

Gamification 2020: What Is the Future of Gamification?

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Gamification is a tool to design behaviors, develop skills and enable innovation. Combined with other technologies and trends, gamification can cause major discontinuities in innovation, employee performance management, education, personal development and customer engagement.

Overview

Key Challenges

- Organizations are challenged to increase engagement with employees and improve performance.
- Human potential is unrealized, because higher education is limited to those people with geographic and/or economic advantages.
- Organizations are challenged to effectively engage employees and customers in innovation.
- Consumers are overwhelmed by many disconnected loyalty programs that leverage uninspiring extrinsic rewards.

Recommendations

- Organizations must understand the potential of gamification to design behaviors, develop skills, enable innovation and begin to deploy low-risk applications.
- Gamification project managers must engage game designers or organizations with experience in gamification in early implementations.
- Strategic planners must learn how gamification is being applied in their industries and how their organizations can leverage gamification to engage employees or customers.
- Business managers must assess the impact of the longer-term discontinuities that gamification will cause and begin to position their organizations to capitalize on the trend.

Introduction

Organizations are skeptical about the viability and longevity of gamification as a means to engage and motivate target audiences, and organizations struggle to understand the trend and its longer-term implications. In a recent survey by Pew Research Center, 53% of people surveyed said that, by 2020, the use of gamification will be widespread, while 42% predicted that, by 2020, gamification will not evolve to be a larger trend except in specific realms. ¹

Gamification is the use of game mechanics and game design techniques in nongame contexts to design behaviors, develop skills or to engage people in innovation. Strategic planners, business managers and IT leaders must begin to understand the long-term impact of gamification and identify opportunities to leverage gamification in their organizations today. Gamification started as a trend about two years ago, first appearing on Google Trends in September 2010. ² This research projects some scenarios for the 2020 time frame as gamification evolves. But extrapolating eight-year projections on a two-year-old trend is highly speculative at best, and readers should view these projections as scenarios to stimulate thinking, rather than predictions. Mobile, cloud, social and location-based services have played a huge part in the rise of gamification to date. By 2020, the maturation of additional emerging technologies, including gesture control, head-mounted displays and augmented reality, will further enable the use of gamification in many domains by

seamlessly integrating technology into our daily lives (see "Hype Cycle for Human-Computer Interaction, 2012").

In Gartner's "Hype Cycle for Emerging Energy Technologies, 2012," we placed gamification in the Peak of Inflated Expectations, with the expectation of reaching the Plateau of Productivity in five to 10 years. We expect that gamification will enter the Trough of Disillusionment within the next two years, driven primarily by the lack of understanding of game design and player engagement strategies, resulting in many failed applications. But we also believe that gamification, applied with correct game design principles, will have a significant impact in many domains, and in some fields, the use of game mechanics will have a transformational impact.

This research examines some of the principle applications of gamification today. Gartner has been following the gamification trend for two years, and our research indicates some of the most common applications are in the areas of employee performance, innovation management, education, personal development and customer engagement. A Google search on news items in the past two years confirms these are some of the most actively discussed applications.³ In this research, we are projecting future scenarios where gamification, combined with other emerging trends and technologies, may result in significant change on different areas of business and society, including:

- An explosion of innovation
- The design of employee performance
- The globalization of advanced education
- The gamification of personal development
- The emergence of customer engagement platforms

Analysis

An Explosion of Innovation

Organizations such as the Department for Work and Pensions in the U.K. and Allstate have already leveraged more sophisticated game mechanics to inspire employee engagement in the innovation process, and we expect that the trend will continue. In 2011, Gartner predicted that, by 2015, more than 50% of organizations that have managed innovation processes will gamify those processes. Given the benefits realized by early adopters, we expect the trend toward leveraging employees to drive innovation will continue to accelerate innovation.

Beyond engaging employees in innovation, organizations are also beginning to use gamification to leverage broader audiences in innovation. For example, the Defense Advanced Research Projects Agency (DARPA) has recently announced its Fast, Adaptable, Next-Generation Ground (FANG) Design Challenge to crowdsource design and manufacturing processes for its FANG Vehicle. In another example, Quirky is crowdsourcing product innovation, using game mechanics to predict the product ideas with the greatest potential for success. Another example is FoldIt from the University of Washington, which enlists citizen scientists to solve complex problems in protein folding, and advances science in the process.

