UX MAGAZINE

A Gamification Framework for Interaction Designers

Gamification ranges from superficial afterthought to fundamental element.

Article No :678 |

May 24, 2011 | by Audrey Crane

Gamification is a hot topic. Missed it? On Google Trends (http://www.google.com/trends?q=gamification&ctab=0&geo=all&date=ytd) it first appeared as a blip in late October 2010 and then took off in January so quickly that it appeared on NPR's Weekend Edition in March (http://www.npr.org/2011/03/27/134866003/gamifying-the-system-to-create-better-behavior). Investors seem interested (http://venturebeat.com/2010/12/10/vcs-level-up-with-gamification-investments-2/), and it already has a sold-out conference (http://gsummit.com/) and a fast-growing list of agencies that will help you "do gamification." You can even join a quest to become a gamification expert (http://gamify.com/experts).

As I dove into some reading, a framework emerged that helped me understand gamification generally, and also specifically how (or whether!) to think about it in relationship to projects I'm

working on at the moment. This framework also helped to put all the examples and criticisms into a context I could get my head around.

Defining Gamification

Gamification, according to [Wikipedia (http://en.wikipedia.org/wiki/Gamification)](http://en.wikipedia.org/wiki/Gamification), is:

> [T]he use of game play mechanics for non-game applications... particularly consumer-oriented web and mobile sites, in order to encourage people to adopt the applications. It also strives to encourage users to engage in desired behaviors in connection with the applications. Gamification works by making technology more engaging, and by encouraging desired behaviors, taking advantage of humans' psychological predisposition to engage in gaming.

In other words, make the stuff you're building engaging so people do what you want, or think about ways to make them want the same things you want. And this is the breakthrough bit: the stuff you're building doesn't have to be a *game* to be fun or engaging—*anything* can be fun or engaging!

A Framework for Understanding Degrees of Gamification

As the critics point out, some gamified products are just poorly executed. Just because you saw something in a game once doesn't mean it'll be fun in your product. But I think that most of the critics of gamification fail to take into account the wide range of execution that's possible. Gamification can be applied as a superficial afterthought, or as a useful or even fundamental integration. To tease out some differences and to think about how to implement gamification, we at DesignMap have started to put together a framework:

1. **Cosmetic:** adding game-like visual elements or copy (usually visual design or copy driven)
2. **Accessory:** wedging in easy-to-add-on game elements, such as badges or adjacent products (usually marketing driven)
3. **Integrated:** more subtle, deeply integrated elements like % complete (usually interaction design driven)
4. **Basis:** making the entire offering a game (usually product driven)

Cosmetic Game Elements

Examples that fall into the *cosmetic* category abound, especially in shopping, with the use of large photographs that are reminiscent of the immersive graphics available in popular video games such as the Call of Duty or Halo series. The purpose of this in games is to immerse the player into a believable experience. It's also usually reinforced by creating a story around that experience, and the two together create an immersive effect that invites the player to engage. In other applications, the result can fall short unless it's carefully thought through.
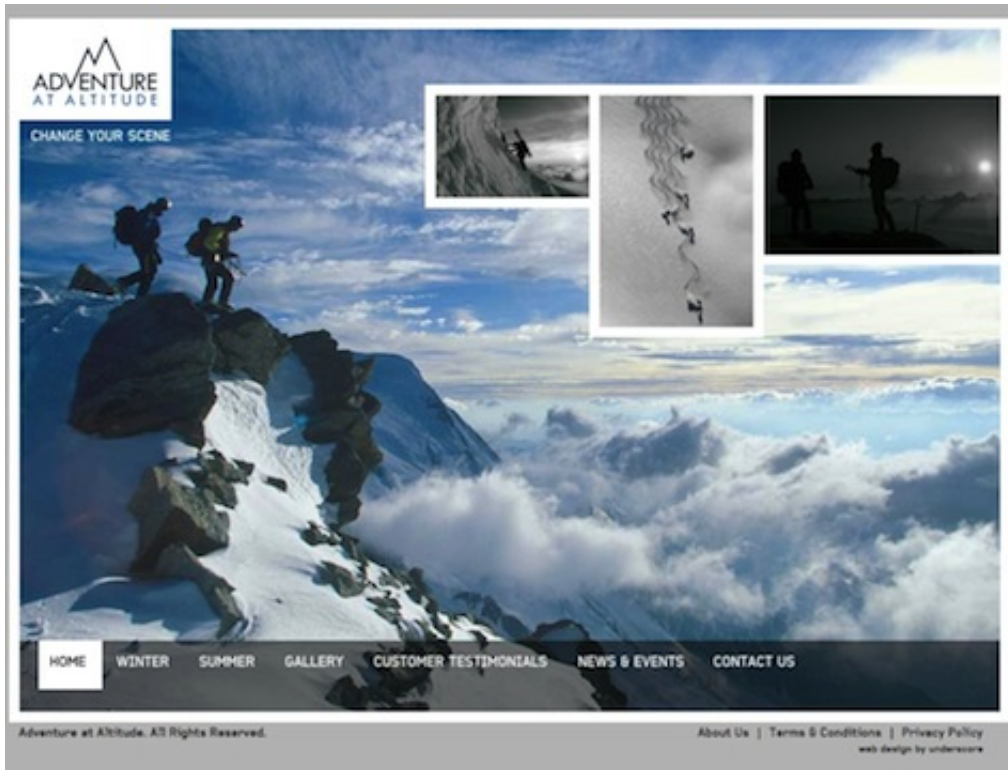
The Adventure at Altitude (http://www.adventureataltitude.com/) site uses a large photo background it looks like it could have come right out of Cursed Mountain or Uncharted2.

