Chapter 11
Ethical Challenges in Online Health Games

Matthieu J. Guitton
Laval University, Canada

ABSTRACT

Using heath-oriented applications supported by and delivered through the Internet, eHealth and mHealth strategies are part of the modern therapeutic arsenal. Among them, online health games cumulate the advantages of online support groups and telerehabilitation therapies in a playful environment. Furthermore, compared to health games not delivered online, they abolish geographical constraints and make it possible to simultaneously reach large numbers of individuals – health professionals and patients alike. However, online health games also raise several ethical questions which may hinder their practical efficiency and their expansion. Ethical challenges related to online health games echo some of the concerns already identified for online games and online spaces, operationalized in the particular context of health applications. This Chapter will summarise and address these challenges, ranging from the "out of the game" ethical challenges to the "in game" ethical challenges, and suggest practical recommendations in order to implement efficient, safe, and ethical online health games.

INTRODUCTION

With the rise of new technologies of information, the recent years have witnessed the emergence of new health-related strategies. Using heath-oriented applications supported by and delivered through the Internet, eHealth and mHealth strategies are rapidly becoming part of the modern therapeutic arsenal. Among these new emerging tools, online health games represent a weapon of choice.

Among online games, massively multiplayer online games, such as the virtual platform of Second Life or the famous massively multiplayer online role-playing game World of Warcraft, are extremely popular. Massively multiplayer online games are able to support the simultaneous presence in the virtual environment of considerable numbers of human-controlled avatars, thus leading to the possibility of extremely important interactions for players immersed in the game through their avatars. In the context of healthcare applications, this type of online games cumulate several advantages, including those of

online support groups and telerehabilitation therapies, in a playful and pleasant environment. However, although online health games bear promises of fascinating developments, they also raise several ethical questions which may hinder their practical efficiency as well as their expansion. As for any medical innovation, identifying, understanding, and adequately answering the ethical challenges related to this new way to take care of patients will be one of the first required steps before the development and operative implementation of large scale online health games.

The nature of ethical challenges related to online health games is complex and multiform. Indeed, arising at the intersection of both the medical and the information technology fields, online health games present ethical challenges specific to each of these two fields, and ethical challenges resulting from their interaction. Therefore, ethical challenges related to online health games echo some of the concerns already identified for online games and online virtual spaces, operationalized in the particular context of health applications, as well as challenges linked to democratization of eHealth applications such as the problems related to the interactions between online health games and electronic health record (EHR).

This Chapter will address a few of these challenges, ranging from issues surrounding games (e.g., the problem of the game access related to patient's self-disclosure) to issues related to the games themselves, in order to help serious game developers and eHealth practitioners to optimize these tools for a broad population.

1. HEALTH GAMES, ONLINE HEALTH GAMES, AND MMO HEALTH GAMES

Whatever the therapeutic strategy envisioned, patient engagement is one of the keys to insure the success of the therapy. Reaching satisfactory levels of engagement has thus been a critical issue in developing eHealth and mHealth applications. By using game aesthetic and thinking and group-based mechanics, gamification processes help to engage people more strongly (Kapp, 2012). Indeed, computer games promote interactivity, and ultimately engagement from the player by promoting several aspects such as intrinsic motivation, cognitive apprenticeship, and flow (Dede, 2009).

Compared to health games not delivered online, online health games abolish geographical constraints, and, in a context of limited resources, allow therapists to reach patients whatever the distance. They also allow patients to use the game in the comfort of their home, and in the safety of relative anonymity.

Multiplayer online games – and particularly massively multiplayer online (MMO) games – add a social dimension to online health games. People using a MMO game are not just playing a game, they become part of a community (Guitton, 2012). Furthermore, MMO games make it possible to simultaneously reach large numbers of individuals – health professionals and patients alike, which is an important point when considering the potential benefits of a health game. Indeed, not only MMO games can promote peer-interactions, they can as well offer the possibility for health professionals to be part of the virtual world as agents. By allowing health professional to directly monitor the progresses of the patients, or to provide instantaneous support or advice in the virtual space of the game, this possibility considerably enhances the value of the therapeutic potential of the experience. Hence, MMO games cumulate the advantages of health games with those of online support groups and telemedicine-based distance therapies, in a playful and pleasant environment.

Interestingly enough, such health-oriented applications – and the related communities of users – can spontaneously emerge even in MMO settings not primarily designed for health purpose, such as the virtual world of Second Life (Lomanowska and Guitton, 2014). Indeed, the possibility for Second Life

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