

- Skills like:
  - Locating various information sources
  - Accessing these sources for relevant information
  - Evaluate information

- The ARG can incorporate these skills into the narrative and puzzle design

- Building the ARG, the fourth year students will use their skills required through the MM degree

- Playing the ARG will enable the first year students to use their skills gained through the Academic and Information Management module
Conclusion

• An ARG can be used as a capstone for the multimedia degree
• Designing the ARG effectively utilizes the skills learned through their previous three years of Multimedia studies
• Playing a game with challenges designed to utilize library literacy skills is an effective way to strengthen and enhance these skills.