In the future, gamification will play a key role in innovation management, both internal and external to organizations, by engaging a target audience and leveraging the collective intelligence of the crowd to solicit ideas, develop those ideas and predict success using prediction market mechanisms. Innovation management is a natural domain for gamification, and the increasing sophistication of innovation game design, along with broader target audience participation and a greater number of organizations using this approach, will result in an explosion of gamified, crowdsourced innovations by 2020.

Best Practice: Innovation management and gamification closely complement each other. For organizations seeking to gain experience in gamification, innovation management is an ideal application, because it has a low downside risk and a high upside opportunity. Considerable experience already exists in leveraging gamification for innovation management, and organizations seeking to leverage this approach are advised to engage individuals who have experience in these applications from outside the organization, often from vendors that provide software to support idea management, such as Spigit or Brightidea.

The Design of Employee Performance

There is a long history of applying game mechanics to employee performance — for example, contests are often used to drive sales performance, but these are crude tools. More sophisticated game design techniques supported by technology can be applied to design employee behaviors — fine-tuning activities to support organizational goals. Most current applications of game mechanics in employee performance rely on monetary or other extrinsic rewards and competitive game constructs, and success is limited:

- A recent survey found that only 29% of employees are engaged at work, with 52% identifying as unengaged, and 19% as disengaged. ⁴
- As Dan Pink argues in the book "Drive: The Surprising Truth About What Motivates Us," intrinsic rewards are far better than extrinsic rewards to create higher levels of engagement and better results. ⁵

Gamification uses the currencies of social capital, self-esteem and fun overtaking extrinsic rewards as motivations for improved performance. Also, competitive games will play less of a role in employee performance being displaced by collaborative games that are designed to maximize business outcomes, rather than rewarding a few top performers. Employee performance feedback will move from being top-down and periodic (often annual) to being social, peer-based and real-time.

Game mechanics are being applied differently to different types of work to drive different types of behaviors:

- In low-skilled jobs, such as service desk analysts, scripted games will present workers with specific tasks and rewards to be completed, and workers will be motivated with social recognition within the workgroup and mastery of the tasks — while there are large risks in using scripted games, they can also be useful in motivating low-skilled workers.
- In knowledge work, such as project management or product design, emergent game structures will be more common than scripted games. In emergent games, players are provided with the goals, tools, rules and space to play, but their actions are not scripted, and the process or outcome is often unknown. A common example of this can be seen in ideation or innovation management platforms. This type of emergent game structure works well for knowledge work where the outcome cannot be defined, but the goal is defined. Extending this approach for complex goals that require multiple players, self-organizing teams can be formed to achieve the goal.

Current top-down, command and control management approaches are being replaced by game design skills. Successful managers in the future will be great designers of games that engage employees through either scripted or emergent games that are designed to achieve specific business outcomes.

Best Practice: While employee behavior design is an attractive idea, organizations must approach employee-facing gamification applications with caution. Employees must not feel manipulated or intimidated, but enabled to achieve their goals. ⁶ Organizations should seek to clearly define the organizational objectives of employee-facing applications, understand employee objectives and focus on where the two overlap. Applications should be people-centric and enable employees to be successful in achieving their objectives — where they are aligned with organizational objectives.

The Globalization of Advanced Education

It is generally understood that access to advanced education, particularly for people in developing countries, is prohibitively expensive and only available to the elite. A degree from an accredited university remains the badge of choice for entry into the workforce, but things are changing. Gamification joins with a number of trends that are changing the engagement of students in learning, access to advanced education and recognition of skills attainment.

Engagement of students in learning — Gamification has been applied to training and education for more than two decades and in many different ways to increase the engagement of students in the learning process. In its simplest form, game mechanics, such as points, badges and social network integration, are being applied as a game layer to course material to accelerate feedback loops and provide social recognition rewards that increase student/player engagement in learning. In more sophisticated examples, course material is embedded in game environments that include simulation, animation and storylines to further engage student/players. The results are better outcomes in learning.

