

The Participatory museum:

How games can be used in the
Museum's hunt for the Active Audience

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In this paper I will examine the museum's desire for an active engagement with its audience, how they have gone about cultivating this in the past, and how this could be done in the future. I propose that a fruitful new paradigm for shaping audience engagement is that of gaming, a rapidly growing art-form which has fostered many new modes of interaction and participation. Being a huge commercial industry, the people that engage with games are often dismissed as merely consumers. I propose that games achieve a relationship with viewers/participants that is highly productive, and could be an example for future museum engagement.

First, we will examine the kinds of engagement that the museum has sought during its different incarnations. We will do this using Lacan's theory of the Gaze as a theoretical framework to analyse the subject / object relationship in each instance. This will also allow us to objectively define the nature of the ideal engagement that museum is seeking in each instance.

As society has evolved, the role and purpose of the museum has also shifted. The message that the museum is required to convey has changed over time, and also the way that museums communicate has adapted. I will look at how the museum has shaped the desired relationship with the audience by how it situates itself between the object and the viewer. By examining how the relationship between the museum, its objects, and its visitors has altered, we will try to understand how the ideal engagement is evolving.

Chapter 1

Interaction and Participation in the Museum

In her study of visitor engagement in the museum, Valerie Casey (2003) uses Lacan's theory of the Gaze to analyse how changing modes of display have impacted on the viewer's relation to the artefact. Lacan coined the term “Gaze” to describe the relationship between the observer and the observed as an *active* one, an:

“involuntary participation in a culturally constructed discourse,
a visual discourse where there is no unmediated, pure relationship
between a subject and the Object of its view.” (Casey, 2003)

Here Lacan is referring to what he later terms the “Screen”, an unavoidable filter of cultural information which colours how we relate to everything outside ourselves. He speaks in absolutes: that there is no existence of a pure, direct relationship, but at the same time this reveals that he holds directness and purity as the ideal. This screen of cultural information is a diluting force. You could argue that Lacan's ideal is to encounter an object where it is found and use it for its designed purpose, an active relation to the object being *used*.

This first interpretation of the Gaze is very applicable to the viewer/object relationship in the museum environment, as every decision the museum makes around the choice and display of its items is an intervention in the viewer/object relationship. These interventions form a screen of interpretation around the object. On the most immediate level, the screen is literally the voice of the museum; present in the curation of the objects, the mode of display, design of the space, the mediative texts and docent tours. Each of these is designed to provide illuminating context for the viewer, to enrich their reading of the object.

However, in Lacan's view, each intervention distances the viewer from the object itself: the most intense and truthful, and in turn the most valuable, relationship the viewer can have with a museum object is one that is based on the object itself. This interesting conflict leads us to ask what each party sees as a high-quality engagement, and on what terms they are assessing people's experiences. To consider this in more depth we should look at each generation of museum separately.

The second interpretation relates to the aspect of the Gaze being “reversible”. As the subject looks

out, there is an inbuilt awareness that the Gaze is also turned in on them. The observer being observed is subject to the same social, environmental and cultural information:

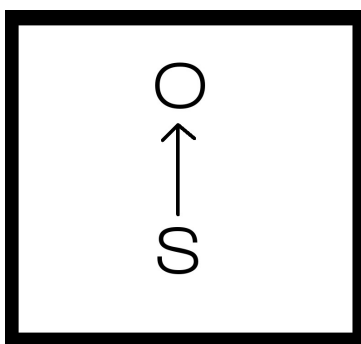
“I am looked at, that is to say, I am a picture” (Lacan)

This self-consciousness immediately distances the viewer from their surroundings, and has the effect of conditioning their behaviour. In Foucauldian terms, and of Bentham's *Panopticon*, the museum controls how you see, and by this authority also controls ways of being seen. Therefore the subject self-regulates what they see as appropriate behaviour.

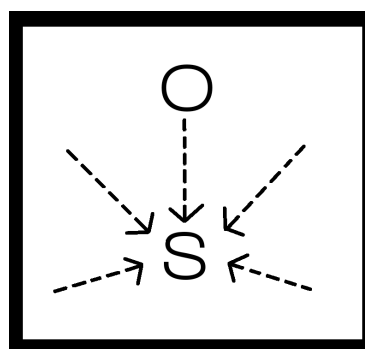
Originally defined for use in prison environments, the same effect of social conditioning also exists in environments seen as authoritative or pedagogical, such as museums and other culturally authoritative bodies. This is a well-documented issue that hampers museum engagement, as the many perceived levels of authority and expectation can prevent people from wanting to engage. I shall go on to discuss the levels on which this atmosphere of authority creates a barrier to engagement for museum visitors.

Changing Modes of the Museum

Valerie Casey describes the earliest kind of museum as the “legislative”. This type proliferated around the first half of the 19th century. The museum was a vessel for objects: collections of trophies as “paragons of aesthetic and intellectual pursuit, to create a venue for display not debate” (Weil, 95). The diagrams below show the relationship between the museum visitor, the subject (S), and the object they are observing (O).



a) A direct yet distant relation between the subject and object.

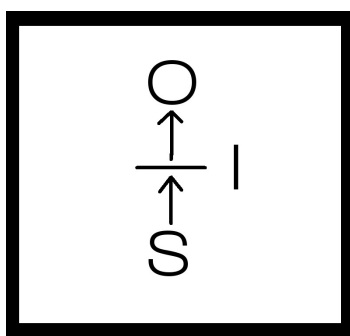


b) The imposing stature of the museum. Exaggerates the reversibility of the gaze.

