


# Is it all a game? Understanding the principles of gamification

Ian McCarthy

## Related papers

[Download a PDF Pack](#) of the best related papers 



[Understanding the Gamification of Consumer Experiences](#)

Jan Kietzmann

[DYNAMIC GAME PLANS: USING GAMIFICATION TO ENTRAIN STRATEGIC RENEWAL WITH ENVIRONMEN...](#)

Ian McCarthy

[Gamification in Tourism](#)

Dimitrios Buhalis



# Is it all a game? Understanding the principles of gamification



Karen Robson<sup>a,\*</sup>, Kirk Plangger<sup>b</sup>, Jan H. Kietzmann<sup>a</sup>, Ian McCarthy<sup>a</sup>,  
Leyland Pitt<sup>a</sup>

<sup>a</sup> Beedie School of Business, Simon Fraser University, 500 Granville Street, Vancouver, BC V6C 1W6, Canada

<sup>b</sup> King's College London, University of London, Franklin-Wilkins Building, 150 Stamford Street, London SE1 9NH, UK

## KEYWORDS

Gamification;  
Experience;  
Mechanics;  
Dynamics;  
Emotions;  
Behavior change;  
Motivation;  
American Idol

**Abstract** There is growing interest in how gamification—defined as the application of game design principles in non-gaming contexts—can be used in business. However, academic research and management practice have paid little attention to the challenges of how best to design, implement, manage, and optimize gamification strategies. To advance understanding of gamification, this article defines what it is and explains how it prompts managers to think about business practice in new and innovative ways. Drawing upon the game design literature, we present a framework of three gamification principles—mechanics, dynamics, and emotions (MDE)—to explain how gamified experiences can be created. We then provide an extended illustration of gamification and conclude with ideas for future research and application opportunities.

© 2015 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

## 1. Press play to start

Games are everywhere. We play games while traveling, while relaxing, or while at work, simply to create enjoyable experiences for ourselves and for others. Firms, too, have long motivated their

employees and customers with game-like incentives (e.g., competitions among financial traders, leaderboards for salespeople, participation badges). However, increasing engagement and rewarding desired behavior with such incentives has always been hard to perform at scale. Only now, at a time when much of what we do is mediated by digital technologies and social media, may firms change that behavior by turning traditional processes into deeper, more engaging game-like experiences for many of their customers and for their employees. This process is commonly referred to as *gamification*.

\* Corresponding author

E-mail addresses: [krobson@sfu.ca](mailto:krobson@sfu.ca) (K. Robson),  
[kirk.plangger@me.com](mailto:kirk.plangger@me.com) (K. Plangger),  
[jan\\_kietzmann@sfu.ca](mailto:jan_kietzmann@sfu.ca) (J.H. Kietzmann),  
[imccarth@sfu.ca](mailto:imccarth@sfu.ca) (I. McCarthy), [lpitt@sfu.ca](mailto:lpitt@sfu.ca) (L. Pitt)

Gamification has potentially wide applications in contexts such as healthcare, sustainability, government, transportation, and education, among others. For instance, more than 75 energy companies are already using Opower, a service that equips homes with sensors enabling residents to compare their household energy consumption with that of neighbors, and broadcasting their achievements on Facebook (Wingfield, 2012). Samsung Nation, Pepsi Soundoff, and other online loyalty programs use points, levels (e.g., gold status), or badges to drive customer engagement and deepen the relationships they have with the brands they use or aspire to use. Drivers of a Nissan Leaf can collect points for driving in an ecologically friendly manner, and can compete with their friends on Facebook. Xerox employs gamification to train managers who collaborate online to complete quests, and Salesforce uses challenges and leaderboards to increase sales. Microsoft has gamified the relatively tedious but important process of translating its Windows 7 operating system into different languages and adapting it to work in different cultures.

Although studies suggest that 70% of the world's largest public companies will have at least one gamified application in the next 2 years (Gartner, 2011), there are warnings that about 80% of current gamified applications will fail to meet business objectives (Gartner, 2012), primarily because processes have been inappropriately gamified. A likely reason for this is a lack of understanding of what gamification is, how gamification works and, more specifically, how to design gamification experiences that inspire player (e.g., employee, customer, citizen) behavior changes and result in desirable outcomes.

However, the academic business literature offers little direction to, or understanding of, gamification, its design principles, and the key underlying psychological motivations by which gamification changes behavior and achieves organizational goals. Thus, we begin by defining gamification and describing its application in organizations. Next, we explain the psychology behind the promise of gamification. We then introduce a framework, rooted in game design, that includes three principles for creating gamification experiences: mechanics, dynamics, and emotions (MDE). Next, we link the MDE framework to employee and customer engagement by illustrating its application in the popular reality television show *American Idol*. Finally, we present concluding remarks on gamification and present ideas for future research and application.

