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Joe McCarthy, Editor

Gamification: Designing for Motivation

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Games entice hundreds of millions of people across the globe to spend countless hours and dollars performing often menial tasks—certainly, there must be some way to use this power for other purposes? Already in the 1980s, prescient scholars like Thomas Malone followed this intuition and began looking into games as a source of "heuristics for enjoyable interfaces." In the early 2000s, the "serious games" movement followed, building full-fledged games to train, educate, and persuade. In parallel, the field of human-computer interaction began exploring the various facets of user experience, and design for pleasure, fun, and motivation became topics of research.

Today the Web industry has put that same intuition into the public limelight again with a new buzzword: gamification. Instead of creating full games, gamification's guiding idea is to use elements of game design in non-game contexts, products, and services to motivate desired behaviors.

The sudden rise of gamification in the past few years can be traced back to the convergence of several enablers: cheap sensors that allow the tracking of everyday activity, a shift in Web analytics to individuals and their behaviors, and the current cultural momentum of video games. Foursquare and Nike+, widely publicized as case studies for successful "gamified" mass market products, acted as potent seed crystals.

Thus, gamification has ignited the imagination of marketers, human resources professionals, and others interested in driving "engagement." Implementations are blooming across a variety of sectors, including education (Khan Academy), tutorials (RibbonHero), health (HealthMonth), task management (EpicWin), sustainability (Recyclebank), crowdsourced science (FoldIt), and user-generated content for programmers (StackOverflow), to name but a few.

At the same time, gamification has drawn the ire of game designers, who argue that the current stock implementation of gamification—adding points, badges, and leaderboards to mundane user activities—is "taking the thing that is least essential to games and representing it as the core of the experience," as designer Margaret Robertson put it. She contends that the pleasures of games arise not from such system feedback, but from "meaningful choices" in the pursuance of "interestingly hard goals." Furthermore, in the words of designer and scholar Ian Bogost, most deployments of gamification represent "exploitationware," in that they extract real value from users and employees in return for mere virtual tokens.

As part of this charged debate, the following pieces by practitioners and researchers give insight into the current state of thinking about the potentials and limitations of gamification.

Gamification is not a Dirty Word

By Judd Antin

Although gamification is far from the panacea it is made out to be, as a social psychologist and a designer of incentive systems, I view it as a positive trend.

Gamification signals a shift away from the outdated view that pecuniary (e.g., money, gifts) and instrumental (e.g., information seeking) motivations are the only ones worth talking about. Not long ago, observ-


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ers were amazed by how much Internet users would do "for free." Gamification, however, implicitly acknowledges that while online participants are usually unpaid, they rarely work for free. Instead, powerful social psychological processes such as self-efficacy, group identification, and social approval provide rewards. These rewards drive most of the long-term participation we see in today's social Web, essentially through the power of good feelings.

This is not a new idea. Achievement badges, for example, have a long and distinguished history. The Boy Scouts of America began handing out merit badges in 1911. They understood the motivational power of goals, mastery seeking, reputation, and identity signaling with valued accomplishments. Wikipedia's Barnstars (debuted in 2003) advertise and reward valued Wiki-work and effectively signal status because Wikipedians award them to one another within a meaningful social context. Despite the hype, the nuances and social meaning that have made merit badges and Barnstars effective are largely missing from today's gamification trend.

Most examples of gamification do a remarkably poor job of understanding where potential rewards come from. None adequately account for the ways in which individuals and contexts differ. The new dogma of gamification—actively preached by a handful of pundits and marketers—is in many ways as bad as the old, in that social status has replaced money as the universal motivator. However, people differ in the degree to which they seek and advertise status. For some, status signaling can be actively distasteful. Furthermore, the propriety of any given reward will differ by context; what is appropriate in the context of a sports-fan site, for example, may not be in the context of a health-discussion forum.

Ultimately, gamification has a long way to go to achieve its potential. But gamification is not a dirty word. My hope is that serious research and innovation will help to produce systems that use social psychological processes well by taking into account contexts, meanings, and individual differences. Still, as a first step in creating online systems that are more engaging, supportive, and satisfying, the popularity of gamification signals an exciting trend.

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Games as an Alternate Lens for Design

By Elizabeth Lawley

Games can be powerful experiences, leveraging both motivation and engagement. The recent trend toward "gamifying" applications, however, often reduces the complexity of a well-designed and balanced game to its simplest components, such as badges, levels, points, and leaderboards. The resulting implementations don't just fail to engage players; they can actually damage existing interest or engagement with the service or product [1].

It's not that gamification can't work. But to be successful, it must include game design, not just game components. Games are not a replacement for thoughtful experience and interaction design; they are an alternate lens for framing that process.