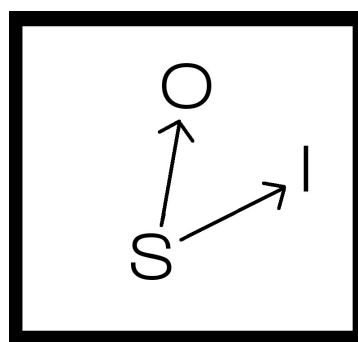
Often with a lack of contextual information, this situation creates a direct yet distant relationship between subject and object. The subject's relation to the object is not interrupted by a screen,

because the museum is deploying its authority through the object itself. The museological intervention is minimal, however the museum's authority is paramount. In this situation the weight of the social and cultural baggage bear down on the subject with the reversed gaze from the monolithic monument of the museum itself. This type of museum served as an extension of the authority figures it represented and belonged to, the communication was entirely top-down, and represented a static single-authored account of history. The notion of explaining and teaching was strictly limited to showing the populace that they were different from the ruling powers, and reinforcing the status quo.

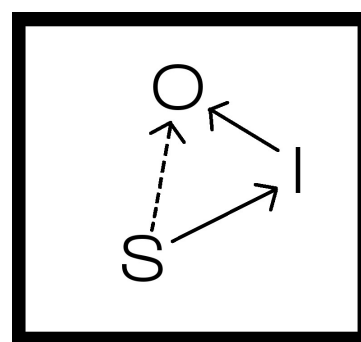
In the post-war period the museum shifted from being the authoritative “temple” to the contextualised “forum” which characterises the “interpretive” mode of museum. Wolfgang Ernst (2000) describes this change as a “shift from the object as a subject of scholarly work, to a mode of communication” and he marks this as the most seminal shift that has taken place in display practices. Immediately following the second World War, the institutions of the nation adopted a different attitude to history. With hopes for a new egalitarian society, hierarchies of knowledge were shaken up. Now the focus was on the multiple voices that surround and make sense of the object, instead of the object itself; the interpretation was key. The purpose of these voices was to make up for the act of the object being taken away from its native context, a mark of post-colonial guilt. This led to the creation of the museum as a structured environment of chronologies, geographies, formal themes and narratives.



c)



d)



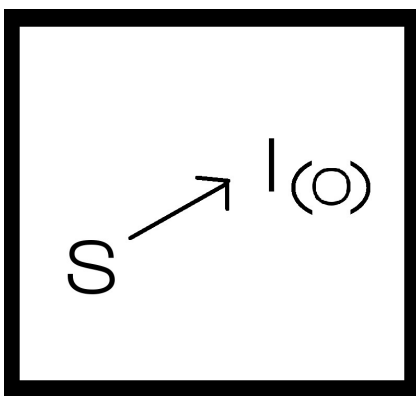
e)

The aim was that this information would add to the subject's reading of the object, and create an additional film of interpretation, (illustrated in figure c). However the information often distracts, splits and sometimes dominates the subject's attention away from the object (d). The focus was on the viewers learning, rather than the relationship to the object. The viewer is brought in closer to

the ideas and contexts being discussed, however the notion of historical “truth” is rewritten. The primary attachment of the viewer is no longer to the concrete reality of the artefact, but the “interpretation”, “discussion” and “analysis” given by the museum (Casey 2003, figure e). The museum now has an elevated power of being the writer of history. The shift from “authoritative temple” to “contextualised forum” that Wolfgang Ernst noted (2000), describes a movement from history as a scientific enterprise based on fact to a humanity based on analysis and opinion. However, despite this move into narrative and speculation, the museum retained the stature of factual authority.

This interpretive museum is the mode that we are most familiar with today, and although this form of display *seeks* to lend more importance to the object, by making up for the act of being placed in the museum, it ends up creating barriers to engagement. These come in both the form of taking the value away from the object itself by putting more value into the cultural reading the museum lends to it. The secondary barrier is created by the pedagogical atmosphere in which the interpretive museum frames the objects, doubling the authoritative atmosphere of both the school and museum. This pedagogical atmosphere is often cited as a key barrier to engagement, and is doubly an issue with art museums, where there is an increasing trend away from a clearly authoritative museum voice, and towards what Casey (2003) describes as the “performative” museum.

Sociologist John Urry (2002) forwards that the contemporary cultural-history museum has embraced performance strategies more comprehensively than any other museum type. Here he is mainly referring to the popularisation of the “living-history” exhibit, where the focus is away from the original artefact and towards the experience of the context.



f) The Interpreter's recreation replaces the object.



g) The Eindhoven Open Air Museum, Holland.

Here, the object is entirely subsumed within the role of the interpreter, and the object disappears behind the museum mediation, which now creates the entire experience. The subjectivity of this reading of history can be a dangerous one, as the cultural screen of contemporary life will always skew the interpretations of the museum as well as the visitors. Let alone the trust implicit in letting the voices and ideas of so few sculpt the history of many. In museums, this trend for “living history” was designed to satisfy visitors' desire for the everyday history of people: people the viewers can relate to, rather than figures to look up to like generals and kings. Valerie Casey attributes this to the fast-paced and temporary nature of contemporary life, causing people to yearn for a more tangible connection to the past. It is this desire for a tangible experience of a past that has very few tangible remains that has led to this dramatic change in museum display. Throughout history, it is the relics of the rich and powerful that have been preserved, items that carried importance in their day. Ordinary household items were not considered important, were not preserved, and comparatively very few artefacts survive. Therefore the interpretation of the museum has entirely replaced the object, creating a museum environment where you experience context through reconstructions and recreations.

