How Game Design Thinking becomes Engagement Design

Lindsay D. Grace
American University
4400 Massachusetts Ave. NW
Washington, DC, 20016
+1 202-885-1000

Maggie Farley
American University-Jolt
4400 Massachusetts Ave. NW
Washington, DC, 20016
+1 202.885.1000

ABSTRACT

This paper is the product of 12 months of intensive study applying game design to the challenges of journalism and news community management. After conducting interviews and site visits with a wide variety of leaders in major print, web, television and news organizations, primary observations were made. The goal was to understand how the increasingly challenged news media industry could benefit from the knowledge that has sustained the success of the game industry. Our findings indicate that the formal practice of game design offers three key foci that may likely prove useful to industries and practices concerned with improving their audience engagement strategies. These three foci are experience, agency and play. We suggest that these three elements are the key to engagement in non-game contexts and are a likely path to improving the struggles facing not only the news industry, but other domains like activism, social impact, and civic participation.

CCS Concepts

K.8.0 Games

Keywords

Game design; journalism; engagement design; play; agency; experience

1. INTRODUCTION

The intrinsic engagement value of games and play has been increasingly recognized and applied in professional and academic environments. Exploration of games' potential intersections include serious games applications which have produced terms like meaningful play, purposeful play, docugames, social impact games, newsgames, and the much debated gamification [2]. From these perspectives, games are understood as a tool capable of solving a myriad of problems. The challenge, of course, is not only in analyzing whether or not games are capable of solving such problems, it's also in understanding how games do what they are purported to do so well. Into this cornucopia of applied game solutions, this research project endeavored to address and analyze a single industry's contemporary challenges from the lens of game design.

The journalism industry is in a moment of substantial flux. In the past ten years, newspapers' weekday circulation has fallen 19 percent and their ad revenue has dropped by half [3]. The 2015 Pew Research Center report continues to describe "another rough year" for legacy news organizations, as lowered barriers to online content creation and distribution mean ever-growing competition for people's attention from blogs, social media and non-legacy outlets. The Pew report indicates, for example, that more than half of web-using adults report getting news about politics and government from Facebook. The problem is more complicated than mere technological adaptation [3]. It includes myriad challenges in news consumption habits compounded by an ambiguous future for a number of traditional and progressive news organizations [3].

To simplify the challenges of the contemporary news organization, it is sufficient to explain that the much of the industry's 20th century success was the product of a 20th century model of production not appropriately adapted to contemporary news consumption [4]. In short, the world of journalism achieved success, created a formula for that success and continued to entrench this formula as an institutional process. This pattern created stability and a kind of surety, at the expense of adaptability. As the world changed, the industry worked to retrofit its formula to communications systems that outpaced the institutional ability to change. This is not a pattern unique to journalism, as the same could be said of variety of developed industries weathering the challenges of historical change, be it government or higher education.

In opposition, the games industry has often been touted as thriving in an environment of constant change. Whether it's the boom and bust cycles of games industry employment [5], or the persistent responsiveness to technological shifts, the game industry offers a unique perspective from which to counterbalance institutions that resist change as a formula for stability. In part, games are uniquely positioned for such counterpoints because they sit at the apex of a variety of practices and disciplines. Games, particularly digital games, are part information technology, graphic design, psychology, sociology and business.

It is from this perspective that the research team engaged on a 15-month project to see what game designers and journalists could learn from each other to re-imagine the evolving journalism landscape. Game designers and professional journalists joined forces with research fellows with expertise in psychology, narrative art and video to create ways to make the news experience more resonant and more impactful. The goal was to evaluate the challenges news in both production and consumption of news through the lens of games. The initiative is called Journalism and Leadership Transformation, known as Jolt for short.

At the core of this initiative was an analysis of the properties of games that relate specifically to engagement audiences. This involved incorporating literature from conventional engagement

theories like Flow [6] and Cialdini's marketing concepts in retaining engaged audiences [7]. It also included dissembling processes like MDA, a framework for understanding games through Mechanics, Dynamics, and Aesthetics [8] to apply them in non-game contexts. Borrowing from the often-used systems thinking, we put forth a notion of game design thinking. Game design thinking is largely informed by the formal elements of engagement theory and by the native instincts of play argued to be essential to the human animal [9]. In short, we sought to decant the attributes that support effective game design into a solution that can be applied more generally. For our purposes we used the challenges of the journalism world as our case study.

