Preface

People have been drawn to the act of gameplay perhaps since the earliest days of humanity. Historians reported evidence of the first board games dating back to 3100 BC (Piccone, 1980) and the earliest iterations of chess in 200 B.C. (Murray, 1913). Even then, games were used to establish hierarchy, to entertain, to learn or to escape the mundane. To better understand these motivations, theorists and psychologists have debated what makes games appealing for decades (Huizinga, 1950; Caillois, 1961; Spariosu, 1989; and Fink, 1968). Ultimately they agree the core tenets of games are that they are voluntary, games have rules, they challenge players with obstacles and they require imagination, strategy, and the ability to cooperate when the game involves team play (Caillois, 1961).

Today games continue to engage players in similar ways as in the earliest days of chess or backgammon, but now often with additional stimulus of immersive environments, internationally and digitally connected players and an unprecedented ability to create and distribute games via digital platforms. Quite significantly, today online games alone represent an economy of $41.4 billion in U.S. dollars, up from $13.8 billion a decade ago (Statistica.com, 2015).

FROM GAMES TO GAMIFICATION

In recent years, games have found a new application, as the era of “gamification” launched. The first use of the word “gamification” dates back to 2008 (Paharia, 2010) with many alternate terms like “productivity games,” “playful design,” “alternate reality games,” and “exploitationware” used to describe this phenomenon (Deterding, Dixon, Khaled, and Nacke, 2011). One important question about gamification is whether it represents something significantly different from previous phenomena in area of research on games and gaming. Deterding et al. (2011) argue and provide evidence for gamification demarcating “a distinct but previously unspecified group of phenomena, namely the complex of gamefulness, gameful interaction, and gameful design, which are different from more established concepts” (p. 10). This forms the basis for a clear definition of gamification, which in simple terms, “is the use of game design elements in non-game contexts” (Deterding et al. 2010, p.10).

In other words, gamification is not simply creating a video game or board game for the sake of play. Rather, gamification is the application of game-thinking and game dynamics in non-game contexts to engage users, increase participation, facilitate learning, and solve problems, often through continuous and instant feedback. Game dynamics are used to motivate behavior, they create scenarios, they are bound by rules and they offer a way to progress within the game. Game mechanics are used to help players achieve goals, provide rewards and feedback. Components are built into the game design that
track progress, provide quests that are rewarded by moving up levels or gaining badges and points. While you may think of these elements in the success of Angry Birds or Super Mario Brothers, they are also critical to the success of employee programs, customer loyalty, corporate training and teaching children and adults about important issues or simply inspiring them to learn.

Consider the recent hugely successful fund-raising campaign, the ALS Ice Bucket Challenge, which generated over $220 million for the fight against ALS and engaged millions of people the world over to raise awareness (ALS Association, 2015). There are many articles written about why the ALS Ice Bucket Challenge was such a huge success (e.g., Forbes, TIME, Ignite Social Media, Digiday, Fast Company and Yahoo have all written articles explaining its success). Surprisingly, none of them explain it directly in terms of gamification although some of the articles touch on aspects of it. It can be argued that one of the main reasons why the Ice Bucket Challenge was such a massive hit is because it applied game dynamics in a non-game context really well. First, it was an interesting and curious thing to watch people dump ice and cold water on themselves, which engaged viewers. Next, it made it easy and exciting to challenge and call-out one’s friends in public, which increased participation. Ice Bucket Challenge also appealed to the basic human desire to compete, especially with family, friends and colleagues and not random strangers. The reward for participation was much more than unlocking a coveted badge; it involved a public display of altruism and selflessness in a video that was shared with one’s entire network. And all of this was for a good cause. Of course, the aspects of altruism and social good, and the fact that it was a really simple and selfless idea may have played a bigger role but the application of game dynamics is undeniably a factor in its runaway success.

Gamification is now a commonly utilized strategy used across disciplines in education, environment, government, marketing, web and mobile app design, journalism and newsgathering, social good, work and health. Researchers in all of these fields are working toward bettering our understanding of how game dynamics can be used in non-game contexts to produce desired outcomes. However, the research on gamification is in its nascent years, emerging from diverse fields and with an extraordinary range of purposes. The overall mission of this edited volume is to bring multiple disciplines together in order to first, expose gamification researchers from one field the work of others in unrelated areas; second, enhance the understanding of gamification across these disciplines; third, use that increased understanding to lead to interesting research ideas and collaborations among otherwise unrelated fields; and finally, to help advance our understanding of gamification and its application across disciplines. This collection brings together academic and industry minds from a variety of fields all connected by an interest in understanding the role of game dynamics in non-game contexts or, simply, the concept of gamification.

