How the Online Disinhibition Effect Affects the Online Video Game Industry

Faculty of Arts
Department of Game Design
Author(s): Alex Untoro & Ladbon Monjezi
Thesis in Game Design, 15 c
Program: Game Design and Graphics/Programming
Supervisor(s): Jakob Berglund & Masaki Hayashi
Examiner: Magnus Johansson
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Abstract

Extensive computer use is creating a society where its citizens are communicating outside the norm of real life. These diversions from real life communication behavior have been named the Online Disinhibition Effect (ODE). The effect is a psychological model that is structured with different types of elements which can be triggered by different communication mediums. There are two sides of the effect; a benign, where compassion and a reveal of emotions are more likely, and a toxic, where anger, frustration and threats are in focus. In the online video game industry, ODE is active, but as the medium is different than regular internet use the effects are different as well. This paper looks at how online video games are affected by ODE. By using the most current disinhibition model made by Suler and looking at modern cyberpsychology in online games, this paper found eight features that have the possibility to decrease disinhibition amongst users. This paper concludes with a warning that games are becoming more immersive and without the proper authority features, games will increase their disinhibition effect amongst its users.

**Keywords:** disinhibition, cyberpsychology, dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, minimizing authority
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Glossary of Terms

**Disinhibition** - a psychological term for when a person show lack of restraint when it comes to social cues and behavior.

**Dissociative** - in psychology it is a wide array of symptoms that ranges from mild detachments from the immediate surrounding too severe detachments from reality itself.

**Asynchronous** - when things are not existing or occurring at the same time.

**Trigger** - refers to the activity which creates the effect for each element in the online disinhibition model.

**Un-identifiability** - an aspect of anonymity and the condition of being unknown by concealing personal information online.

**Cyberpsychology** – the study of the human mind and behaviors in an online environment.

**Lurking** – reading posts in online forums without contributing to or discussing the topics, remaining invisible from others.

**Semiotics** – the study of signs and symbols and their use as elements of communication and behaviors.

**Mechanics** – the way in which something is done or operated

**Pseudonymity** – identifies a holder that acts using a false or fictitious name.
1. Introduction

The online disinhibition (ODE) effect is a phenomenon a person can experience when connected online. Coined by Professor John Suler, who argues that people conduct themselves differently when online and also that different types of personalities is the key in determining when and how people become disinhibited. These behaviors exhibited are different depending on the infrastructure of their social habitats online such as anonymity, online gaming, competitiveness, text or voice communication, non-instant feedback communications, alter-ego capabilities, and semiotic absence. All of these online structural components results in different types of behaviors, such as strength of reality testing, defense mechanism, and tendencies towards inhibition or expression (Suler 2004, 2005).

Suler’s studies have indicated that there are two directions disinhibition or ways a person show lack of restrain when it comes to social cues and behavior, can manifest itself, benign disinhibition and toxic disinhibition. Benign disinhibition compels users to share personal information, reveal fears or wishes they have, or show great acts of kindness and generosity, while toxic disinhibition can urge a person to show great feats of anger, hatred, and threatening displays (Suler 2004). Toxic disinhibition can also encompass darker places of the internet, sites where a person normally would not go in real life (Suler 2004). To measure the level disinhibition online-activity can cause, seven different elements were proposed by Suler (2004) to be measured, six of which are included in this study.

Suler (2004) states that people only need a few of these elements to produce a highly effective disinhibition and each combination available produces a different amount of disinhibiting effect. With these types of effects present in computer use, online disinhibition is present in online video games as well. The current online video game industry is a massive market with millions of users playing in official rankings or simply experiencing virtual worlds (Consalvo 2011). It has been concluded before that the different available ways to communicate shape each society (Consalvo 2011). For instance, video games with only text communication might not create the same type of online culture compared to video games with voice communication (Kowert et al. 2014a). ODE model is a psychological model with the purpose of finding how people are losing themselves in
online-use and what is changing our way of communication. The medium of online video games is only a few decades old. Finding out how ODE is affecting online video games would therefore help developers reflect upon what psychological effects they are implementing into their online infrastructures. To be able to understand what type of features inhibits a specific type of behavior can become an obligatory knowledge in structuring online societies. The aim of this study was to find how online video games are decreasing elements of ODE.

