Playful Identity in game design and open ended play

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Abstract
In contemporary social networks identity results from a fluid process, which is negotiated through the interactions of various users. This in contrast to, for instance, the personal webpage which is a carefully constructed portrayal of a person. Social Networks are not being used to ‘publish information’; they are being used to construct identity—useful information is just a side effect.

Although games do not allow constructing personality information directly, they enable in a same way through role-play or other attributes and measures the user to identify and to interact. The effect that one person’s identity has on choices within the gameplay (avatars, scenarios etc) is reasonable well understood. Less is however known about the reverse influence of (game)play on identity. In this paper we analyze mechanisms for identity construction but moreover we qualify the influence of serious games and open ended play on identity.

1 Introduction

‘At the end of the 1980s, a thorough analysis of Go games played by Hiroshi Yamauchi conducted by a specialist enabled the latter to draw Yamauchi’s psychological profile: the former president of Nintendo was thus described as an unusual nonconformist, a visionary endowed with acute intuition, great (sometimes excessive) self-confidence and nimble-mindedness which enabled him to accept and amend his mistakes straight away.’
(Gorges 2010:9)

Gamers are, like Yamauchi, described as nonconformist, creative, and self-confident persons, who seem unafraid to make mistakes (Beck and Wade 2004). Is it true, that games present us with an opportunity to develop a particular Identity, or are specific people attracted to games that offer these opportunities? The last decade, research is done to the (playful) organizational style of gamers, and into leadership qualities that may be developed in a game (DeMarco, Lesser, and O’Driscoll 2007; Reeves and Malone 2007). The answer to the above question is the subject of this chapter; in fact we like to better understand the iterative process of identity construction and representation, for this reason we like to introduce the notion of a playful identity. In contrast to other identity-constructs, the playful identity characterizes someone’s ludic activities without discussing the valuing and moralizing practices arising from these activities.

According to Goffman (Goffman 1959) identity is based on interaction; a fluid, active process, depending on context of actions and individual differences (gender, class, ethnicity etc.). It consists of independent and partial sub-identities, which are constructed anew in everyday life. Identity and interests are not, as supposed by Habermas (1992), settled within the private world, and consequently brought fully formed into the public sphere. Today’s blurring of the ‘private’ and ‘public sphere’ has an influence on this. In many cases, identity is constituted through experiences, conflicts and other interactions. In this way, information and communication technologies can be seen as tools to support these actions. Today’s individuals build and maintain social networks through which they “negotiate” their identities (Lamb and Davidson 2010).

In the last decade, identity information shifts from being published (self-presentation) to being negotiated, interacted, co-created, and played upon. The latter is of most interest to us as designers and new media researchers, as it signifies the most crucial change in today’s interactions. To understand this process better we will adopt Boyd’s (2010) concept of network publics. In a networked public space, people interact with their identity information, and the identity of others. According to Boyd these public spaces are restructured by networked technologies. Networked publics serve many of the same functions as other types of publics. Network publics allow people to gather for social, cultural, and civic purposes and they help people connect with a world beyond their close friends and family.

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We will focus mainly on mediated and networked identities, which we define as: multilayered identity relations, established through a network and interacted through new media like: Games, Social Networks, Movies etc. Identity relations are in many cases a mix of strong and weak ties\(^2\). In more historical notions of identity, accountability and reliability (a.o), carefully constructed over time, play an important role. In modern identity construction, (instant) meaningfulness is of increased significance. This (instant) meaningfulness can, for instance, be established in playing the same games in social networks (MafiaWars (Zynga 2008), Petsociety (Playfish 2009), or Restaurant City (Electronic Arts 2009)) other activities like chat, msn (Microsoft 1999), Skype (Heinla, Kasesalu, and Tallinn 2003) etc., or belonging to the same interest groups. In Social Games like Farmville (Zynga 2009), identities are reshaped through collaborations around certain thematic activities. This is especially true for online games, where a friend’s value corresponds to his or her instant meaningfulness in the game. To be a friend in Farmville, means to be of value. A friend transforms in a sort of commodity, friends become assets to play the game. This directly ties-in with the social rules on social networks, in which someone’s popularity, and ‘value’ is qualified by his/her number of friends.

The rest of the paper is organized as follows. In the next section we will consider identity construction with respect to youngsters and discuss the notion of self-esteem. Then, in section 3 we will define the notion off a playful identity and discuss this in the framework of gaming (section 4) and open-ended play (section 5). In section 6 we will look at design challenges, followed by a discussion in section 7.