This experience may be more true in a sense, but is the most extreme example of history moving entirely away from fact and into the construction of memories.

In the context of the historical museum, a place of voluntary learning, this creates issues with the museum's identity as a figure of authority, jarring against people's trust in the museum's factual authority. The “performative” *modus operandi* should be enacted in its own experiential realm, and not inside or in relation to a pedagogical environment. One successful example of this separation is Eindhoven Open Air Museum; being out in the open, it is in the context of the historical settlement it is enacting, and a long way from any conventional learning environments. Within the conventional museum environment, the performative element raises questions of authorship and possibly even undermines the museum's factual authority. On the other hand the effect on art museums is very different. In art museums, the move towards performative displays prompts questions involved in the curation of art that are far closer to the questions involved in making the art itself. It could be argued that in this case it increases the validity of the museum's voice.

I disagree with Urry's claim (2002) that the “living-history” exhibit is currently the dominant exponent of the performative museum, since this kind of living-exhibit is by no means the

dominant mode in historical museums, and because of the wealth of shifts that have also happened in art and art museums alike. This shift of the historical museum from a factual learning environment to an interpretive experience has brought the territory of the museum and the curator closer and closer to that of the artist. As “engineered environments” museums can be judged on the same criteria as art. They are enclosed systems of representation, designed to impart ideas.

No-one has established this link more directly than French curator Nicolas Bourriaud, the director of L'École Nationale Supérieure des Beaux-Arts who also co-founded and directed Palais de Tokyo. Bourriaud coined the term “relational aesthetics”, to describe a movement of relational art, centred on the idea that art does not happen within the art-object, but in the relation between the object and its space, the object and the observer, the observer and their own idea of themselves in the space. It is a movement that uses shifts in context as its medium. Bourriaud sought to make the relation between objects and visitors the art. Beyond this, there has been a strong trend in recent years of artists working in curation, and curators creating exhibitions, using archive and collection as an artistic process.

In this way many contemporary methods of making art also relate very closely to Lacan's ideas of the Gaze, and uses a similar critique in the artworks that we have been using to examine the visitors engagement with a museum space.

In *Relational Aesthetics*, Bourriaud (2002) explains that relational art describes the practices of artists who use, as their “theoretical and practical point of departure, the whole of human relations and their social context, rather than an independent and private space.” Claire Bishop (2004) notes that the interactivity of relational art is “superior to optical contemplation of an object” which Bishop notes is “passive and disengaged”. She cites the fact that relational works are a social form, that they are capable of forming “positive human relationships” making them “automatically political and emancipatory in effect”.

One artist that Bourriaud highlights as an exponent of relational art is Felix Gonzalez-Torres, who invited participants in his artwork to take a piece from his work, so that it became a living depiction of the loss it described. This artwork typified relational art because of its open-ended structure and the necessity for the participant to complete the work, which was a description of its own demise. However, if the participant has no agency, if there is no engagement on the part of the viewer beyond conforming to what the perceived authority figure expects of them (in this case

the artist, in other cases the museum) then is there any meaning to the interaction? Bourriaud's theory and ambition with Relational Aesthetics was that by leaving part of the artwork incomplete, the piece would become innately interactive. By stepping forward and completing this action, the viewer would bring all of their associations, histories and memories to the piece, and the relation between object and participant would be a potent cultural mix.

Claire Bishop (2004) questioned to what extent relational works like this achieve an active exchange and flux between participants, or if the engagement simply boils down to prescribed roles- almost the same prescribed roles that museum visitors revert to because of social pressure of the "reversed Gaze". The engagement here is physically active, almost like "interactive" exhibits in the science museum that require you to push a button or open a flap- is this really adding anything of value to the visitor's experience? What is the value in the exchange when it easily falls into a relationship of expectation? There is no real agency, independence, or interactivity when the role of the participant's interaction is so pre-determined.

Bringing these museological questions closer to art has proven something useful; the key is not the type of engagement but the quality of the engagement. More pertinently, what does the engagement need to achieve? You could say that relational art is a good model for creating an active audience, but not all relational art creates a meaningfully active engagement, just as form and method do not ensure the quality of their content.

The fact that the Museological study does ask and require an answer to what it wants to achieve, breaks it away from the discussions within relational art and curatorial practices, defined as they are by their lack of a pre-defined outcome. One criticism Claire Bishop (Dušan, 2009) levels against relational artwork is how easily it can become instrumentalised by Governments seeking "homeopathic solutions" to deeper problems, with socially engaged practises being endorsed by institutions seeking quantitative evidence of their social inclusion policies.

