Positive Psychology in Game Design: A Framework for Collaboration

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ABSTRACT

With more than 1.5 billion gamers around the world as of the end of 2015, with further growth projected as mobile devices achieve greater market penetration, there has been a great deal of interest in using games for purposes beyond entertainment. However, gamification and serious games often fail to engage prospective users, generate commercial interest, or meet long-term objectives, due to mismatched expectations, failures in communication, and lack of understanding of design. Future success requires the development of a common framework to facilitate inter-professional collaboration, with this paper proposing the use of Seligman's Well-Being Theory as the basis for such a framework.

Keywords

Well-Being Theory, Game Design, Inter-Professional Collaboration, Psychology

INTRODUCTION

Due to the rapid proliferation of smartphones in the global mobile market, the global game-playing population has grown to over 1.5 billion people worldwide (EEDAR, 2015). As the number of smartphone users continues to grow, with conservative estimates projecting a rise from 2 billion at the end of 2015 to 6.1 billion in 2020 (Ericsson, 2015), the mobile games market is likely to keep pace. By 2020, 4.5 billion people – nearly half the world's population – will be gamers. As such, there have been a number of efforts to leverage game-related techniques and technologies for positive impact, mostly through gamification and serious games, though most have met with limited success.

Gamification, traditionally defined as the addition of game mechanics to everyday processes (Huotari & Hamari, 2012) in an attempt to increase motivation for otherwise unpleasant tasks, is currently one of the leading buzzwords of the healthcare sector. Like big data, it was positioned as a magic bullet that would combat lack of adherence to medications, encourage healthy eating and exercise habits, and otherwise help people manage their conditions – but the reality falls far short of the hype, with 80% of all

gamification initiatives failing to meet their objectives (Gartner, 2012), especially as they pertain to long-term change.

Serious games, a somewhat oxymoronic term deriving from the Renaissance "serio ludere," referring to entertainment that dealt with serious matters (Djaouti, Alvarez, Jessel, & Rampnoux, 2011), are games which have something other than "entertainment, enjoyment or fun as their primary purpose" (Michael & Chen, 2005). They long predate the concept of gamification, and indeed, account for some of the earliest games, predating even Pong (Djaouti et al, 2011). However, despite their long and storied history, with some even winning numerous awards for innovation and proving more clinically efficacious than traditional methods of teaching or performing therapy, the vast majority of these games have not been commercially successful.

The obvious question of why these game-based interventions, while initially promising, fail to achieve wider success has an equally obvious answer: bad design (Gartner, 2012).

In the industry at large, there are very few designers who work on gamification, with most believing that it is a marketing gimmick built upon a superficial understanding of design (Huotari & Hamari, 2012). Most approaches to gamification use points, levels, and leaderboards as if these alone are enough to drive motivation, without considering that real life is already built upon points, levels, and leaderboards (in the form of wages, ranks, and workplace recognition). Likewise, there is an industry-wide perception that serious games are not truly games, and that who make them allow the core tenets of game design – and meaningful play – to be compromised by other concerns.

There is some truth to this, unfortunately, as among academics and health professionals, there is often the perception that game design is secondary to clinical and classroom efficacy, resulting in games that are unengaging, unsightly, and utterly unappealing.

SPARX, a game which sought to treat mild to moderate depression in adolescents through cognitive-behavioral therapy, is an excellent example. Though clinically effective, with a study finding that 44 percent of those who played the game achieved remission from depression, as opposed to the 26 percent in conventional care (Merry, Stasiak, Shepherd, Frampton, Fleming, & Lucassen, 2012), it was a commercial failure, with its distributor closing down in 2015. Among the reasons why were a nearly unusable user interface, the lack of a save function, lack of meaningful choice in gameplay, and its problematic branding as a "game for depression."

To better leverage the potential of games and game-based techniques, a framework for inter-professional collaboration is necessary, with a common language explaining how the principles of design are not secondary to clinical efficacy, but a vital part of crafting engaging, immersive experiences with the power to heal.

It has long been assumed that there was a "magic circle" that isolated games and other sorts of play from the outside world (Huizinga, 1938), but recent research has found that this membrane is porous (Castronova, 2008), with behavioral assumptions, attitudes, and other elements from one side of the membrane crossing over to the other. This implies that the impact of game design and clinical/educational

considerations on one another – and the user – can be fully understood – and modeled – in terms of psychology.

Thus, this paper examines the psychological principles behind effective game design, such as Self-Determination Theory (Deci & Ryan, 2000), Salutogenesis (Antonovsky, 1987), and Flow (Csikszentmihalyi, 1990), all of which fall under the larger construct of Well-Being Theory (Seligman, 2011). It is this last, drawn from Positive Psychology, that this paper proposes as the basis of a framework for collaboration, so that designers, developers, clinicians, educators, and academics, can all work together to more effectively leverage the power of games to change the world.

BIO

As a game designer, health professional, and chair of International Game Developers Association (IGDA) Serious Games, Matthew Lee, M.S., R.N., has worked with the MacArthur Foundation on how virtual worlds can be used for education and as an extension of conventional therapies, created a digital toolkit for dealing with PTSD for the American Nurses Foundation, and more. As a Fulbright Scholar, Matthew's research examines how an understanding of psychology can be used to drive the creation of fun therapeutic experiences meant for use outside the clinical environment.

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