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Making It Personal - Towards A Customized Experience For Impact Games

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From an economic perspective, fictional digital games have successfully outperformed their linear counterparts in film (Combs 2011) but still, in the public eye, games are only half-way through the process of becoming a legitimate and socially acceptable medium. At the same time (or maybe for exactly this reason), today´s gaming industry is on the verge of an indispensable aesthetic evolutionary step.

With the release of her critically acclaimed game "Darfur is Dying" in April 2006, game designer Suzanna Ruiz, at the time a graduate student at the University of Southern California's Interactive Media Division, delivered the proof of concept that digital games have the potential to communicate real-world is-sues to the player. Within six months after its launch more than 800,000 people had played "Darfur is Dying". Ever since, the game "has been the focus of debate on its nature and impact" (Wikipedia 2013). Looking at these numbers, "Darfur is Dying" certainly raised awareness for the Darfur-crisis amongst players, but was there any active short term or long term impact for the citizens of Darfur who were featured through the game?

In her 2010 TED Talk, Games Evangelist Jane McGonigal envisions a future in which the mindset when being in a state of play can actually be used to change reality for the better:

> *When we're in game worlds I believe that many of us become the best version of ourselves, the most likely to help at a moment's notice, the most likely to stick with a problem as long at it takes, to get up after failure and try again. [...] What about games makes it impossible to feel that we can't achieve everything? (McGonigal 2010, min. 3:46)*

Both Mc Gonigal´s TED talk and her popular book Reality is Broken (McGonigal 2011) contributed to a shift in the public discussion about play as a means of engagement instead of escapism. Following her argument, gamers (and hence, games) could become the driving force of social change in the near future by overcoming the gap between virtual and physical reality through playing games that address real-world issues. Moreover I hypothisize that the major opportunity for games to truly become the leading medium of our time, lies in the unexplored potential to express meaningful messages from the real-world and communicate them through their unique mix of story and gameplay.

The main quality of well designed digital games is their ability to engage and immerse the player by making him/her the driving force of an experience that cannot unfold and therefore does not exist without them. "To activate the game-narrative, players have to fulfill their duty to interact - without interaction the game stops", states Martin Ganteföhr at the 2010 Clash of Realities Computer Game Conference (cf. Tillmanns 2010). According to Ganteföhr, film-audiences could easily switch between identification and dissociation (...) without jumping off. In games, dissociation would lead to the denouncement of the interaction-contract. For so-called serious games, i.e. games that are beyond entertainment, this "interaction contract" is the major challenge and innate breaking point.

The popular term "serious games" illustrates in itself, that the failure of this game genre is inevitable. While it is the nature of games to be "a problem-solving activity, approached with a playful attitude"(Schell 2008, 37), the serious topic and theme of the game-story combined with the way it is

presented though gameplay often dramatically interferes with the inherent need of a game to be captivating and fun. A standardized point-and-click adventure framework that confronts players with an overwhelming amount of text info and poorly animated characters is therefore of no help when aiming to trigger emotions and communicate a meaningful and lasting message through digital games. Since the majority of serious games rely on extrinsic rewarding systems, the player´s motivation to play is mainly addressed by the run for achievements, ranking and badges.

To my mind designing for social and cultural impact, empowerment and inclusion eventually requires an immersive and intrinsically rewarding gaming experience that on the one hand creates an emotional bond between the player, the game world and the in-game characters and on the other hand transforms this bond into an ongoing identification with the subject of the game.

This paper is dedicated to evaluate game design elements that contribute to immersion and identification. Furthermore the potential of a personalized game narrative that seamlessly integrates the player´s personal reality into the fictional context of the game will be introduced.

1. From Game-Based Learning To Games For Change

While it is the primary goal of all 'serious games' to transfer knowledge in a mix of amusement and education, in my opinion successful 'social impact games' have to go beyond traditional e-learning or game-based-learning principles such as designing an array of tasks and tests to transfer and recall factual knowledge. Games that are aiming to help leverage a change in the players´ perspective and behavior in the real world have to evoke a deep and long-term understanding of a given topic, empower the player and motivate him to bridge the gap between in-game experience and real-world application.