1.1 Background
Cyberpsychology is a field of study that branches from social psychology. Their drive is to promote health and the use of technology to promote clinical therapy to victims of psychological effects (Riva et al. 2014). Their focus has been on cybertherapy, virtual reality, emotional writing, mobile devices, and positive technology (emotional quality, connectedness, engagement). Before ODE, the theory of deindividuation referred to how a person would slowly lose their individual identity through situations and behaviors (Suler 2004). Deindividuation specified to behaviors our society perceive as negative, Suler’s ODE does incorporate them in the ODE model but also explores the possibility that deindividuation within an online environment could contribute to positive behaviors he named benign disinhibition (Suler 2004).

Deindividuation itself was a theory used by crowd psychologists such as Gustave le bon (1896) to help describe the behaviors of mob mentality, how individuals lose their identities and divert from social norms. Within the social works crowd psychology and social psychology, cyberpsychology was born and is currently in its infancy compared to the other fields. With new research and the emergence of virtual reality and augmented reality, the most popular way to interact and communicate with each other are changing, to what is however unclear.

1.2 Previous Work
As technology is evolving, humans are affected by the restraints and new possibilities these machines provide (Norman 2008). Because online technology and computers became popular only a few decades ago, cyberpsychology is suffering from a short history and the numerous
ways of experiencing the psychological effects. The numerous ways to experience online societies can produce different psychological effects such as text perception, personality disorders, anxiety, and addiction, all of which depends on the instrument used and the inhabitants occupying the virtual society (Kowert et al. 2014a). These factors incorporated with the constant changing online industry as a whole does create a broad field of study. Game design and the online video game industry have been subject to science though fewer studies have concentrated their focus on ODE and game design. Since at least 2001 studies related to online video games have been active but with new discoveries being made in the constant changing online video game industry, this subfield have yet to contain an overview of the effects ODE has on the online video game industry (Suler 2004). In 2004, Dongseong Choi and JinWoo Kim found that people keep playing their online video games because of positive social interactions with other people within the virtual world, indicating that a social place reserved for a specific person buys loyalty and game time for the game studio. Another study done by Christopher S. Peters and L. Alvin Malesky in 2008 looked at what makes people spend at least 20 hours playing World of Warcraft (Blizzard 2003). Their results indicate a lack of face to face social skills combined with neuroticism contribute to their isolation though the human need for social interaction does get facilitated by using World of Warcraft to curb their social needs. These studies and others do comply with the research in this thesis but lack the parallels drawn from The Disinhibition Effect, which is why this thesis could help illuminate the connection between the effects and features to understand what the online video game industry is moving towards to either increase or decrease the effects some elements might have.
2. Methods and materials

There is a need to use the most recent discoveries from Suler’s Disinhibition Model but also using the most modern definition of all elements within. A list of all the appropriate elements Suler used to make up the model was made to use as a reference list as to what triggers them and their current effects. A hypothesized area of interest within online video games was made to try and focus on the communicatory features that corresponded with Suler’s Disinhibition Model. A literary study was conducted to find psychological data on element triggers and their effects outside cyberspace, how modern cyberpsychology perceive Suler’s Model and what experiments and research have been conducted about said speculated online video game triggers. Later, an analysis was conducted on the integrity of the findings and how they can. Since this paper compare different studies, some aspects of game mechanics and reward-loops were not taken into account. Only online video games were looked at as the effect needs human communication. To minimize certain aspects of game design and other studies conducted about privacy and behaviors, only Suler and mostly research using Suler Disinhibition Model will used.

In order to get an understanding on what types of things are affecting the online disinhibition model in the game industry, this paper went through several steps to broaden the spectrum of understanding and focus on specific types of disinhibitions and their triggers. This paper used the most current disinhibition model available, written by Suler 2004. There is a need to hypothesize on the equivalent triggers which online video games have in relation to Suler’s model. In the analysis, this paper looked more broadly on the triggers each element has, in order to get a general psychological perspective and also to understand how those triggers are both perceived and compared to Suler’s own triggers. Each element also holds segments of modern cyberpsychological perspective on the specific triggers in relation to game design in order to understand how the game industry have designed their online infrastructures in comparison to modern cyberpsychological studies. Since this paper compare different studies, some aspects of game mechanics and reward-loops were not taken into account.
3. The Online Disinhibition Model

There are two types of disinhibition; benign- and toxic disinhibition. Suler (2004) explained that one element might be enough for a person to exhibit either a benign- or toxic effect, but in reality people get exposed to many different elements at the same time, which creates a more complex effect. Suler’s disinhibition model is divided into seven elements, dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, minimizing authority, and personality trait. The seventh element, personality trait, which deals with mental stability, is not included in this paper. As there are so many different people out there, this paper must exclude this element in order to get a broader and more generalized perspective. The six other elements are introduced here with their effects and how they are triggered.