While news groups fight to retain audiences, the games community continues to expand. If you juxtapose time spent on mobile devices for example, there is a clear dichotomy between game playing and news watching [10]. According to the research, people use their mobile devices almost equally to read news (64% of owners) and play games (60% of owners). However, they invest significantly more time on games (68% of their time on the device), and significantly less engaged in news (4% of their time on the device)[10]. Our goal was to identify the unique ways games invite people to voluntarily immerse themselves in issues or problems and playfully explore solutions – all while being thoroughly engaged. If these attributes can be developed in new media, the hope is to foster a more thoughtful, educated and resourceful community of newsreaders.

As such, the research team approached the program as an engagement design problem, identifying the fundamentals of game design and journalism in the process of their exploration, creation and iteration (an approach familiar to many game design teams). In less than a year, they designed and put on two small workshops, two 40-attendee summits, created three game and play projects, initiated collaborations with local and national news groups, and created a working handbook that captures the characteristics of game design that can be applied to a newsroom. Along the way, the [anonymized] program has begun to establish itself as a convener and connector of other individuals and programs doing complementary work.

Our experiment started with these questions:

- What can game designers teach journalists about how to create engaging experiences?
- How can engagement design help us approach journalism as a system that can be made more interactive and compelling?

Our most important findings showed that the elements of experience, agency and play are key to engagement beyond game contexts, and can invite a more compelling experience in the news industry and other domains.

2. EXPERIENCE

Experience is an easily dismissed element of engagement strategy. The word is often bandied about inaccurately in marketing parlance, as in brand experience. It is a word that conjures specific notions of the exotic, as in a remarkable vacation experience. Experience is something that connotes potential, a player is provided with an experience, and achievement, as in job experience. Game design recognizes this and describes experience as both genuine and authentic while dually marketed and simulated. For game and play designers, the experience of a first person shooter is real in the emotions it develops in the person

being entertained and simulacra in its preservation of safety, comfort and accommodation.

The experience of a game is also a subscribed experience. The player must subscribe to the fictions created by the designer in order to enjoy the experience, similar to assigning a suspension of disbelief in other media. What is interesting about the game experience, however, is that it is not only a suspension of disbelief, it is an assignment of belief. Much the way a fan of magic must not only suspend disbelief, they must also engage in its fiction to enjoy the experience. If you want to believe that I will pull a rabbit out of my hat, you will need to both suspend your understanding of physical space and volume, and you must also believe that I will do it. It is a common practice in some magicians' tool kits to encourage the audience to believe by chanting some phrase or working to will it true with their imaginations and creative, communal effort.

Likewise, games require such efforts. It is not only that they force us to suspend our understanding that no gun can hold an unlimited number of bullets, but they also encourage us to will such things true. Players experience best when they chant the magic incantation with the designer, willing something true that is admittedly not. It is this habit of play, an opting-in to the system of the game, that facilities its sense of agency.

3. AGENCY

Game designers often have to create an experience by affording agency, an opportunity for the player to voluntarily buy in and participate in the experience. Game design is by nature a task that requires a balance between prescription and subscription. Game designers prescribe and game players subscribe. Game designers author the experience, players subscribe to that which the game designer authored. The result is a philosophical approach to the designed experience that affords agency.

Agency, in this relationship, is affordance. The game designer as author, affords the player only so much, which the player can respect or choose to ignore. In conventional game design teaching we articulate that games are less a series of choices, and more a series of a problems. The problems in games are often provided with limited affordance, as in shoot or be shot and run or stand still. If players do nothing, they are physically at least, not playing. To play, players must generally adhere to the affordance authored by the game designer. If players do what they must and solve their problems as afforded they continue or advance their agency in the game world.

At the same time, games are also things that are aligned with a potential, or the artificially constructed sense of potential. The player is given agency in the fictitious space of the game. It is a simulated agency in a simulated or imagined world. In the end, although it feels like agency, it is not acting on the world outside the game, save for a few bruised egos or disappointments players carry after the game.