2  Let’s take a look at children

All of today’s children play computer games (Haan and Pijpers 2010), and they are becoming engaged in online social networks such as Hyves (Spanjar, Kam, and Rost van Tonningen 2004), and Facebook (Zuckerberg, Moskovitz, and Hughes 2004) at a increasingly earlier age.

One of the most well-known theories about identity development is the psychosocial theory by Erik Erickson that describes that people’s develop identities are formed by their experiences in life (Berk, 2010). People go through phases, and have to resolve a conflict in each phase. How the crisis is resolved, influences how the identity is shaped. This influences children’s sense of self and self esteem. For example, between the ages of 7 and 11 year old, when children are in elementary school, they are in the Industry versus Inferiority phase. They are developing their sense of self-esteem. When children have positive experiences when they work and collaborate with others they build up a sense of self-esteem and become industrious in persevering in performing tasks. If, however they have negative experiences and feedback and feel they are unable to meet people’s demands, they develop a sense of inferiority. In the fifth stage of Erickson’s theory represents the shift from childhood to adulthood and is called Identity versus Confusion (ages 12-19 year). Here a child starts exploring what his or her role in the world will be, what their values are. They explore different variations that can result in commitment to a particular identity. Then between 17 and 22 years old they go through the Intimacy versus Isolation phase. This is related to the ability of early adults to making a permanent commitment an intimate partner (Berk, 2010). This requires them to give up some of their independent self and redefine their identity to adjust it partly to the values and interests of their partner.

As children grow up, they are better able to examine more complex problems, to understand the world from other peoples perspective (Selman, 1980) they also start examining their role in a wider sense in relation to the world. Young children (3-6 years old) understand that other people can have different thoughts and feelings than they do themselves, but they can easily confuse the two. When they become older they gradually develop an understanding that people may have a different understanding of the world (or perspective) because they have access to different information. Around the age of 10 to 15 year old they develop the ability to even look at the world from a three-

\(^2\) WIKIPEDIA: Weak social ties, it is argued, are responsible for the majority of the embeddedness and structure of social networks in society as well as the transmission of information through these networks. Specifically, more novel information flows to individuals through weak rather than strong ties. Because our close friends tend to move in the same circles that we do, the information they receive overlaps considerably with what we already know. Acquaintances, by contrast, know people that we do not, and thus receive more novel information. The “strength” of an interpersonal tie is a linear combination of the amount of time, the emotional intensity, the intimacy (or mutual confiding), and the reciprocal services which characterize each tie.
way perspective, in the sense that they can imagine how a third person might look at a situation where the child itself and a second person play a role. The final stage of Selman’s theory describes how children of 14 years and older develop the ability to understand that a third-party perspective can be influenced by larger societal values. They become aware of their individuality, and being an autonomous agent in an increasingly networked world (Castells 2002) of other autonomous actors.

People’s sense of self-esteem and sense of self is very much influenced by the feedback they receive from others. As stated, as children grow older they slowly develop a more nuanced view about their own self-esteem. Children and adults can be in different stages of how fixed they are in their identity development. James Marcia (1980) examined different identity statuses amongst adolescents and found that some are still exploring diverse values and goals for their lives whereas other are already very committed to the identity that they have developed. Thus, people can be in different phases of identity development that might influence how open they are for exploring alternative identities with related value sets.

3 Narratives versus ludologists: a definition of a playful identity.

Early game research was primarily concerned with research methodology: how can we research a medium like game? Actually, researchers questioned the very notion of games being a medium in the first place. The most heated debates concerned to ways to approach game studies, which was divided in the narrative approach, and the ludological approach. Whilst the narrative approach discussed games as an expressive medium, able to be read like a text and to discuss in relations to studies from theater-, television-, and literature studies. The ludologists claimed that games are an independent medium, and should be researched as such. Ludologists focused on the ruleset, the available playstyles, and attainable goals of the game. While narratologist focused on games’ representational values, ludologist discussed gameplay, and the parameters that facilitated specific forms of play. Glady this discussion resulted in a stalemate, in which both parties, sort of, found peace with one another’s point of view. In fact, researchers started to collaborate, and researched games in all its richness. One thing however became a main focus of attention. Gameplay: how, when, and in what manner do we play games?