Access to advanced education — While this trend does not incorporate game mechanics, it is important in the overall trend to globalize education. Recently, a large number of courses offered by universities have become available online and free for anyone who has an interest in signing up. For example, Coursera currently offers about 200 courses from 33 universities and has signed up more than half a million students. Class sizes are huge, often in the tens of thousands, but the time commitments for professors are minimized through on-demand video lectures, online tests and peer review of work assignments. Most courses taken through free online delivery services do not provide course credits, but that may soon change.

Recognition of skills attainment — A key component of education is the broad recognition of the skills that have been attained. Skills may be attained through higher education, work experience or independent study, but higher education institutions have a virtual stranglehold on recognition of knowledge attainment, and usually only provide that recognition (in the form of a degree) to students who have paid their fees and attended the classes. That may soon change. For example, P2P University (P2PU) provides a collaborative learning environment for students to create course material on topics of interest to the community. While this is an important innovation, one more important innovation is the use of badges (a game mechanic) to recognize skills attainment. Using Mozilla's Open Badges framework, collaborators in P2PU courses can gain recognition for skill attainment without the involvement of a higher education organization. While P2PU badges currently have little recognition beyond the P2PU community, by 2020, that could change.

In the near term, gamification will be primarily used to create more engaging course material. But by 2020, advanced education will be global, with increased equality of access to education and more open recognition of skill attainment through badges. Alternatives to formal higher education can evolve to make education more engaging, widely accessible and broadly recognized.

Best Practice: Organizations must begin now to evaluate gamified training applications for internal deployment, such as employee onboarding. Organizations must also encourage employees to develop skills using alternative resources. Business managers and HR departments should continually evaluate rapidly changing certification alternatives to determine when and if alternative certifications are accepted as a recognition of skill attainment.

The Gamification of Personal Development

There currently are dozens of examples of gamified applications that are designed to modify personal behaviors, but they are relatively unsophisticated, typically use only basic game mechanics, and are often little more than reminder systems with some points and badges slapped on. More effective systems integrate with social networks to reinforce motivation with additional social recognition. Some examples include gamified applications to coach people to lose weight, quit smoking, improve fitness, correct posture, manage personal finances, take medication and improve memory. And the list goes on.

While game design approaches will continually improve to provide the motivation for personal development, by 2020, adoption of personal development applications will increase significantly, driven by the maturation of emerging technologies, such as augmented reality and natural-language interfaces that will enable a more natural interface, while gesture control and emotion detection technologies will enable gamified personal development applications to "see" how you are doing and adjust based on your condition. Incorporating expert advice into gamified personal coaching systems, along with these technologies, will enable a richer coaching experience. For example, a simple gamified personal development system like the ones available today can tell you to do 20 pushups, and awards you points for completing them — because that's what it's programmed to do. With the incorporation of these emerging technologies and expert advice in the future, a gamified personal fitness coach can tell you do to pushups, evaluate and correct your posture while doing those pushups, evaluate your exertion, and adjust the number of pushups to match your level of fitness. This richer personal coaching experience will be compelling for many applications.

Best Practice: Healthcare organizations, governments and other organizations that promote healthier lifestyles, improved personal finance or other improvement in lifestyle change can benefit from the use of gamification to more deeply engage the target audience. These organizations must specifically identify the required behavior change and the target audience, and begin to leverage gamification in applications that address these behavior changes. In most cases, this type of application has a low downside risk, and organizations should begin to develop and deploy applications that are focused on personal development

today.

The Emergence of Customer Engagement Platforms

The sweet spot for gamification today is customer loyalty and marketing applications with consumer brands, such as Samsung, Nike and Pepsi, leading the way. While big brands have the resources to develop customized gamification applications, there is a tremendous opportunity for coalition loyalty platforms to develop that aggregate loyalty programs from many retailers, services and brands. Some examples of these aggregators exist today, such as Air Miles in Canada, Nectar in the U.K., and Shopcade and Womply in the U.S. However, these programs use only basic game mechanics and extrinsic reward schemes. The opportunity for these or emerging coalition loyalty platforms is to further engage members with more intrinsic rewards and more sophisticated game design approaches.