In an increasingly virtual world, where social media changes our daily experience and news is broadcast through digital networks, this sense of agency persists. News readers promote articles that they want to believe in, support or otherwise feel they can push toward the foreground of the cacophony of media chatter. But so blurred are the lines between media consumers and producers, satire and reality, that news users -- and even news professionals -- can confuse fiction with fact. Rumors and misconceptions, such as the supposed violation of Leonardo DiCaprio's character by a

bear in the movie, The Revenant[1] quickly become reported and repeated as if factual, though the reality was easily checkable[2]

Both media consumers and even producers admittedly fail to be critical, often embracing the headline that supports their current political view without appraising its content. The modern news consumer may fail to recognize satire from non-fiction. For example, a satirical story about how Republican presidential candidate and neurosurgeon Ben Carson said that a Muslim should never be president because Muslims' brains are different was quickly reported as fact on conservative news sites. [3]

This is where the magic of agency becomes particularly complex. If in the magic of modern media, I have promoted something to wide acceptance does it then become fact? Can I, the consumer, will the magicians toward more magic? Like the player of a game, if I subscribe to a fiction, will I be able to enjoy its experience as long as I continue to play?

This is one perspective to explain the complex space of media, politics and social action. It casts the media consumers as players who may cease to understand where the game starts and ends. It offers a magic circle of mutual play, in which players believe conspiracies that are more interesting than reality or herald fictions in a common chant to will an alternate reality true.

Thus, one of the most important challenges for news producers today is to actively engage news users, afford them agency and experience, while creating an environment where the boundaries between game and reality are clear and critical thinking is rewarded.

Which design elements increase agency? It is clear that interactivity and relevance make news engaging. Even slight bits of improved agency, such as sliding a bar in the New York Times' Rent versus Buy Calculator help people engage with news topics more thoroughly[4]. The interactive data visualization graphic that allowed readers to see how different inputs would affect their decision to rent or buy a home was the New York Times's 19th most visited story in 2014[5]

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[1] Matt Drudge, "DiCaprio Raped by Bear in Fox Movie," *Drudge Report,* Dec. 1, 2015, http://drudgereport.com/now3.htm

[2] Steven Zeitchik, "'Revenant' director calls Leonardo DiCaprio bear-rape controversy a 'crazy mad comedy'," *Los Angeles Times*, Dec. 4, 2015. http://www.latimes.com/entertainment/movies/moviesnow/la-et-mn-revenant-leonardo-dicaprio-bear-rape-director-20151204-story.html

[3] Shane Paulson, "Dr. Ben Carson: A Muslim's Brain is Different," *Conservative Frontline,* Sep. 28, 2015. http://conservativefrontline.com/dr-ben-carson-a-muslims-brain-is-different/ The fictional story in the satiric *National Report* was reported as non-fiction by Conservative Frontline

[4] Mike Bostock et al, "Is it Better to Rent or Buy?" *The New York Time*s, May 21, 2014. http://www.nytimes.com/interactive/2014/upshot/buy-rent-calculator.html

[5] "The New York Times's Most Visited Content of 2014," *Press Run,* Jan. 12, 2015. http://www.nytco.com/the-new-york-timess-most-visited-content-of-2014-2/

This agency, in the form or interactivity or critical inspection, is perhaps the remedy to a fiction/non-fiction ambiguous media environment. If the audience can inspect the magician's hat, manipulate the box, or otherwise inspect the report, they are more likely to see sham from reality.

It is, from our experience, more useful to inspire a kind of media literacy through the experiential and interactive. The tight feedback loop of a manipulatable graphic, story or game informs an audience in ways that also encourages them to ask critical questions.

4. PLAY

Play is, in the words of Dr. Stuart Brown, a fundamentally essential evolutionary habit [9]. Humans learn through play, as championed by developmental psychologists for the last three years. The ways in which we play have even been mapped to specific patterns that demonstrate a maturation from the solitary toward the communal [11]. Essential to play are two things aforementioned – agency and experience.