Educators worldwide work to prepare skilled and informed students who are able to navigate the world's social and ecological challenges. When designing learning games, game designers have the dual purpose of creating an enjoyable pastime and imparting a message or general education on a given topic. This is also true when designing games for change, however I am convinced that the game designer's competences in neuroscience and psychology play a fundamental role in the success of fulfilling the transformative mission of the game.

Based upon the idea of early-childhood learning as defined by Jean Piaget (1991), a game-based learning experience should at best be stimulated by a "constructive approach" (97) i.e. in a way where players are encouraged to draw their own conclusions from observation and action in the game.

This constructive or feedback-based learning principle is the most important factor for the creation of what I call a 'focused virtual life experience' that will be the underlying design approach for my further considerations towards the development of successful social impact games. It has to be pointed out that through a personalized narrative, the concept of the focused virtual life experience significantly differs from standard simulation games. The ongoing game series *The SIMS*, for example, presents a system of causal relationships that is embedded in a story where the player acts as a mentor to his avatar and thus remains a foreign body in the game world. However creating a game world where the player is not a foreigner by incorporating personal online data facilitates the player´s integration and attachment in the virtual universe, thus becoming a virtual life experience.

1.1 The Emotional Bond

In their research paper "We Feel, Therefore We Learn", Mary Helen Immordino-Yang and Antonio Damasio

(2007) introduce the concept of the 'emotional thought', which describes the role of emotional processes as a catalyst for the transfer of skills and knowledge from a learning environment to real-world application (3). This concept is picked up by Roth (2012), who emphasizes that due to the fact that the human brain processes information more efficiently when it is attached to an emotion, it should be of no surprise that we keep on forgetting the binomial formula but never forget our first kiss.

This, of course, does not mean that kissing the math teacher is the solution to successful algebra learning, but it is certain that the pedagogical qualities of good teachers must go beyond the mere introduction of students to an issue or topic. A well-balanced challenge, fair rewarding and empathy are essential factors that motivate students of any age to engage in learning and put the acquired knowledge into practice. As an inherent ability amongst humans and animals, emotional expression serves as the primary communication tool between infant and caregiver long before the acquisition of language and other cognitive structures become the dominant form of expression and interaction. Commonly defined as a spontaneous expression towards a given stimulus "involving physical arousal, expressive behaviors, and conscious experience" (Maqbool 2008, 182) emotions can be considered a shortcut to the human mind and thus are an important paradigm when designing consumer-experiences such as digital games.

While cognitive and behavioral neuroscience mainly focuses on investigating habitual or stimulus-response learning processes such as reward prediction and other goal-directed behavior (cf. Daw and Shohamy 2008), affective neuroscience gives an insight into pre-cognitive mechanisms such as the emotional communication of learning objectives.

In their book "Marketing Metaphoria", Gerald Zaltman and Lindsay H. Zaltman (2008) explain the complexity of the human coding process in communication with the introduction of "three levels of metaphorical thinking" (¶182). Their studies reveal that the human ability to use and decode metaphors is based upon the distinct quality of effectively expressing basic human needs on a subconscious level (cf. (¶182 ff.). Zaltman and Zaltman conclude that the selective use of metaphors is highly effective to emotionally address and engage consumers (cf. (¶444ff.).

It is common knowledge that any kind of (entertaining) media and art is *per se* a representation or abstraction and therefore can be considered an emotionally charged metaphor. Translating Zaltman and Zaltman´s concept of metaphorical thinking to digital games in particular, I conclude that, when addressing the player´s emotions, the narrative and interactive paradigm as a unity can be extremely powerful and can enable the player´s identification within the game. However, the question is how to transform this experience into making a difference in the player´s real life.

A step towards this would be the investigation of how to augment the dimensions of the 'Magic Circle' to allow the implementation of the player´s abilities in the game to the person´s abilities in life.