When we set out to create Just Press Play, an achievement system for students in interactive games and media at the Rochester Institute of Technology (play.rit.edu), we began by thinking about the behaviors we wanted to reward and encourage, as well as the ways in which a game could allow our students to reflect on their accomplishments and strengthen their sense of competence and progress.

We know, for instance, that student retention rates improve when students are making meaningful, positive connections with faculty and/or staff [2]. To encourage those connections, we created collectible cards for our faculty and staff, which students could receive in exchange for a playful or creative interaction. One faculty member asks students to bring her pictures of themselves eating pie; she is covering one wall of her office with these photos. Our digital audio instructor asks players to bring him a 10-second digital audio clip of a sound "from their world."

Other achievements are intended to encourage collaborative rather than individual work. Because we've had difficulty in getting more than 85 percent of our freshman to pass the introductory programming class, we created an achievement called Undying. If 90 percent of our freshmen passed the class, everyone playing the game would receive the achievement. In response, juniors and seniors spontaneously organized study sessions for the freshmen before the final exam. And while the students did unlock the achievement (91 percent of the freshmen passed the class), the real win for us was that the upper-class students enjoyed the tutoring so much they asked permission to run study sessions every quarter. The achievement served as a catalyst, but it was the activity itself, not the achievement, that was the real reward for the students.

Done right, gamification can help enrich educational experiences in a way that students will recognize and respond to. Through our experience with Just Press Play, we hope to generate both a technical toolset and a set of best practices for implementing successful game-based experiences in educational contexts.

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Gamification Means Amplifying Intrinsic Value

By Rajat Paharia

Over the past five years, we at Bunchball have worked with more than 100 companies to implement gamification programs designed to motivate and engage fans, customers, and employees. The way we approach each program is always the same, and starts with a thorough understanding of the business goals. What are the user activities that drive value, either directly or indirectly, for the business? Next, we develop a deep understanding of users and what motivates them to engage with the business.

This is a key point, and one that often gets lost in the conversation about gamification: The entity being gamified needs to have some intrinsic value already—a reason for users to engage with it. If you have a news site that doesn't have fresh news every day, adding gamification will not help, and you have bigger business problems. But if your offering has core intrinsic value that users desire, then weaving gamification into it can deepen their engagement and desire to participate.

Whenever we engage with a new system, we all, either explicitly or implicitly, ask ourselves, "What's in it for me?" Understanding why users engage with a business helps to answer that question and also points the way to rewards the user base will find meaningful and valuable.

With this understanding of the primary stakeholders in mind, we then work to create an experience that engages users while accomplishing the business objectives, drawing from a palette of gamification tools that include goal setting, real-time feedback, transparency, mastery, competition, teams, and more. We craft a measurement plan with the business so we can accurately determine effectiveness and ROI, and a communication plan that details how the program should be rolled out to users. Post-launch, we work with them to analyze the data coming out of their program and to iterate and tweak it until it's running optimally.

Like anything else, gamification can be done well and can be done poorly. Companies that see the success of Foursquare or Farmville and just try to copy what they see, without understanding the stakeholders and their needs, are destined to fail—as are those who think they can replace meaningful rewards and incentives with empty points and badges, and manipulate users into doing things they don't want to do.

Gamification is really a motivational design problem, one that can be best solved with design thinking and design processes. Those companies that figure out how to effectively use gamification to amplify the intrinsic motivations of their employees, fans, and customers will have a lasting competitive edge in their markets.

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If there is one unifying theme of these pieces, it is to take gamification seriously: to thoroughly consider its potential, but more important, to move beyond the indiscriminate deployment of stock features toward a deep understanding of the needs of users, the value a system may provide as a result of connecting with them, and the complexity of interactions that give rise to valued experiences—or unintended consequences.

These have always been core tenets of HCI. Hence, the field has much to offer those interested in gamification: a rich body of methods, a critical ethical awareness, as well as insight into the design and dynamics of collaborative, reputation, and incentive systems. Conversely, the current rise of gamification promises abundant real-world data on the uses and effects of such systems, and a stimulating infusion of frameworks, principles, and patterns from game design that may inform HCI. At its best, gamification means to identify and facilitate the motivations behind desired activities, using game design as one guiding lens among many. The projects, processes, and research collected in this article present a first glimpse of how this may look.

ENDNOTES:

1. Rigby, S. and Ryan, R. *Glued to Games: How Video Games Draw Us In and Hold Us Spellbound.* Praeger, 2011.

2. Tinto, V. *Leaving College: Rethinking the Causes and Cures of Student Attrition (Vol. 1).* The University of Chicago Press, Chicago, 1987.

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