3.1 Dissociative anonymity

Dissociative anonymity brings forth different behaviors in people depending on their personality trait, covering their identities with nicknames or alter egos. Being anonymous can make a person dissociate with their real self, where their alter egos or online personas will be a separate entity from their offline self (Suler 2004). Suler (2004) explains that when given the chance, a person might use an online environment to act in a certain way that they normally would not, separating their real life identity and lifestyle from their online existence. People that have issues with self-disclosure in real life might not have the same issues online, feeling less vulnerable to open themselves up or misbehave (Suler 2004).

3.2 Invisibility

Invisibility defines the online environments where the user’s presence is not known to the public. This public anonymity conceals identity, and Suler expressed this as the example of lurking or not being able to see the user's semiotic signs beyond text communications (Suler 2004). This disinhibits the user from more real-life norms and behaviors (Suler 2004).
3.3 Asynchronicity

Asynchronicity encompasses non-instant feedback communications or simply a communication infrastructure where immediate interaction is not necessary (Suler 2004). In a continuous feedback loop that real life dialogue requires, people would conform to social rules rather than stating out of the ordinary remarks (Suler 2004). Suler (2004) argues that asynchronicity disinhibit users to talk socially, delaying feedback and allowing thoughts to descend into either a benign or toxic response outside of social norms as time is not of relevance online.

3.4 Solipsistic introjection

Solipsistic introjection is a phenomenon that occurs when text communicating without face-to-face expressions (Suler 2004). To some, this has a lasting effect where users will read out the message in their own voice, compelling an inner-conversation to be had inside their mind. As users cannot see the other person or gather any other real life cues towards an understanding of the person on the other side, some fill in these gaps with their own imagination of the interpretation they had on the text message, generating a distorted image of their online comrade (Suler 2004). Suler (2004) warns that when communicating online, a person might start thinking subconsciously that the person on the receiving end of a text based conversation is not in fact a real person, but only an interaction created through imagination. There are numerous instances in real life where people partake in these inner-conversations such as imagining flirting or arguing with another person. Suler (2004) justifies this as a disinhibition element as people tend to diverge from the norm as the user’s perception of the other side of the conversation is a figment of their imagination.

3.5 Dissociative imagination

Dissociative imagination is when a person takes unto themselves an alter-ego or an alternate persona that lives separately online from real life. Since they have a split personality between online and offline, the consequences that come from one side, will not transfer over to the other. This way, people tend to behave differently when they are posing as their alter-ego, thinking that they are invulnerable to the social norms of the real life when online. Using alter-egos of this sort can create an elaborate selves that are so dissociated from society and norms that they cannot
comprehend the backlash that some actions may bring about (Suler 2004). Dissociative imagination usually boils down to a person thinking that the people listening in are not real because the virtual world is not real. This type of disinhibition has become more prevalent as communication in games and other online environments have evolved (Suler 2004).

3.6 Minimizing authority

Minimizing authority is a definition of the lack of a hierarchy and status. In the online world, this lack of structural hierarchy has become a common factor in many infrastructures online, giving a perception of the online world that we are all alike with equal opportunities (Suler 2004). There exist, however, administrator positions and society mechanics that support the idea of a hierarchy in the online world though these are exempt of from this disinhibition element. The minimizing authority effect generates a society where your status in the real world does not matter, for example a president of a company in comparison to a working class person might not get treated any differently on the internet. Nevertheless, their social behaviors might differ, like writing, patterns of speech and difference in knowledge. These individual traits are, however, not connected to their wealth or social status. The internet’s infrastructure has no centralized control, and has no boundaries of how many unique environments and communities that can be created. These communities all contribute to the minimizing of authority thanks to its inhabitants exploring the potential of expression on the internet (Suler 2004).
4. The Online Disinhibition Model in video games

To understand what type of triggers can be interpreted, these are the speculated equivalents in online video games in their respective element. Each feature mentioned here are hypothesized by either example in online video games or the ability to produce the same trigger in an online video game.