## 2. Gamification defined

The term gamification could be misleading, suggesting that it represents the use of actual games,

real-world simulations (Keys & Wolfe, 1990), or game theory in organizational settings (Camerer, 2003). It does not. Rather, *gamification* is the application of lessons from the gaming domain to change behaviors in non-game situations. 'Gamified' experiences can focus on business processes (e.g., customer acquisition) or outcomes (e.g., employee sales). Moreover, these experiences can involve participants—or players—outside of a firm (e.g., to co-develop products with customers) and/or within it (e.g., to improve employee satisfaction).

While firms' use of such game-like experiences to control behavior and increase loyalty and engagement is not new, efforts to date have neither sought to learn from formal game design principles nor been labeled gamification. In fact, the term gamification only started to attract widespread attention in non-gaming contexts in 2010 (Zichermann & Cunningham, 2011). We suggest the heightened interest in gamification today is the result of three recent developments.

First, over the last 20 years with the growth and importance of the computer game industry, game designers and researchers have invested significantly in studies to better understand what makes a computer game engaging and successful. This has led to a number of theories and lessons about the design and management of gaming experiences, and to frameworks about incentives that motivate individuals to play. In the next section, we build on this work and introduce three important gamification principles that are based on the gaming literature's lessons: mechanics (i.e., the goals, rules, and rewards), dynamics (i.e., how players enact the mechanics), and emotions (i.e., how players feel toward the gamified experience).

Second, the pervasiveness of social media and mobile and Web-based technologies has changed how individuals and organizations participate in, share, co-create, discuss, and modify any type of experience (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Today's firms can request and generate previously unattainable amounts of data about people and their opinions, feelings, and behavior. The quantity and quality of the resulting insights has only now become useful for producing gamified employment or consumption experiences at scale, which in turn will yield new data.

Third, firms are continually looking for new and impactful ways to better connect with, learn from, and influence the behaviors of employees and customers. Three recent developments provide a rich landscape of opportunities to innovate in this regard: (1) new knowledge about the design and management of gaming experiences (2) combined with the advent of social media and technology and

(3) the heightened interest in providing more engaging experiences.

### 3. Why gamification works

Gamification can change stakeholder behavior because it taps into motivational drivers of human behavior in two connected ways: reinforcements and emotions. First, both positive and negative reinforcements encourage repetition of behaviors, as operant conditioning (Skinner, 1938) and the law of effect (Thorndike, 1905) show us. These approaches have long been used in psychology to explain a range of human behaviors as well as behavior modification. They also posit that behavior changes can be motivated either through extrinsic or intrinsic reinforcements. That is, while external factors such as money or fame can certainly motivate human behavior, emotions are also powerful motivators for behavior change (Higgins, 2006). In either case, behavioral learning theory and operant conditioning argue that all behavior is motivated by reinforcements. In addition, behaviors which lead to satisfying outcomes are more likely to lead to repeated or ongoing behavior changes while ones with unsatisfying outcomes are far less likely to be sustained (Skinner, 1938).

Successful gamification involves the repetition of desired outcomes. Through the motivational mechanisms of reinforcements and emotions, desired outcomes become automatic behavioral processes or habits (Duhigg, 2012). Habits are formed through providing cues that elicit behaviors and then rewarding the behavior, thus forming a behavioral loop that requires less and less cognitive resources as the desired behavior is repeatedly reinforced (Duhigg, 2012). Gamification can produce desired behavior change through the formation of habits by reinforcing the reward and emotional response of the individuals participating in the experience, thus requiring fewer cognitive resources each time the desired activity is reproduced.

Gamification can create desired behavior change in business contexts through rewarding desired employee and customer behaviors, thus leading to more satisfying outcomes for employees or customers than in a non-gamified context. The reinforcements that motivate behavior changes can come in a variety of forms, including extrinsic (i.e., prizes, money) and intrinsic (i.e., fun, enjoyment) rewards. Regardless of the form, the appropriate reinforcement or mix thereof is key to motivating a successful behavior change through inspiring affective responses from individuals. Thus, a well-designed gamification experience should include reinforcements—whether

positive or negative, such as loss avoidance—and should generally lead to satisfying outcomes for the players. Through this mix of rewards and emotions, employees and customers in a gamified experience repeat the behavioral outcome desired by the organization in a habitual or routine form (Duhigg, 2012). Through tapping into rewards and emotions, an effective gamification experience will motivate individuals' behavior changes in business settings. In order to understand how to design an effective gamified experience, we examine the fundamental principles that underpin gamification by introducing the MDE framework.