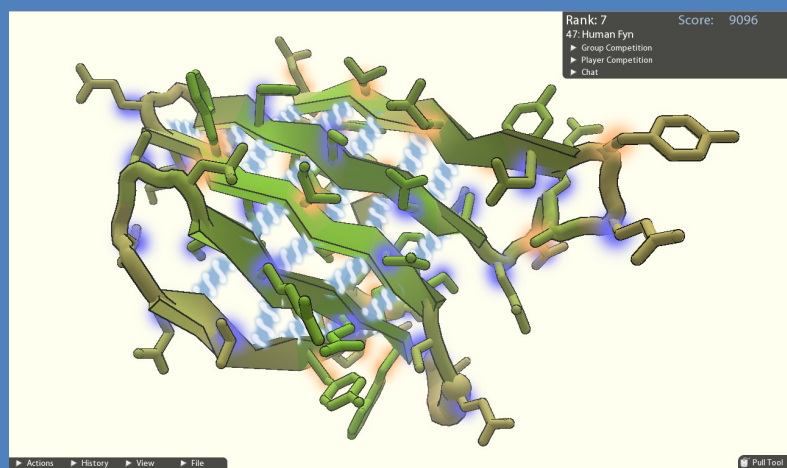
This concern (2009) of communication methods being hijacked for their outcome and not their quality which Claire Bishop brings to relational works, could just as well be applied to that of "gamifying" museum exhibits. Here, interactivity has been mistaken for a deeper sort of engagement, and led to a rapid adoption of technology in the learning-based communication of public institutions. Much as with the performative museum, the focus moves away from concrete facts and towards experience, creating friction with the museum's identity as an educational institution.

Chapter 2

The Limitations of Gamification in Public Life

In the previous chapter we looked at how the idea of participation is ultimately challenging the notion of authority in learning institutions, with an emphasis on experience over fact. Using the theoretical framework of Lacan's gaze revealed how the way that museums want to engage their visitors has transformed over recent centuries. However, to fully understand what is driving the evolution in museum interaction, we must also consider the practical hurdles facing contemporary museums. Museum's of all disciplines, whether large or small, are usually in receipt of funding, and must provide evidence that the funding is being put to the best possible use. Museums must account for the impact their funding has on maximising the duration, quantity and quality of engagement. Alexander Nagel (2013) recounts how museum boards increasingly "apply the metrics of growth" to visitor numbers and income, citing the attitude of "improve...or die." Most often, these sorts of questions of quality are transformed into questions of value when money is involved, ultimately asking how much can realistically be achieved with the money you have. This is one factor that has featured prominently in the rapid uptake of gamification, as a relatively off-the-peg way to radically transform display and communication methods. In this chapter we will look at the problems of combining information with participation, and the implications of responding to these pressures with technologised solutions such as gamification.

Gamification is the use of design elements usually found in games, as applied to non-game contexts. This is by no means a new movement, with video games informing design choices for over 30 years (Deterding, 2010). Gamification is ubiquitous in online life, and is spreading further into public institutions. From the light-touch gamification of the *LinkedIn* "completeness bar" - to more developed uses such as the independent education website *Khan Academy*, to the structuring of interaction between child patients and hospitals provided by *Pain Squad*, to crowd-sourced computations for medical science with *Foldit*, gamification can be as simple as a reward or as complex as a full game experience. But what all these applications have in common is that they are all serious pieces of software trying to achieve something through the engagement with their players.



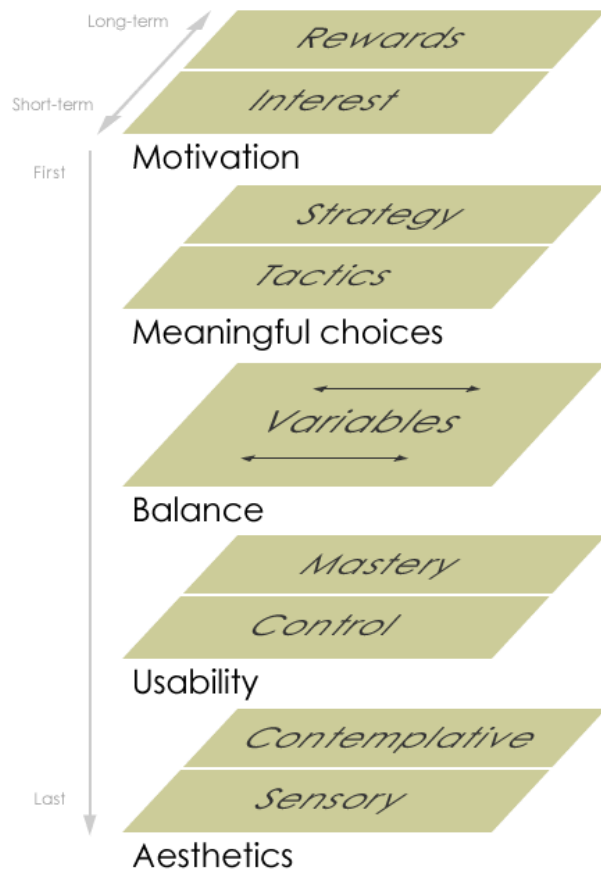
Gamification covers everything from the light-touch gamification of a simple progress bar as used in the Linked-in profile builder (left) to the use of a full game experience applied to practical problems such as the protein-folding visuo-spatial puzzle: Foldit (right)

Foldit is a serious game that uses the enormous manpower that good game-play inspires to provide protein-folding solutions for medical research. The problems involved in protein-folding consist of the sort of complex visuo-spatial tasks at which humans still surpass computers. This is an example of a full game experience, because all the interactions that lead towards the game objective, happen within the game-space.

However, gamification has been rapidly taken up as a form of User Interface (UX) design (Deterding 2010). Businesses have begun to harness the massive traffic that apparently simple online games can achieve, using this to enrich their relationship with the customer, and ultimately drive sales. However this has fostered a misguided attitude to how games function. Too often there is the assumption that you can strip single features from a game, apply them to a non-game context, and expect the same level of user engagement. Most often this will be a points system: a form of positive reinforcement called *extrinsic reward*, so called because the reward bears little relation to the activity it is rewarding. For many situations, this can work perfectly well. Reward points, tokens and loyalty cards are common parts of daily life.