Uncharted 2

[(http://uxmag.com/sites/default/files/uploads/cranegamification/chrysler.jpg)](http://uxmag.com/sites/default/files/uploads/cranegamification/chrysler.jpg)
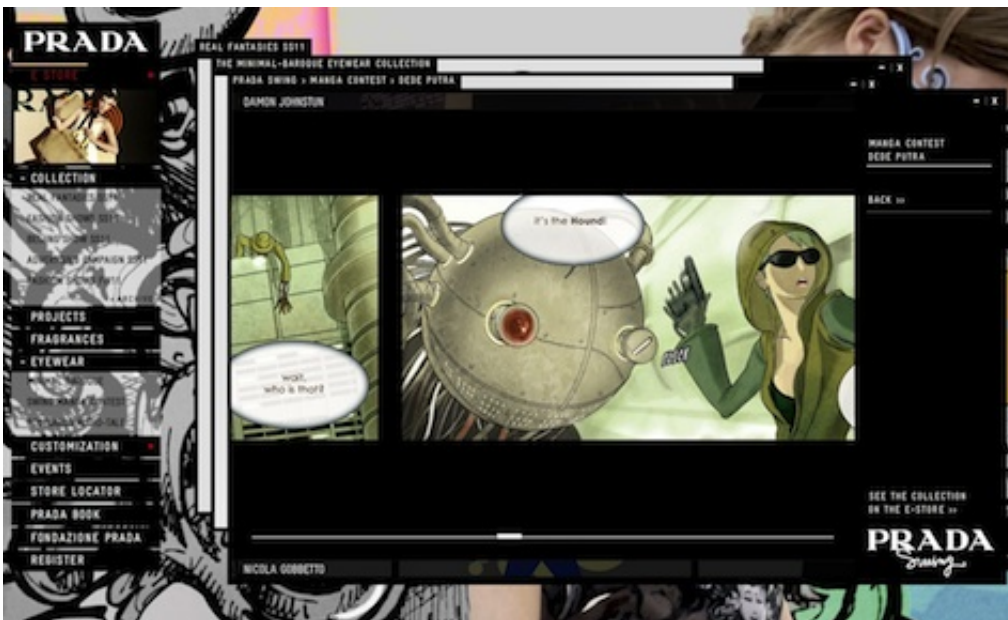
You could be choosing this Chrysler 300 from the armory of Halo Reach

The Halo Reach armory

(http://uxmag.com/sites/default/files/uploads/cranegamification/pradacomic-strip.jpg)