2. Dimensions of the Magic Circle

Initially described by Johan Huizinga in 1939 and applied in 2003 to digital games by Katie Salen and Eric Zimmerman, the Magic Circle describes a closed spacial, temporal and social environment with a defined set of rules and goals outside of ordinary life that enables an immersive gaming experience (cf. Huizinga 1956, 17; Salen and Zimmerman 2003, 93–99).

Based on the understanding of games as a medium of escapist entertainment, protecting the integrity of the Magic Circle turned into a school of thought and is considered a key factor for good game design by many

scholars and game developers. Critics, on the other hand, have condemned the concept for being shallow and detached from reality. It should be noted that in a 2012 article on Gamasutra, Eric Zimmerman states that the original idea of the Magic Circle was never intended to be a rigid imperative that ignores that fact that games are "actually played by human beings in some kind of real social and cultural context" (Zimmerman 2012).

In his book *Pervasive Games*, Markus Montola argues that "the isolating contractual barrier (of the Magic Circle) is to forbid the players from bringing external motivations and personal histories into the world of game and to forbid taking game events into the realm of ordinary life" (Montola 2009, 11) Taking a look at today´s gaming culture and observing the progressing consolidation of our offline and online lives, it becomes obvious that the augmentation of the Magic Circle is on the rise:

> ***The distinction between labeling an act that strictly occurs in the game, and something that happens out of game (i.e. checking email about getting "gold" pieces in the game world) becomes inconsequential; the two worlds inevitably must interact with one another. (Castronova 2005, 153)***

According to recent studies, so-called affluent millennials, 18 – 29 year-olds spend more than 40 hours a week online; playing games, shopping and especially sharing news in social networks (Kraus and Shullman 2011). The time spent shaping and managing the on average 4-5 online profiles equals a full-time job. These numbers suggest that today we are living in a mixed reality where both our physical and the virtual personae have become inseparable.

Taking this phenomenon as a design opportunity to expand the immersive and persuasive quality of the magic circle from the virtual reality into physical reality, both the player´s on- and offline identity have to be addressed within the game.

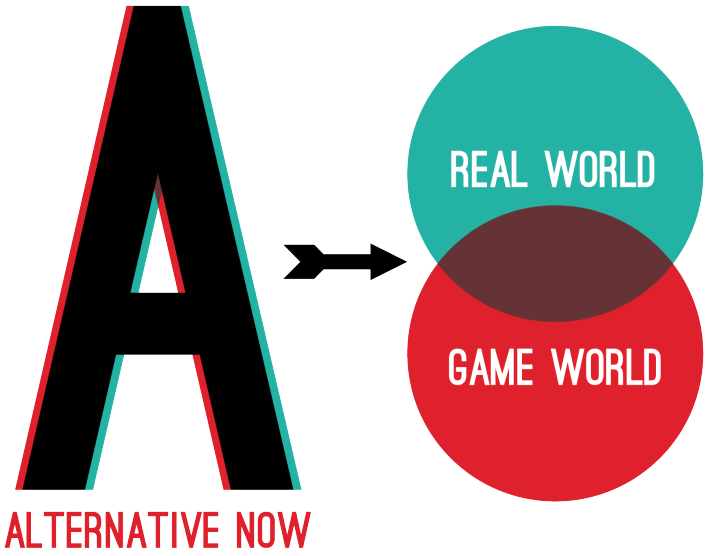

Fig.1: From simulation to real-world impact.

With the term 'Alternative Now' I describe a virtual reality in which the player and his/her world is directly represented within a fictional or semi-fictional story. By pulling personal data off the individual´s social network profile and then blending in elements of his/her online self into a pre-scripted plot, a dream- like experience would be created. This surreal environment would encourage players to actively explore the given topic and simulate different courses of action.

3. Immersion and Identification

While the importance of emotional bonding as a key factor for sustainable learning was introduced in 1.1, it is now important to draw a distinction between activity-driven and story-driven attachment

3.1 The Means of Interaction

By dissolving the line between consumption and production, today´s participatory culture (cf. Jenkins 2005) confronts audiences with a constant query of decision-making. From simple browsing on the internet to complex quests and missions that challenge our intelligence and eye-hand-coordination when playing a digital game, the generation of 'prosumers' are constantly confronted to act and react within the blink of an eye. Unlike the consumption of linear media that traditionally puts the user into a passive and lean-back state, non-linear media demands an active lean-forward mentality that promotes the depth of the experience and thus strengthens the individual´s involvement.