Extrinsic reward *is* key to promoting investment, but it is only one feature of the player experience. John Ferrara, author of *Playful Design* (2012), describes 5 planes of user experience which make up a video game (fig 1), each of which needs to be developed in the long term as well as the short

term in order to create an ongoing compelling experience. John Ferrara (2013) explains that the essential components of a full game experience each have a short-term and long-term component.



John Ferrara's 5 Planes of player experience.

Extrinsic reward and intrinsic motivation sit alongside each other on the plane of “meaningful choices”: the idea that more than one path should seem viable and should be incentivized, so that the player has to make real decisions, and commit to them in order to continue. This leads to an active engagement, where the player is empowered to develop their own defined tactics in the short term and strategy in the long term. This creates a balance between short-term interactions and campaigns which unfold over a longer duration of play. These are all aspects of well-crafted works of fiction; literary works built with long narrative arcs creating drama, underpinned by gripping dialogue that keeps you engaged throughout. Ferrara also states that within games you achieve a better sense of satisfaction if to succeed in the game you must put effort into mastering the controls, yet in the short term there must be a minimum of usability. This tactility is reflected in the short term aesthetics of the graphics, sound, themes, haptics and tropes, as well as the more

long term contemplative features of character development, personal investment and narrative arc.

Gamification is a slippery term because it has no formal definition; its deployment varies too widely and has as many definitions as people who care to write about it. Fundamentally, it is not a useful term because there is little separation between meaningfully different practices of gamification.

It can be argued that some practices of gamification aim to make something more like entertainment, while others seek to make it like a toy. The key distinction between these is that making something more like entertainment seeks to *distract* the user from the core activity. The intervention attempts to make the assumedly unpleasant activity fun by adding entertaining features that have little relation to the core activity. Entertainment is generally classified as “passive” (Ferrara, 2013) and gamification that might seek to emulate this will affix retrofitted extrinsic rewards.

However, in design terms, this is worlds apart from the gamification that seeks to emulate a toy; an inherently active, user-defined playspace. Here the core activity is the compelling and rewarding part, set into a reinforcing narrative. The flexibility that makes it a toy is what empowers the player and engages them in the core activity itself.

The type of gamification that swept public institutions such as museums has been staunchly focussed on the inflexible and reductive “entertainment” method (Ferrara, 2013). Gamification that is most often used to drive the quantity of engagement not the quality of engagement. This has led the design of interactive museum exhibits to be modelled on design features such as “extrinsic reward”, “tokenised progress”, and “push button” interactivity, seeking boosts in numbers but not critically examining the implications of this form of interaction (Deterding, 2010). This method of user experience design treats visitors as statistics and no more. Extrinsic reward can be extremely useful as a motivator in captive situations; everyone is familiar with league tables, badges and bonuses, features very popularly used in schools and workplaces. But this overlooks the museum as a place of voluntary learning.

The revolution in the form of engagement has run ahead of any in-depth critical analysis of what this engagement is trying to achieve. In the case of gamification along with living exhibits, and relational art, each is a revolution in form that does not guarantee a quality engagement.

Before you set out to encourage and promote engagement, you first need to examine the values of the engagement you want to encourage. Motivation is a complex psychological facet; some things motivate some people but not others, and sometimes a motivational factor can have the opposite effect.

This use of extrinsic reward especially, can have some unexpected implications. This motivational tool can be useful in schools or workplaces, places where the reason to be there is greater than the task at hand, but what happens when this is used in places we don't have to be, but choose to be? To motivate effectively you need to understand the basis of the motivation for the activity. No one forces you to go to a museum; you have your own intrinsic motivations for visiting. If you add an extrinsic reward to the arrangement, however, this can have a negative effect and even cancel out your own intrinsic motivation. As soon as something you do for fun becomes for monetary gain or for work, as soon as a deadline is added, or controls are put in place, the relationship to the activity can change dramatically.

Michael Sandel, while giving his Harvard course on morality, discusses unexpected implications of reward and punishment on peoples motivations and decisions. In his book, "What Money Can't Buy" (2012), Sandel used the example of a day-care centre that had the problem of parents repeatedly arriving late to pick up their children. To combat this the centre introduced the "late pick-up fine" as a deterrent to the parents. However, this had the opposite effect and late pick-ups increased. By introducing a monetary cost, the expectation of punctuality had ceased to be a moral decision and had become an economic one. The fine had become a fee, and taken away any feeling of guilt in being late, and made it an issue of affordability. This is a clear example of extrinsic motivation, taking away any intrinsic motivation that the subject has, much like how an activity that you engage in for fun tends to lose its appeal as soon as you are obligated to do it. The replacing activity does not matter; any extrinsic motivation acts to the detriment of intrinsic motivation.

This example deals with deterrents and punishments, but what about when we're dealing with positive motivations? Much like Clare Bishop's criticism of relational art being too open to political instrumentalization (Dušan, 2009); Michael Sandel also picks up on the problematic of instrumentalizing experiences through reward. The ethos of passive entertainment and the quick reinforcement of gamification can not only undermine viewer's motivation, but also leaves the

door open for political instrumentalizations of the knowledge. The effect of artificially incentivizing learning activities could be seen as sugar-coating ideas and ideologies, manipulating the visitors it is seeking a healthy and open relationship with. Michel Foucault pits this kind of instrumentalization and political manipulation of knowledge against the ideals of “humanist education” which is traditionally “committed to the elevation of the subject by enhancing autonomy, [and] reflectivity”. (The Encyclopaedia of educational philosophy and theory)

“Visitors choose to come to museums,” Edward Deci writes in *Why We Do What We Do* (1995).

