

Roleplaying and Rituals For Cultural Heritage-Orientated Games

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ABSTRACT

Roles and rituals are essential for creating, situating and maintaining cultural practices. Computer Role-Playing games (CRPGs) and virtual online worlds that appear to simulate different cultures are well known and highly popular. So it might appear that the roles and rituals of traditional cultures are easily ported to computer games. However, I contend that the meaning behind worlds, rituals and roles are not fully explored in these digital games and virtual worlds and that more work needs to be done to create more *moving rituals*, *role enrichment* and *worldfulness*. I will provide examples from *The Elder Scrolls IV: Oblivion* and *The Elder Scrolls V: Skyrim* (Bethesda, 2006, 2011) to reveal some of the difficulties in creating digitally simulated social and cultural worlds, but I will also suggest some design ideas that could improve them in terms of cultural presence and social presence.

Keywords

Games and intersections with other cultural forms, games as representation, applications of game studies in other domains, heritage, hybrid games and non-digital games.

INTRODUCTION

I develop virtual reality applications for heritage sites, so I also study computer games to see how people learn through interaction, how different types of knowledge can be presented and learnt and to see how to engage people with digital media. Unfortunately, those games that present apparently content, such as the *Assassin's Creed* series (Ubisoft, 2007-2014), are highly successful games in terms of entertainment but have been criticized as misleading and impoverished social and cultural worlds (Chapman 2012, Reparaz 2011) even if we forgive them for historical inaccuracies.

And while they are richly detailed game worlds, the contrast between their ludic quality and their educational value may deter educators from employing games to teach heritage and historical content. To address this issue, I will explore three key concepts, Worlds, Roles and Rituals, to see if the development of digital cultural heritage environments can be better informed by commercial Computer Role-Playing Games and whether CRPGs can in turn learn more about the layered richness of cultural 'worlds' via roles and rituals.

WORLDS

Forgive me for mentioning this again (Champion 2009) but it is a crucial point: the term 'world' has been used as if it is self-explanatory in many recent papers and publications (Celentano 2004, Darken and Sibert 1996, Ondrejka 2006, Okada et al. 2001). Even in

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the book entitled *Designing Virtual Worlds*, Bartle (2003) avoids a detailed definition of what exactly is a 'virtual world.' Klastrup (2002) also points out the difficulty in clearly defining the phrase. While Ondrejka (2006) appears to see a virtual world as being a persistent virtual environment, that is, elements affected by a user are remembered and kept, even when the user exits the world. However, that also describes an online database.

In what sense these virtual environments move beyond 'cyberspace' towards 'place' is not clear (Johnson 2005). A world may have *worldfilledness*, the digital environment allows for different ways of *doing* a multitude of things, it is interactively rich and layered. For example, Johnson (2005) and Steinkuehler (2006) have argued that current massive multiplayer game environments are often a mixture of vague and clear objectives. In these environments people immerse themselves not merely by spatially navigating from point A to point B, but also by exploring the environment as a shifting world of interactive possibilities.

Secondly, a game world could have *worldliness* in terms of its social aspects. In such a game the player may decide (or be compelled) to choose between a range of self-identifying livelihoods and positions that allow them to develop and maintain social skills and status (Herold 2006). Or a player could be rewarded or punished depending on how well they interact with other players or imitate appropriate social behaviour.

Thirdly, a game world may involve learning how to translate and disseminate, or even modify or create the language or material value systems of real or digitally simulated inhabitants. In this situation, the game play hinges on how well culturally appropriate information can be learnt and developed by the player or passed on to others. *Worldfulness* in this sense is to what hermeneutical extent the virtual environment or game can store, display and retrieve information on the encounters of people in places.

Rituals are also not typically described in literature on computer games, at least not in a way that parallels discussions in anthropology (although there are anthropologists who have influenced game studies the concept of rituals in game studies does not normally parallel its discussion in more anthropological fields). This is particularly significant for role-playing games and again, what 'role-playing' means is seldom clarified. If one aspect of 'world' is how it offers up opportunities to individuals, then if virtual worlds are currently only designed with spatial and social affirmances in mind, the actual role-playing of CRPGs will be severely impacted. Instead, I propose that virtual worlds and related computer games have dimensions that *could* afford environmental presence, social presence and cultural presence and *should do so* when employed for pedagogical objectives.