Agency in play is what distinguishes participant from witness. A player has some force and presence within the play experience or game. A player is able to do something within the world in which they play – to affect it, or at the least, be an essential element in its continuance (i.e. being played with).

Like agency, play is a unique experience, defined only by the at-once ambiguous and perpetually-examined notion of play. Whether playing with a word, as in Brian Sutton-Smiths' mind play, or kicking a ball, play is something that requires agency and defines that agency as a state outside the ordinary [12]. The fundamental benefits of this play state are reported from a variety of disciplines including psychology [9], anthropology [13] , and education [14].

The play experience is an all-consuming, wholly focused experience. It drives itself by its activity. Good play beckons for more, bad play kicks the player out of the experience and offers no invitation for further engagement. Good play experiences perpetuate play, poor play experiences do not.

5. ENGAGEMENT

This is where play meets media and engagement. Something is engaging when it creates an experience that affords agency. While not all engagements must be playful, play is a familiar foundation from which much engagement is derived. Like good play and bad play, good engagement keeps us wanting more, bad engagement leaves us disengaged and uninterested in continuing.

Studies of media engagement have defined the opportunity for public action, interaction and interpretation as key elements of engagement [1]. In the context of the media and social impact, to not only capture attention, but to allow the audience to interact and derive meaning from the experience is distinctly the challenge media groups face daily. In a quest to constantly reengage audiences, there is a race toward a new experience. The result is a new culture that can seem almost hyper-responsive, pouncing on the next novel thing that may engage.

Its complement is the tantalizing search for deeper meaning and connection – even conspiracy. An avid sports buff or foreign policy follower may seek analyses and patterns that can help predict future outcomes. The "Gamergate "member is engaged by the manufacture of a conspiracy from linked clues in a world that seems almost intent on hiding them. Both groups, the novelty

seekers and the deep connectors, are subject to engagement design but in distinctly different ways[6].

News media that hop between foci are hoping to keep the experience engaging by perpetually offering new content. Their engagement models are well positioned for those hungering for the new. In the race to report, they give just the facts, emphasizing the elements that will quickly capture attention: numbers that imply meaning, sound bites that seem particularly inciting, or other such elements that make an ongoing or larger story accessible and consumable. This is a serving- size model that engenders an ever more complex and noisy world. It is, however, likely dissatisfying to those seeking depth.

A more critical seeker of deeper meaning or connection among bits of information, or even the conspiracy theorist, on the other hand, is perpetually seeking depth, fixating on the idiosyncratic or expansive connections between seemingly disparate things. It is a model of engagement that seeks to unravel even the mundane into a system of complex, engineered relationships. New things, for some conspirators, are part of the design to distract from the deep, highly complicated system. But for these deep connectors, the search for a broader context with meaning and connections – a system – is an important opening for engagement design. Game design thinking is an effective way to address a system, and to engage with it.

Ultimately, there is something in the human psyche that oscillates between these two models of engagement. There is the initial report of people stuck in a well and an audience's prolonged curiosity about the daily life of those victims. There is the instinct to assume that a woman driver who intentionally hit pedestrians on the Las Vegas strip is linked to international terrorist activities[7] There is a bit of hunger for intricate conspiracy theory and gratifying novelty in everyone.

The secret to engagement is then something else. It is not to perpetually bait audiences with something new, nor is it to continue to demonstrate obscure, improbable nuances to slowly and seductively unveil some great, complex and unforeseen whole.

Instead, engagement is the affordance of all such instincts and more. Engagement is the provision of agency, the support of an experience and the affordance of play. Agency provides the reason for participating, experience provides the motivation and substance for that engagement, and play provides the creative and unique affordance to operate within and without the confines of the engagement.

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[6] Jay Hathaway, "What is Gamergate and Why: an Explainer for Non-Geeks, *Gawker*, Oct. 10, 2014. http://gawker.com/what-is-gamergate-and-why-an-explainer-for-non-geeks-1642909080 Gamergate is a controversy that began with an ex-boyfriend's allegation that a woman game developer had intimate relationships with game journalists for favorable coverage. Even after some of the alleged relationships were debunked, the conspiracy theory persisted and the woman received death threats and harassment from gamers.

