Communicating Research Findings Through Games

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When Interactive Animation and Communication Research Converge: An Innovative

Presentation and Gamification of Research Findings

This digital media submission converges cross-cultural communication research findings with interactive digital media design. The research findings used in this interactive digital media is a cross-cultural examination of Thais and Americans in their facework behaviors employed during a deceptive episode. Undoubtedly, research work is important and valuable to any scholarship. Nevertheless, descriptive research results and academic style of writing can be mundane and, sometimes, hard to digest for laypersons or scholars of other fields. Therefore, as young scholars who are interested in creative multimedia, we are committed to experimenting innovative approaches in communicating and presenting traditional research.

This interactive digital media is innovative because 1) it converges traditional research and digital media in an innovative and creative manner that is rather novel to the field of communication, and 2) this presentation is inventive because of the process of gamification of research results. Conference attendees are no longer a merely passive audience. They can approach the researchers and the set-up to select different cartoon characters and play a game to learn more about the research findings. In summary, this presentation is twofold: it utilizes the use of cartoon animation as well as integrated game-like features. Specifically, part one of the animation and voice narration describes the background of the original research including an animated story of the scenario used in the survey. The second part covers research findings in an interactive game-like setting through the process of gamification. Altogether, this is a complete package of an innovative digital media piece.

Communicating Research Findings through Games

Currently, there are many definitions of gamification. Huotari and Hamari (2012) define gamification as a service design with the aim to change users' behaviors through gaming experiences. In the present project, the aim is not to change users' behaviors, but to facilitate the communication and learning process of research findings. Therefore, we take a broader definition of gamification, which is "the use of game design elements in non-game contexts" (Groh, 2012, p. 39). The model of "game with a purpose" has recently received much attention in the educational contexts (Deterding, O'Hara, Sicart, Dixon, & Nacke, 2011). As technology becomes more integrated in the educational contexts, teachers, practitioners, and scholars are given more opportunities to utilize these media innovations for learning purposes. Many companies use games to interact with their customers to increase online presence and boost their profits. Instead of using games for profit, we aim to promote using games for non-profit purposes, specifically, to innovatively communicate research findings with the hopes to expand the reach of academic research.

The Current Project

The target audience of the present interactive digital media is anyone who is interested in an innovative approach of presenting and communicating research findings as well as scholars that would like to heighten the interaction between researchers and audience. This target audience includes students, researchers, scholars, practitioners, and educators of communication and new media studies as well as the general public that enjoy interactive learning method by watching animation and being involved in game-playing. This media is effective at appealing to the target audience because it interestingly converges traditional research with innovative presentation method. Most people enjoy being a part of the learning process and the gamification

of the research results can be, both, entertaining and educational. This project has the potential to widely contribute to the field of communication and new media studies both through exhibiting the ways in which animation and gamification can be beneficial to academia in reaching out to the general public and through expanding the body of knowledge pertaining to cross-cultural communication patterns by looking at the intersection of intercultural and interpersonal communication concepts.

Process of Gamification: The "Research to Game" Framework

In order to develop an interactive game out of research findings, the *"Research to Game"* framework is designed and implemented. We believe this framework can be replicated and utilized by any researchers who are interested in turning their research findings into interactive game. The process includes 6 steps: 1) select the audience group, 2) develop background narrative, 3) design user experience & user interaction, 4) outline game storyboard, 5) fabricate game mechanics, and 6) play testing. This framework can guide the researchers to transform their research findings into the interactive game that is appropriate for their audience. However, the final step of the protocol required the researcher to test the game with their audience in order to finalize the game's details and modify the game to suit the users.

Figure 1

A Flowchart of "Research to Game" Framework
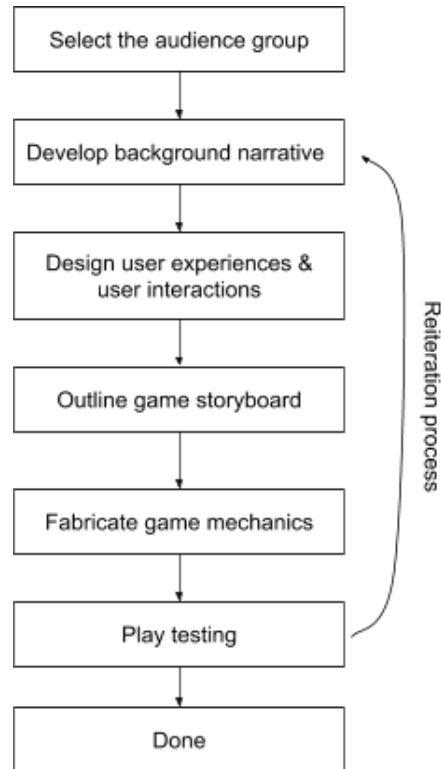
1. Select the Target Audience

To start converting a research project into an interactive game, the researcher needs to consider the target audience, which is the group of users that the researcher want to present the research finding or the research data to. Typically, the target audiences are the people that would benefit from the research project. For example, if the research project is on the factors that promote cross-cultural communication in students, the target audience could be international students who would learn something new that help them communicate effectively. However, the target audience can be different from the sample used in the research itself. For example, if the

research project is on children's nutrition, the target audience for the game can be children's

parents or anyone who will benefit from knowing the facts in the research.