### 4. Gamification principles: The MDE framework

As with any emerging area of endeavor, the terminologies central to gamification are still in flux and are often used fluidly, without categorical separations. To move the practice and research of gamification forward, in this section we introduce the roles of game designers, players, spectators, and observers, and we define three gamification principles—mechanics, dynamics, and emotions (MDE)—adapted from the game design literature (Hunicke, LeBlanc, & Zubek, 2004). Specifically, our MDE framework is developed from an approach to design games that highlight the need to understand game mechanics, dynamics, and aesthetics (Hunicke et al., 2004). In game design, 'aesthetics' describes the desirable emotional responses (e.g., fantasy, submission, fellowship, discovery) evoked in players when they interact with the game. As these aesthetic responses are largely computer game-specific, we use the term 'emotions' as it better links to the engagement outcomes that businesses can attain from employees and customers. In the coming sections, we provide specific recommendations on how to apply each gamification principle and then discuss how these collectively form the MDE framework that creates a gamified experience.

#### 4.1. Designers, players, spectators, and observers

All parties involved in gamified experiences can be described using two fundamental dimensions adapted from Pine and Gilmore (1998): variations in participation and connection with the gamified environment. Player participation describes the extent to which the individual either actively contributes to the experience or is merely passively involved in it. Player connection describes the type of environmental relationship (absorption vs. immersion)

that unites the individual with the experience. In absorption, the experience unfolds before the person and occupies the person's mind, whereas in immersion, a person becomes part of the experience itself, either physically or virtually.

There are four types of people involved in gamified experiences—players, designers, spectators, and observers—all of whom vary in the extent to which they are involved in a passive or active sense and in whether they are predominantly absorbed or immersed in the experience. First, *players* are those who compete in the gamified experience. They are the real performers, those who actively compete in the experience and are highly immersed. Players can include potential, new, or existing employees and/or customers of a firm. Thus, players can be internal or external to the firm.

Second, *designers* are the decision makers in organizations who develop and design, as well as often manage and maintain, the gamified experience. For instance, in the context of improving employee engagement, these designers could be human resource managers; or, in the context of boosting customer engagement, these designers could be customer relationship managers. It is these designers who will need to understand the MDE framework in order to design and implement an effective gamification strategy. These designers are highly active when setting up the experience, but once the experience starts they are predominantly involved in a passive sense, overseeing the experience and ensuring that it is meeting organizational goals.

Third, *spectators* are those individuals who do not directly compete in the gamified experience but whose presence will influence how the gamified experience works. Spectators are part of the gamified environment (e.g., audience members) and are therefore highly immersed in the experience. While taking a mostly passive role, they indirectly impact the experience by contributing to the atmosphere. In a non-game setting, for example, a spectator could include a supervisor who contributes to the atmosphere by serving as a visible authority or a source of support. Such a supervisor is not involved in designing the gamified experience or in competing in the experience, but is present to ensure that the experience progresses smoothly and, in doing so, alters player behavior.

Finally, there are *observers*. These are outside individuals who are passively involved and absorbed in the experience. They have no direct impact on the gamified experience and are merely able to watch it from the outside. However, the presence—and quantity—of observers will impact the popularity of the experience. Furthermore, observers are

potential players or spectators, as they can assume new roles by seeking out ways to become more active or immersed in the experience. In a non-game setting, an observer could include employees in other departments or offices in the firm. These employees have no direct contact with the players, but are aware of the gamified experience and follow the outcomes to see who wins.

Of course, any people involved in gamification can, through their actions, change the extent to which they participate in the experience and are connected to it. A player, for example, can decide to watch and cheer for another player; in doing so, he/she takes on a more passive role and is more immersed in the experience than absorbed by it, thus becoming a spectator. Consider an employee whose shift is over: he or she is no longer a player in the experience, but he/she may assume a spectator role by supporting and cheering on colleagues who are just beginning their shift. However, we argue that the majority of the roles these types of people play in a gamified experience will fall onto one end of the spectrums of passive versus active and immersed versus absorbed (Pine & Gilmore, 1998). In sum, designers set up, manage, and maintain the gamified experience that the players compete in. Spectators are part of the gamification environment and can influence player behavior. Observers are outsiders who can witness the experience, but do not impact the experience in any way. Understanding the individuals that are involved in a gamified experience is fundamental to understanding gamification. Next, we turn to the basic gamification mechanics essential to constructing the experience.