I note in passing that my framework is much simpler than but potentially congruent with Mark Wolf's (2014) criteria for imaginary worlds. However, the virtual worlds that I have in mind are not the secondary worlds (imaginary worlds that are separate from our real-world), as exemplified by Tolkien's *Lord of the Rings* and discussed by Mark Wolf (2014). If they are to be more than static models, these worlds must be simulations of the past through present remains, contemporary scholastic imagination and evidence-based hypotheses. These virtual worlds are thus conjectural worlds. As they combine historical situations, conflict, social agents and cultural beliefs, these conjectural worlds require their own ethical dimensions and attention paid to how their story can be told, while engaging the player and contextualizing their actions.

Environmental Aspects of ‘World’

In a previously published book (Champion 2011) I discussed the notion of extern. An extern has been defined as ‘phenomena that arise independently of people, like sunlight and clouds, wild plants and animals, rocks and minerals and landforms’ (Schiffer and Miller 1999, 12-13). Externs are larger environment objects and processes but they are not human-created. Extern is a useful term as interaction in a virtual environment seldom makes the distinction between that inherent in the environment and that triggered by a user. The notion of extern can be both an aesthetic and phenomenological issue. In terms of aesthetics, encountering externs in a virtual world may evoke a sense of awe and wonder. Such an effect could happen independently of people or events. The size, scale and inevitability of simulated externs as aspects of ‘world’ may cause us to stop and reflect on how the mundane small details of our lives can or should mesh with the world beyond. Ideally, a virtual world would contain moments where it can either transfix us through its aesthetic qualities, or cause us to question and reflect on our existence and relation to the world. In other words, even if society or culture is absent, the environment itself can have presence. The environmental presence can also be predicated on an apparent threat: *Oblivion* also features changes in climate and light, and creates the illusion of hot and cold (but *Skyrim* takes these environmental *threats* further).

Social Aspects of ‘World’

Society defines who we are, how we communicate and the values that we strive towards. It is the acceptance or condemnation of other people in a society that separates social behaviour from individual habits. Even on a desert island, a human who was once part of society would endeavour to live according to his or her social upbringing, perhaps because these behaviors are so fully ingrained, or perhaps in case they hoped to be eventually rescued and reunited with human society. Humans seek social affirmation. Human culture stores, expresses and disseminates the values and identities that help mediate social behaviour even if other social agents are not currently present. Perhaps that is why — and here I am recalling the philosopher Georg Wilhelm Friedrich Hegel — we as a species have medals. Medals are artefacts that represent the recognition of others.

In games we have reward systems that reflect medals, awards and social respect; but in single player computer games we typically cannot gain the social recognition of others. Deliberately or subconsciously moderating one’s external behaviour in response or anticipation of the opinions or actions of others while in a computer game is a sign that it is functioning as a social world. However, without social recognition, a single player game is less likely to bind the player to social rules or laws, as players do not have social affirmation or condemnation to guide their social behaviour. We could also argue that a single player game is less likely to compel a rich, expansive and creative experiencing of cultural learning and behaviour, as there is no sentient audience to act as cultural arbiters.

Cultural Aspects of ‘World’

I have written about this definition before (Champion 2011), but it bears repeating (Kroeber and Kluckhohn 1952, 357):

“Culture consists of patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; culture systems may on the one hand, be considered as products of action, on the other as conditioning elements of further action.”

An important point in the above quote is that culture is not simply passive, but it is also a storehouse of values, aspirations and identities. Culture can be viewed as a material embodiment of social structure, mediating the relation between the individual and the community and expressing (as well as protecting) the sacred from the profane. Culture also provides instructions on how habits can become intrinsically meaningful and socially ordered through the practice of ritual (Dornan 2007). Role-play is thus curatorial: we choose which aspects of culture are worth keeping and the rest of the information we discard.

In many papers, articles and blogs that focus on virtual environments and game worlds, I see a worrying conflation between the cultural and the social. In Presence research for example, an important thread is to understand social presence in virtual environments. However, much of the literature that has ‘culture’ in the title does not clearly distinguish cultural presence from social presence (Bartle 2003, Riva et al. 2002, Riva G, Waterworth J.A, and E.L. 2004, Rozak 2006a, b, Schroeder 2002). Even if social presence means the feeling another sentient human being is in the same virtual environment and capable of social interaction or at least capable of displaying social behaviour, this does not mean social presence corresponds directly with cultural presence. An example would be people in an Internet-based chat room; they may well be experiencing human co-presence, but they won’t be experiencing a strong sense or level of cultural presence.