In analogy we like to think about identity construction within games. How does one construct his/her identity, and which parameters constitute for its development? In the literature, there are so many constructs to choose from: ranging from the ‘assumed identity’, to the ‘social identity’. The construct that caught our attention however was the concept of ‘narrative identity’ as it seemed to touch upon the earlier discussed game-research approaches.

Like many other concepts of identity, the narrative identity focuses for a larger extend on moral values and ‘appropriateness’ of one’s action towards the self and others. In contrast we like to argue that a playful identity does not embed such valuing, as ludic activities are neither good nor bad. Although one’s playful (ludic) identity can be consistent with one’s values, emotional state, or moral code, a playful identity does not necessarily have to be culturally defined. For example, an aggressive posture will supposedly confirm to high paced (i.e. aggressive) activity. However, many playful activities can be conducted within a contradicting posture, happiness or eagerness, as well. A playful identity differs from narrative identity, as it does not necessarily include moral codes of behavior, instead it stipulates the way / manner a person approaches and negotiates with a particular procedure or set of objects and rules.

The question arises then however, how games stimulate the identification with the gameplay, if playful activities in games mainly concern the restructuring of game objects, goals and environments? Gameplay remains enclosed in difficult to breach system of rules and regulations. However Copier (2007) describes this interaction as a system of communication: a continuous negotiation of (role) players with socio-cultural network of human, and inhuman actors. Clearly, if players are able to (partly) internalize the game experiences that are embedded in the negotiation with the game and its community, the internalization may influence the players’ identity. Even more, if players can re(con)structure actors and negotiate with personal valued rules (critical play) the influence of identity may be more eminent.

In the following section we will elaborate on these issues and discuss elements, which allow internalization of values in gaming and open ended play. As we know, play is much more open to continuous negotiations of rules and communication practices than any other activity. It is therefore a well-suited activity to influence today's flexible identity.
4 Games and self-esteem

Self-esteem has been brought in relation to gaming by cognitive psychology. Most notable is the work of Przybylski, Ribgy, Ryan and Deci (2009; 2010; 2006). They allocate the satisfaction of a need for ‘competence’ to videogames. Self-esteem seems inherently connected to videogames through feedback systems applied by game designers to signify players’ progression and failure. As Przybylski et.al. state: ‘games have become more sophisticated in how they provide performance feedback and acknowledge the prowess of players’ (Przybylski et al. 2010:156). What is more, the raising difficulty of a game, which is carefully designed to create a balance between boredom and difficulty (the so called ‘flow’ (Csikszentmihalyi 2002)), is much alike a learning curve. By doing so, the game educate the gamer to overcome the obstacles presented in the game. Games do not only present the players with feedback, they actually help gamers to become competent players as well. This is not surprising as many, well designed video games, make excellent use of theories developed within developmental psychology. Bandura’s concept of self-efficacy (Bandura 1997), Vygotsky’s (1978) theory of the zone of proximal development, and Wood, Bruner & Ross idea of scaffolding (1976 in Verenikina 2003) are considerably well known, and applied by today’s game designers. Super Mario Bros. (Nintendo EAD 1985), and MegaMan II (Capcom 1991) are two examples of well scaffolded games. Both satisfy the needs for competence in both visual feedback, and through gameplay (Deen and Schouten 2010a).

The design of positive, and negative reinforcements is a debated issue in game design (Hecker 2010). Especially when it concerns visual (or textual) feedback like the achievements system of the Xbox360. Although some gamers identify themselves as ‘achievement addicts’ the systems seems ambiguous to grant rewards in comparison to the work done to accomplish them. Many players whom, at first could identify themselves Xbox live achievements, seem to abandon them later:

‘While I cannot deny the fact that there is still a little part of me that jumps for joy when I unlock another achievement in a game, I’m just no longer going out of the way to get them. There once was a time when I would have rubber banded my controller to make Superman fly 10,000 miles for 30 points, [...] but now I just let most* of the extraneous points go. If I have to go out of my way to unlock something, then I probably don’t need to unlock it, and I still stand firmly by my commitment to not play a full-length retail release multiple times, just for achievement points. Times have changed, and so have I.’ (Totilo 2010)

Totilo’s quote illustrates how people primarily can identify themselves with the Xbox-Live achievement system, however, players’ inadequacy versus their over qualification to accomplish specific objectives results in an abandonment of the gameplay, which influences the player’s sense of self-esteem. In a way Xbox360 gamers are at the mercy of a capricious system, which makes it difficult, if not impossible to retrieve a sense of self-esteem from the feedback, and in turn it complicates the identification with the gameplay.