## 4.2. Mechanics

Mechanics are the decisions that designers—those who wish to gamify a non-game context—make to specify the goals, the rules, the setting, the context, the types of interactions (i.e., opponents), and the boundaries of the situation to be gamified. These gamification mechanics are known before the experience starts and they remain constant. In other words, they do not change from one player to the next, and they stay the same each time a player engages in the experience. In chess, for example, the mechanics include decisions that have determined the number of pieces, how pieces move and take other pieces, the number and pattern of squares on the board, and how a winner is decided. In terms of organizational control theory, mechanics equate to the organizational systems and technologies that managers can use to induce the required behaviors and outcomes (McCarthy & Gordon, 2011).

There are three different types of mechanics—setup mechanics, rule mechanics, and progression mechanics—which are tremendously important not only for games, but also for gamified experiences. *Setup mechanics* are those considerations that shape the environment of the experience, including the setting, what objects are needed, and how the objects are to be distributed among players (Elverdam & Aarseth, 2007). For example, the setup mechanics will determine who a player is playing against: Is the competitor known or unknown, internal or external, a single competitor or a group? These decisions impact the overall context of the gamified experience. Designers must consider spatial dimensions to determine where in the real or the virtual world the experience will take place, and temporal dimensions to regulate when the gamified experience will happen, whether it is real time- or turn-based, or whether it has a finite end or infinite play. Design choices regarding player structure limit who can play and whether the experience is for single or multiple players; allow single or multiple teams; and include real friends, strangers, or even computer-controlled allies and enemies.

*Rule mechanics* shape the concept or goal of the gamified experience to be pursued (Elverdam & Aarseth, 2007). They not only prescribe the actions that are permissible but also the constraints (e.g., time restriction) that limit those actions in order to create pressure for players (Kelly, 2012b). Some rule mechanics are highly deterministic and invariably produce the same result if the player input is identical each time. Other rule mechanics are non-deterministic, especially when elements of chance are involved or when players are allowed to interact with each other. Rule mechanics can be topological, too, and specify what happens when a player lands on a specific real or virtual spot. Think about how a player collects a reward for ‘passing Go’ in Monopoly or how in a gamified geo-location setting people are rewarded for going places and for checking in to locations they’re visiting. Time-based rule mechanics spell out whether players have to act within a time period or how resources build up or deplete over time. Objective-based rule mechanics specify the effects of a specific circumstance being met (e.g., completing one level unlocks the next).

*Progression mechanics* describe different types of instruments that designers embed to affect the experience while it happens (Elverdam & Aarseth, 2007). In the context of gamification, progression mechanics are particularly important: they dictate the reinforcements present in the experience. That is, as behaviors with rewarding outcomes are more likely to be repeated (Rothschild & Gaidis, 1981), appropriate progression mechanics are used to

increase the likelihood that certain behaviors will be repeated in the future. To signal their progress, achievement rewards are often used. These could be virtual victory point systems that players accumulate as they progress—such as scores, levels, progress bars, or resources (e.g., strength)—but they can also be real rewards (e.g., currency). In particular, achievement rewards with social significance (e.g., badges, trophies, leaderboards) indicate the social standing within a community and are powerful progression mechanics. Progression mechanics provide important feedback that signals a player’s success toward victory. However, the achievement rewards must be desirable for the players; otherwise, the experience loses its salience. The distribution of extrinsic rewards is also an important aspect of progression mechanics since they may be either zero-sum (i.e., some players win and some lose) or positive-sum (i.e., overall the rewards are above zero). Designers must plan this distribution carefully, as mistakes could be very costly to the organization and possibly bankrupt the gamified application’s budget. Furthermore, having too many rewards—especially top rewards—may dilute the overall strength of rewards and the meaning of player wins and/or status levels.

Gamification mechanics are the foundational aspects of gamified experience: they determine who the key parties are, how they interact, how to win or lose, and where and when the experience takes place. Mechanics form the structure that the gamified experience exists in; however, on their own, mechanics are not enough to create an experience that will motivate behavior changes in target employees or customers. Emerging from this structure, both dynamics and emotions animate the experience and are key dimensions in creating the desired behavior change. This interdependent relationship between the three gamification dimensions signal to designers what changes, if any, need to be made to the mechanics to ensure that the organization’s goals are met. These components of a gamified experience are discussed next.

