

GAME DYNAMICS IN DESIGN - A PROCESS TO ACHIEVE CREATIVE AGENCY (TO GIVE PEOPLE A CHANCE)

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ABSTRACT

Product designers often take it upon themselves to define environments, problems, and solutions for others. Unfortunately this can serve to arrest the potential engagement for people and block the possibility to act (creative agency) on situations that the design potentially provokes. Games and play represent voluntary engagement and autonomy for the player. In this paper, we study the methodologies for game designers and relate them to the product and service design field. Our research focus is on how a design intervention can create engagement, and what the meaning of engagement is in this context. We call this *game dynamics in design*, and we relate the discussion to both the gamification and DIY trends that influence contemporary design practice. The synthesized research on creative agency and game and play theory lead to the disclosure of five typologies which describe engagement. These typologies again lead to the definition of Game Dynamics in Design, which provides the basis for a specialization in design on the master's level in Norway.

Keywords: Game dynamics, play, game design, engagement, DIY, creative agency.

1 ENGAGEMENT IN DESIGN

Designers often take it upon themselves to define environments, problems, experiences, and solutions for others. Such designing to model specific behaviour limits an abundance of acts and subsequent meanings. Various design fields have methods for stimulating engagement as well as emotional attachment, and narratives may, for example, be infused into products in order to suggest and stimulate activities through design. However, what is often overlooked when using a generic design methodology is that engagement is elicited by different factors for different people. Hence, the possibilities for the user to see or to make various choices of use based on what a product or service motivates are often limited. For example, a person might struggle to open a pepperoni package due to the specifically designed opening function that they do not understand, or that it may be too difficult to perform, or that it does not work. That is, the design, which in this example seeks to make the opening process easier for the user limits the thoughts about alternative ways to open it, such as simply using a knife. Such packaging solutions as described in the example typically emerge from user-centered design approaches, which aim for friction-free encounters with products and the use of the product, functions that are often referred to as convenience. A glimpse at the same example from a game dynamic perspective will tell a different story; namely, that people (the players) enjoy and become engaged through challenges. Looking at design with an emphasis on interactions between product, use, and user through a game or play perspective does not necessarily lead to convenience as a valuable function. Thus, including game and play theory as part of a design process can offer a new perspective in traditional design thinking. Such a design approach that takes in game and play elements trusts in the acknowledgement that all humans are creative and capable of making their own environments, seeking their own potentials, and, given the chance, solving their own problems, and that this recognition asks for a reformulation of the role of design.

Of course, games have formal elements, such as objectives, rules, procedures, and resources, and these do not immediately compare to product design, use or experience. However, in the continuation of this paper, these dimensions will be addressed, and we will discuss the potential benefits of applying temporal game and play framing into design processes and design solutions. The research focuses on

how established design perspectives, through definitions of problems and environments, can lead to design solutions that serve to arrest potential *engagement* and *creative agency*, that is, the possibility to act and influence. Hence, we explore the possibility for creating situations that might provoke a plurality of potential acts, and by extension experiences, rather than specific ones. This is done by a synthesis of research on creative agency, gamification, do it yourself (DIY) activities, and game design in order to explore and suggest possible ways to design for such creative agency and engagement. We call this design approach *Game Dynamics in Design*, which also is the title of a specialization on a master's level in design education at HIOA, Norway, where these game dynamic dimensions make the pillars of the specialization.

First, we will set out to define the key terms for this study; creative agency, gamification, framing, DIY, engagement, and playfulness. Then, we will discuss the possible interplay among these dimensions, and finally examine how they, as main functions in a design approach, can contribute to reformulating the role of design, and by extension- design education.

2 METHOD

This research sets out to explore the dimensions, creative agency, gamification, framing, DIY activities, and playfulness to understand the possibilities that can result from design interventions. Furthermore, by discussing these dimensions in relation to each other, we identify several typologies of engagement.

This research is a theoretical study aiming to describe how one can design for creative agency through the use of game dynamics in light of the research question: How can one create engagement through design interventions, and what is the meaning of engagement, in this context? The aim with such an emphasis is to disclose insight that may lead to approaches and philosophies that question the existing role of design and to complement methodologies within design.