While it is self-evident that people are needed to create culture, culture can continue to exist in some material form without the creators. So I suspect that we can gain a sense of cultural presence without experiencing explicit social presence. To quote Agnew (1999, 93): ‘... all people live in cultural worlds that are made and re-made through their everyday activities.’ Even though we live in cultural worlds, that does not mean we fully understand them. If a virtual environment or computer game contains a collection of artefacts that can be observed, interpreted, or understood as a coherent materialization by intelligent beings of a shared social system, this may be considered passive cultural presence. We can see culture, but we either cannot participate in it or with it due to a lack of culturally constrained creative understanding, or because the originators have long since passed away.

Archaeology can be viewed as a ‘kind of spatial text that varies from reader to reader’ (Tringham 1994, 172) and we can entertain the prospect that there may also be more than one group of originators. Their interactions could have left cultural traces of their ‘micro-scale’ (to paraphrase Ruth Tringham) life-worlds in the game environment. Any premise that visitors require other real people in the virtual environment in order to feel cultural presence, is thus problematic. Cultural presence, albeit in a weakened form, is thus possible in the absence of social presence. This is important for designers who wish to convey a sense of cultural presence but do not have the technology to simulate believable and authentic NPCs (Non Playing Characters) and avatars as cultural agents.

While place modifies culture, culture is heavily affected by society, it is socially created, defined and managed. Culture is expressed via language, sounds and artefacts, physical objects that decay and so culture is vaguely bounded, open to interpretation and liable to shift over time due to both the vagueness of its boundaries and the fragility of shared memories. To demarcate the boundaries of culture clearly and accurately is thus highly problematic.

Being able to observe a distinct cultural presence does not necessarily indicate a great amount of cultural learning has taken place. In order to evaluate the effectiveness of cultural learning there needs to be a measure of the cultural ‘immersivity’ of a virtual environment. For want of a better term, I suggest *hermeneutic richness*, the depth and vividness of a medium that allows for interpretation of different cultural and social perspectives as judged from an emic or etic viewpoint.

Hermeneutic richness does not mean photo-realism or social presence is required. If cultural presence is a measure of how deeply a cultural force is perceived to imprint or ingrain itself on its surroundings; hermeneutic richness may be the depth of affordance that a virtual environment gives to the interpretation of a natively residing culture in that virtual environment. The ability of an artefact to convey a sense of that creator’s agency is a reflection of its ‘hermeneutic richness’ (akin to the archaeological notion of the ‘trace’). The perceived sense of that creator’s agency through an artefact is itself cultural agency. For an artefact is itself a cipher, a mark of cultural agency.

In order to evoke cultural learning of a historic nature, this passive hermeneutic richness is the elusive and intangible quality one should aspire towards when creating digitally simulated environments. Hermeneutic richness also exists in two distinct ways. On the one hand, this type of virtual environment might act as a symbolically projected identity, dynamically customized by us as the visitor to reflect our social and individual values and outlook. On the other hand, a virtual environment might be hermeneutic when it affords meaningful interpretations of its shareholders (clients and subjects) to those that visit it.

For example, many fantasy role-playing games portray previous cultures or cultural beliefs, real or imaginary. The games may feature named characters, treasure, 3D objects, goals and so forth, but they often lack distinctly cultural places and this is perhaps because there are few if any identifiers as to how to behave in another culture. When roles, group behaviors and places are interchangeable, inhabitation becomes merely personal; it can never be deeply cultural.

ROLES AND VIRTUAL WORLDS

In the web article *GNS and Other Matters of Roleplaying Theory, Chapter 1*, Ron Edwards (2010) wrote:

“When a person engages in role-playing, or prepares to do so, he or she relies on imagining and utilizing the following: Character, System, Setting, Situation and Color. Character is a fictional person or entity. System is “a means by which in-game events are determined to occur.” Setting is “where the character is, in the broadest sense (including history as well as location).” Situation is a problem or circumstance faced by the character and color means ‘any details or illustrations or nuances that provide atmosphere.’”

My concern with CRPGs is that the character is too often merely a graphically drawn avatar and their unique relationship to the world can be merely cosmetic. Their role fades into nothingness. Critics have mentioned roles in role-playing games are typically mere affordances and the games do not involve genuine role-playing (Tychsen 2006). And the missing quality in CRPGs that seems to exist in live role-playing has been observed and led to Hitchens and Drachen proposing that a role-playing game requires a combination of factors: a (sand-boxed) game world (“A role-playing game is a game set in an

imaginary world”), participants, characters, Game Master, Interaction (a wide range of interaction), and narrative (Hitchens and Drachen 2008). As real world role-playing allows roles to be transfigured, expanded, overtaken or replaced, role-playing game worlds should also afford these possibilities.