4.1 Dissociative anonymity

In game development, anonymity is something carried on from the internet culture in general. In online video games, it is speculative to write that nicknames are a part of most popular games out there. In terms of dissociative anonymity, the popular type of anonymity in online video games is pseudonymity. For example, to be a part of the game community in Counter Strike (Valve 1999), a person needs a nickname that is connected through their email.

4.2 Invisibility

Invisibility in game design could potentially resolve around the notion that a person cannot see another fellow video game user, their avatars’ presence and/or their location. There are online features such as friend lists and online presence chat functions to see if another player is online, both of which would negate the effects of invisibility as the requirement is the opposite. World of Warcraft (Blizzard 2003) allows players from different factions not to see their online status and location other than actually seeing them.

4.3 Asynchronicity

Asynchronicity in game design is speculated to be when people can interact with one another, not being restrained to real time, such as turn-based games. These games are hypothesized to now tend to come from the mobile game industry, often with chat communication, emote icon communication and friend lists. It is speculated that where time is not in the control of the player, and asynchronicity is, therefore, negated.
4.4 Solipsistic introjection

In game design, this can be compared to people that create characters with different genders, body types, skin complexion or skillset than their own. If you only speak to this person through text not hearing their voice or see what they look like in real life, an image of that person will be built in your head that the person and you will read out and imagine your interactions with that in mind. Through more interaction, a person can create a fictional image of the other player from the communication and virtual graphics they have chosen to be represented as. In modern games, voice chat has been added into games with strong introjections as different languages, culture and speech, can also change the way we think about that person.

4.5 Dissociative imagination

The effects that dissociative imagination has can be associated with character creation and role-playing effects in video games. Video game users will create an avatar based on their alter-ego, which will effectively become an extension of their created personality; a shell for them to insert their persona to each character they create. In the game world, video game users might not see other players’ characters as avatars with their creators behind the screen, but instead as any other person in the game world.

4.6 Minimizing authority

In game design, specifically online environments, there exist numerous hierarchies and society statuses which can create a cultural difference as each avatar progress in the game. This is prevalent because of the perception that the online environment in a game is property, which the game studio can impose rules and then enforce them. There can be documents, authority figures which has the ability to bring an online video game user out from the effects and forced to deal with the activities they have conducted.
5. Analysis

With the online disinhibition model and the association with online video games mapped out, this section will go through each element and their possible psychological equivalent effects. It will also include how much research, if any, has been conducted in connection to cyberpsychology and game design.

5.1 Dissociative anonymity

Picking a nickname carries much psychological weight as the power of anonymity can make a person open up more and act more intensely than they normally would do. This can be beneficial for a person when looking for friendships online, as they will seem more likable to others. People are also known to act out as the fear of repercussion is lowered (Cole & Griffiths 2007). Another study conducted by Tsikerdekis (2012) looked into aggressive behavior linked to anonymity and found that dissociative anonymity acts as a veil of protection from backlash as a result of rash behavior.

Lapidot-Lefler and Barak (2012, 2015) looked into benign- and toxic disinhibition using anonymity, invisibility and eye contact. The researchers discovered that lack of eye contact was the main cause of toxic disinhibition, while others, even Suler (2004) he argues that anonymity is the leading cause for toxic disinhibition. Lapidot-Lefler and Barak (2015) argues that anonymity itself is too broadly defined, indicating a logistical difficulty study the current definition. They concluded that while anonymity can open the possibility for both benign- and toxic disinhibition, it should not be described as the most substantial contributor for disinhibition (Lapidot-Lefler & Barak 2015).

A notable point would be that while there are features that allow eye-contact to be in play when gaming online, these features are unlikely to be used in popular games; arguing that anonymity have less significant power on whether or not toxic behavior in games occurs. It is more likely that the element, dissociative anonymity, combined with another or more, plays a stronger role in disinhibiting online video game users.
5.2 Invisibility

Invisibility as Suler (2004) defines it is not what general psychology uses, as online communication allows for different ways to communicate. In Psychology, invisibility is defined as a failure to be recognized (Fischer et al. 2003). It has been found that ordinary problems, such as depression, where older patients do not receive the same amount of care as younger patients. Depression is more common amongst the elderly, which could explain the difference in treatment. Older primary care patients, therefore, exhibit invisibility or under-attention (Fischer et al. 2003). Martz (2003) also found that concealing disability would increase the chances of getting hired, indicating a cultural stigma in USA for disabled job searchers. In 2002, Hyland conducted a study on how undergraduates in Hong Kong used individualistic pronouns to emphasize the contribution their thesis provided to the scientific community. His study concluded that some students go away from the general consensus that scientific studies are community based with invisible elements to strengthen their individual contribution to the community. Invisibility outside of online-communication seems to elevate the chance of rejection, loss of attention and the need for individual break from communities that are built with invisibility elements. The effects are broad and dependent on the actual situation rather than specialized areas, making it harder to determine how to treat these effects, but Fischer et al. (2003) and Franklin (1999) pushed for a more individual focus to acknowledgement and attention.