2.1 Agency

All kinds of new objects or technical devices play a profound role in what we do, how we perceive and interpret the world, and what choices and decisions we make. We even bind our personal interactions into computers and cellphones. Even being born, staying healthy, and dying depend on a wide variety of medical instrumentation. [1] By such, design has the ability and power to control or influence how we do things, everything from how you open a package of pepperoni to how you contact and interact with your own mother. Other people, systems, environments, terms, phenomena, objects, and the network they produce thus influence or construct our conceived reality, and by extension our thinking and acting. This network of relations is described by Latour in the Actor-Network Theory. According to Latour, agency cannot be restricted to human beings; for this reason he speaks about «actants» rather than «actors». For Latour, what a thing –or a human being– is arises from its relation with other things and human beings rather than from an «essence» that hides behind it. Reality is only present by virtue of the relations other human beings or things have with it. What counts as reality for humans is related to the network that connects with it. [2] Such environment that these factors make as a whole will always be temporal or real-time influencers, and can be coincidental or intended. The study of the specifics of which a network may consist, and how these may influence people, often leads to a classification that describes the situation, thinking, and subsequent action. Such classifications could be, for example, *child viewer of television* [3], which is a contextual description of an action understood to be culturally unacceptable and naturally made possible only because of the television. The dimension that this classification brings to the surface is that the behaviour differs from behaviour prior to the television. When studying or unmasking persons who are *child viewers*, you will, of course, find other abilities and characteristics. The classification serves to construct opinions about others.

2.2 Creative Agency

The conscious or private facet of agency describes our ability to take action, be effective, influence our own lives, and assume responsibility for our behaviour, hence know about the influencers that create the potential to act in relation to them. These elements are important in relation to how we feel we are in control of our lives. Thus, all professions that are involved with other people's lives, such as designers, can support individuals' needs to believe in their own capacities to influence their own

thoughts and behaviours. However, this depends on their having faith in people's ability to handle a wide range of tasks or situations.

Creative agency is a concept that describes such sense of empowerment and user control that may lead people to act beyond the foreseen or intended use of a designed object or system. Hacking, for one, can be an example of such, but also the small utilizations of products, such as the use of paper clips to clean one's ears, or placing hay bales to block a road.

The way in which a new device or product is utilized collectively can involve a good deal of playful behaviour or creative agency (for example, the diverse ways mobile text messaging has been taken up in different cultures, or how the old Sony Walkman was designed initially for couples sitting down and listening together and not for lonely joggers [2]). Both examples illustrate how a product's relation to people, and not the intention behind it, influences the application. This situation creates products and services that are altered and influenced by users, and represents a successful integrated design process. The user may feel clever and in control of his or her life, with actions not controlled by other's ideas or products. However, in many cases the opposite happens: designers and "branders" find clever ways to manipulate people to do exactly as the product or service tells them to, or to stick to a specific brand; that is, the user is prevented from being in control, or is limited by the control of a product or brand.

2.3 Game mechanics

As the typical goal for a product or service designer is to define functions, actions, and experiences, a *game* designer would aim towards *engaging the player* by exploring what will capture the imagination of the player, and how one can allow the player to find something that connects them emotionally to the game. According to gamers (on a gameblog) [4], Game Dynamic is "what happens when the player's wants, goals and intentions come in contact with the mechanics. Basically, the 'gameplay' or 'mechanics' are the technical underpinnings, while dynamics are the emergent player/system interactions."

Game design elements are, for example, described in the book *Game Design Workshop* [5] as factors that allow players to make emotional connections in a game. These are: balancing (challenge), play (a leeway within the structure to move freely), premise (context for choices), character (avatar), story (how much story is enough and how much is too little), and lastly, the sum of the parts.

2.4 Gamification

Gamification is often regarded as "the use of game design elements in non-game contexts." [6] Sebastian Deterding has criticized how gamification in its current form has focused squarely on the ludic dimension, and that it almost invariably constitutes an addition of structure, goals, and rules to a given activity in order to afford gameful experiences of challenge and competition. He argues that this is a narrow conception of gamification, and that it does not engage with the psychology and sociology of game enjoyment, or realize the promise of translating its insights into other fields. He suggests another understanding of enjoyment that does not rely on the positive feeling of winning or the negative feeling of failure, but attributes a meaning such as, for example, personal growth, purpose, or positive relations.

The purposive motivation has different dimensions. Lacan divided purpose into a biological component, which establishes a *need* and goal that is possible to satisfy, and a *drive* or aim that cannot be fulfilled. He stated that "the purpose of a drive is not to reach its goal but to circle around it." [Lacan in; 7] Furthermore, "When you entrust someone with a mission, the aim is not what he brings back, but the itinerary (journey) he must take. The aim is the way taken." [Lacan in;7] In such a view, one could say that the result is secondary to the quality of the experience for the player. Accordingly, the goals or needs within a biological purpose (to win, collect, etc.) are easily satisfied, and the drive or aim, which are about the experience, are not.

