Unravelling Medical Game Research: Informing players of foundational evidence

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ABSTRACT
As the health gaming and application (games for health) field grows, research information gaps must be addressed to justify the field as a serious source of health information and support. For the user, games for health often do not contain background information or evidence support for its development. This places games for health at a disadvantage since users need to know that the content driving the game or application is accurate, since it can affect and change their health.

During the panel, games for health developers and health sciences librarians will present issues, applied methods, and suggestions for solving this evidence gap. The DiGRA community will benefit from this panel discussion as the utilization of games for health is currently curtailed by the lack of background evidence and support. Initiating this conversation will allow the games for health community to immediately acknowledge and address information gaps and met FDA requirements.

Keywords
Digital literacy, evidence, research, bibliography, background narrative, medical apps, medical games, games for health, health apps, health games, mHealth, medicine, library, information, entertainment arts, engineering, digital multimedia

INTRODUCTION
Current medicine builds upon the previously generated knowledge. After an overview of biomedical literature, the authors present a narrative of background information. This narrative provides the audience with a more complete story as it is designed to highlight past research and identify current shortcomings. With this background narrative, the authors demonstrate research significance since it adds to the future body of knowledge.
Similarly, at the end of biomedical literature, the authors provide a list of cited references. With the list of references, the audience can examine the evidence to better assess the authors’ statements, interpretations, and resources for standard health values and levels.

Unlike written literature, digital games and applications do not contain this type of supporting evidence. Without a precedent for including this information, the health game and application (games for health) field is at an extreme disadvantage. Health professionals would be more willing to recommend games for health if the information driving the creation of the game is acknowledged. Games for health developers may heavily research the health topic under consideration or even the health professional stakeholders may provide this information, but the end-user only observes a brief summary and the game or application itself. The background research evidence is necessary to justify the games to the health field for them to be given serious healthcare application. For the end-users, both health professionals and patients, a lack of supporting biomedical evidence for the games may cause hesitation in using them. Acknowledging the evidence would begin to provide critical digital literacy for games for health.

Digital game and application developers and health sciences librarians formed a working group to address this evidence gap in games for health. The group will investigate previous measures to resolve this issue in digital multimedia. After investigating previous measures, the group will outline methods to include background evidence and bibliographic information in games for health. This information will begin to confirm the significance of games for health as valuable tools in the health system.

**PANEL PROPOSAL**

The panel will be composed of members from the working interprofessional group. This panel will first provide an overview of the current games for health issues, regarding the lack of background evidence and bibliographic citations. After outlining issues, the panel will review previous methods or steps to resolve this information gap more broadly in digital multimedia. Finally, the panel will provide a few suggestions for solving this evidence gap for user. These suggestions include research expectations and potential methods for including this type of information in the game for user viewing.

**CONCLUSION**

This panel is designed to initiate the conversation concerning the information and research evidence gaps in games for health. Addressing these shortcomings now is essential since the games for health industry is growing exponentially. By providing suggestions for research expectations and standards, the panel will assist the DiGRA community by starting to unravel how evidence-based games for health will help to inform users. As the FDA requires such evidence documentation in games for health, this panel will be applicable to many game developers.