2. Develop Background Narratives

After the researcher establishes the target audience, the development of background

information is the second step. In this process, the researcher can use the introduction part in

his/her research to create the narrative. However, not all the information in the research

introduction is necessary for the game user to know. The researcher need to consider the

audience and develop a narrative that is interesting and also informing the important information

to the users before they start playing the game. At this point, the narrative can just be a list of the

information that the researcher wants to present and that the users need to know in order to move

on and engage in the game part.

3. Design User Experience and User Interaction

Interaction is the core of interactive game. At this stage, the researcher needs to think about

the experiences that the user should get from playing the game. The game can just allow the

player to discover different research finding in the interesting way, simulate how the research

was conducted and how it make sense, or motivate the users to change their behavior by showing

the intriguing data. After the researcher decides the theme that they want the game to be, he/she

needs to develop the interaction part that go along with the theme. At this process, the researcher

can think about the situation in the game that shows their research finding or data. For example,

if the research is on the factors that promote cross-cultural communication in students, the game

can simulate different conversations and challenge the user to identify the best conversation.

4. Outline Game Storyboard

After interactive part of the game is designed, the researchers need to combine the narrative part and the interactive part of the game together. The suggested technique is to draw a storyboard that includes all the "scenes" in the game. By doing that the researcher can see the continuity of the information and clearly understand the flow of the experience, and the data that the users will learn. The researchers might need to reconfigure the background narrative if some important information is missing. The researchers also need to develop the game characters and scenarios in the game that is representing the research finding. This requires the researchers to imagine their research project into something that is meaningful and creative. At the end of this process, the researchers must have a clear understand of how the game would flow from the start to the end.

5. Fabricate Game Mechanics

This process requires some technical skills if the researchers intend to develop the game on computer software. However, a good game does not require advance technology, but it has to be appropriate to the users. There are many computer software such as Gamemaker, Contruct2, and RPG maker that allow the researchers to implement their storyboard into an actual playable game on cross platform devices (e.g., computer, smartphone, and tablet). However, the easiest way is to consult with a game developer to come up with the game mechanics. The storyboard that was developed would be the great medium in communicating between the researcher and game developer.

6. Play Testing

The last process of the game development is to test it with the target audience, the researchers should also develop a survey that consult with audience that play the game and

investigate the strengths and weaknesses of the game. Typically, this process involves multiple play testing in order for the game to arrive at the point where it is, both, interesting and serving the as the right tool to communicate the research project effectively.

The Future of Innovative Interactive Media in Academia

Interactive media such as games and animation can be extremely beneficial in academia for the purposes of communicating research and teaching. We believe that the "Research to Game" framework can contribute to the collective knowledge of educational game by providing the replicable way in creating a game that would interestingly represent the research findings. This framework can bridge the gap between the community of academics and the general public by helping the researchers navigate the process of gamification of their research findings. However, it must be noted that there are threats to meaningful gamification (Nicholson, 2012). For instance, Nicholson (2012) states that organization-centered and mechanism-centered designs are barriers to meaningful gamification. While thinking about converting research to games, researchers to need be user-centered and consider which pieces of information users would find interesting instead of what he/she thinks need to be included in the game. All in all, we would like to propose three ways academics could help promote the use of innovative interactive media in academia.

First is the inclusion of games as a part of national and international conferences. Conferences are good places to promote interactive way of presenting research. Conference organizers should consider giving spaces for presenters that would like to present their research as games and not the traditional panel-style presentation. Similar to Scholar-to-Scholar format that already exist at most communication conferences, organizers can encourage game

presentations by providing such spaces for presenters. We believe this is plausible for national and international conferences to adopt and has a huge potential to succeed in such environments.

Secondly, integrating innovative digital media assignment into the communication curriculum. Educators who are interested in advancing the field could integrate an innovative digital media assignment into their curriculum to encourage more creativity in communicating research. This is not to say that being able to present research results traditionally is not important, however, as the society progresses, we will be seeing a lot more of innovation in communicating and presenting research. Students will be more equipped and competitive once they are on the job market if they have the skills to develop engaging and innovative ways to communicate information.

Lastly, gamification is only the starting point of the future of innovative interactive media in academia. There are also other emerging technologies that support interactive media such as Virtual Reality technology (VR), motion capture techniques, and etc. The use of VR in demonstrating research findings would be a great way to converge innovation and traditional research. For example, this could be particularly fitting with visual ethnography and other visual research that involves video and photography. VR is believed to be a good medium in inflicting emotions in the users, which is the goal of many visual communication researchers.

In conclusion, the goals of the current project are 1) to demonstrate an innovative and interactive way of communicating research through animation and game, and 2) to encourage scholars to adopt this practice by offering a "Research to Game" framework. We hope that this framework can serve as a starter for people who are thinking about new ways to communicate research findings. We believe that meaningful gamification of research findings has a potential in popularizing academic research and expand its reach to the general public.