### 4.3. Dynamics

Gamification dynamics are the types of player behavior that emerge as players partake in the experience. Contrary to mechanics that are set by the designer, the gamification dynamics are produced by how players follow the mechanics chosen by designers. These dynamics describe in-game behaviors and the strategic actions and interactions that emerge during play (Camerer, 2003). In a game context, the mechanics of the multiplayer card game Poker include shuffling, trick-taking, and betting, from

which different dynamics like bluffing, cheating, conspiring, and bragging can emerge. In gamification, mechanics such as team-based player structures can lead to dynamics such as cooperation, while an individual player structure may lend itself to a more competitive dynamic. Beyond player structure, the presence of both spectators and observers has a number of implications with respect to player dynamics. For example, in negotiation games when players know they are being watched—by observers or spectators—[Lewicki, Barry, and Saunders \(2014\)](#) suggest that a number of player behaviors result. For example, players are more competitive when they know they are being watched, as they do not wish to look bad in front of others. Relatedly, players are less willing to quit, concede, or settle. Ultimately, possible dynamics include competition, cooperation, cooptation, cheating, and many other behaviors.

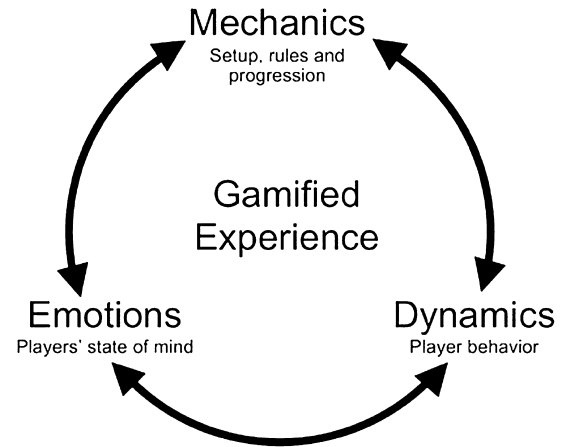
Gamification dynamics are difficult to predict and thus can lead to unintended behaviors and outcomes, which can be positive or negative in nature. Designers do not know exactly what will happen ([LeBlanc, 2004](#)). Consequently, the challenge for designers is to anticipate the types of dynamics that can emerge and to develop the mechanics of the experience appropriately.

#### 4.4. Emotions

Gamification emotions are the mental affective states and reactions evoked among individual players when they participate in a gamified experience. Emotions are a product of how players follow the mechanics and then generate dynamics. As with games, the emotions in a gamified experience should be fun-oriented and appealing, not only on a pragmatic level but also on an emotional level ([LeBlanc, 2004](#)). Assuming that players will not continue to play if they do not enjoy themselves, creating player enjoyment should be seen as the single-most important player engagement goal for gamification ([Sweetser & Wyeth, 2005](#)). Such fun and enjoyment can come in many different forms, including positive emotions such as excitement, amusement, amazement, surprise, wonder, and personal triumph over adversity. While fun should be part of the experience, a mix of emotions is often felt by the players. This could include negative feelings, such as disappointment at losing or sadness at not achieving a reward.

In sum, the MDE framework outlines the interdependent relationship of the gamification principles of mechanics, dynamics, and emotions ([Figure 1](#)) and illustrates how these principles can be applied together to create and extend the player experience. It

Figure 1. MDE framework of gamification principles



also shows how small changes in one principle can impact the other two and create different experiences. Furthermore, the MDE framework helps clarify how designers and players perceive gamified experiences differently ([LeBlanc, 2004](#)). Specifically, gamification designers' foremost focus is on selecting appropriate mechanics in order to retain control over the experience, followed by a focus on dynamics, and lastly on players' emotions. For players, on the other hand, emotions are key. The adrenaline rush resulting from surviving a vicarious adventure or mastering a mental challenge and the associated dynamics is more important than the rules that make them possible ([Lazzaro, 2004](#)). In optimized gamified experiences, players' emotional responses and the dynamics that emerge during play shape the mechanics that govern play and vice versa. As a result, understanding gamification mechanics, dynamics, and emotions and how these principles relate to one another is key for successfully gamifying an experience.

## 5. Gamification at work: The case of American Idol

In what follows, we use a very well-known and ratings-busting TV show in America, American Idol, to illustrate how the different gamification principles can motivate desired behavior changes among employees and customers. We use American Idol for three reasons: (1) it exemplifies how to increase engagement and change behavior through gamification, (2) it demonstrates how to improve both customer and employee engagement, and (3) it illustrates how gamification can become a success story.