[7] Faith Karimi et al, "Las Vegas Strip Sidewalk: Driver Hits Dozens of Pedestrians in 'Intentional' Act," *CNN,* Dec. 21, 2015. http://www.cnn.com/2015/12/21/us/las-vegas-strip-pedestrians-hit/

From this perspective, engagement design is not the product of a formula which is 3 parts agency, 2 parts of experience and 4 parts play. It is instead, a balanced experience that recognizes its need to be rebalanced. Engagement design can help create a system that connects the seemingly disparate news bites, as well as create a way to satisfy the urge to find meaning, depth and connections for the deep seekers.

6. ENGAGEMENT DESIGN: EXPERIENCE

It's not enough to simply broadcast news to a general audience anymore. The Jolt research program looked at how to create an experience that encouraged the participants to opt in to a system to understand information in a playful, yet meaningful way.

The Jolt-Knight Foundation fellows designed an information experience aimed at establishing formal news dialogues in today's new commons — malls, libraries, museums, train stations, terminals, and other public venues, including food trucks. The game-like environment aimed to help attract participants and further their retention and interest in news and information that affects their daily experience.

Their first foray, *News Park*, allowed people to literally consume the news. At *News Park*, depicted in figure 1, curious passersby stopped to play a card game designed to inform them about the amount of water required to make their favorite foods. Each card described the number of gallons it took to produce 8 oz. of beef (850 gallons), for example, or 8 oz. of soybeans (16 gallons). The players had to create a meal using the cards in their hand, trading with other players to achieve the lowest possible water consumption. Figure 1 demonstrates the game as played at the Newseum, a Washington DC based 250,000 square foot museum of news and journalism.

Figure 1. News Park Game on display and played at the Newseum

The game design calls for it to be played at a food truck, with food servers able to serve the winning meals as a prize. The magnetic side of the truck can be used to post further information, actionable ideas and player commentary to further the dialogue and interaction sparked by the game. The prize meal is literally about news consumption – and creates a direct, relevant connection to the information about water consumption. The players' voluntary participation, news consumption and avenues of action afforded them agency. This approach has applications with "actionable journalism" which offers participants ways to act on the information they have gleaned, as well as relevance for social activism and community engagement.

7. ENGAGEMENT DESIGN: AGENCY

In order to increase news consumers' sense of agency in an environment where the boundaries are increasingly vague between what is verified news and what is not, we designed a game called *Factitious*. The game, designed first as a paper prototype and then developed as an online game, presented players with stories culled from Internet sites. The player has to decide whether a story is actually news, or if it is satire, an

advertisement or commentary. The players receive immediate feedback, and in future iterations, will see which elements of the story should have tipped them off to its veracity or consigned it to another category. The more they play, the more familiar players become with common news conventions versus the signifiers of other non-news categories. Figure 2 shows a screenshot from *Factitious*.
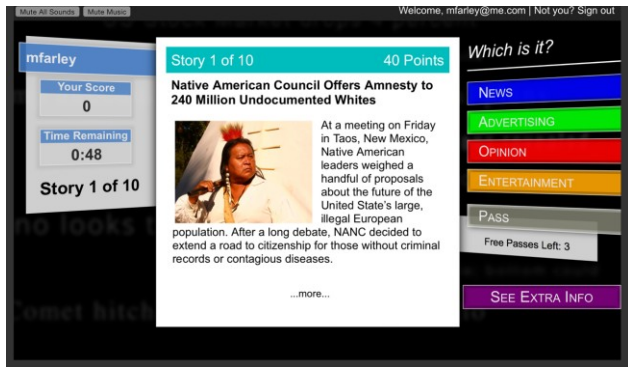

Figure 2. News Park Game on display and played at the Newseum

To afford agency, the game aims to equip players with a set of criteria to quickly measure whether a story is believable, sensationalized or made up: what is the source, who is quoted, what is the story's intention, is it verifiable? Players interested in learning more can ultimately find quick tutorials on how to check out a story, or to understand as a news creator what the hallmarks of veracity are.