In her studies on the human identity in the age of the internet, Sherry Turkle (1997), professor for Sociology of Science at MIT, points out that "as players participate, they become authors not only of text but of themselves, constructing new selves through social interaction"(p. 12). Turkle suggests that any social activity, off- or online, can have an impact on the identity of the performer. Applying this theory to the endeavor of creating a real-world impact through play, it has to be examined whether the interaction with virtual characters in single-player games can be considered a valid social environment.

The concept of flow as presented by Mihaly Csikszentmihalyi (1991), professor for psychology at the Claremont Graduate University, describes a state in which people are absorbed by a specific activity in a way that all personal interests and immediate needs outside of the activity temporarily seem of no importance to the performer. This highly self-rewarding 'autotelic mode' is generated by the activity´s advanced balance of challenge and skill.

Being fully immersed in play and thus temporarily suspending the rules of everyday-life can indeed be interpreted as a (para)social act that might evenly match human interaction. Christoph Klimmt, Dorothée Hefner and Peter Vorderer (2009) argue that "media characters [e.g. avatars and NPCs] present simulations of real-life social interactions to which viewers intuitively respond, as if they are acting within a real social setting"(352).

Taking this point of creating a real social setting between player and avatar/s, I would point out that within this relationship a real form of communication would also take place. Therefore the avatar and other in-game characters play a significant role in imparting the message of the game as fictional peers or mentors of the player.

3.2 The Phylogeny of Narrative

Media characters, both playable and non-playable, can be considered an interface between action and narration and thus play a major role in the creation of identification and emotional attachment with a subject.

The Aristotelian concept of mimesis as an imitation of life has its origins in behavioral imitation that "occurs

widely in social species, since individuals can gain by learning from experience, perceptions, and behavior of others“ (Boyd 2009, 161). In contrast to pure imitative play that trains existential and social behaviors like escape, attack or give-and-take, and which occurs in a variety of mammal species; human children naturally break the boundaries of pure pretense into expressions of mime and storytelling. According to Boyd, this ability of improvised reconstruction and abstraction is unique to the human brain and can be interpreted as a way of streamlining and categorizing information to memorize them as patterns. Thus, we can “recombine freely our past experiences and so that we can imagine or pre-simulate our future“. (Boyd 2009, 16)

We feel what they feel. Empathy makes players connect with the destiny of fictional characters.

It is increasingly evident that storytelling is an extremely efficient way to convey strategic social information. The human ability to empathize with others allows us to extract and internalize existential information not only from our own experiences but also from somebody else´s story. In a future event these indirect memories are accessible to us through an immediate emotional reaction or instinct that outperforms our rational thought processes. Following this idea I propose that fictional authentic characters – both playable and non-playable, are not only “key drivers of enjoyment experiences“ (Klimm, Hefner, and Vorderer 2009, 351) they also address our emotional intelligence and hence influence our behavior.

But what if the characters in question were not quite as fictional after all but borrowed from the user´s reality? To further investigate this question the next chapter will analyze basic principles of role-playing as an essential part of the digital gaming culture.

3.3 Role Playing

As emphasized in chapter 3, pretense and make-believe are an essential underlying requirement of any game. Consciously playing a role by acting within the rules of the associated story world is the central element of enjoyment in role-playing games (hereinafter referred to as RPGs). Due to their social and expressive character RPGs can be considered “more like life, and less like games“ (Fine 2002, 8).

In their comparative study on character-driven games and RPGs, Melissa L. Lewis, René Weber and Nicolas David Bowmann (2008) identify four major paradigms for a successful player - character attachment:

Identification/ friendship
Suspension of disbelief
Control
Responsibility

Furthermore their research suggests that due to the additional empowerment of the player through direct embodiment, the level of identification in RPGs highly exceeds the merely empathy-based attachment of other character-driven games (515).