In 2015, Lapidot-Lefler and Barak conducted a study on invisibility and disinhibition. Their results suggested that anonymity together with invisibility significantly increased chances for a person to reveal their emotions, indicating both a benign- and toxic disinhibition effect. Currently, there have been no studies conducted on invisibility in correlation to game design. However, Consalvo (2011) writes about different social mechanics in social games, where she discusses mechanics that result in enhancing the social interactivity between players; for example gifting, visiting, challenging other players and communicating through writing could create a benign disinhibition, as acts of generosity are associated with positive attention and communication.

From the looks of it, there seem to be more studies conducted about invisibility outside of game design, though there are clearly many underlying social interactions which involve numerous
ways to be unidentified. In short, there is a need to define the effects of invisibility in a game environment.

5.3 Asynchronicity

Asynchronicity before the internet has been a continuous communication form with pen-pals or letter communication being a great exercise for people to become more literate and promote linguistic relationships (loanwords). In the online realm, Bellamy and Hanewicz (1999) found that each asynchronicity element added to an online social infrastructure is unique and carries their own laws of conduct as the inhabitants of the society set the rules rather than the property itself.

In terms of asynchronicity in video games and the effects, Bourdreau and Consalvo (2016) found that asynchronous Facebook games can be a patron for social interactions even though the social infrastructure is lacking in semiotic communication variances. In a study conducted by Kowert et al. (2014b), asynchronous online games create an environment for people to overcome traditional social difficulties, specifically for the emotionally sensitive.

Asynchronicity in games provide multiple differences in terms of brain activity as video game users can think longer and imagine other action routes. While it demands a different type of memory compared to highly active synchronous games, the study seems to point to a more benign inhibition. With mobile games and turn-based games being the most popular with associating with asynchronicity, anonymity and invisibility seems to be the elements connected to asynchronicity more often than not.

5.4 Solipsistic introjection

Solipsistic introjection seems to be occurring when both parties have not seen each other but still communicate in some fashion, whether it is through letters or by rumors, it is an acceptance from the user in which this effect can develop. This can have both a benign- and toxic effect on a recipient, more specifically how a person would perceive the message as. There have been studies indicating that solipsistic introjection can occur in the use of a mobile phone, decreasing
the user’s inhibition and can lead to risky behaviors (Ling & Campbell 2011). The same studies further explained that effects of mobile use can start a sense of disinhibition where social boundaries are reformed as the presence does not represent the dimension people are communicating through. In games such as Blizzard’s World of Warcraft (2003), video game users are interacting with one another at all times, whether it is through combat or social gatherings. Most people have no idea who they are communicating with; where they are from and what they look like in real life. The social openness that solipsistic introjection pushes for have been found in World of Warcraft (Blizzard 2003) by Nardi and Harris (2006). They declared that more often than not, World of Warcraft users would reveal personal information over time in order to bond with others in a social manner, indicating that the psychological effects of solipsistic introjection exists in games as well.

More often than not, the communicative effect solipsistic introjection creates is very much connected to dissociative imagination when it comes to games. The disinhibition of solipsistic introjection also seems to be reduced by asynchronicity as people tend to question their first reactions though it is not clear how much.

5.5 Dissociative imagination

In psychology, alter-egos are forms of social roles a person take upon themselves such as a brother, a father, a fantasy football player, a store manager and so on. In time, some people can experience a fluctuation effect for one alter-ego and develop Dissociative Identity Disorder because of disorder in memory and identity (Nemiah 1980). Each alter-ego a person possesses comes with a type of expected behaviors, which vary depending on the role and the group. Each social role a person takes has a small variation of that person's original identity though depending on the society they are connected to, the alter-ego can change drastically.