As mentioned above, games do not only facilitate a sense of self-esteem through the use of feedback. The way a game is designed to create the optimal flow offers players a game play that is, presumably, always within the reach of a players ability. Recent breakthroughs in (difficulty) adaptive gameplay affect self-esteem as well. Most notable in this regard is the horror surviving game Left 4 Dead (Certain Affinity and Valve Corporation 2008), where the artificial intelligence, dubbed the Director, adapts the level of difficulty in accordance to the player’s skill and position in the field.

In this context, considerable research is conducted to the idea to identity development and feelings of competence. However, the research of Kafai, Gee(J. P Gee 2005; James Paul Gee 2003; J. P. Gee 2008), Hefner, and Olson (Olson 2010) focus on the representation of the game, its end-goals, and less on the gameplay itself. True, the statement cited in Hefner’s research: ‘[I wish I was Sub-Zero so I could] freeze my teacher and principle, so the students could do whatever they want’, describes the identification with a game character that can freeze characters (and thus blow them to shreds), arguably, it signifies an identification with the gameplay as well. Mortal Kombat (Midway 1993) may be most popular because of its gruesome fatalities, but the gameplay is not about bloody fights and masculine show offs.
Mortal Kombat players are invited to train various button-patterns, and find the time and space to execute the procedure of “Half Circle F, L P”. This is typical for many appreciated fighting games like SoulCalibur IV (Namco 2008), Tekken (Namco 1995), and StreetFighter II (Capcom 1991b). Gamers need to perform specific button-patterns to succeed in the game. These games stand out from other fighting games as they do not reward the act of randomly and vigorously hitting buttons. The latter is known as ‘button mashing’. Within the genre of fighting games people identify with/their ability to execute difficult button combinations, like Sub-Zero’s fatality ‘Hold LP, B, B, D, F, Release LP’. Consequently, Button Mashers are considered inexperienced players or n00bs, as a quote from the UrbanDictionary illustrates: ‘WTF N3WB13!!! U R SUCH A BUTTON MASH3R!! I M SOOOO M0R3 L33T THAN U!!!!!!!!’(n3rdma5t3r5000and1 2009)

4.1 Game-play and identity
Gamers seem to identify themselves by a specific genre like ‘sports games’ or ‘shooters’, but even more by a specific style of play, button mashing, sniping (see further on in this section). A genre merely relates to the aesthetics (emotional responses on gameplay, moral values, cultural expressions etc.) and possible dynamics (possibilities and actual play emerging from the negotiation with games’ rules and regulations) of the game. The style of play concerns the underlying mechanics¹, and the actual dynamics.
We argue that it would be more interesting to research dynamics and to some extent the aesthetics to discuss identity constructs. Players can identify with gameplay, and represent their identity in various ways. In this section we will elaborate on some of them. First, the concept of high scoring and play recordings will be discussed, as a trend in the playful identity from aesthetics to dynamics. Secondly we discuss how gamers tend to name their character in accordance to the dynamics of the play, presenting the ambiguity concerning the discussion of dynamics. The aesthetics and dynamics seem intertwined and complexly intertwined. Nevertheless, in light of understanding the playful identity it seems fruitful to discuss various playing styles in spite of their cultural and valuing naming. It will be suggested that to understand the playful identity better, we need more appropriate names for playing styles that eliminate the valuing and moralizing tone that is related to contemporary playing styles.

4.1.1 High Scores and play recordings.
In early game design, the concept of High Score lists often describes the end-goals met by a gamer. This is especially true for pinball machines, which can be considered the first ‘videogames’ to adopt high-scoring lists. The same is true for other videogames like Midway’s Sea Wolf (Midway 1976), the first arcade game with high-scores, or Star Fire (Exidy 1979), the first arcade with personalized high score list. In the early 90s, posting high scores in magazines was slowly gaining popularity. To proof one’s high score, gamers who asked to videotape their game session. In a way, people started to negotiate about the game’s dynamics by sharing each other’s play session. Today, the videotapes of console games are placed on video sites like YouTube (Chen et al. 2005). The Dutch, Karel van Duivenboden, one of today’s best Super Mario Kart (Nintendo EAD 1992) racers, shares his time trials with others on the internet.
Game designers seem to recognize this, and created software to record complete play session for the benefit of play-training. Especially racing games are known for their ability to record play sessions. For example, Super Mario Kart offers gamers the opportunity to race a ghost in a time trial. The ghost represents the fastest recorded race of the ‘time trials’. In this way, players could actually fight their previous recorded session to the finish. Moreover, there is a trend recognizable in gamers possibilities

