Preface

Persuasive games are a natural progression from the rise of video games in popular culture and a technology push that is sweeping the world (Ruggiero, 2013, 2014). Video games create opportunities where people can learn from their experiences in a virtual world and apply that knowledge base to real world problems. Persuasive games are games that use content, affect, and persuasive techniques to change the values, wants, beliefs, and actions of players. The study of persuasive games is an interdisciplinary field of research necessitating a range of knowledge in an array of academic subjects; persuasive games are a form of video games (Salen & Zimmerman, 2005), learning (Gee, 2003; Prensky, 2006), and affect (Bogost, 2003; Evans, 2011).

Persuasive games have been studied in various contexts with differing definitions over the past 40 years. Predating the invention of the computer, humans have used play and games for teaching necessary skills and socialization for millennia (Huizinga, 1955; Abt, 1970). Games explicitly created to change attitudes and behavior date back to 1790, when British publishers of the New Game of Human Life advised parents to play the board game with their children and “request their attention to a few moral and judicious observations explanatory of each character as they proceed and contrast the happiness of a virtuous and well spent life with the fatal consequences arriving from vicious and immoral pursuits” (Lepore, 2007, para. 3).

In 1843, a board game released in the US called Mansion of Happiness gave instructions that instructed players to make good and moral decisions to gain the seat of happiness. Moreover, Milton Bradley created the Checkered Game of Life in 1860 with the intention “to forcibly impress upon the minds of youth the great moral principles of virtue and vice.” While a commercial success that helped launch Bradley’s board game business, there is no evidence that it had any moral affect on the minds of children (Lepore, 2007 para. 3).

The 1960s and 1970s witnessed a surge of multiplayer simulations. Given credibility by the Rand Foundation, which developed a number of persuasive games for use in the Cold and Vietnam wars; most of these were intended for education, training, and exploring alternative courses of action (Abt, 1970) with some persuasive
purposes. For example, sociologists at Johns Hopkins developed *The Life Career Game, The Family Game, The Representative Democracy Game, The Community Response Game*, and *The Consumer Game* with game aims at the player learning the necessity to defer gratification through persuasion techniques (Avedon & Sutton-Smith, 1971).

Persuasive games today are an established part of video game landscapes. They have attracted the attention of the media (Armstrong, 2005; Ochalla, 2007), academics (Bogost, 2003, 2007, 2008; Frasca, 2001; Gee, 2003, 2007), and funding agencies such as the MacArthur Foundation (MacArthur Foundation, 2012). Websites, both academic and commercial, feature persuasive games such as Ben Sawyer’s Serious Games Initiatives Website, which has a repository of information about serious games (including persuasive games) and has served as a news source since 2002. Ian Bogost has established a commercial site, www.persuasivegames.com and a non-commercial site www.watercoolergames.org to serve as a forum for the uses of video games in advertising, politics, education, and other everyday activities. In 2008, serious game creators and scholars, Mary Flanagan and Helen Nessenbaum, launched www.valuesatplay.org to harness the power of video games in the service of humanistic principles. To achieve this goal, Values@Play sponsors an annual “Better Game Contest” and encourages developers to consider the effects of their games and to include positive principles like equity, creativity, diversity, and negotiation (Flanagan & Nessenbaum, 2012).

**THE CHALLENGE**

How can video games “modify or change values, wants, and beliefs of others”? Attempts at analyzing persuasion date back to ancient Greece; according to Aristotle, persuasion is achieved through rhetoric, and three parts that include ethos, pathos, and logos (Cooper, 1932). Ethos uses claims about the persuader’s moral character and his or her trustworthiness, an important aspect of the persuasion process if it is to be effective (Evans, 2011). Pathos is an emotional appeal to secure the goodwill of the listener, while logos is the reasoned argument that appeals to the listener’s rational mind. Aristotle’s categorization has been elaborated over time but is still useful for analysis of persuasion (Bogost, 2007). An important addition to the definition of persuasion is Burke, who in 1969 defined it as “the use of words by human agents to form attitudes or induce actions in other human agents.” While the term “words” is limiting, Burke does also include non-verbal means of communication.

However, decades of research on advertising and marketing have confirmed that persuasion is a complex phenomenon dependent on many interrelated factors that make the cross-effects of these factors difficult to separate (O’Keefe, 2002). Fac-
tors such as the interest of receivers of the message, their level of education, their knowledge of the issue, their cultural background, their feelings about the originator of the message, the medium used for the persuasive message, and competing factors all influence the success or failure of an attempt at persuasion (Petty & Cacciopo, 1981).

Persuasive games use several mechanisms of persuasion that have been posited by game researchers, including immersion, flow, engagement, persuasive rhetoric, and persuasive ethos.

Immersion is the experience of being transported to an elaborately simulated place that takes over all attention and becomes enveloping (Murray, 1997). Technology has increased the power of immersion through video games. According to Kahled (2007), “It seems that games as persuasive technology hold much promise for changing people’s attitudes: games are by nature interactive, and people tend to retain more impressions” (p. 17). Related to immersion is the concept of agency, which Murray (1997) describes as the satisfying power to take meaningful action and see the results of our decisions and choices. Agency helps immersion build when our actions in the video game are appropriate to the game narrative, strengthening the belief in the consistency of the game world.