We find that Slavoj Žižek's (2014) separation of the functions of pleasure and enjoyment serves to give insight in the mechanics of gamification, which can help to clarify the thoughts by Deterding. This division by Žižek is similar to the mentioned need and drive. Pleasure is something that you can feel or experience as an immediate phenomenon, possibly fulfilling a need, in contrast to enjoyment, which is determined by a drive that has to be "learned by imitation." [8] An example is seen in the consumption of juice or chocolate. While this elicits instant pleasure, the richness of the experience of drinking wine has to be learned. In fact, most people dislike wine in their first encounter. [8]

Comparing this idea with games such as football, goals provide instant pleasure, whereas learning how to enjoy playing football requires practice and time. Thus, enjoyment represents a situation that demands a certain effort, as opposed to the immediate feeling of pleasure, which can be elicited without a barrier. Effort is connected to the degree of attachment to the outcome of play, as in Juul's definition of games. [9]

2.5 Framing

Huizinga used the term "the magic circle" to describe the protected and confined space of autonomy in which play exists. [10, 11] Play, in this sense, is treated as an activity that happens outside the reality of everyday life. Goffman, on the other hand, states that play consists in face-to-face social interactions and is thus part of normal interaction in everyday situations. [12] Accordingly, play does not shut out the real world, as the real world does not shut out play. A set of rules that represents a game, such as a quiz or tag, or lines such as the markings defining hopscotch, a football field or a board game thus represent permeable frames for play. For example, many people do not compete intensively against their own kids during a quiz, knowing that it would possibly hurt their feelings, and further demonstrating mastering in a quiz game might have consequences for the child in other social situations. On the other hand, framing also allows for actions you normally would not do outside the frame, such as performing an ingenious football tackle that makes the opposing player fly and subsequently land and get hurt. Doing that on the Champs Élysées, for example, might be reason enough for imprisonment.

Thus, an autonomous play space does not demand a total shutting out of the real world. Real situations can be transformed into situations of play, such as making a trash bin into a target into which you can throw your banana peel. This is what Goffman calls keying. Upkeying describes an enhanced transformation of play away from reality, and downkeying is when a play situation, such as a play fight, is turned into a real one. [13] A frame thus may be seen as a "a little cosmos of its own," [Reizler in:12] by that it encloses the social interaction as a permeable membrane that allows the coupling of reality and play to various degrees.

Relinquishing oneself to the play of the game can open up a new type of freedom. [11, 14]. A frame is therefore about how we conceive a situation before and while we interact. [12] The little cosmos of its own that the frames make are temporary and "vulnerable to transformations," and can change experiences and interactions. [13] The ability to oscillate between the spaces that play and reality make demands a "preferential openness." [12]

2.6 DIY

Do it yourself (DIY) activities build on engagement and creative agency, and often ideology. The activities may consist of making, altering or repairing something from scratch (knitting a sweater with one's own patterns) or be partly stimulated by others (game modding or knitting a sweater based on premade patterns) without the help from professionals. The person thus controls the degree over their own activity in the making and altering process, as well as future use. DIY products often serve as social markers or touchpoints through the exhibiting and sharing of skills and knowledge by the maker in social networks, in the neighbourhood, or by comprehensive networks on the web, which serve as important motivational and experiential parts of the DIY activity. [15] This *connecting* is, according to D. Gaunlett, often initiated through the need of peer learning in order to realize the making. [6]

DIY is also associated with alternative rock, indie rock music scenes; indie-media networks, and pirate radio stations. DIY is thus a counterculture or sub-culture, in that it unmask inner drives in people to satisfy their needs without having to rely on the doings of others. The engagement within DIY activities thus relates to people's perception of a product through their actions of altering, constructing, building, and socializing about it. Accordingly, the activity lives partly or fully outside the commercial system.