Almost too right-on-the-nose, the Prada site includes comic strips

There are also more sites using fun or playful copy. With the recent release of Portal 2, it's hard not to think of the Portal AI's promise of cake.
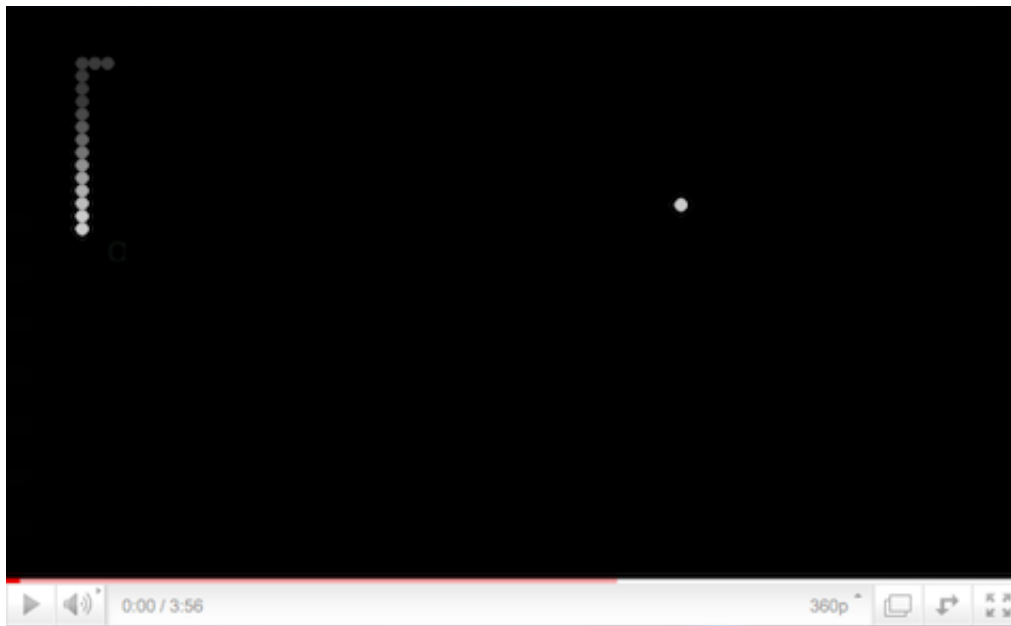
iMeet (https://www.imeet.com/) is dusting your cube, suggests that you take this time to fix your hair, and is warming up the room.
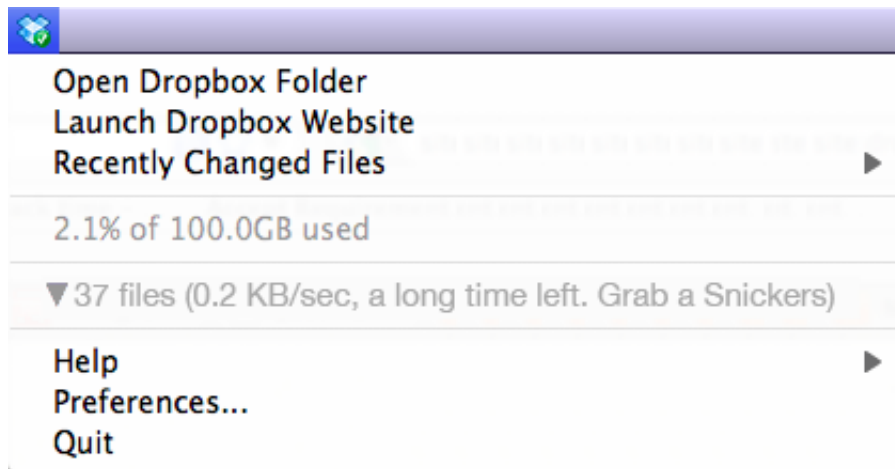
Dropbox (http://www.dropbox.com) recommends a Snickers bar.

Easter eggs (http://www.eggheaven.com/eggs/) also fall into this category.

YouTube's snake Easter egg

Accessory Game Elements

Gamification in the _accessory_ category is the most common, and draws the most criticism from the gaming community for having no value beyond pure marketing pull. Some of the gamification services provided by companies such as BigDoor (http://www.bigdoor.com/) and Bunchball (http://www.bunchball.com/) fall into this space. Their services provide explicit rewards such as

points, levels, and leader status. The fact that external companies can even provide "gamification solutions" to other businesses speaks to their fundamental add-on-able-ness.

Bunchball addresses a laundry list of gamification "mechanics" and needs

Other examples of accessory gamification include tacked-on game elements such as newsgames (http://newsgames.gatech.edu/) like Huffington Post's Predict the News (http://www.huffingtonpost.com/predict-the-news/). Poorly performing leaderboards are poorly performing specifically when they're treated as accessories, and are empty because users aren't actually motivated to the desired behavior (product reviews in particular seem to suffer from this). Leaderboards that perform well are integrated into the site (see the example in the next category).

Integrated Game Elements

Gamification in the *integrated* category is subtler, more thoughtfully integrated, and less explicit than the other examples we've examined so far. Examples include leveraging a sense of accomplishment and competition for Backcountry's leaderboard (http://www.backcountry.com/store/rankings/?page=1) (which is deeply integrated an extension of the company's DNA of catering to hard-core enthusiasts who are passionate about these products), and Amazon's top reviewers.

[backcountry.com (http://backcountry.com)](http://backcountry.com)'s leaderboard

Unlike cosmetic and accessory game elements, integral elements speak directly several types of natural motivations. LinkedIn, Facebook, and Nike use progress meters to entice users onward; the company wants the user to finish, and the progress meters provide a clear visualization of how near they are to a sense of having achieved completion. Sites such as [Gilt Grou (http://gilt.com)](http://gilt.com)p and [Daily Candy's Swirl (http://www.swirl.com)](http://www.swirl.com), or one-deal-at-a-time sites like [Woot (http://www.woot.com)](http://www.woot.com), use [scarcity (http://uxmag.com/design/playing-hard-to-get)](http://uxmag.com/design/playing-hard-to-get) and competition to drive behavior.
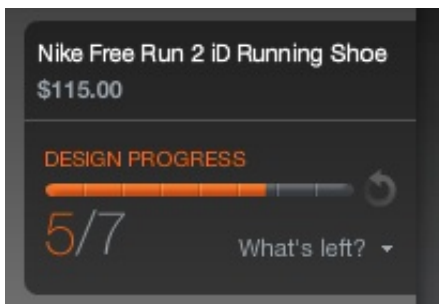
Nike wants you to want to finish designing your shoes