Consumers are tired of participating in dozens of brand-based loyalty programs where the rewards are small and the investment in time is significant. By 2020, a small number of dominant coalition loyalty platforms could emerge, driven by a number of factors:

- Cross-brand sponsorship and participation — Loyalty platforms are attractive to consumers if many of the retailers, services and brands that they already use are part of the program.
- Aggregation of points and levels — By aggregating points, rewards can be more significant, and players can level-up by virtue of their total program involvement, rather than involvement with a single loyalty marketing program.
- Levels are broadly recognized — Becoming a silver or gold member provides recognition and entitlement across the brand network.
- Players become loyal to the platform and the brand community — Brands that are not part of the community become "outsiders" and less attractive to consumers.
- Points become a transferable virtual currency — Points can be broadly exchanged for goods, services or other rewards, and can be transferred to other people.
- Platform consolidation will occur through network effect — Multiple customer engagement platforms will consolidate to create a small number of dominant platforms.

Best Practice: Brands, retailers and service providers must monitor the development of loyalty platforms to identify emerging or existing loyalty management organizations that are incorporating more sophisticated game design and game mechanics into their loyalty programs. As gamified loyalty coalition platforms begin to emerge, organizations must choose to partner with those loyalty programs that offer both engaging game design approaches and a critical mass of compatible loyalty partners.

Preparing for Discontinuities

Gamification, in combination with other emerging trends and technologies, will cause discontinuities in many different areas. While this research evaluates some scenarios of potential discontinuities, there are certainly other areas that will be affected. Organizations must begin now to prepare for, and take advantage of, the changes that gamification will enable. Look for early signs of the impact of gamification on your industry, and evaluate opportunities to leverage gamification to change behaviors, develop skills and enable innovation in your organization.

Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Gamification: The Serious Side of Games Can Make Work More Interesting"

"The Implications of Gamification on IT Operations"

"How Social Gamification Improves the Success Rate of Retail New Product Launches"

"Innovation Insight: Gamification Adds Fun and Innovation to Inspire Engagement"

"Predicts 2012: Organizational Politics Hampers, Gamification Motivates BPM Adoption"

"Maverick* Research: Motivation, Momentum and Meaning: How Gamification Can Inspire Engagement"

"Marketing Essentials: Strategic Alternatives for Increased Engagement Using Gamification"

Related Research

This is part of an in-depth collection of research. See the collection:

- Gamification: Engagement Strategies for Business and IT

Strategic Planning Assumption

By 2016, gamification will be an essential element for brands and retailers to drive customer marketing and loyalty.

Evidence

¹ The Future of Gamification , Janna Anderson and Lee Rainie, Pew Research Center, May 2012. The survey results are based on a nonrandom, opt-in online sample of 1,021 Internet experts and other Internet users.

² Source: Google Trends

³ Google News searches from 29 October 2010 through 29 October 2012

- "gamification AND marketing OR loyalty" = 1,810 results
- "gamification AND fitness OR finance OR weight OR medication" = 743 results
- "gamification AND education" = 731 results
- "gamification AND health" = 633 results
- "gamification AND staff OR employee" = 467 results
- "gamification AND training" = 327 results
- "gamification AND energy" = 295 results
- "gamification AND sustainability" = 195 results
- "gamification AND innovation" = 2,960 results*

*Gamification AND innovation returns a large result set, but many of the news articles are referring to gamification as the innovation, not gamification being applied to enable innovation.

⁴ Gallup Employee Engagement Index

"The national engagement data reveal that businesses in the U.S. — and in turn, the U.S. economy as a whole — might not be reaching maximum worker performance because of the high percentage of not engaged and actively disengaged employees." See <http://www.gallup.com/poll/150383/Majority-American-Workers-Not-Engaged-Jobs.aspx> .

⁵ "Drive: The Surprising Truth About What Motivates Us," Daniel H. Pink, Riverhead Press, 2009

⁶ "Disneyland workers answer to 'electronic whip,'" Steve Lopez, Los Angeles Times, 19 October 2011.