¹ Mechanics are a synonym for the “rules” of the game [LeBlanc et al]. These are the constraints under which the game operates. How is the game set up? What actions can players take, and what effects do those actions have on the game state? When does the game end, and how is a resolution determined? These are defined by the mechanics.
Dynamics describe the play of the game when the rules are set in motion. What strategies emerge from the rules? How do players interact with one another?
Aesthetics (in the MDA sense) do not refer to the visual elements of the game, but rather the player experience of the game: the effect that the dynamics have on the players themselves. Is the game “fun”? Is play frustrating, or boring, or interesting? Is the play emotionally or intellectually engaging?
to express and develop one’s sense of self esteem. The trend seems the to concern a focus from end-goals to game dynamics.

In 1993, Doom was launched. It offered the ability to record demo files of gamers’ play-through. This resulted in a popularity of sharing speedruns through a Doom level. Gamers posted recordings on the net, and other players tried to beat their time-score by careful analyzing the play session. Some game developers enhanced this concept. A port of the original Tomb Raider (Core Design 1995), on the Nokia’s mobile gaming platform N-Gage (Nokia 2003), offered players the opportunity to upload their play session directly to N-Gage Arena, an online ‘meeting place’ for N-Gage gamers. Consequently gamers could play a ‘Shadow Run’, in which players could follow the play-through of another player in their own play-session, much like the ghost racing of Super Mario Kart. and the record demo files of Doom.

The game Demon’s Souls (From Software 2009) iterates on the development of speed run communities. Throughout levels, players can briefly see the actions of other players as ghosts in the same area that may show hidden passages or switches. When a player dies, a bloodstain can be left in other players’ game world that when activated can show a ghost playing out their final moments, indicating how that person died and potentially helping the player avoid the same fate in advance. Players can also leave messages on the floor that can also help others such as forewarning safe or hostile positions, trap locations and tactics against enemies or bosses, among general comments’ (Atlus 2009:9). While the demo-record-files of Doom mostly resulted in fast paced play, Demon’s Souls’ bloodstain works strengthens educational system the game already is. By analyzing the ghost of another, or leaving their bloodstain behind, players both develop and represent a gamer’s sense of self-esteem without relying on end-goals, but specifically negotiating about the game’s dynamics.

Little Big Planet 2 (Media Molecule 2010) takes the idea even further. Not only can players enjoy the dynamics designed by other players, they can actually construct their own. This results in heated debates about the gameplay of user generated games, but more importantly, an intense amount of appraisal of other players’ designed dynamics. Raising the level-creator’s sense of self-esteem even further. What is more, players are even able to understand the works of others, and gradually develop an understanding that other gamers may have a different understanding of the game. They develop the ability to look at games from a three-way perspective; in the sense that they can imagine how a third person enjoy a game and how a third-party perspective can be influenced by larger the larger game-community.

As becomes clear, gamers retrieve their sense of self-esteem not only from audio-visual feedback (achievements, and social negotiations (high score lists), but from actual gameplay (the dynamics) as well. This is an important aspect of the playful identity, as a playful identity can represent itself through dynamics in very various ways.

4.1.2 Naming and playing styles
The aforementioned identity signifies; high-scores, play recordings, and the ability to play together (competitive or cooperative) offers players a way to develop and represent their identity. However, how this playful identity is represented is not yet discussed. One signifier of the playful identity is one’s name. Although we do not know how naming practices originally transpired, it is safe to assume that names often have a meaning. Some names refer to aesthetics, like Jayes is related enjoyment, and happiness, whilst Bo signifies beauty, and physical pleasantness. Other names signify both a dynamic as a mechanic. For example: one of the author’s name means ‘master’ in Friesian (the language spoken to people form a northern province of the Netherlands). The name both signifies socio-cultural rules (mechanics), and one’s behavioral conduct (dynamic). The same seems to hold true for the game-character names of players.

???? related the use of nicknames in games to the narrative, and the game’s theme (i.e. the aesthetics). Although this may partly explain the identifying process, it does not explain the many non-narrative-related names. Let’s consider the character-player-names of top-players several online games. For example, names like BritneySpear, Nz, and Chinees Signs do not relate to the World of Warcraft (Blizzard Entertainment 2004) lore whatsoever. Nor do names like GRQVE, Jidefix, and Jonz relate, at first glance, to the ‘terrorist vs. counter-terrorist’ thematic of Half Life: CounterStrike (Le and Cliffe 1999).