In their studies on the identification with video game characters, Klimmt and his fellow researchers reveal “cognitive associations between character-related concepts and players‘ self“ (Klimmt et al. 2010, IV). This automatic shift of self-perception whilst being the state of play is an important factor for the construction of a successful Alternative Now.

The findings from the preceding studies indicate, that games with an emphasis on characters and role-playing highly contribute to the player´s identification and prospectively qualify for making playfully acquired knowledge relevant and applicable to the player´s physical reality.

4. The Identity and the Self

> ***"We all have very strong intuitions about all kinds of things — our own ability, how the economy works, how we should pay school teachers. But as long as we do not start testing and challenging our intuitions we are not going to do better."***

The above mentioned quotation from Dan Ariely (2009, min. 15:38) in his TED talk "Our buggy moral code" refers to the human difficulty of keeping an open mind and adapting to unknown situations. Picking up on this idea, the following chapter will investigate the anatomy of human identity and self-perception to identify possible strategies of using social impact games to help players reconsider their preconceptions towards themselves and their role in transforming society for the better.

4.1 The Narrated Self

In his studies about communication theory, Walter Fisher (1987) proposes that human beings experience and comprehend life as a series of ongoing narratives with classic dramaturgical elements such as protagonist, antagonist and conflict where "one must consider questions of fact, relevance, consequence, consistency, and transcendent issue" (350).

Studies show that a narrator can "reinforce or even create a more active, assertive self" (Wortham 2000, 160) by telling an audience about past events in which he/she takes control of his/her life. This indicates that stories are not only a way of comprehending and defining ourselves, they are also highly effective in influencing human behavior and thus shaping our identity.

4.2 Online Biographies

> ***"In the story of constructing identity in the culture of simulation, experiences on the Internet figure prominently, but these experiences can only be understood as part of (...) the eroding boundaries between the real and the virtual, the animate and the inanimate, the unitary and the multiple self", says Sherry Turkle (1997, 15).***

Referring to the general ability of stories to shape our identity, I conclude that even meticulously designed online profiles can represent the true offline persona of the user by anticipating certain aspects of his/her personality.

Online biographies thus can be seen as a direct representation of the past, current and future identity of the user.

5. Customization, Personalization, Representation

In the context of marketing, the terms customization and personalization are often mistakenly interchanged. While both techniques are based upon the idea of adapting a product or service to the specific needs of a consumer or entity, it is important to clearly distinguish between their different modes of operation.

While customization describes a static consumer-driven adjustment of analogue or digital goods and contents,

personalization can be seen as a more dynamic and responsive technique that is merely based upon the automated interpretation of individual consumer preferences within a limited context. The technique of representation, as introduced in this paper, includes elements of customization and personalization by immediately incorporating or reflecting the individual him/herself in a media experience.

The idea of advanced personalization through direct representation is not new to our culture. Starting from simple childhood games like "Himmel und Hölle", where a series of personal favorites – favorite boy or girl, favorite car, favorite color etc. is written on an origami object and then randomly put into a new context within a spontaneously told story, to personalized children's´ books where the child is made the hero of the story, up to the yearly horoscope that gives room to our wildest fantasies and anticipation towards the month of July – we just love to hear stories about ourselves, and our brains are ready to fill in every blank with our ego. This holds especially true when it comes to stories about social relationships or when something existential is at stake. This phenomenon is based on the 'attentional bias', an occurrence wherein a person focuses more of his attention toward a specific stimulus or a sensory cue – in this case towards him/herself.

In all of the abovementioned leisure activities, direct representation is the core of the enjoyment and positive reward system. This technique continuously attracts and challenges the players´ curiosity and, I would hypothesize, also increases the relevance of the learning objectives.

McGonigal (2011) points out that "the emotional and social rewards we crave require active, enthusiastic, self-motivated participation"(124). Keeping the player wanting to play on against all odds, thus, requires the design of an intrinsic motivation and reward system. This holds even more true for social impact games with their balancing act between enjoyment and information transfer.