“Self-motivation, rather than external motivation, is at the heart of creativity, responsibility, [and] healthy behaviour.” This intrinsic motivation drives the vast majority of museum visitors, and so seems like the last thing that should be combined with this sort of gamification, yet you see it everywhere.

Poorly thought out interactivity can also create barriers to engaging with the information being given to you. “Push-button” interactivity can have an incredibly short lifespan; Sebastian Deterding (2010) calls them “exhaustibles” since their limited set of possibilities are quickly exhausted before there has been any meaningful engagement with the content. These features often have little relation to the content trying to be put across. For example, you could create the metaphor of a pinball game representing the action of antibodies fighting off a flu virus; however the user is likely to learn more about how to play pinball than about the scientific content. The interactivity is poorly integrated with the content, so changes the mode of engagement, but actually harms the interaction with the information it seeks to convey.

Gamified features have a very narrow age-appropriate range, and can often limit the age engagement range of something that is in itself appropriate to many. Simple push-button receptive gamification may be perfectly suitable to incentivize simple interaction, but when there is serious content to be put across, this can be ineffectual and even damaging.

As examples of procedural logic, games can be an incredibly rich way of communicating knowledge, but to harness this, the way that users interact must be at the very core of what you want to put across.

To communicate an idea meaningfully and most productively in a game, the user should discover it for themselves. Rather than making the message something that you achieve at the end of the

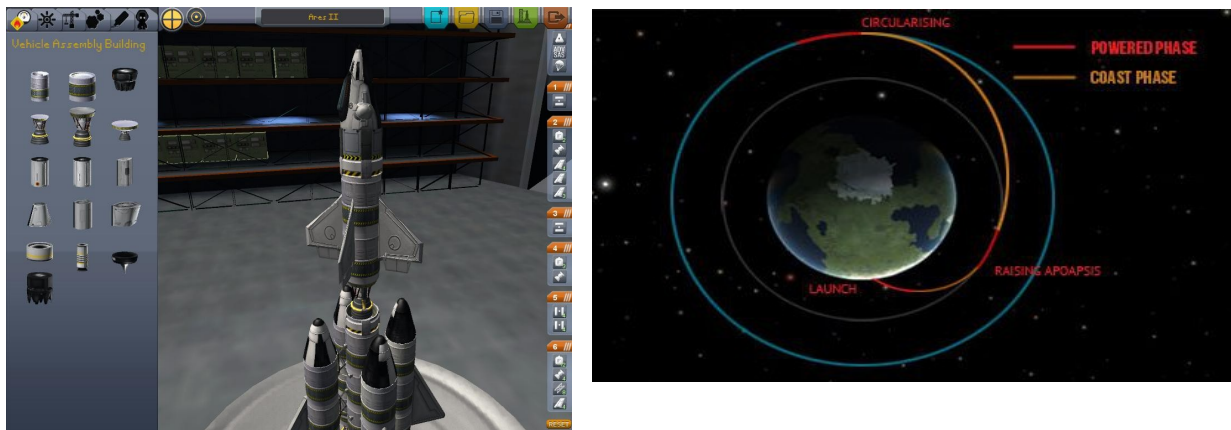
game, or knowledge that is told to you within the game, the message should be embedded in *how* you interact. This way, as you investigate the game, you make decisions for yourself about how to achieve the goal of the game, and by interacting and developing a gameplay strategy, you are arriving at the conclusions yourself. The player will have ownership over that new knowledge.

Though entertainment is commonly seen as a passive enterprise, games need not be easy and need not be untaxing. A better way to describe it is play: user-directed, inquisitive, challenging fun. Mihaly Csikszentmihályi is a prominent game psychologist, and as found that people become the most engaged and therefore the most invested in games that were challenging, but not overwhelming (Rodley). This level of achievability made the game rewarding, because the player could clearly see their own improvement and development. Seymour Papert also found that people become most “deeply engaged by hard fun” which contradicts the apparent infantilization of current gamification techniques (Resnick, 2004).

Ed Rodley (2011) proposes that “when developing an interactive exhibit, what visitors are doing while they interact is as important as the content. It is not enough that they seem to have fun doing it, but the fun should come as a result of their finding something out.” This chimes perfectly with John Ferrara's own paper on *Persuasive Games* (2013), where he described the development of a game designed to teach healthy eating. Within the game, however, there was no teaching, but a situation. The situation was that the player had a character which could take part in races, and that one of the elements the player could control was the characters diet. The game was calibrated to be as realistic as possible, so rather than teach, the game allowed the player to find out about the impacts of diet through trial and error. There were positives and negatives to every choice, but the player gradually learned that in order for the character to compete to its best in the races, it needed a realistically healthy diet. The fact that all choices had positive and negative aspects meant that it was not clear which option would be best, the player had to test and observe, and find out for themselves. Rather than passively *told* the solution, the player actively sought out the solution, and *used it*.

It follows, therefore, that the most active, engaged and productive engagement a visitor could have with a museum is one where there is in-built flexibility, so that they are empowered and given agency. By having to make their own decisions about the content on view, their understanding will not only increase, but also their motivation to continue, and by investing in

their own opinions the viewers will be given an intrinsically reinforcing educational experience.