Sanyo Xacti 1080 Full-HD Camcorder with 3x Optical Zoom Statistics
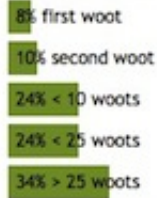
SPEED TO FIRST WOOT: 2m 47.170s
FIRST SUCKER: jcbnhl98
LAST WOOTER TO WOOT: chigginnuckets

PURCHASER EXPERIENCE
8% first woot
10% second woot
24% < 10 woots
24% < 25 woots
34% > 25 woots

PURCHASER SENIORITY
7% joined today
3% one week old
3% one month old
18% < one year old
70% > one year old

QUANTITY BREAKDOWN
93% bought 1
3% bought 2
3% bought 3
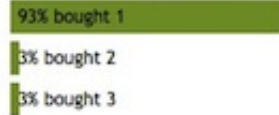
PERCENTAGE OF SALES PER HOUR:

56%
44%
1% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11

WOOTS BY STATE:

zero wooters wooting ▬▬▬▬▬ lots of wooters wooting
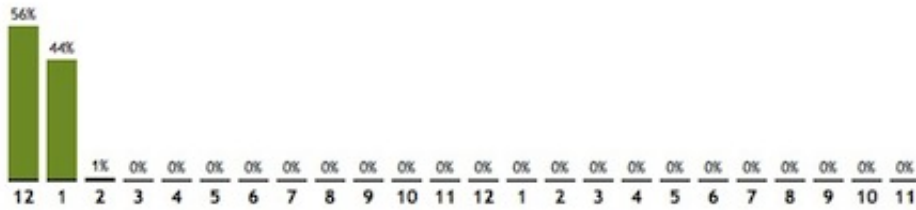
Woot provides detailed information on other purchases

Basis Gamification

In the *basis* category, activities that weren't games before have become games. The pleasure people get from playing games is layered onto everyday activities.

Badge sites fall into this category because the whole premise of simply being somewhere is suddenly a game. Badges from sites such as Foursquare, Gravity, Zaang, and Gowalla are all echoes of the rewards provided in video games. Xbox has "achievements," and the Playstation Network has "trophies." Wii Sports has a stamp system, although the famous Nintendo game

designer [Shigeru Miyamoto (http://en.wikipedia.org/wiki/Shigeru_Miyamoto)](http://en.wikipedia.org/wiki/Shigeru_Miyamoto) says [(http://www.gamasutra.com/php-bin/news_index.php?story=23899)](http://www.gamasutra.com/php-bin/news_index.php?story=23899):

> I'm not a big fan of using the carrots to motivate people to play. I want people to play because they enjoy playing and they want to play more.

Many of the products in the basis category address something that might otherwise be less-than-fun, such as exercising, saving energy, or donating money. Gamification resonates especially with these examples, as these solutions try to make things more-than-less-than-fun. Anyone with kids will recognize this activity, as we wrack our brains for ways to make brushing teeth or cleaning house the most exciting thing anyone could ever aspire to do. Giving to charities becomes more interesting and engaging with products such as [Free Rice (http://freerice.com/)](http://freerice.com/) and [Spent (http://playspent.org/)](http://playspent.org/). [BBC Pinball (http://www.bbc.co.uk/scotland/pinball/)](http://www.bbc.co.uk/scotland/pinball/) has some interesting idea management games.

[(http://uxmag.com/sites/default/files/uploads/cranegamification/spent.jpg)](http://uxmag.com/sites/default/files/uploads/cranegamification/spent.jpg)
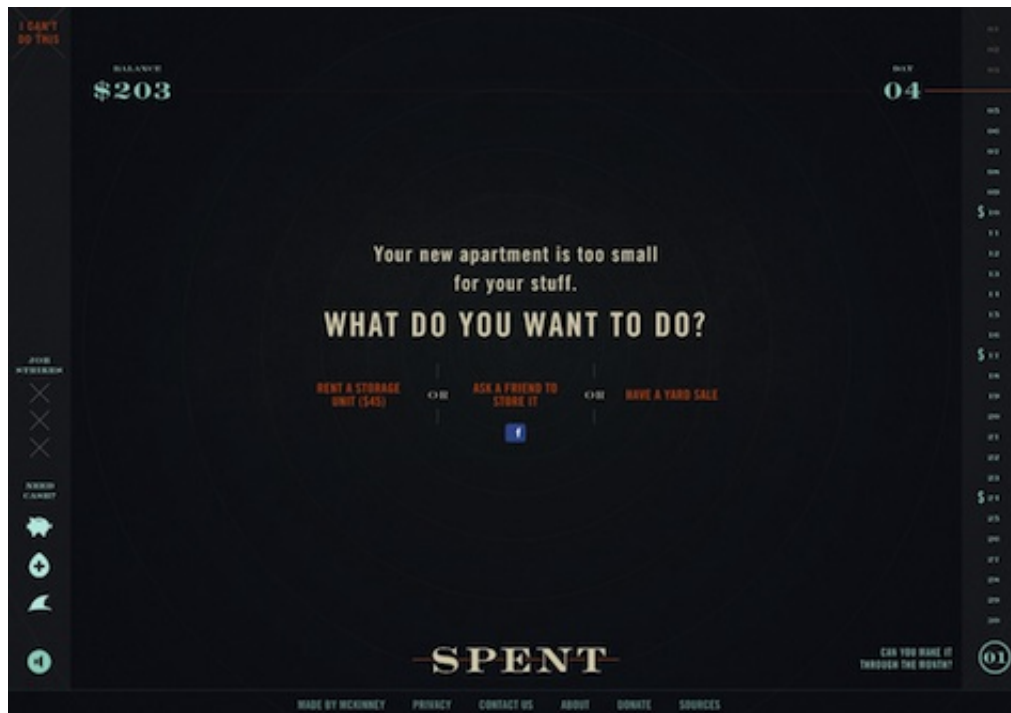
Spent supports the development of empathy and requests donations when the game is over

