

Best Practices for Using Enterprise Gamification to Engage Employees and Customers

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Abstract. Enterprise gamification is one of the major human-computer interface trends of the 21st century. Using techniques borrowed from software games, gamification can be used to drive behavior in situations outside of games. As defined by Michael Wu, gamification “uses game attributes to drive gamelike behavior in a non-game context.”[1] When implemented successfully, gamification can give enterprises an edge by increasing user motivation and achievement of goals. Gamification can also help enterprises engage employees and customers, and meet business needs. Given these benefits, it is no surprise that the move to enterprise gamification is accelerating. Enterprises of all sizes and in many industries are ramping up on products, communities, and processes based on gamification principles, and enterprise gamification is growing at an impressive rate. This rapid rate of implementation brings opportunities for enterprises that can implement gamification effectively. To adapt to this trend, professionals in the field of human-computer interaction must understand best practices, and develop expertise and skills in enterprise gamification. To meet this need, this paper looks at why enterprises benefit from gamification; provides selected examples of enterprise gamification; and lists best practices for gamification projects.

1 Why Enterprises Benefit from Gamification

According to the market research firm Gartner, by 2014 over 70% of companies will have at least one gamified product, and by 2015 over 50% will gamify innovation.[2]

In addition, the market for gamification has enjoyed dramatic growth, surging from 155% in 2011 to 197% in 2012. The market research firm M2 expects the market to jump from \$100M in 2011 to over \$2.8B in 2016.[3] With 47% of implementations currently focused on user engagement, M2 finds that enterprise is the largest market segment, consisting of 25% of the gamification market. M2 also notes that the gamification vendors surveyed report that 47% of client implementations supported user engagement, with brand loyalty accounting for 22% and brand awareness for 15% of implementations.

By increasing employee and customer engagement and motivation, gamification can help enterprises achieve business needs such as:

- Spurring innovation
- Motivating and retaining employees
- Engaging internal and external communities
- Increasing engagement, adoption, learning, and loyalty
- Increasing revenue from software trials
- Raising efficiency and quality of service
- Helping the enterprise stay competitive within the industry
- Meeting customer expectations
- Reducing time and costs
- Increasing return on investment (ROI)
- Driving profits

In addition, gamification is an effective way to engage and motivate “millennials,” also known as “Gen Y.” This cohort makes up 25% of the US workforce as of 2012, and their number is expected to increase to 36% in 2014 and to 46% in 2020[4]. As noted by Jane McGonigal, this generation has typically spent 10,000 hours in gaming by age 21, about the same amount of time they have spent in school[5].

This extensive experience in gaming qualifies millennials as experts, according to Malcolm Gladwell’s “10,000-Hour Rule” described in *Outliers: The Story of Success*[6]. As a result of this expertise, millennials are most engaged when using game-like user interfaces. To motivate this workforce, employers must provide attractive enterprise gamification solutions for corporate innovation and internal processes[7].

2 Examples of Enterprise Gamification Best Practices

2.1 Oracle: Internal and External Gamification

The following examples highlight several enterprise gamification initiatives at Oracle. (Note: The statements and opinions expressed here are the author’s own and do not necessarily represent those of Oracle Corporation.)

Gamified Forum

The Oracle Forum [<https://forums.oracle.com>] is a gamified community. Members are encouraged to answer questions posed on the forum, and are given points for providing helpful answers. Top contributors are recognized on a leaderboard, with achievements shown by points and badges. The result is that participants are effectively motivated to contribute to the community.

Games for Engagement

To encourage engagement with products, Oracle provides games such as Oracle Vanquisher, Oracle Storage Master, and Oracle x86 Grand Prix. Examples are shown in the following figures.



Fig. 1. Oracle Vanquisher
(https://www.facebook.com/OracleHardware/app_135555269925766)



Fig. 2. Oracle Storage Master
(https://www.facebook.com/OracleHardware/app_448435698548238)

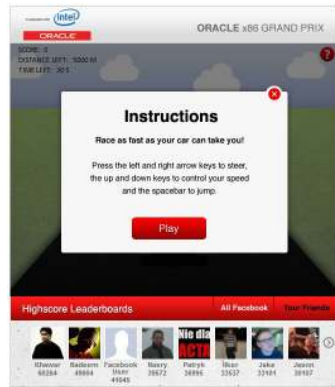


Fig. 3. Oracle x86 Grand Prix
(https://www.facebook.com/OracleHardware/app_448435698548238?ref=ts)

Internal Gamification

To encourage understanding of gamification, the Oracle Applications User Experience team held an innovative worldwide design jam. At the Oracle Apps UX Gamification All-Hands Day, teams held a fun, gamified competition to create new types of gamified interfaces. Participants agreed that the event was a success. According to Ultan Ó Broin, it was “a great way to learn about gamification, build team spirit, and create an innovative, contemporary user experience in a very agile way.”[8]

Information Sharing through Conferences and Social Networks

Oracle employees share their learning about gamification at conferences such as the Gamification Summit[9], Society for Technical Communication Summit, LavaCon, and Enterprise Gamification. To share information about gamification activities, employees use designated Twitter handles and a hashtag: @GamifyOracle and #GamifyOracle. Employees also post a gamification blog at <https://blogs.oracle.com/gamification/>.