In the above games, a game-character-name is the most prominent way to represent one’s identity in a game as the customizations of game-characters are limited, especially concerning top-players. Although Blizzard Entertainment offers players many visual customizations of the player-
character, in the ‘end-game’ most characters look alike, as most top-players wear the best gear. Instead of relating player-character-names to the thematic of a game, it might be more interesting to look at the actual gameplay the game offers. For example the names of the fast-paced game of CounterStrike are surprisingly shorter than names of the time consuming Ikariam (GameForge 2006). The significance of this analysis asks for further research. For example, does an interest in a particular weapon use, in CounterStrike, accord to the player-character-name. For now, it is reasonable to assume that gamers identify with both the gameplay and the narrative. In turn, they develop and represent themselves accordingly.

The latter suggests that naming has a two-way influence of gameplay. A particular name, may ask for corresponding behavior or style of play, and visa versa. A gamer calling himself Lt. Sniper, will (probably) not wield a shotgun in CounterStrike, and in turn, a shotgun wielding gamer will probably not use a name that correspond to a stealth style of play. Allesandro Canossa (2005, 2007, 2008; Canossa and Drachen 2009) deduces various playingstyles from both the Hitman (IO Interactive 2007) as Tomb Raider (Core Design 1995) playing sessions. Cannossa names each playstyle in accordance to a cultural fitting persona. A Dirty Harry, for example, will not take appropriate preparations before heading into a building to kill its target (like Lt. Sniper would). Instead the person enjoys to enter a building ‘head in - guns blazing’.

Bartle’s taxonomy of playing styles; the explorer, socializer, killer and achiever. does partly describe the manner in which a game is played. This is especially true for an explorer. By carefully ‘exploring’ all facets of the game, an explorer will likely enter every room of the game world, and opt to find every Easter Egg available. The achiever seems more goal-directed. However, explaining one’s focus on end-goals and achievement does not explain what kind of playing style is performed. Still, if one would illustrate the difference between an Achiever and Explorer in a typical platformer-game like Sonic the Hedgehog (Sonic Team 1991) it shows two distinctly different play-paths (see Figure 1). An achiever will rush through a level, trying to find the optimal path to Sonic’s archenemy Dr Robotnik. In contrast the Explorer will visit every room at least ones before heading to Dr. Robotnik. While an Achiever is speedrunning, the Explorer is trying to understand and remember every part to the world.

![explorer achiever](image.png)

**Figure 1: playing Sonic the Hedgehog as Explorer & Achiever**

Still, Bartle’s playing-styles do not formally address dynamics. This is especially true for the ‘Killer’. A killer is depicted as a griefer or a lowly creature (Aarseth 2003:4); the cheater. Cheaters are supposed to destroy the fun to play, show a narrow interest in accumulating gaming capital (Consalvo 2009). Blizzard Entertainment has a long history in fighting hackers, griefers and cheaters in either StarCraft II: Wings of Liberty (2010), World of Warcraft (2004), and Diablo II (2000). Blizzard fights a war against a particular playing style, because western culture does not favor cheaters.

Cheating can be considered a playing style that is aesthetically unpleasing, while theoretically; cheating could be free of norms and values, as it concerns a playful activity. What is more, in relation to identity development, the autonomous acts of cheaters signify the fifth phase of identity development: examining what their role in the world will be, and what their values are. Cheaters explore different variations of the playful identity, which may not be enjoyed by other players. Still cheaters search for new way to express and develop their identity.

In contrast to Blizzard, many game designers offer cheaters a way to do this. The FUND-cheat in Sim City (Maxis 1989) being likely the most used cheat in videogames’ history. By holding ‘shift’ and typing ‘fund’, gamers receive instantly 10.000 dollar. This cheat offers players the opportunity to build the greatest city from scratch, without worrying about the game’s-tax-citizen-happiness-balance. By
using the cheat, players explore a new style of playing, which may heighten players’ sense of autonomy in the game.

One might wonder, why we consider rule alterations in Sim City cheating, but feel comfortable by the notion that the rules of a family game of Catan differs significantly from the rules of Catan when played with friends.