[(http://uxmag.com/sites/default/files/uploads/cranegamification/BBC.jpg)](http://uxmag.com/sites/default/files/uploads/cranegamification/BBC.jpg)

BBC Online provides games to help come up with, sort, and prioritize ideas

Competition shows up in this category too, with sites that help improve personal habits such as stickK [(http://www.stickk.com/)](http://www.stickk.com/), Skinnyo [(http://www.skinnyo.com/)](http://www.skinnyo.com/), Healthmonth [(http://healthmonth.com/)](http://healthmonth.com/), and Welectricity [(http://welectricity.com/home)](http://welectricity.com/home).

Welectricity lets users compete against one another and their own goals to reduce energy use

People can save money by punching the pig (https://www.pncvirtualwallet.com/main.html?s1=0&s2=0) or chasing Mint's goals (http://www.mint.com/blog/goals/how-to-use-mints-goals-06302010/), or cross things off to-do lists with Rough Underbelly (http://roughunderbelly.com/user/login), or get chores done with Chore Wars (http://www.chorewars.com/).
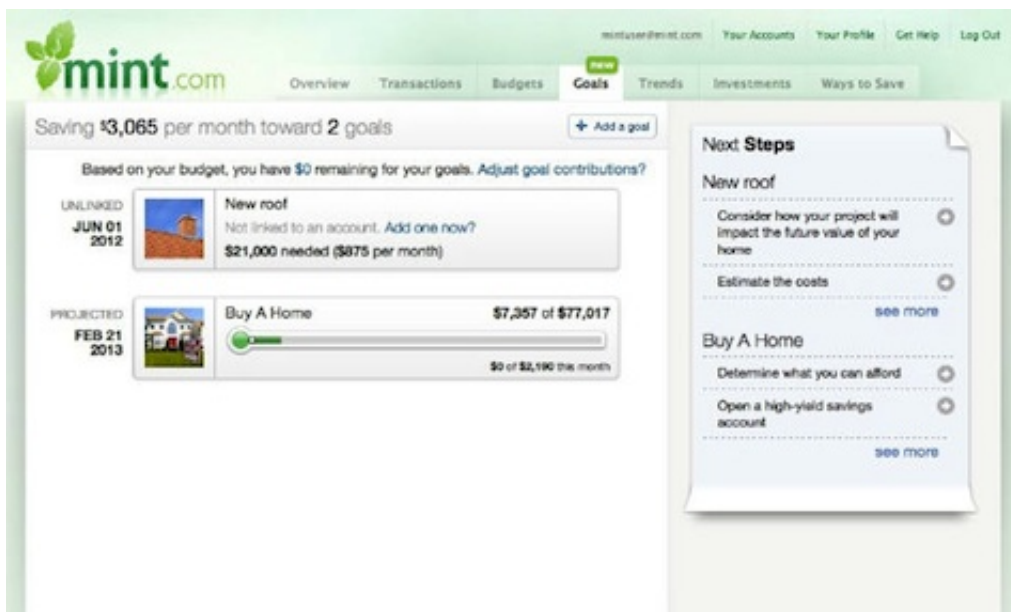
(http://uxmag.com/sites/default/files/uploads/cranegamification/mintaccounts-cropped.jpg)
Mint helps people set up and keep "score" against a goal

Jane McGonigal is working on saving the world (literally) with her games
(http://janemcgonigal.com/play-me/). A believer in the power of games to motivate, she predicts that
UX designers will become "happiness engineers."