ORGANIZATION OF THE BOOK

The edited volume helps guide our understanding of gamification from a number of research perspectives. They reflect five categories of gamification research including the importance of game design, gamification in business, gamification in education, social change, health and self-tracking, and the gamification of journalism. Although each chapter can stand on its own, collectively the chapters provide a comprehensive view of contemporary research in gamification.
1. DESIGNING SUCCESSFUL GAMIFICATION

The volume begins with a focus on the design of games and what elements of gamification distinguish it from traditional gaming and poorly designed gamification. In Chapter 1, Nathan Hulsey explores the study of gamification from the lens of game studies and ludology. By doing so, he expands on the definition and conceptual history of gamification. He then discusses the controversial nature of history of game study and how gamification is well suited to that debate. What are the differences among gamification, serious games and traditional concepts of games and play? Hulsey provides some answers to that question in his chapter.

The next three chapters dig into the importance of game design and how that design impacts engagement and outcomes. William Upchurch and Susan Wildermuth, for example, provide a comprehensive review of what both academic and industry experts consider essential elements and functions of successful games in Chapter 2. They identify fourteen essential elements—chance, control, creativity, completion, spectacle, status, strategy, unification, rules, narrative, recognition, collaboration, escapism, and enjoyment—that all gamification designers and developers will want to consider as they consider gamification.

These elements are further explored in Chapter 3 when Selcen Ozturkcan and Sercan Sengun focus on the role of rewards and incentives as motivations in gamification. Their chapter took the concepts of regulatory focus and fit along with risk, reward and punishment and the balance of loss and gain to explore the motivations of players via an experiment that featured a fictional gamified competition. Does punishment or loss trump reward in game challenges? Their result may surprise you.

In Chapter 4, Yowei Kang extends the exploration of game design and game player experience with the use of rhetoric. Kang’s chapter reviews the development of a user experience scale, *Hybrid Interactive Rhetorical Engagement (H.I.R.E)*, to better understand user experience (UX), arguing that persuasion plays an important role in that experience.

2. GAMIFICATION AND BUSINESS

The second section of the book dives into the use of games in business. Perhaps the most widely covered use of gamification in contemporary media is in the promise and peril of gamification in the workplace and in marketing. In 2012, Gartner predicted, “By 2016, gamification will be an essential element for brands and retailers to drive customer marketing and loyalty” (Gartner, 2012). And, while enterprise gamification ranked as the top contender at the peak of the Gartner Hype Cycle for Emerging Technologies in 2013 (Gartner, August 2013), it had fallen to the middle of the technologies in the downward cycle of the trough of disillusionment by 2014 (Gartner, July 2014). Will it survive that trough, ultimately reaching mass adoption or Gartner’s “Plateau of Productivity” (Gartner, 2014)? The following chapters provide innovative insights into the role of gamification in market research and in human resource management.

Chapter 5 is guided both by existing literature and original research exploring the use of gamification in market survey research. Kartik Pashupati and Pushkala Raman begin with a comprehensive overview of the existing research outlining the challenges of digital data collections methods including online surveys and follow that with a discussion of how gamification may be the solution to these challenges. To test this hypothesis, Pashupati and Raman report on their own experimental research that compares
traditional text-based online survey methods to a gamified version of the same survey. They conclude that gamification, when done right, has potential to improve the survey-taking experience for respondents and increase the response rates and quality of the data collected by marketing professionals.

The following two chapters look specifically at the use of gamification in human resource (HR) practices. Jared Ferrell, Jacqueline Carpenter, Daly Vaughn, Nickki Dudley and Scott Goodman, researchers and consultants at SHAKER begin Chapter 6 with their study of the use of games and game elements in HR. They review the key motivational theories that explain the effectiveness of gamifying HR processes. They conclude with a proposed set of best practices in gamification for HR managers and organizational leaders. They touch on the use of games in recruitment, selection, training and performance management in the workplace. Chapter 7 builds on this theme as Michael Armstrong, Richard Landers and Andrew Collmus look at and report on the same four elements of human resource management where gamification has been successful. They conclude with recommendations on how game thinking can be used to benefit organizations from an HR perspective.

3. GAMIFICATION OF EDUCATION

Educators have long been considered pioneers in the realm of gamification. As education continues to experience challenges and change, educators have turned to games to seek creative ways to inspire and motivate their students. This section of the volume includes two chapters that explore how games may achieve this task from a better understanding of the theoretical foundations of game design. The section concludes with original research that challenges the practical applications of games in the classroom.

The section begins with Zeynep Tanes’ review of the role of behaviorism, cognitivism and constructivism in game based learning via video games. In Chapter 8 Tanes offers students, academics, game designers, policy makers and industry professionals a comparative and explanatory review of major learning theories and how they should be considered in the effective use of video games as an educational tool. In Chapter 9, Michael Hanus and Carlos Cruz further analyze the theoretical approaches that may guide game-based learning. Their thorough review of the theoretical literature across disciplines aims to give researchers and educators a better understanding of benefits of gamification in the classroom and the importance of sound design to achieve that success.