Fig. 4. GamifyOracle Twitter Handle

2.2 Cisco: Gamified Curriculum

Cisco takes gamification to the next level by providing gamified training on a Games Arcade[10] available on the Cisco Learning Network. Network administrators can download learning games for a fun way to gain networking skills and prepare for professional certification.



Fig. 5. Cisco Arcade

(<https://learningnetwork.cisco.com/community/connections/games>)

2.3 Adobe Systems: Gamified Tutorial

LevelUp for Photoshop is a successful interactive tutorial game that engages customers with using Photoshop. It motivates new and existing users to learn about the product. Mira Dontcheva, Senior Research Scientist at Adobe Systems, summarizes the benefits of the gamified approach: “Our field deployment showed that LevelUp for Photoshop is beneficial to both novices and experts. The game made it easy for novices to get started with Photoshop, while advanced users learned more efficient workflows for familiar tasks.” Petar Karafezov, Senior Manager, Digital Marketing, EMEA, at Adobe Systems, notes that “So far feedback from our customers has been positive - even people who are not entirely new to Photoshop can learn about a tool or two.”[11]



Fig. 6. Adobe LevelUp for PhotoShop
(<http://success.adobe.com/microsites/levelup/index.html>)

2.4 Autodesk: Gamified Tutorial

Autodesk provides a gamified tutorial within their AutoCAD product called GamiCAD. At the ACM Symposium on User Interface Software and Technology, Wei Li, Tovi Grossman, and George Fitzmaurice of Autodesk Research reported on the effectiveness of this gamified approach. “We perform an empirical evaluation of GamiCAD, comparing it to an equivalent inproduct tutorial system without the gamified components. In an evaluation, users using the gamified system reported higher subjective engagement levels and performed a set of testing tasks faster with a higher completion ratio.”[12]

3 Best Practices for Gamification Projects

When planning gamification projects, it is critical to start by defining the business need. Throughout the project, ensure that the gamified system is designed to meet business needs.

Next, determine if associates have gamification design expertise. If inhouse gamification designers are not available, get input from knowledgeable experts or collaborate with consultants. Useful information on gamification vendors and resources is available at Gamification.co (<http://www.gamification.co/>). The Engagement Alliance (<http://engagementalliance.org/>) oversees industry certification for gamification designers.

After determining business requirements, gain an understanding of players and learn what motivates them. Designers can then plan target behaviors, and determine how gamification can be used to motivate those behaviors. Sample techniques:

- Game dynamics to motivate behavior. Examples include scenarios and rules.
- Game mechanics to help players achieve goals. Examples include teams, competitions, rewards, and feedback.
- Game components to track players' progress. Examples include quests, points, levels, badges, and collections.

The gamification plan should provide appropriate onboarding for novices, and then adapt to the player's journey as they gain expertise. Participants should be interested and motivated throughout all levels of the game, from beginner, to intermediate, to expert.

After the design is complete, appropriate tools can be selected, and then the system can be built. After prototypes are available, it is critical to schedule play testing, and plan for design iterations based on player feedback.

Useful guidelines for gamification design are provided in Kevin Werbach's six-step Gamification Design Framework. This framework was described in the Coursera Gamification course [13] in 2012 and in *For The Win: How Game Thinking Can Revolutionize Your Business*. [14]

The "Six D's" of Kevin Werbach's Gamification Design Framework

1. **Define** business objectives.
2. **Describe** your players.
3. **Delineate** target behaviors.
4. **Devise** your activity loops.
5. **Don't** forget the fun.
6. **Deploy** the appropriate tools.

Accessibility [15] should also be addressed in enterprise gamification products. If a product is required to be accessible, ensure that gamified projects conform to the company's accessibility guidelines. Sample game accessibility considerations are shown at The AbleGamers Foundation's websites (see www.includification.com and www.ablegamers.org).

Another important consideration for enterprise gamification is localization [16]. Localizing games involves more than translation. Allow time for considerations of the target country and culture. Sample localization considerations:

- Rewards: The same reward does not appeal to all cultures
- Quests: Customize to the country and corporate culture
- Leaderboards: Being #1 is not desirable in all cultures

Because gamification is an emerging field, complete standards do not currently exist for all areas. As the industry matures, it is expected that standards and best practices will become better defined and adopted. In the meantime, best practices can be extrapolated both from gaming and from successful enterprise gamification projects.

4 Conclusion

Gamification brings exciting changes that promise to engage and motivate enterprise users. For example, Gartner predicts that, “by 2014, a gamified service for consumer goods marketing and customer retention will become as important as Facebook, eBay, or Amazon.”[2]

To stay in the game, human-computer interaction specialists must prepare for 2014, when over 70% of companies will have at least one gamified product, and for 2015, when over 50% of companies will gamify innovation.[2] The leaders in this field will understand, develop, and deliver effective enterprise gamification systems that follow gamification best practices.

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