This agency, in the form or interactivity or critical inspection is perhaps one remedy to a fiction/non-fiction ambiguous media environment. Games, with built-in analytics, can also be used to measure the impact of a story or issue, which is a key concern of news makers.

8. ENGAGEMENT DESIGN: PLAY

Play allows people to safely experiment in a contained world. The news production process, delivery and consumption can all benefit from a playful approach. The Jolt fellows created a game called *Spark* to introduce quick-thinking, out-of-the-box adaptation to ever-changing constraints. The aim is to help create an environment that encourages risk-taking and collaboration.

In the *Spark* workshop, groups are asked to write headlines or stories on a given theme with only 140 characters, like a post on Twitter. In each round, the game director introduces a new constraint, such as "You can't use the letter 'e'," or "Your story must relate to outer space and use a GIF." The game's underlying goal is to recharge players' ability to identify and react to a rapidly changing environment and increase their embrace of opportunities in a positive manner. In a work environment, it can reveal the creativity of younger staff members and their command of novel tools, giving them a chance to flatten the traditional newsroom hierarchy, and to work across typical divisions of reporters vs designers vs programmers.

Spark also aims to encourage news groups to encourage a similar sense of play in their interaction with news consumers, making them not just recipients of information, but participants in the process.

Playful mechanisms can also be used to effectively stimulate and verify user-generated content, to encourage feedback, and to engage creative users and their social networks.

9. WHERE PLAY IS UNWELCOME

As news organizations try to engage audiences, they must also contend with users who find manipulating the news in itself to be an engaging experience, such as satirists trying to get their story accepted as fact, comment trolls who co-opt the discussion space to promote their own, often hate-filled rhetoric or commercial agendas, or even would-be sources who try to fool reporters with false information. Repeatedly in our discussions with news organizations, there is ongoing concern about the use of online comments. Trolls, or individuals who intentionally disrupt, bully or otherwise negatively affect the experience of others have perpetuated a myriad of frustrating experiences within the online news space. The solutions have included removing comments entirely, policing automatically or by human review, to more complicated systems that allow for commentors to work through the ranks and self-police. Ultimately the challenge here is that the engaging experience for some of these individuals is trolling itself.

10. CONCLUSION

In our 12 months of exploring how game design thinking can be used to approach the challenges facing the news industry, we found three key elements of game design that may prove useful for improving audience engagement: experience, agency and play.

The news industry is evolving. It is no longer adequate to simply broadcast information to a wide audience. Nor is it even enough to send tailored content to niche audiences. News is a way to make sense of the world and news users crave connection with the content, with their own experience, and with each other. Creating a news experience through engagement design, in which users have agency and willingly interact within the design's parameters, can result in much more enriching and relevant encounters with news. *News Park*, an information experience designed by Jolt fellows, was one example of this, where participants absorbed information about water consumption and food production through an interactive card game and were afforded avenues to act on what they had learned.

The best design affords agency. Agency in the form or interactivity or critical inspection is perhaps one remedy to an ambiguous media environment where boundaries between news, advertising, opinion and satire are increasingly converging. Allowing news users to investigate or manipulate the information and underlying assumptions that go into a story or data visualization enables them to critically analyze the result and enhances media literacy. Interactive tools like the *New York Times'* Rent or Buy Calculator or the *Factitious* news literacy game designed by the American University Game Lab, are examples of game-like designs that afford agency and promote critical assessment of information. At the same time, the interactivity has qualities of play, which enhances engagement.

Engagement design is not only important to compel people to interact with news, it is an important tool for news producers to consider as they conceive, create, distribute and seek feedback about news content. The Jolt fellows created *Spark,* a playful workshop exercise to encourage newsroom staff to work across traditional divisions, hierarchies and forms to collaborate and envision original solutions against ever-evolving constraints.

Thus, one of the most important challenges for news producers today is to actively engage news users -- and their own staff, afford them agency and experience, while creating an environment where critical thinking is rewarded. The elements of experience, agency and play are the key to engagement beyond

games and are a potential framework for enhancing engagement in not only the news industry, but also domains like activism, social impact and civic participation.

11. ACKNOWLEDGEMENT

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