As dissociative imagination is connected to alter-egos, Massively Multiplayer Online Role-Playing Games (MMORPG) are connected to intrinsic motivation (Dickey 2007), which pushes a human to reward themselves with entertainment. Yee (2006) remarked that our virtual identities and background are not excluded from our identities and background from the real world, they merge and shadow each other because the communication people are experiencing in MMORPGs
are not a new communication medium, but rather a new beginning to form new identities and experiences. In cyberpsychology, dissociative imagination refers to the alter-ego and how a human becomes disinhibited by it to reflect another side of their personality. Snodgrass et al. (2011) have discovered that World of Warcraft (Blizzard 2003) have created a cultural-cognitive world where its users are able to create an aspect of their consciousness to their in-game character for psychological benefit or harm, indicating that dissociative imagination, combined with other elements can possibly be either benign or toxic. The study did reveal that people with less success in the material world tend to become more infatuated with the effects of dissociative imagination as they seek to repent from their material world decisions (Snodgrass et al. 2011).

It seems that dissociative imagination is a working effect, credited to the designers themselves for selling the world so well to humans who feel like they have not done well in the material world. World building in online game design boils down to character creation and design, narrative design, level design, art style, and lore, and by adding the number of communication venues to the former list and the fact that the player actually wants to play that character, there will be an effect of dissociative imagination; it is unclear if it is measurable as it is mostly related to the person playing.

5.6 Minimizing authority

In 1963, Milgram did numerous experiments on the obedience of authority by testing a subject's ethics, sympathy and moral conduct. People showing obedience is a psychological and behavioral reaction, most often deeply engraved into one's psyche. Through testing, it turned out those two thirds of the test subjects showed obedience when ordered to output physical harm to another subject, even against their will. Though not forced to obey the order, the fear of objecting is a result of our society's already structured authority, where people are supposed to listen to their superiors. If we were to remove this inherent structure of authority, people would start acting differently. At the time of Milgram’s experiments, there were no such societies in the world, and the theories of a society without the structured authority he spoke of could not be confirmed. Looking at the modern day internet however, the lack of authority is similar to what Milgram (1963) spoke of, and its effects on people.
The online-world is structured to be anarchic society with no centralized government and all property owners exhibit their own set of laws. The users outside of the known hierarchies would experience the internet as any other user, rendering them as equals. This has created numerous different behaviors where humans are more prone to benign- and toxic disinhibition. Now with governments trying to regulate and spy on their part of the internet, an authority have risen, though little change has come for the western world in terms of censorship, indicating that the anarchy we preside over still exists, for now. Brenner (2013) writes that minimizing authority in teams are perceived to put most of the frustration on the authority rather than the working members as disobedience, whether it is conscious or not, is perceived to be defiant by the authority, and compels them to restore their supremacy because of feelings of disrespect which leads to misjudgment, and miscommunication.

In games however, there are clearly coded hierarchies which exercise their powers frequently, leading the equal users at the mercy of their environment and its rules. Games such as World of Warcraft (Blizzard 2003) exercise a code of conduct in their terms of agreement with punishments such as change of nickname, chat room privileges, and termination of online services provided by Blizzard; thus stating that they have full power over a user's social and online capabilities on their virtual property. Their authority will also allow them to have full access to your computer’s information, such as hard drive information and IP, along with other pieces of information that is located on your computer. These rules are overseen by employees of the company that owns the property, these employees act as a social police. Players are able to report, ignore, or/and mute if they ever find a person they want nothing to do with while being available to create private groups for friends or associates. Leveling, gear, character creation, group creation and maintenance, A.I police, and moderator authority all contribute to decreasing the effects of minimizing authority. There are other possibilities to decrease the effect. Games with less of these game elements seem to fall into this effect, usually causing a more toxic action. Safe to say, obeying authority is not a distorted interaction which leads to a more relaxed social stance than face-to-face human interaction.
6. Result

The analysis indicates that some areas are in need of game design related studies in order to get a better understanding on the disinhibition elements. This section is divided into interest points and researched points, where the former suggests which elements that are in need of studies and the latter showing results on already conducted studies.

6.1 Interest points

The analysis shows that real life association decreases online disinhibition, but as this study has shown so far, the previous studies are thin and varies much in template and progression. In order to help the community to keep the focus on subjects correlated to game design and the disinhibition model, this section will mention some areas that could provide notable results.