First, American Idol is not just an entertaining show, but also an excellent example of how to increase the engagement and change the behavior of both employees (i.e., the artists who hope to secure record deals) and customers (i.e., viewers who watch and vote) through gamification. Traditional talent searches were much less engaging because they relied on individual talent scouts to bring their discoveries to recording companies in hopes of securing a contract. Likewise, the older model of engaging audience members was based on the weekly popularity of songs as measured by radio airplay and Billboard Charts—which stimulated sales. Simon Fuller and his team, the designers of American Idol, cleverly gamified these two very traditional practices, which we argue are not unlike many other business processes. For instance, American Idol is an example of gamifying traditional human resource management: All contestants enter into a contractual agreement with 19 Entertainment, the production company behind American Idol, before they ever set foot on a stage. Much like other employees, they work on a probationary period before some of them receive continuing contracts. As regards audience experience, we argue that American Idol illustrates how traditional product development and sales experiences can be gamified. Firms often solicit the input of customers during the development of a product or service (e.g., in beta releases or usability tests). The audience of American Idol is in essence a very large and highly engaged focus group where the opinions of customers are collected to select and improve the firm's offerings.

Second, most gamification activities are focused on improving either customer or employee engagement. By including the talent search (i.e., engaging potential new employees) and record sales (i.e., engaging customers) in one show, American Idol demonstrates that these two can be combined. The result is a two-sided gamified experience that increases the engagement and changes the behavior of employees and customers at the same time. This is particularly interesting in the context of managers looking to grow their engagement with communities inside and outside the firm simultaneously to build value for the brand internally and externally.

Lastly, American Idol illustrates how the resulting gamified experience can become a success story in its own right. American Idol has not only produced such hugely successful entertainers as Carrie Underwood, Kelly Clarkson, and Jennifer Hudson—through gamified employee engagement during the talent search—and sold millions of albums—through gamified customer engagement leading to sales—but it has also created a highly profitable TV show by

aligning the mechanics, dynamics, and emotions it developed for contestants with those developed for audience members (Amegashie, 2009; Ciulla et al., 2012; Meizel, 2011).

### 5.1. American Idol mechanics

As designed by its setup and spatial mechanics, American Idol hosts auditions online and in various cities in the U.S., takes place in front of a live studio audience of more than 7,000 members, and is broadcast to millions via television and the Internet. Temporal mechanics are employed such that once a week, for an average of 10 weeks, American Idol contestants take turns performing songs based on a weekly theme (e.g., Motown, Elvis, Number 1 hits). Regarding player structure, American Idol creatively combines some of the choices involving both contestants and their supporters (i.e., observers and spectators) in the experience. Spectators include members of the live studio audience and individuals at home watching on their television who vote via voice calls, SMS texts, or the American Idol website (Amegashie, 2009; Ciulla et al., 2012). Observers are those fans who are not part of the studio audience and who do not participate in the experience by voting, but merely view the show for personal enjoyment. The players, spectators, and observers all consent to be involved in American Idol. This is important, because when consent to participate in games is present, positive affects increase; when consent is lacking, positive affects decrease (Burawoy, 1979; Mollick & Rothbard, 2014).

In the case of American Idol, setup mechanics are plentiful and varied, and any number of combinations is possible. However, what these mechanics have in common is that they are all decisions that influence the experience before it commences. One of the most basic rule mechanics for American Idol is that the popularity of contestants is highly dependent on comparisons with other contestants (Amegashie, 2009). Time-based rule mechanics in American Idol spell out whether players have to act within a time period (e.g., when spectators can vote, again and again, for their favorite contestants on American Idol) and how resources build up or deplete over time (e.g., votes collected by each contestant cannot be carried forward into the next round, and the score is reset each week). Contestants at the top of the popularity scale will move forward, making popularity and votes from spectators key to the progression mechanics of American Idol. The ultimate reward in American Idol is being the finalist—as voted by spectators—and thus receiving a lucrative recording contract and fame.



## 5.2. American Idol dynamics

American Idol primarily leverages the contestants' desire to win and spectators' desire to see their favorites succeed. For the contestants, time pressure and opponent play are included to reward competitive dynamics and motivate individual contestants to perform at their best in solo performances. In other cases, winning conditions that require working with other players (e.g., duets or group performances) are included to drive collaborative dynamics. Audience members as spectators cheer on singers; their role is significant because the audience contributes to dynamics of the experience.

## 5.3. American Idol emotions

Participants in American Idol undergo a number of emotional responses. For contestants, emotions are even more powerful—often visible through the tears of joy and sorrow—and include nervousness, exhilaration, pride, and euphoria—even frustration. Spectators experience anxiety as the time to cast votes runs out, and both spectators and observers experience excitement when the winners are announced, followed by happiness and relief or sadness, depending on the outcome of their favorite contestant (Ciulla et al., 2012). Aspirations for the emotions associated with a big win help overcome smaller emotional disappointments that players experience—which helps explain why people continue to play even when they lose most of the time. These desired and aspired mental states are the reasons why players start and continue to participate. But, of course, these emotions do not emerge by themselves: They are shaped by the interplay of mechanics and dynamics.