Cheats often enhance specific features in a game, thereby inviting players to create their own playful activities, tweak some parameters to game, or build their own game with the available game-objects. There are various games offering players even more autonomous exploration of one’s playful identity. Most notable in this regard is the recently released beta version of MineCraft (Persson 2009). MineCraft is a typical ‘sandbox’ game. It offers players various building units to construct cities alike New York, sculptures of famous game characters, working cpu’s, an exact replica of the starship Enterprise (MozzieMineCraft 2010; halnicholas 2010), and complete new games. Thanks to the ability invite others to join a newly constructed world, players play a popular game of Spleef. The name is a pun of the word grief, which, of course, corresponds to grievers. Griefers in the world of MineCraft often destroy player created structures for fun. Typically this is the precise objective of Spleef. Players are positioned on a platform that is suspended in the air. By destroying blocks near the opponent, they can fall. The last one standing wins⁴.

The description of one’s motivations to play (Yee 2006), or the described playing styles of Bartle seem useful starting points to understand the sub identities of the playful identity. However, Canossa’s work seems more fruitful this understanding. Deducing playing styles from actual gameplay seems closer to the actual style of play than initial motivations, end-goals or social negotiations alone. Linguistic research to game-player-character-naming may proof to be a useful approach to understand the playful identity. However, the analysis of play-recordings seems the most logical and direct approach to research dynamics and their associated playful identity.

5 Open ended play
To extend the discussion of how playful identities may be shaped by interacting with different technologies, we now discuss opportunities for interacting one’s identity through tangible play opportunities. Apart from the ever growing use of gaming and social networks, there is currently a trend towards designing digital tangible play objects which are not linked to computers. One type of such tangible play objects are open-ended play objects⁵. Such digital play objects do not provide predefined goals and rules, but instead provide opportunities for the players themselves to create their own. These open-ended play objects can stimulate social play behavior because they elicit negotiation between players who have to discuss ideas for game goals and rule together.

A traditional example of open-ended play objects is LEGO bricks. The bricks in itself can be used for many different purposes and games. Children can decide for themselves whether they want to build a castle for playing a knights-related game, or whether they build a zoo-like structure and take care of the animals. Another traditional example are Montessori materials: these are also open ended materials, such as wooden block and cubes, and children guide themselves what tasks they want to do. They are guided by teachers in how to do the tasks (Montessori, 1988).

A research prototype that was designed according to the open-ended play philosophy is the ColourFlare (Bekker et al., 2010, Bekker and Sturm, 2010), see figure 2. These objects can detect whether they are shaken or rolled. They provide feedback to players by changing its color. Children can explore how the ColourFlare responds to their own movements. Furthermore, children can allocate meaning to the different types of feedback, thus creating their own game rules and goals. The ColourFlare emits one of six colors at a time, chosen in random order. When it is rolled, its light changes to a different color. When it is shaken, the light starts blinking for five seconds. While the

⁴ Take look at (Thenoblegamer 2010) for a look at a Spleef session.
⁵ Another form of digital tangible play objects are Head-up games. They combined traditional play values with opportunities of computer games, creating solutions that not require children to look at (mobile) screens, i.e. head-up games. They can provide fantasy game contexts that allow children to play out stories with interactive objects [see for example, Soute and Markopoulos, 2008]. For example, in the Head up game Camelot, children have to build a castle. They have different roles and collaborate to reach the final goal.
ColorFlare is blinking, it is able to transmit its color to another ColorFlare in the vicinity using infrared technology. The other ColorFlare then takes on the same color.

These intelligent open-ended play objects can provide children with opportunities to create their own game goals and game rules. Players can adapt the meaning they allocate to input and output behaviors to the context in which they play. They can adapt the rules as they play to adjust the challenge, or they can shift the whole game focus to another play script altogether. Therefore, the objects should have a level of abstraction to allow children to imagine them to be different real-world objects.

Another example of an open-ended play solution is the Morels (Iguchi and Inakage, 2006). Morels are mobile, cylindrical objects that can be carried around, and thrown. The Morels can be ‘loaded’ by squeezing them and they can launch other Morels that are in the vicinity into the air. The Morels have no implemented games, only simple behavioral rules, with which players can create their own games. The Morels were evaluated in several user tests, with children of all ages. The tests showed that after an initial exploration phase many children (or groups of children) came up with a game that they could play with the Morels. A commercial digital product developed by Hasbro called the Cosmic Catch, is an interactive ball that can determine who is handling the ball by detecting the rfid-bracelet that the catcher is wearing. Cosmic Catch is not an open-ended solution, but does stimulate physical play. Players can choose between a predefined set of games, and the ball for example can determine who wins, or keep track of a timer-function in the game.