Screenshot from Kerbal Space Program, showing the spaceship building (left), and space flight physics (right).

Kerbal Space Program is a space flight simulator game which guides players to figure out spaceship engineering and orbital mechanics through intuition alone. It is not an easy game, but it is all the more rewarding for it. The game, like most computer games, comes with no set of rules and no instructions. This vacuum of authority, however, has led gameplayers to contribute to an online database of tutorials, and to populate forums dedicated to discussion of the game.

This kind of game design is solely concerned with creating the sort of agency within the player that museums and cultural institution desperately need to create: aware, industrious and engaged communities of interest. In pursuing the “fun” learning experience, museums have unwittingly created experiences that actually limit their range, the longevity of the activity, and fundamentally the scope of the interaction itself. By making museum exhibits mimic entertainment, they have created a culture of distraction and passivity. I propose that it is by functioning as a toy, that museums would empower their visitors and achieve their desired outcome of meaningful interaction with a diverse group of self-motivated and empowered people.

Chapter 3

What Gameful Design still has to offer the Museum

In the previous chapter the issue of authority was touched upon when discussing several different aspects of museum engagement. As a place of voluntary learning, the museum suffers from too many associations with compulsory learning and pedagogical environments. For some this authority builds a self consciousness and distance them from the object and experience at hand. For others it is a wholesale reason to stay away. These people are the unreachable section of society for the museum, those who often mistrust authority and will resist attempts at outreach. Where this is a big problem that many museums attempt to remedy with numerous outreach initiatives, this mistrust in authority and hierarchy is exactly what some art museums are using in order to activate their audiences.

Progressive art museums such as the Van Abbe museum are responding to the notion of authority by questioning their own place in the construction of historical narratives, questioning the very notion of truth in relation to the history of art by shaking up the usual narratives employed to describe the art they show. This is one method deployed in an attempt to recognise and provide an alternative to the biases and hegemonies inherent in the history of art. “Constellations” have become common currency in discussions regarding ways of curating a non-linear path through collections of artwork. Tate Liverpool's recent show *Constellations* sought to group artworks around keywords, allowing works from different times and places to be linked by the themes they address. Annie Fletcher of the Van Abbe museum described the desire to “follow the productive idea”, whether its is a new idea or not, that the amount of work and ideas a piece has generated is its most important feature.

These are very interesting ways to disrupt the linearity of art history as we know it, and successfully challenge the artistic hegemonies given such authority in the past. But these ideas are still working from the top down. Working within the domain of curation, they deal with how to arrange works so that they relate to each other, but in the end, there will still be the same passive user experience and the same hierarchy of knowledge.

Museums can play with how they arrange exhibits, or how you encounter their mediation, but

these changes will only reach the people that already engage with museums. The active scepticism that institutions like Van Abbe claim to be interested in cultivating, is to be found in the population that avoids the museum. This is where a link to a radically different field such as gaming, which also has a demographic that is largely sceptical of pedagogical authority, could be very productive. If done with the same rigorous criticality as applied to museums and art museums alike, this could be produce active and publicly productive engagements.

Museum's want active engagement. Accepting authority is passive.

Having found that gamification can be a reductive and harmful influence in museums and art institutions, with exhaustible interactivity which at worst only interrupts meaningful interaction (Deterding, 2010), we will look closer at gameful design, and the productive engagement that this kind of user experience (UX) design can prompt.

These implicit rules are often what are cited as a barrier to engagement for people uncomfortable with pedagogical environments and authoritative atmospheres- the sense that etiquette and rules of engagement are there to show you up and catch you out.

It is clear that these are damaging barriers to what could be enriching experiences; however, in the context of games these rules and structures do not create the same barriers. Within games there seems to be a different relation to the presence of rules, often seen as something to test and push against. This is not solely a feature of computer games, either.

Rules are integral to games, and where there are rules there is also cheating. Cheating has gone hand in hand with games for as long as they exist, most recently creating vibrant gamer cultures around challenging the authority within games by rich and varied forms of cheating.

With videogames, and especially since the advent of the internet, cheating has formed the backbone of gaming communities and the focus of consumer/ user/ gamer productivity. World of Warcraft for example have collectively written a quarter of a million wikipedia articles, making WoWWiki the single largest Wiki after Wikipedia (McGonigal, 2012). Fields & Kafai (2010) rework Bourdieu's 1984 concept of "cultural capital" and put forward cheating as a means of players pushing back at the top-down control of the gaming industry, this knowledge becoming their own "gaming capital" to trade with across gaming communities. Like John Ferrara's ideas of player

agency creating ownership over strategies used in the game, the fact that these player's can modify the games, whether its allowed or not, creates a sense of ownership. This sense of ownership reinforces not only their enjoyment of the game, but also their sense of belonging within a community of modders.

It is this challenging of authority, and manipulation of the playing environment, that marks the difference between passive entertainment and active play. Ed Rodley (2011) describes that as soon as you begin to remodel the parameters of the game, you transform it into a toy, an item for play within your own terms.

One vibrant community in gaming is formed around a practise called modding, where players at any level of coding literacy have the ability to “hack” mainstream games and change the content, alter gameplay, add new features and produce entirely new content (Sotamaa, 2010).