I propose that the technique of direct representation can be the key to a unique and sustainable rewarding system on the one hand and on the other hand can help bridge the gap between the player´s in-game and real-life identity.

5.1 Big Data and Personalization

Big Data is one of the most frequently invoked media trends and describes the algorithmic reduction of massive amounts of mostly personal online data as a basis for evaluation and exploitation (cf. Gartner 2013). Based upon the concept of the "Daily Me" by Nicholas Negroponte (1996) who, in the mid-90s, predicted the future of a customized newspaper (153), automated customization and personalization has turned into a common practice with a broad variety of entertainment online services.

According to Matt Wyndowe, Facebook's Product Manager for Games and Apps, at the 2012 GDCE Facebook Developers Day, seven out of ten games in the App Store and on Google Play have Facebook API integration and make use of the Facebook open-graph technology to access and evaluate user-data and -behavior for quality-management and targeted advertising purposes. Social networks such as Facebook have the ability to offer an almost infinite source of user data to developers, however until this point it seems that few developers have taken advantage of incorporating these data deeply in the design or narrative of their product.

By pulling information such as the user name and profile photo from Facebook profiles and implementing them into the narrative, personalized viral spots such as "Museum Of Me" (Tanaka 2011) and "I Am A Swedish Hero" (Dalenius 2009) have added an extra level of engagement and identification to the experience of the associated image campaigns. "I Am A Swedish Hero" praises young adults for paying their license fees for TV and radio in Sweden whereas "Museum Of Me" (Tanaka 2011) honors users with a personalized art show about their own

lives.

The above-mentioned campaigns use the aspect of direct representation as a moment of surprise by addressing the user´s narcistic self in making him/her the hero of the story. This works well with an average online-clip duration of 2-5 minutes, after which however the surprise-element would predictably wear off.
In a longer format or game the goal would be to elongate the surprise effect into a more surreal atmosphere (cf. Chapter 2. The Alternative Now) to allow full immersion and give room to the integral message.

5.2 I Share Therefore I Am

I consider the sharing of personal information online to be the modern storytelling of our times, albeit in a publicly accessible diary. By introducing 'the Timeline', a chronological stream of the user´s life events that can be shaped and highlighted by him/her, Facebook has successively turned its users into more or less talented authors.

Since the accessibility of rich and authentic user data is the basis for designing a personalized truly emotional game experience, the reliability and variety of user data has to be further investigated.

When using data from individual profiles for the cause of emotional bonding it has to be considered that this data has already been shaped by the user him/herself. Designing an emotionally compelling game with information already manipulated and stylized by the player could make the experience inaccurate and thus dilute the effect of identification to varying degrees depending on the veracity of the user data. This double-narrative effect can be prevented by considering which of the data available is a reliable source and which is not.

5.3 Introduction To The Facebook API

With over one billion active accounts worldwide (Shackford 2013), Facebook can be considered today´s most popular social online community. With the App Center, a place for third party apps and games that was launched in May 2012, Facebook introduced a novel service that gives users the option to sign in using their Facebook account instead of creating a new account for each third party app. Developers offer this service to their users to facilitate the registration and allow a seamless integration of social sharing functions into their product. Until this point, the login-option has become very popular and will prospectively be preferred by most users upon registration for a new service.

With the "Facebook login", third party developers automatically get access to a limited set of user data such as the public profile and friend list. In addition, the developer can ask the user for additional permissions such as accessing his/her private profile or posting to his/her timeline. In most cases accepting the additional agreement is mandatory to proceed. Once the user has agreed to the corresponding "Login dialog" that will be automatically prompted, accessing and using the data in the context of the app or game is an automated and integral process until withdrawal by the user.

As this login-method enables a seamless dialogue between application and social network, I consider it as the nodal point and hence basic requirement for any form of immersive personalized game development.

5.3.1 ID Slots

Facebook organizes personal data into information clusters that are accessible to predefined user groups. In the privacy settings each user can manage the visibility of these information clusters by setting them to a) private, b) friends and c) public.