Four aspects are interesting to explore in the context of intelligent digital open-ended play solutions: 1) facilitating the exploration of different identities through different role playing or fantasy themes (possibly influencing identity status), 2) providing reactive feedback opportunities that may influence the player’s sense of self esteem, 3) providing diversity in types of play (social, physical and cognitive) to stimulate the different components of self-esteem (social, athletic and cognitive ), and 4) facilitating to practice conflict resolution.

At present no specific suggestions are provided to children to support children in choosing different role-playing games when they play with objects such as the ColorFlares. We have seen children come up with role-playing games when playing with open-ended objects, such as using the
colour feedback, to show how much power a child had playing a bear that was catching other children (Bekker et al., 2010).

In general, digital play objects that respond to children’s behavior by using sensor technology can provide opportunities to develop self-esteem in the sense that children get direct feedback to their own behavior. Again in the context of most open-ended play objects the meaning of the feedback in itself is undefined. We have seen various examples of children allocating scores to the feedback provided that corresponded to winning a game. In this manner they did interpret the feedback as a positive outcome of an activity, which can contribute to their sense of accomplishment. A example of a commercially available digital play object that is not open-ended is the Bob-it, which is an interactive toy that uses voice commands to tell the player whether to hit a button, twist the level or pull the handle of the Bob-it toy. These toys provide explicit feedback about your score. This can also contribute to a players sense of accomplishment.

Another attribute that might influence playful identity development is whether open-ended play objects stimulate a diversity of play activities. Social media like Facebook and Twitter mainly provide opportunities for social interaction, and some games focus on solving cognitive skills. Open-ended play objects such as the Morels and ColorFlares are intended to also stimulate physical play. In this manner children can practice different types of behavior and thus develop different components of their sense of self-esteem, such as social, physical and academic sense of self-esteem.

In summary we could say that, in intelligent play objects, players receive feedback about their behavior, either by technology (mediated), or directly from their playmates, which in many cases, influences their sense of self esteem, and thus building up an understanding of how they are perceived by others. In many cases a context is needed to have children start playing; children like to choose from existing stories rather then creating their own stories. Playful activity is supported in trying out different roles without risk or bad consequences.

6 Design Relevance (under construction)

This last section is devoted to the design challenges that emerge. So, how does the above relate to design? Can we, like Margeret Robinson jokingly stated: ‘actually manipulate people in doing things they do not want to!’ (Schell et al. 2010).

In this section we like to discuss whether it is possible to facilitate identity construction and representation by designing games and methods of open-ended play. We have seen that in modern society, identity is constructed through an instant interactive process; even ‘when norms are unknown, groups [...] rely on the inductive construction of social norms’ (Postmes et al. 2001:1245), and in turn, echo these social norms accordingly. What’s more, when people act in an anonymous environment they seem to play to a greater extend with their identity.

Build on the discussion in the previous sections we present in this section several design principles and relate these to the different states of identity constructions as was sketched in section 2

- Provide rewards for diversity in play and or game behavior to elicit exploring different identities and related values (identity state), according to the theory of Marcia, to facilitate alternative identities with related value sets
- Provide different types of cognitive, social and physical play opportunities to elicit insights about different components of self-esteem and self-concept, according to the theory of Selman to see the world from different perspectives
- Provide opportunities to resolve conflicts, type of conflict depends on age (according to theory of Erickson – and developmental level/interests)
- Provide feedback to judge ability, skill, related to self-esteem
- Provide fantasy play structure, to elicit exploration of different roles/ identities

These design principles can be used in different ways, we like to mention some:

Variables to explore in design:
• Pre-structured versus unstructured, which relate to the strictness of the gameplay and rule sets (game mechanics)
• Mediated versus non-mediated. To which extent do certain playful activities emerge (extended gameplay) or need to be “hard-coded” into the design.
• The open or closed nature of the game or playful activity; Inviting exploration versus inviting sense of closure
• Do we relate our design and adjust our approach to a (measured) identity status, or not.
• Real or fairy tail. Providing links to existing play-social scripts, to what extent in a continuum?
• Narrow focus versus wide focus, in terms of physical, social, action and psychological self understanding.

7 Conclusion
To be elaborated

8 References


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