The practise of modding was brought about by two hugely democratising technological advances: firstly, the Internet, and second, the development of open-source software. Both of these features began the blurring of the distinctions between producers and consumers. Independent game platforms such as *Steam*, open-source game design software such as Unity, and popular modding platforms such as *Garry'sMod* have all facilitated a bedroom industry of independent gamemakers, as well as allowing average gamers to build, change, and disrupt the games they play.

Nathaniel Poor investigated this modding practise in 2013, and found an enormous motivation for this was the community aspect of making mods to share with others, collaborating on mods, and playing the mods other people have created. In his study, Nathaniel Poor found that 61.2% of modders were motivated to create mods not by hopes to get a job in gaming but because they liked having the control- it made the games more fun, and they enjoyed sharing the Mods with other players.

Within gaming culture this is not the only form of fan productivity: fan sites, cheat sites, mod sites, and video-based cheats such as walk-throughs, walk-arounds and “Lets Play” videos show an enormous amount of people taking this rule-based activity and shaping it into their own investigation (Sotamaa, 2010).

The reaction to authority in games and in educational atmospheres is completely different- but why is this? You could argue that in games there are no consequences to breaking the rules; in a single-player computer game, if you can adapt it, why not? Maybe it is the vacuum of a

recriminatory authority figure that makes actions so free?

A huge factor the museum has to deal with is its identity as an educational institution and therefore the authority implicit in the museum environment. The irony is that the museum's current practice of medicating against its pedagogical atmosphere is actually stifling learning. I think a key factor in gaining a productive pro-active audience is how the museum deals with this image of authority. In its current state, the assumed authority of cultural bodies is highly damaging. The authority of museums that provide interpretations, narratives and impressions of historical developments, and the authority of museums that create narratives around artworks are both given in recognition of highly valuable exercises; but ultimately, the atmosphere of authority places these opinions in the category of truths. Rather than a living discussion, or an evolving productive idea, the statements become one way missives, and the viewers become passive recipients. In order to take anything valuable from a totally separate field such as games, techniques need to be understood as a process, studied and fully understood in their own context.

Still not a forum- still hierarchical

The earlier analysis of the interpretive museum being “a forum for learning” was a clear ambition for revolutionising how people engage with the museum. However, I don't think the museum has succeeded in this because it has never shaken its own position of authority to write history and to dictate public opinion. Through discussions of Lacan's idea of how cultural information forms a screen through which we see all and understand all, we found that this screen is unavoidable, but also that the intervention of other voices can skew your perceptions. In the fully globalized culture that we live in now, there is no validity in the centrally-funded authoritarian institution of dictating meanings and contexts. This authority not only paints an expectation of truth onto that which is opinion and interpretation, but also misguides the passive and alienates the independent.

This most pertinently applies to the museological display of art, but is true also for the museum control of any culture there needs to be some overtly democratising form brought into use if an institution wants to engage viewers actively, independently, and create a living forum for ideas.

For the curation of art, there needs to be some active engagement with the dialogue surrounding the display. The discussion about curation should and can only happen when it is in the public

arena. It comes back to the type of game described by John Ferrara, which doesn't coerce you into fulfilling the purpose of the game, but lets you find the methods yourself and use them. To engage people in ideas around curation, what implications curation has and how it affects our experience: you should not involve telling them, teaching them, lecturing them. You should build a platform where people can engage in the practise of curating for themselves. People will form their own ambitions, and they will form their own methods to achieve this. They will form strategies in order to overcome difficulties, and through this they will create their own reinforcing narratives.

There is a great deal of skill, intelligence and knowledge involved in curation, in taking works that pose different questions, and joining them so that they posit a communal question, or show something between the works that is invisible when they are separate. One might question whether a viewer used to just listening and contemplating these ideas would have the skill-set, straight off the street, to engage productively in these practices. This is where the game is ideally suited over other forms of public outreach. The game is designed as a closed system. It is a sandbox for playing with ideas in a microcosm, and has been used time and again to convey complex and usually highly academic processes to anyone who care pick up the game.

Using the mechanisms of games, you could set up a closed system for people to engage directly in the questions of curation, to test out initially simple solutions, and build from the ground up, their own strategies and ideas. This would be an ideal way for people to engage with art museum's permanent collections, as set out by the terms we have set out in the course of this investigation. This would be a way for people to invest time in exploring collection of artworks not usually seen, away from the hierarchy of the museum as an authority figure. This separation from the prestige of the museum building could lead to more risk taking and a more playful attitude to the ideas they are at once finding out about, and using in their own game strategies.

Conclusion

As we have seen, the museum's place in society is not set in stone, but part of a massive web of culture. What Lacan has shown us is that no museum exhibit can be seen in isolation, since we understand everything through our collected experiences. What is important to take from this is not only that nothing will ever be seen in isolation, but that communication is always going to be in the language of the present. The film of cultural resonance will always be shifting and changing, and if museum's hope to keep the dialogue with the public one that is alive and self-perpetuating, the museum needs to constantly its role, its purpose and also its language.

Games are currently undergoing a renaissance, opening up so many new possibilities for narrative forms, ways of engaging with culture, and so many new ways to interact in daily life, and posing some unique solutions to the issues the museum is currently facing. However this is not the final solution. For museums to propagate a culture of lively discourse, they need to constantly reassess the culture they exist in, and be prepared to re-imagine themselves within it. As history museums have transitioned from archives of fact to creators of memories, and possibilities of art have opened up from objects to performances, to open-ended encounters: the museum's task is to ask: how can they communicate in the mode best suited to their time?

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