(http://uxmag.com/sites/default/files/uploads/cranegamification/evoke.jpg)
Jane McGonigal's EVOKE

Other Frameworks

As you're considering how to build gamification (delight, enticement, and interest) into your
product, there are some other guidelines or frameworks to consider:

- Gabe Zicherman, chairman of at the Gamification Summit, talks about "SAPS": status, access,
  power, and stuff. Gabe's model may be a game-centric take on Maslow's broader model
  (http://en.wikipedia.org/wiki/Maslow%27s_hierarchy_of_needs).
- In a Mercury News article (http://newstopiaville.nextnewsroom.com/what-is-gamification/), Badgeville
  founder Kris Duggan identified three large categories of behavior that can be influenced

through gamification: personal achievement, group motivation, and contextual communications.

- One [definition of "game" by Roger Caillois (http://en.wikipedia.org/wiki/Game#Roger_Caillois)](http://en.wikipedia.org/wiki/Game#Roger_Caillois) states that games must have all of these attributes: fun, separate, uncertain, non-productive, governed by rules, and fictitious. (It's interesting to note that most of the examples of gamification I've called out meet some five of the six attributes listed here.)
- Richard A. Bartle proposed [four types of game players (http://www.mud.co.uk/richard/hcds.htm)](http://www.mud.co.uk/richard/hcds.htm) for MUDs: achiever, explorer, socialiser and imposer (if you're making personas and thinking of focusing on gamification, it might make sense to include their "Bartle type").
- [Nicole Lazzaro (http://www.xeodesign.com/whyweplaygames.html)](http://www.xeodesign.com/whyweplaygames.html) and [Marc LeBlanc (http://8kindsoffun.com/)](http://8kindsoffun.com/) have different but very interesting models on types of games and players.
- When thinking about building game elements into a product, it becomes important to consider a progression of user experience, as opposed to just beginners and experts. See [Mihaly Csikszentmihalyi's (http://www.wired.com/wired/topics/4.09/czik_pr.html)](http://www.wired.com/wired/topics/4.09/czik_pr.html) work and [this diagram of his concept of "flow." (http://www.speedofcreativity.org/2006/11/23/flow-curiosity-and-engaging-education/)](http://www.speedofcreativity.org/2006/11/23/flow-curiosity-and-engaging-education/)
- Of course [Jesse James Garrett's framework (http://www.jjg.net/elements/)](http://www.jjg.net/elements/) is useful to re-consider in this context.

Hope for Interaction Designers

Before we pack up and leave the field for the game designers, it's worth considering what's really going on in the last two levels of our model, *integrated* and *basis*: the enticement of people into an action to support their own goals within a product. This is the space where interaction design plays nicely, remembering all that we've learned from our [years of persona development (http://www.cooper.com/journal/2003/08/the_origin_of_personas.html)](http://www.cooper.com/journal/2003/08/the_origin_of_personas.html) and that no one wakes up in the morning hoping to fill out a form that day. Instead, we empathize with people, and remember that they have higher goals. We use our skills to create delightful interactions that entice people to move forward within our sites. This is the stuff we've been doing forever. As Vitruvius said (loosely translated), "Good design has three things: stability, usefulness, and delight." Interaction designers are perfectly positioned to start delivering this kind of delight.

More Reading

"Gamification" returns 847,000 results on Google, but we found some particularly clear, helpful, and super-smart thinkers if you want to learn a little more:

- Stephen Anderson, [The Art & Science of Seductive Interactions](http://www.slideshare.net/stephenpa/seductive-interactions-idea-09-version)
- Sebastian Deterding, [Just Add Points?](http://www.slideshare.net/dings/just-add-points-what-ux-can-and-cannot-learn-from-games)
- Dan Saffer, [Gaming the Web](http://www.slideshare.net/dansaffer/gaming-the-web-using-the-structure-of-games-to-design-better-web-apps)
- Amy Jo Kim, [Beyond Gamification](http://www.slideshare.net/amyjokim/gamification-101-short-talk?from=ss_embed)
- An interesting example of using [a game to facilitate sharing information about road changes](http://mashable.com/2011/05/17/san-francisco-bay-bridge-becomes-ipad-game/)

About the Author(s)

Audrey Crane

(/contributors/audrey-crane)
(/contributors/audrey-crane)

Audrey Crane works at DesignMap (http://www.designmap.com/index.php?uxmag), an interaction design firm in San Francisco where she does research, interaction design, and design strategy. She's worked in high tech for 15 years, most recently as VP of Design at The Magellan Network, a Design Manager at Dubberly Design Office, and a freelancer.

Key topics in this article

Gaming (/topics/gaming)

Interaction Design (/topics/interaction-design)

Product design (/topics/product-design)

UX Job opportunities

UX Director - Baltimore or New York, United States (/uxjobs/r2integrated/ux-director)
R2integrated - January 7, 2016

UX Architect - London, United Kingdom (/uxjobs/river-island/ux-architect)
River Island - January 6, 2016

UX Designer - vancouver, Canada

Getting started in UX

Our contributors and staff recommend these articles on for developing an understanding of experience design and jumpstarting your career.