American Idol is a successful example of how a gamified talent search can motivate people—singers and numerous fans—to participate actively in the selection and marketing of the next pop star (Amegashie, 2009; Ciulla et al., 2012; Meizel, 2011). The setup mechanics are carefully designed (e.g., with its real-time and its online presence), as are rule mechanics (jury member voting, viewer phone-in balloting, and performers singing for survival or elimination) and progress mechanics (posting the voting tally in real time). Together these mechanics fundamentally support the collaborative and competitive nature of the talent search competition, and in turn give rise to the powerful emotional attachment felt by contestants and members of the audience alike. The MDE alignment has resulted in more than 100 million votes—the record is currently 132 million votes during season 11—that help

the show's recording labels identify and sign popular contestants. As of 2012, over 59 million albums and 110 million singles and digital tracks have sold in the United States alone (Ciulla et al., 2012).

## 6. Game on! The value of gamification

All organizations need to motivate and engage stakeholders, whether these stakeholders are voters, students, patients, employees, or consumers. Gamification is an approach to achieving this: It employs lessons from the gaming domain to create experiences that motivate and engage individuals in non-game settings. The goal of our article has been to advance the understanding of gamification concepts, applications, and impacts. To do this we have provided three contributions. First, we defined gamification and explained how it has been used to design highly engaging processes in a range of service industries. Second, we introduced the MDE framework to show how gamification mechanics, dynamics, and emotions are used to create gamified experiences. Third, using the case of American Idol, we illustrated how MDE was used to transition a traditional talent search to an important cultural phenomenon that engaged not only the contestants but also a whole nation of viewers. From these contributions we present five summary guidelines to help firms capture value using our gamification framework:

1. *What's the goal of the game?* A process should not be gamified simply for the sake of gamification itself. It should be driven by goals that can be financial, social, or environmental. Firms should assess the potential to use gamification to produce and adjust behaviors and outcomes needed to attain those goals. Focusing on one goal, not two or three, minimizes complexity and ensures that mechanics, dynamics, and emotions do not conflict or offset each other (Kelly, 2012a). Firms should also identify different gamification measures and targets and understand how the intended mechanics, dynamics, and emotions would drive and moderate these measures. It is important to determine the causality between the gamification measures and the business goals.
2. *Recognize all the different roles.* Most gamification examples focus only on the connection between the designer and the players. This is important because it promotes an in-depth understanding of the links between mechanics, dynamics, emotions, and player-related outcomes.

However, it is also important to understand when to incorporate spectators and/or observers and how their participation can energize and direct different behaviors and outcomes in a process. Spectators and observers played a very significant role in the success of American Idol.

3. *Gaming the game.* People will want to try and cheat a gamified process. There will be players, observers, and spectators who will try to game the game by colluding and breaking the rules. It is important to understand both the positives and negatives of this human endeavor. On the one hand, it can create dynamics that lead to undesirable emotions (i.e., perceived injustice) that could put off other players, observers, and spectators. Furthermore, individuals might extract excessive rewards that outweigh any benefits to the firm using the gamification. However, there can be positive learning and change that come from rule breaking. For example, these behaviors can be the basis for modifying the mechanics of a gamified process so as to attain deeper loyalty engagement and improve the outcomes, because when an innovation is produced by a creative individual rather than the firm, the adoption and use of that innovation is more impactful and enduring (Berthon, Pitt, McCarthy, & Kates, 2007).
4. *Adjust and transition the experience.* It is unlikely that an organization will stand still once players start playing, or that organizational desires to transform behavior will remain the same over time. As other aspects of the organization change, so too should the gamified experience. As in any strategic investment, keeping focus on the managerial goals and strategic objectives is important. This means that the gamified experience will constantly need to be monitored, both internally (Does it still make sense?) and externally (Are players, observers, and spectators still excited and engaged?). Mechanics should be adjusted accordingly so that individuals will continue playing and not move on to something that is more exciting (in terms of emotions) or more engaging (in terms of the overall experience).
5. *What's the endgame for the game?* Eventually, the gamified experience will come to an end. Adjusting and transitioning the experience will prolong its usefulness to the organization; however, managers should watch out for signs that the experience has simply lost its appeal to players. The endgame is the final phase in the

life of a gamified process. Designers must recognize that this phase exists, and they must be able to adjust and conclude the process so that players, spectators, and observers will be willing to return and engage with new gamified processes.