Then what are the features and dimensions of real-world roles and role-playing? Game theorists such as (Hitchens and Drachen 2008) have already remarked on differences between live role-playing and digital role-playing games. If we take a dictionary definition (Dictionary.com Undated) of roles as “the modifying of a person's behaviour to accord with a desired personal image, as to impress others or conform to a particular environment” or as “Psychology: The unconscious acting out of a particular role in accordance with the perceived expectations of society” (Oxford Dictionaries 2015), the inter-social dimension of role-playing is more obvious. So I suggest that social roles in our real world do more than distinguish individuals, provide individual purpose in life, or divide up responsibilities according to capabilities and political acumen. Roles are purposeful and goal-based. They create and demarcate social identities but they also have a component of cultural curation (preserving and transmitting elements of social mores and values), while allowing for evolution and personalization.

I argue that the cultural (rather than merely social) aspects of roles and role-playing have been downplayed, to the immersive and engaging detriment of CRPGs in general and to a potential use as cultural learning environments in particular. In game studies and virtual environment research, ‘culture’ and ‘society’ are two terms that have been used interchangeably and the term ‘world’ has been used loosely and one important if often hidden aspect of ‘world’ (to afford, structure and separate personal decision-making), has been downplayed or neglected.

In a similar vein, Hocking (Ruberg 2007) has suggested that people explore spatially, explore the game-system or use the game to explore their own identity, values, or inner conflicts. The first sense is aesthetic, the second strategic and the third is perhaps phenomenological and more externally related than it may first appear. The issue here is the daily conflict between our experiential sense of selfhood and the demands and surprises of the wider world.

How does this tie in with role-playing? The three broad affordances or aspects of ‘worlds’ have corollaries in role-playing. In full role-play and in richly explorative worlds the player experiences a varied and rich gamut of choices, meaningful decisions and complex consequences. Not only is there possible selection of various roles, there is some degree of freedom in how one interprets and performs that role. So a world made for role-playing should capture some of that freedom of choice, individuality and complex fate. An important part of role-play is role-selection and a world rich in such affordances would allow a multitude of possible paths.

The second aspect of a world tailor-made for role-play is its ability to adopt, adapt, fuse or fight the social identity and position of various roles in relation to others. Roles are social and while designed by society to avoid conflict (where everyone knows their place) they somehow create more conflict. The vaguely shared understandings of roles often create dissent and sometimes lead to open conflict. Roles are continually socially defined and their parameters are continually re-interpreted, identified with, or identified against. Hence the polemical tendencies of real-world RPGs that Tychsen et al. (2005) considered a weakness, I consider to be a strength. For the conflicts between players and the game

master are remembered and reflected upon, not the roll of the die. And there is potential for social conflict, between my perceived role and my role (and fitness for that role) as perceived by others.

The third aspect of a world tailor-made for role-play is not so obvious. I suggest that in role-play not only are we negotiating our interpretation of the role against practical everyday issues, not only are we interpreting and communicating roles in terms of others around us, as role-players we are also acting as curators of tradition. For role-playing allows society to carry forward its goals, values, structure and messages.

In fulfilling a role we are given some responsibility in filling out that role, consolidating the important parts through habit and ritual and ignoring accidental features. The way in which society is preserved and passed on is due in no small manner to the way in which roles are interpreted, inhabited and disseminated by the role 'keepers.' So in a sense role-play is curatorial, we choose which aspects of culture are worth keeping and the rest of the information we discard.

Role-playing Games as Virtual Worlds

It may appear that computer games do not afford a sense of cultural presence unless they are multiplayer environments that allow human players to create and leave artefacts that represent their cultural perspectives. The computer game *Oblivion* has encouraged me to change some of my views on the paucity of inhabited social or cultural worlds, despite its single-player nature and some gameplay shortcomings. I count at least half-a dozen features of lived-world creation, not common to most computer games, but I have suggestions on how to also further improve them in order to create the illusion of 'Oblivion' and similar games transform into not just a social world, but also a cultural one.

With environmental presence the individual affects and is affected by the outside world. If there is social presence we affect others in a virtual world. If there is cultural presence we should be able to detect a distinctly situated sense of inhabitation, of social values and behaviors preserved and transmitted through ritual, artefact and inscription.

Social presence does not necessarily require multiple players (although single-player social presence is definitely much more difficult) and cultural presence does not have to be alive (active). One thing that is required is hermeneutic richness, the depth of interpretation available to self-understanding or understanding others through artefacts and other cultural remains. Here ritual plays an important part, if it does not become too tiresome, if observing and performing it provides in-game benefits and as long as it does not seem laboured or 'cheesy.'