Hiring the Right Designer (/articles/hiring-the-right-designer)

How Much UX have You Put into Your UX Portfolio?

(/uxjobs/lululemon/ux-designer)
lululemon - January 5, 2016

UX Manager - vancouver, Canada
(/uxjobs/lululemon/ux-manager)
lululemon - January 5, 2016

UX/UI Designer - Los Angeles, CA, United States
(/uxjobs/chrome-river-technologies/ux-ui-designer)
Chrome River Technologies - January 4, 2016

Junior UX/UI Designer - Bristol, United Kingdom
(/uxjobs/consortia/junior-ux-ui-designer)
Consortia - January 4, 2016

UX Designer - Nashua, United States
(/uxjobs/coursehorse/ux-designer)
CourseHorse - December 30, 2015

(/articles/how-much-ux-have-you-put-into-your-ux-portfolio)

How Mature is Your Organization when it Comes to UX?
(/articles/how-mature-is-your-organization-when-it-comes-to-ux)

The UX Team Starting Lineup (/articles/the-ux-team-starting-lineup)

Seven Things Your Boss Needs to Know About UX (/articles/seven-things-your-boss-needs-to-know-about-ux)

Why UX Designers Need to Think like Architects (/articles/why-ux-designers-need-to-think-like-architects)

Five Customer Experience Lessons Coffee Taught Me (/articles/five-customer-experience-lessons-coffee-taught-me)

Four Things I Learned about UX at Universal Studios (/articles/four-things-i-learned-about-ux-at-universal-studios)

The (Sometimes) Giddy Experience of Learning Design (/articles/the-sometimes-giddy-experience-of-learning-design)

Add new comment

Login via:

UX **(/user-login?destination=node/31884%23comments)**

Your name *

E-mail *
The content of this field is kept private and will not be shown publicly.

Comment *

		Paragraph		

Path: p

Switch to plain text editor

Because of problems with spam comments, HTML in comments is not permitted. URLs are allowed, but they will not be rendered as click-able links.

By submitting this form, you accept the Mollom privacy policy (https://mollom.com/web-service-privacy-policy).

Submit

Comments

grape seed extract 150 mg
January 13, 2014

It is able to serve those sustaining benefits of royal jelly from arthritis.

grape seed extract 150 mg
January 13, 2014

Coumarins do the like matter.

Propolis
January 13, 2014

Many charwomen account that Royal Jelly may feature substantial anti-cancer belongings.

Propolis
January 13, 2014

This is the substance that is fed to all larvae in a colony.

grape seed extract liquid
January 13, 2014

refreshing royal jelly has the topper consequences, but it would use up human trial runs to bear this out.

Sanjeev KB
November 27, 2011

This article is a good attempt to initiate the UX designers into the world of gamification!

June 22, 2011

Thanks Theresa!

June 14, 2011

Thanks for the article. I found it to be a useful introduction to the topic.

June 8, 2011

Hi Zack, not sure how to reply to your criticism except that I hope for interaction designers just beginning to think about gamification (along with everything else they're constantly getting or keeping up to speed with), this could be a little helpful in encouraging them to think beyond just shiny stuff or tacking on features. Certainly it's not THE framework, which is why other structures are included here. Gamification, together with related game theory and the psychology of motivation is a HUGE topic that can easily overwhelm (and is pretty humbling to write about). Some kind of simple structure is a nice way to begin to approach it, at least for me, and also separate the issues critics are complaining about from the things that are truly useful.

To my point in the article, I hope we designers are always thinking about what people want and why, about what the business wants, and how to align all that in a compelling or even delightful way. For designers with some experience, this kind of thinking *should* go back to the late 90's with personas and their goals, and should be part of what they (I) do every day. Gamification just gives us a new perspective on that. My experience does extend to stuff that's more typically "gamified", with scores even, but I think that misses the

point and the power of what's possible with gamification.

Finally, if you know Hugh Dubberly then you know that no one knows their sh*t inside and out like he does. Those of us who've worked at DDO are just lucky that he thought we might be able to keep up a little. In any event, I'm sorry the article didn't live up to your expectations.

June 6, 2011

Wow UXMag, this is a poor excuse for an article, let alone a "framework." Disappointed that you took perhaps the hottest 'trend' in our community and served up this shallow and erroneous article. I have to side with the criticisms put forth by Bunchball and Fjord here.

Audrey, can you tell us what products or services you've applied gamification frameworks to? I'd like to know what your experience is and what your clients ROI was.

Dubberly staff usually know their sh*t inside out. This has me truly shaking my head.