3 ENGAGEMENT AND CREATIVE AGENCY TYPOLOGIES

Playfulness is a term that is much used when describing both games and creativity. However, what it describes is a state of mind that is located in the player, and not in a system or toy. Hence, it is possible to play a game without feeling playful [16] and according to Žižek you can feel pleasure without recognition for the product that elicits it. Play, as Huizinga and many other play scholars after him have described it, is a voluntary activity and a state of mind that tends to break if the activity

becomes goal driven. Playful engagement thus relies on a feeling of autonomy and a sense of acting with volition, willingness, and in congruence with one’s own goals, needs, values, and identity. This is also a basic psychological need and core part of intrinsic motivation and engagement. This means that, even though an activity or a context is framed as a game or play, it does not automatically create a playful state of mind in the player. Playfulness can just as well be not accepting the terms of the game. Playing the system or finding loopholes is part of the characteristics of gaming and playfulness. This links back to creative agency and activities like modding a game, hacking or some DIY activities; all of these activities offer an incentive to change that can be transformative [6]. These examples show how people can take control over the use of systems and products and take back the defining power of a situation. Engagement is elicited by different factors for different people, and this means that there is an element of giving up control from the designers’ part in designing for engagement and creative agency. To be engaged refers, as such, to a non-static or *dynamic* (which refers to fluidity, movement, energetic and powerful) and ever changing activity.

3.1 Typologies for engagement in game dynamics in design

The dynamics of engagement may elicit activities that lead to creative agency and subsequent enjoyment. From the previously mentioned dimensions, we have identified the following typologies from which engagement may consist in the context of Game Dynamics in Design (Figure 1.).

1. Game mechanics (gamification) – that which in the game gives a response when action is taken by a player (like rules or constraints). The interaction between system and player. Acknowledging that people enjoy challenges and not only convenience.
2. Framing – defining context and a separate temporal layer of “other realities,” with other rules or consequences. In order to engage in play and game it must feel appropriate in the framed context. What happens within a temporal frame of game and play and what happens outside this frame have bearings on each other
3. DIY - drives outside the commercial system, intrinsic motivation, and relational motivation. Relies on learning and social as well as material relations
4. Playfulness – relies on autonomy (the power to define a situation) and drive. State of mind that is fueled by excitement and balances on the boarder of joy and fear (of failure or embarrassment)
5. Movement or change as dynamics, as the opposite of static, may open up for alternative use or play

Figure 1. Different Typologies of Engagement

4 GAME DYNAMICS IN DESIGN

Our research focus in this paper has been to explore how design intervention can create engagement, and what engagement means in this context. In order to do so we needed to point out that some of the generic product and service design methodologies might hinder creative agency on the part of the users because the designers define the use or play. We suggest that engagement as a consequence of design is a deep experience of the possibility to act, which represents a creative agency that is the possibility to influence, change, and express ourselves, and that creative agency can be elicited through design as Gla’veanu states “even creative action is impossible without constraints” which in this context could be framing or the design itself [2, 11].

What happens within a temporal experiential frame of game and play, and what happens outside this frame, have bearings on each other. Accordingly, as designers for the real world, it is useful to consider how their designs relate to such thinking, that the play (use) of products does not have to be prescribed. Products can be created with an aim to reach several interpretations of use, so as to stimulate creative agency rather than to hinder it. The typical process that is rooted in an ideology, such as design for well-being or universal design, often tends to hinder empowerment with the aim to do good. The problem, of course, is that designers can never foresee all possible uses that people want, but they can try to stimulate engagement for the users by knowing about and applying mechanisms known to motivate engagement. We therefore suggest that the theoretical synthesis that forms the ground for this article, namely creative agency, game mechanics, gamification, framing, and DIY, provides an opening situation for designers to design for engagement. Moreover, when considering the five typologies of engagement during a design process, one may probably design for creative agency.

We see DIY activities as a good example for describing such framing of context; that is, it is located in reality and, at the same time, it serves as a constrained (doing it yourself) activity. This elicits engagement, which in turn creates and connects to additional levels of experience and interaction, such as socializing, feelings of mastering, and attaining of skills, among others.

This study has a critical element, in that it unravels some perhaps hidden and unconscious ideology and ruling conventions in the design field. One example, such as convenience is taken for granted and

not much discussed, and even what it is that gives people deep and engaging experiences is rarely discussed. It is a poke towards a current tendency to design smart objects instead of designing for smart people. By looking to game design, gamification, framing, and DIY, some typologies of engagement that can serve to define engagement through game dynamic in design are proposed. Every intention and strategy, of course, has a philosophical/ethical/rational/economic Justification; however they are not necessarily based on conscious choices, as most designers are educated within a regime where they are taught that they are the ones that make things better for people. Game dynamics as a basis for design can build on the DIY approach and work as a tangible and conscious counter-philosophy that involves (and aims for) giving the user the freedom to think and act on the basis of objects and environments through design. By doing so, one empowers the non-designers and thereby liberates people from being influenced by coincidental thoughts based on the unconscious philosophies of designers.

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