In Chapter 10, which concludes this section, Darcy Osheim extends the conversation regarding effective use of games in the classroom and their potential impact on student engagement and learning. Osheim takes the reader to school, reporting on the use of World of Warcraft to examine and re-imagine pedagogy in the traditional college classroom, concluding “gamification must consist of high-choice, low-risk engagements in a clearly structured environment.”

4. SOCIAL CHANGE AND HEALTH TRACKING THROUGH GAMIFICATION

Although Games for Change has been around since 2004, in 2010 Jane McGonigal placed the international spotlight on the use of games to enact social change in her TED talk and subsequently in her New York Times bestseller, Reality is Broken (2011). Since then, games have found a solid strategic place among change makers as games such as protein folding game “Foldit” and SimCityEDU have garnered international audiences and the attention and respect of industry and funding leaders as well
as researchers and educators. As access and technology continue to improve and give these games even greater potential, what research is being done to aid this movement? The three chapters included here provide some insight.

In Chapter 11, Marty Kearns and Meredith Wise, of Netcentric Campaigns provide a foundational study of the most successful advocacy networks and their use of games as well as a proposed framework from which to design advocacy-related multiplayer games. Jolene Fisher’s chapter outlines her research of games for social change with a specific exploration of the international development industry. In Chapter 12, Fisher provides an historical review of both the successful and not-so-successful use of digital games in international development and challenges the notion of gamification as a passing trend rather than a meaningful and sustainable tool for the field.

Another highly touted area of gamification as it relates to the human condition and health has been in recent advancements in the quantified or gamified self movement. Chapter 13 explores the “gamified self” as DiGregorio and Gangadharbatla identify the factors that influence the acceptance and use of self-tracking technologies via an online survey using Technology Acceptance Model (TAM) as a theoretical framework. Their results indicate that perceptions of ease of use and enjoyment of self-tracking tools are less influential than perceptions of usefulness in the ultimate acceptance and use of such tools.

5. GAMIFICATION AND JOURNALISM

The book concludes with a look into the growing trend of gamification and journalism. While “immersive journalism” such as Nonny de la Pena’s groundbreaking stories, Hunger in Los Angeles and Project Syria take readers on a journey into an immersive 3D story, it is not a game. Social virtual worlds provide interesting new platforms to engage audiences in storytelling and social engagement and are fruitful environments for study. However, when they do not incorporate the game elements discussed throughout the chapters of this book, they are social and learning places rather than a game space. Still, we have seen traditional journalists use game platforms to engage readers in fascinating ways as will be seen in the final two chapters.

In Chapter 14, Bartosz Wojdynski examines the use of games and quizzes in journalism. Bartosz reviews changes in journalism audience engagement and consumption and the use of games and quizzes in that environment. He then also offers recommendations of best practices of online news games and quizzes including identity quizzes, knowledge quizzes, simulations and topical play. Bartosz concludes with a call for additional research to continue to understand the changing nature of the relationship between audiences and the news. Raul Ferrer Conill and Michael Karlsson additionally dive into the gamification of journalism. In Chapter 15, the authors engage readers with their systematic review of the literature that explores the tension between the professional and commercial interests of journalism, i.e. the reader vs. the consumer and how gamification may or may not be an appropriate strategy for bridging that divide. They also shed light on the way gamification is currently being used in journalism and how it may engage audiences in ways that has the potential to improve both democratic process and civic engagement.

Overall, this edited volume is the much-needed compilation of research from both academic and industry minds in the area of gamification from business, education, health and social change, and journalism. That said, research on gamification is still in its infancy with its applications undoubtedly expanding to many other areas like government and environment that were not covered in the current
volume. Although not a comprehensive volume on gamification research—given the pace with which the field itself is growing—the current volume is unique in that it brings together research from several disparate fields that seldom communicate with one another. By using the common theme of gamification, the current volume accomplishes several things: first, gamification researchers from one field (say, education) are now exposed to research in other areas (say, marketing); second, such an exposure to research in a different field should certainly enhance one’s own understanding and application of gamification; and third, an increased understanding should lead to interesting research ideas and even possible collaborations among researchers from unrelated fields. For example, research in the area of gamification of health such as chapter 13, which investigates the factors that influence self-tracking technology acceptance has tremendous practical implications for researchers and professionals in the area of marketing looking to better understand (and change) consumer behavior. Similarly, the chapters on gamification of marketing research (chapter 5) and human resource processes (chapter 6) provide theoretical and practical implications for researchers interested in gamification of education. If gamification of surveys leads to increased response rates then perhaps the same technique can be employed in educational settings when the objective is increased participation in classroom or online discussions. These are examples of precisely the type of cross-pollination of research we expect will result from our edited volume.

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REFERENCES


Preface