Zack Mazinger
Design Strategy
Blast Radius

June 5, 2011

Andrew, the full bleed graphics are just one example of the cosmetic and sometimes "lipstick on a pig" problems that Ian Greenleigh also talks about in his "pitfall" article: http://frc.vc/3g3

I'm sure you have clients who ask you for something that looks fun, sexy or like their favorite video game or Apple product. It's (hopefully) not the most interesting part of the article, but I'm sure you could add several examples yourself of visual/interface treatments that make things look like games and aren't -- buying a Chrysler looks a lot like you're choosing equipment from an armory, the Prada site has another area that actually has a heads-up display, etc...

May 30, 2011

I'm confused as to why you think full screen imagery is gamification on a cosmetic level (The Adventure at Altitude site uses a large photo background it looks like it could have come right out of Cursed Mountain or Uncharted2).

Does this mean that before games, full bleed imagery in editorial magazines invented gamification cosmetics... no. It's a very weak example and as a visual design lead I would suggest that full screen images are the only option when trying to communicate the grandeur and scale of mountaineering. Before the internet wide screen cinema employed as much real estate as possible to convey the scale of a scene, this is simply being translated to web in the example you used. This is not gamification on any level. If anything it's cinematification.

Andrew Barker
Visual Design Lead
Fjord

May 27, 2011

Thanks for this thoughtful exploration of the subject, Audrey! I'd agree with Rajat that we (BigDoor) are seeing a broad variety of implementations among our customers and that the narrative underlying each one varies in depth, and therefore how intricate/integrated the solution appears to be.

I'd also argue that some of the examples you cite under "Cosmetic" are actually much deeper expressions of the fundamental personality and spirit of the people behind the products themselves, and not strictly expressions of gamification. Especially little throwaways like "Grab a Snickers" – they're often subtle expressions of empathy and whimsy that strengthen people's identification with a product (and often build their confidence in the team behind it).

Matt Shobe
Chief Design Officer, BigDoor

May 25, 2011

Hi Rajat, I think there are some important distinctions to be made between the degrees of depth and competence, which get at what gamification critics complain about at the top level (and we want to address those complaints!), and a fundamental concept at the bottom level. But I don't think it was necessarily fair or reasonable for me to lump in everything that all the gamification service companies provide at one level (never say "always", right?). Would love a demo and will be contacting you offline!

Julian, thanks for adding the links. This is a crazy-huge space now and it's hard to pare down the list, but always interesting to read more.

Rami, I'd recommend reading up on Mihaly Csikszentmihalyi's idea of flow, to your first point. Also note that gamification doesn't always involve competition, and if thoughtfully implemented takes into account people who are motivated by other things (see Bartle's model of MUD players). Gamification can absolutely be used for and perceived as serious business, it just has to be understood as potentially much more than adding a score. Here's an interesting (though competitive) offline "serious business" example:

http://kottke.org/11/05/when-nothing-else-works-try-this

May 25, 2011

Hi,
I still have a lot of doubt regarding gameifiction:
1-it may punish late comer, imagine there is social network give people points upon their participation, and you sign up to find all your connections has +5000 points and you start with zero, it will lets user feel he is not belong to this place or he is under achiever.
2-it effects the quality of content generated, imagine you give points based on each task user achieve, or question he answer, user will posts low quality and spam like contents, just to gain points.
3- it increase tension between users, what you would feel if you are inside the elevator with stranger and both of you know he will get point if he exit the elevator first!!!
4- It will push away serious, business users; you will not like your client to see your passion with collecting points over the application.

I think the only success example of gamefiction until now is the progress bar and trying to push it more than that in serious or business app will fail.

Thanks
Rami Khalil
@ramikh81

May 24, 2011

I feel that you can't really tackle this subject without referring to Daniel Cook over at http://www.lostgarden.com/. It's exactly what he's been doing for years, and he's an astonishing speaker and writer.

See for yourself:

Wordcamp 2010: Why we turned Microsoft Office into a Game:
http://www.lostgarden.com/2010/05/wordcamp-2010-why-we-turned-microsoft.html

Ribbon Hero turns learning Office into a game:
http://www.lostgarden.com/2010/01/ribbon-hero-turns-learning-office-into.html

What actitivies can be turned into games?
http://www.lostgarden.com/2008/06/what-actitivies-that-can-be-turned-into.html

Building fun into your software designs:

http://www.lostgarden.com/2006/12/building-fun-into-your-software-designs.html

Seriously, his blog is heavily recommended reading.

May 24, 2011

Hi Audrey -

I don't really understand your categories. Cosmetic is pretty straightforward. After that there's really only one category - "integrated" - with varying levels of depth and competence.

Our customers are using our platform to implement everything from simple badging systems, to sales incentive programs, to full-fledged loyalty programs for TV shows. Ping me and I'd be happy to give you a demo.

btw - before starting Bunchball I worked in Interaction Design at IDEO and was in the HCI program at Stanford, so it's great to see interaction designers start to pay attention to gamification!

best, - rajat
rajat -[at]- bunchball.com
http://www.bunchball.com
http://www.gamification.com