## References

- Amegashie, J. (2009). American Idol: Should it be a singing contest or a popularity contest? *Journal of Cultural Economics*, 33(4), 265–277.
- Berthon, P. R., Pitt, L. F., McCarthy, I., & Kates, S. M. (2007). When customers get clever: Managerial approaches to dealing with creative consumers. *Business Horizons*, 50(1), 39–47.
- Burawoy, M. (1979). *Manufacturing consent: Changes in the labor process under monopoly capitalism*. Chicago: University of Chicago Press.
- Camerer, C. (2003). *Behavioral game theory: Experiments in strategic interaction*. Princeton, NJ: Princeton University Press.
- Ciulla, F., Mocanu, D., Baronchelli, A., Gonçalves, B., Perra, N., & Vespignani, A. (2012). Beating the news using social media: The case study of American Idol. *EPJ Data Science*, 1(1), 1–11.
- Duhigg, C. (2012). *The power of habit: Why we do what we do in life and business*. New York: Random House LLC.
- Elverdam, C., & Aarseth, E. (2007). Game classification and game design construction through critical analysis. *Games and Culture*, 2(1), 3–22.
- Gartner. (2011, November 9). *Gartner predicts over 70 percent of global 2000 organisations will have at least one gamified application by 2014*. Available at <http://www.gartner.com/it/page.jsp?id=1844115>
- Gartner. (2012, November 27). *Gartner says by 2014, 80 percent of current gamified applications will fail to meet business objectives primarily due to poor design*. Available from <http://www.gartner.com/it/page.jsp?id=2251015>
- Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113(3), 439–460.
- Hunicke, R., LeBlanc, M., & Zubek, R. (2004). MDA: A formal approach to game design and game research. Paper presented at the Proceedings of the AAAI Workshop on Challenges in Game AI, San Jose, CA.
- Kelly, T. (2012a, November 17). *Everything you'll ever need to know about gamification*. Available at <http://techcrunch.com/2012/11/17/everything-youll-ever-need-to-know-about-gamification/>
- Kelly, T. (2012b, December 8). *Real gamification mechanics require simplicity and, yes, game designers can do it*. Available at <http://techcrunch.com/2012/12/08/real-vs-fake-gamification-mechanics/>
- Keys, B., & Wolfe, J. (1990). The role of management games and simulations in education and research. *Journal of Management*, 16(2), 307–336.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251.
- Lazzaro, N. (2004). *Why we play games: Four keys to more emotion without story*. Oakland, CA: XEODesign.
- LeBlanc, M. (2004). *Game design and tuning workshop materials*. Presentation at the Game Developers Conference: San Jose, CA.
- Lewicki, R. J., Barry, B., & Saunders, D. M. (2014). *Negotiation*. New York: McGraw-Hill/Irwin.

- McCarthy, I. P., & Gordon, B. R. (2011). Achieving contextual ambidexterity in R&D organizations: A management control system approach. *R&D Management*, 41(3), 240–258.
- Meizel, K. (2011). *Idolized: Music, media, and identity in American Idol*. Bloomington, IN: Indiana University Press.
- Mollick, E. R., & Rothbard, N. (2014, September 30). *Mandatory fun: Consent, gamification, and the impact of games at work*. The Wharton School Research Paper Series. Available at <http://dx.doi.org/10.2139/ssrn.2277103>
- Pine, B. J., II, & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, 76(4), 97–105.
- Rothschild, M. L., & Gaidis, W. C. (1981). Behavioral learning theory: Its relevance to marketing and promotions. *Journal of Marketing*, 45(2), 70–78.
- Skinner, B. F. (1938). *The behavior of organisms: An experimental analysis*. New York: Appleton-Century.
- Sweetser, P., & Wyeth, P. (2005). GameFlow: A model for evaluating player enjoyment in games. *Computers in Entertainment (CIE)*, 3(3), 1–24.
- Thorndike, E. L. (1905). *The elements of psychology*. New York: AG Seiler.
- Wingfield, C. (2012, December 23). All the world's a game, and business is a player. *The New York Times*. Available at [http://www.nytimes.com/2012/12/24/technology/all-the-worlds-a-game-and-business-is-a-player.html?\\_r=0](http://www.nytimes.com/2012/12/24/technology/all-the-worlds-a-game-and-business-is-a-player.html?_r=0)
- Zichermann, G., & Cunningham, C. (2011). *Gamification by design: Implementing game mechanics in web and mobile apps*. San Francisco: O'Reilly Media.