Guild, friend list, ignore and status features have been documented before on social mediums, though in games these features work very much like our real life social world. People create groups of interest to climb the professional ladder, have friends, ignore other people and declare their current mood in some way. These authority powers are of interest because of the similarity it hold with real life and how it differs in effect of the online disinhibition model. Chat functions in games differs greatly with different rooms, filters, authority capabilities, unique semiotics, acronyms, and much more.

As the online game industry has progressed, limitations on chat functions have also been introduced. It has become a point of interest to look at asynchronicity and chat functions to try and measure what type of effects they have culturally and personally. It is highly recommended to find how the game industry is utilizing the written communication form to create linguistic communication and how it affects asynchronicity in a game world. It is highly probable that chat functions affect many elements as well.
6.2 Researched points

Real name incorporation to video game accounts decreases dissociative anonymity, solipsistic intropection, dissociative imagination, and minimizing authority (fig 1). Looking at studies conducted on World of Warcraft, it is clear that Blizzard has full authority over their consumers through their terms of conduct. They do this by having strict rules on how one can communicate with other players; threatening players with bans and similar penalties if they break the rules. They also give the players the option to show their real life names and identity to their chosen friends. These methods greatly reduce the minimizing authority present in the game. Even though giving out your name is not mandatory, it is encouraged by the company as it gives the players extra perks when it comes to keeping an eye on your friends’ presence in the game.

As it looks now, contractual obligations, authority options given to users and the owner of the online infrastructure provide considerable authority and decreases more than one element. We would suggest looking into how we are adding more real life connections to our game account online and try to find out which element they decrease.

Chat communication, accordingly to the previous studies conducted (Suler 2004; Kowert et al. 2014a; Consalvo 2011), can have either a benign- or toxic effect on people. By disabling or limiting the chat communication in online video games, the level of asynchronicity will decrease. This happens because of the removal of a social aspect of the game, and with it, one of the reasons a person would become disinhibited, they have one less thing to thesis their personality, charity or toxicity at. Limited chat functions, such as already written phrases to pick from, still has the potential benign- or toxic effect as before (Nardi & Harris 2006).
**Figure 1.** Represents what type of features both subjects of interest and researched points have found to be decreasing disinhibition elements. Areas on the left are types of features that have been proven or suggested to decrease some or all elements in the disinhibition model.
There have also been indicated that un-identifiability is the strongest source for both benign- and toxic disinhibition (Lapidot-Lefler & Barak 2015). This would mean that facial recognition, eye contact and voice would greatly decrease disinhibition, but how much of a decrease is still under discussion.

The studies are indicating that society is developing games with stronger disinhibition while decreasing the element minimizing authority through authority features.
7. Discussion

With the aim of the study being how the online disinhibition model is affecting the online video game industry, we have found little that claims fact, but rather points of interest that needs to be studied. The results are indicating that the online game industry are creating video games that disinhibits players toxically or benignly, but tries to decrease it through authority features. Studies have indicated that adding better communicational features such as eye-, voice- and face communication with less competition in the game would vastly decrease toxicity and disinhibition. For competitive games, there is a need to establish a tighter grip on the member base by introducing official features which connect the users to their real life counterpart. These features are suggesting that ID controlled competitive leagues are more likely to happen than not. Competitive games as a whole is a communicational medium which can bring out the worst and the best in a person. It would be of interest to see what changes a community needs to do, to create a more benign setting.

The results do indicate a lack of study on elements such as asynchronicity, solipsistic introjection and minimizing authority in video games. By looking at video games as a whole, it is clear that there is a tendency to keep disinhibition studies secret. It would help future researchers if game companies would release their data to create comprehensive and broader papers on the online disinhibition model and the online video game industry.

Having complete mappings of effects and modern evaluations of disinhibition in connection to game design would let future researchers map out their measurable effects and how game design can change them. We believe that it would be ideal to modernize the disinhibition model as it could help us structure modern societies to fit the behaviors we yearn for.
8. Conclusion

ODE has affected the online video game industry in different ways such as improving level of immersion and coincidentally increasing disinhibition itself. To answer the high amount of users affected, authority features have been added to curb the high amount of disinhibition. Larger game studios have already implemented their solution to each user being connected to a real-life artifact such as ID, telephone number or social-media accounts. The studies made in-house are not public; though with other studies, this paper suggests that authority features are moving towards real-life connection rather than privacy.

8.1 Future Works

In order to get a better grasp of the effects and their impact on the online video game industry, future researchers should look into virtual reality, augmented reality and use more statistical data provided by online video game studios.
9. References

Literature references


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