To further investigate the design potential of the accessible personal data, I have assigned the “Facebook IDs” to basic domains of storytelling (cf. Fig.2).

In the process of designing a personalized game, these domains will serve as a compass to identify such elements within the game narrative that qualify for a purposeful integration of personal data. These elements, which I will further refer to as “ID slots”, will be automatically filled with the assigned user data from Facebook upon user-login.

API Layering i.e. combining personal data gathered from the Facebook API with secondary APIs from third party services can be a powerful tool to deeply integrate personal data and thus enhance the temporary immersion of the player in the game.

FACEBOOK ID	STORY DOMAIN ID SLOT	POSSIBLE IN-GAME FUNCTIONS
Basic ID Data first name last name date of birth sex	Characters	Can help identify the player as himself in the game. Can determine the appearance of the avatar.
Secondary ID Data work education	Setting Conflict	Can serve as driver of the plot e.g. company or entity could be exploited as antagonist.
Location time zone locale current location hometown location check-in	Setting	Can serve as atmospheric backdrop e.g. with the real time adaptation of the in-game weather, date and time to the player´s physical reality
Interests & beliefs political religion interests - music - film - games - sports likes	Characters Conflict	Can serve as emotional backdrop and déjà-vue effect. Can serve as conflict for a decision making process
Social Connections friends family relationship status looking for		Can be exploited as non-playable characters e.g. as - mentor - sidekick - antagonist - victim
Contact email external Website phone number instant messaging	Plot	Data can be used to create a ubiquitous game experience / alternate reality game across plattforms
Photos tags	Atmosphere Plot	Can serve as atmospheric backdrop or as in-game objects that are e.g. drivers of the plot
Events	Plot	Real events claimed as in-game events can become part of the plot
Events Apps (third party)	Atmosphere	Can help shaping the atmosphere e.g. music from the player´s Spotify lists can serve as soundtrack, aesthetic presets from Instagram can be used as an overlay for the whole game.

Fig.2: ID Slots and associated story domains

6.4 Levels of personalization

Personalization can act as a motor for an enhanced identification both on an extra diegetic level (e.g. as a splash screen, intro film etc.) or more advanced, on an intra diegetic level where personal data and game world intertwine.

On an intra diegetic level one can distinguish between two forms of representation of the player:

- through the embedding of personal data as a call to action
- through the embedding of personal preferences as emotional backdrop

While the first approach works as a very direct device to catch the player´s curiosity, the second approach works on a more subtle yet no less effective level. By extracting user information from third party services such as Spotify or Instagram, the game world can be automatically shaped into an apparent comfort zone. This déjà-vue effect could add up to the authenticity.

7. Conclusions

> *"If you want to create a problem that people don´t care about, you would probably come up with global warming", says Dan Ariely (2009) and refers to the fact that now that the ecological conscience has become part of our everyday culture, the willingness to become active has drastically decreased.*

Topics that are complex or spatially and temporarily disconnected from our everyday realities and therefore abstract give us the feeling of being powerless. Here the concept of the Alternative Now as introduced in this paper offers a solution.

I conclude that by introducing an analogy in a microcosm that incorporates familiar components, the access to complex topics can be facilitated through personalization. At the same time the feeling of being exclusive, strengthens the player´s feeling of relevance. This is an ideal ground for an empowerment that will contribute to the reintroduction of the player´s world-changing attitude in and outside the game on a long term.

Since the argumentation of this paper mainly follows the idea of drawing conclusions from the impact of documentary film and adapting these insights to the specific qualities of digital games, it seems important to point out that digital games that address real-world issues are not just an enhanced version of film but, in the very near future, might become the dominant form of documentary storytelling that will shape our society for the better.

Games, however, can neither be a substitute for the socialization at home or at school nor are they meant to be a stand alone device to initiate social, political and ecological change.

Changing the world is rather a piece of work and it would be a mistake to use games to trivialize humanity´s challenges. „There is a game for that" is therefore certainly not the claim of this thesis. Instead, personalized social impact games are meant to enrich the discussion between players and non-players to sensitize and thus contribute to awareness and activism in our society.

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