Flow has been a theory posited by some game theorists (Amory, 2006) that games are compelling because players are in a highly energized state of concentration and focus (Csikszentmihalyi, 1990). Flow is achieved when the level of the challenge and the level of the player’s skill are in dynamic tension, creating a highly focused state of mind. Amory (2006) posits that the player can assimilate tacit knowledge through the process that is then assimilated and constructed after emerging from the state of flow.

Engagement is closely related to flow where the player finds the game so engrossing that they assimilate facts and values without realizing they are doing so (Quinn, 2005). Research (Padgett, Strickland, & Coles, 2006; Thomas & Cahill, 1997; Tuzun, 2007) supports the claims made above that games increase engagement through flow, immersion, and agency. Accordingly, when players are more engaged with the game, they are more likely to see the situation from the perspective presented in the game. Yee and Bailenson (2006) placed college-age students in a virtual environment where they used avatars that resembled elderly people. The researchers tested the attitudes of the subjects towards the elderly and found that the computer simulation increased empathy toward people with similar traits to that of the avatar and decreased players’ stereotypes of the elderly. Another study on engagement by Goldsworthy, Barab, and Goldsworthy (2000) found that adolescents with ADHD who played a simulation game performed significantly better than the control group on measures of engagement. Both of these studies demonstrate that games with a persuasive message can affect engagement through manipulation of the immersion elements within the game context.
Both procedural rhetoric and ethos are Aristotelian theories of persuasion updated by Bogost (2007) and Evans (2011). While Bogost defines procedural rhetoric as “the practice of using processes persuasively” (2007, p. 2), Evans argues that rhetoric is not enough and includes ethos or “persuasion by empathy, fact, and integrity” (2011, p. 71). By demonstrating that every action in the game has consequences, which are built into the game structure by the designers, the rhetoric and ethos of these procedures not only allow the player to learn through game play but also are a more effective and longer-lasting way of assimilating information (Bogost, 2007). The mechanisms that make a persuasive game work as a persuasive tool can be seen through current examples of persuasive games.

Having established how games can persuade, is there a way to determine how effective they are? How many students who play Food Force, a game that puts them in the shoes of a World Health Organization food worker and that has been downloaded 4 million times, retain an interest in the politics of food distribution after game play concludes? America’s Army, a game developed by the U.S. Army, has had players dedicate more than 160 million hours of game time (Clarren, 2006), but how many of those players actually enlist in the Army? Games that are intended to lead to actions are easier to evaluate because you can measure the effect. For example, the effectiveness of a game that is aimed at persuading people to visit a Website can be calculated by the number of players who clicked through from the game to the Website.

When measuring a game without such concrete goals, such as the intention to influence the players’ attitude, this influence is more difficult to measure. While O’Keefe (2002) states that persuasion can be measured by comparing attitudes, other persuasion theorists such as Miller (2002) flatly state that no means exist for directly observing or measuring an attitude where only a minimal relationship is often observed between indicators and attitudinal behaviors. According to Miller (2002), “Persuasion is seldom, if ever, a one-message proposition; people are constantly in the process of being persuaded” (p. 14).

ORGANIZATION OF THE BOOK

This book is organized into 13 cases. A brief description of each follows.

Chapter 1 illustrates the way in which a football manager simulation game enhances the processes through which players formulate their social identities both within and beyond the game itself.

Chapter 2 presents a post-mortem covering three consecutive offerings of a course on persuasive games at university level. Design and pedagogical perspectives are described and best practices suggested for future courses.
Chapter 3 describes the design and implementation of a game that would be used and appreciated by a target population that are not used to being trained and had little affinity with applied gaming: mayors. Persuasive design was used to create an engaging and informative experience that explored decision making during crisis management.

Chapter 4 defines six factors that determine the conceptualization of persuasive strategies for advergames. These factors are used to analyse an advergame launched by Volkswagen.

Chapter 5 proposes a framework for encapsulating healthcare processes in game-based learning to provide doctors with an insight into how game-based learning could be used positively for young people living with long-term medical conditions.

Chapter 6 describes a persuasive game aimed at enhancing the walking activities of elderly residents in neighbourhoods characterized by a low socioeconomic status. First, the design process is described, followed by the user studies, concept testing, and iterative prototyping. Second, the final prototype is presented and framed using the theoretical Persuasive Game Design model.

Chapter 7 analyses the manner in which values are conveyed to the player in a persuasive game for reducing household energy consumption.

Chapter 8 looks at the Tavistock method as a game to assess and train individuals on organizational politics. The basic premise of the method is considered, adapted using game mechanics, and implemented to test the responses to organizational politics.

Chapter 9 identifies and exemplifies a potential subset of persuasive games, called emergently persuasive games, which focus more on unspecified, player-led persuasion as opposed to specific, designer-led outcomes.

Chapter 10 describes the game design and study of a large-scale field experiment where a persuasive pervasive game was put to use to influence households’ attitudes towards electricity consumption. The chapter focuses on how the game impacted the psychological process of persuasion in responding families and individuals.

Chapter 11 describes a science outreach program that was designed with the goal of teaching basic physics and math to middle school students and encouraging them to take an early interest in science. The main tool in achieving this goal is a series of online games described in this chapter.

Chapter 12 describes a persuasive game designed for an urban context with a high level of multi-ethnic presence. The chapter looks at a quest-based game where players are ordinary citizens who are plunged into an alternative reality where they deal with gestures and tasks of everyday life in a foreign context.
Chapter 13 examines the strategies and tactics of persuasion used by the players in a role-playing game organized online. Six different categories of closure are described, and each is analysed in terms of conveying a persuasive message to a target player.

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REFERENCES