However, socially enriched roles are also vital; they help us develop our own identity in relation to our society, long-term involvement in developing a role results in an attitude of care and compassion and installs respect for other people or players in similar positions. Roles also allow us to play out different aspects of our selves; they provide a framework for future plans.

Role-playing and Cultural Learning

Role-playing is both an important part of cultural learning (Hallford and Hallford 2001, 231-236) and an important genre in computer games (Tychsen 2006). Roles are

intrinsically related to the notion of social worlds, yet the mechanics of this relationship is not clear in the academic literature. There are few grounded theories in computer game studies on how role-playing works in sustaining and augmenting a thematic world. There are few clear descriptions of what ‘world’ means in this context and how roles, worlds and rituals are inter-related. Further, distinctions between social and cultural dimensions of both roles and worlds are seldom discussed in any great detail.

For historical simulations and virtual heritage projects the cultural and social dimensions of both real world and virtual world playing are important and commercial Computer Role-Playing Games (CRPGs) seem to offer more opportunities to support deeper cultural aspects of role-playing. Can ‘deeper’ notions of culture be conveyed through a deeper understanding of worlds, roles and rituals? My second aim is to examine the relation of cultural identity to ownership and social purpose and how role-playing can be more fully and richly rounded out by computer-simulated game play.

RITUALS

At least as far back as 13,000 years ago, our ancestors appeared to have fed the dead or dying a last supper, with specially shaped or laid stones and with plants, food offerings and dedicated flower beds (Shapira 2014). So rituals have been part of human culture for many thousands of years, but how do we know when they are enacted and how do we simulate them and how do we know when they have been performed correctly, to an engaged and suitably appreciative audience?

There have been several papers about rituals in computer games (Gazzard and Peacock 2011), but the ones I have read have so far don’t seem to cover the cultural rather than social importance of rituals. Although one can describe social habits as rituals, rituals do not happen everywhere and anywhere. They are not only or even primarily repeated personal habits. Even if ritual exists on a spectrum with daily habits, there must be some distinguishing features for the term to have any relevance. For example, Roskams et al. (2013) describe ritual objects as ‘ceremonial, deliberate, formal, formalised, intentional, non-utilitarian, odd, peculiar, placed, ritual, selected, special, symbolic, token and unusual (Garrow 2012, 93).’ Scott Kilmer (1977, 45) wrote ‘ritual consists of sacred ceremonies and their routines, with the routines being seen as consecrated acts which contain great mystical powers.’ He added that rituals contain ‘stylized acts’ which are adhered to rigidly.

Role-based action in rituals is typically performative and other people often judge the action (but not necessarily during the ritual itself). So a ritual is culturally specific and socially arbitrated. The ritual is typically in a specially designated space, with an introduction ceremony and attendance is not open to all. While the objects and settings of ritual events can vary enormously, there is typically a sense that rituals can go wrong and that something is lost from society when rituals disappear.

For both audience and performer there may be specific physiological and postural requirements. Mossier (2012, 58), for example, wrote: ‘Various sensorial techniques are used to commit and stimulate the participants’ body, senses and spirit.’ The head and body are directed; there are conventions on where one can look and for how long. By specific physiological requirements I mean that that body has to be controlled, directed and time-regulated, it typically has to be set in repose or rhythmically controlled.

The ritual itself may happen on specific dates in specific places for specific events. There could be progression, framed or choreographed against a landscape that thematically relates to the event (such as the deliberately meandering path that leads up to the Acropolis complex of Athens). There needs to be a critical mass of believers. There are demanding levels of attention required from both the spectators and from the performers. The ritual is typically part of a wider system of belief, based on mythic causality (the belief that certain actions trigger certain responses at a scale different to the human one). And the ritual is traditional in that it typically is inherited from the past and carries clues as to how it should be performed by future generations.

According to essays inside the edited book *Understanding Religious Rituals* (Hoffmann 2012), rituals typically frame events. According to essays inside the edited book and proceedings *The Study of Play: Problems and Prospects* (Lancy and Tindall 1977), mythology requires rituals to communicate their message and importance to the wider group. This book also raises the interesting issue that play must be unstructured. This stipulation creates an interesting tension for game definitions, especially for theorists who believe that games are systems of rules. A particularly interesting essay, by Fredericka Oakley (1977), lists five elements of play (for primates):

- A reordering of ordinary behavioral sequences
- Exaggeration of movements
- Repetition of movements or behavioral patterns
- Incomplete behavioral sequences and
- Increased tempo in movements

The distinction that some theorists make between rituals, game and play may also not be as strong a distinction as they have stated. Extrapolating to humans, the distinction between play and ritual may be not as strong as I had thought; there can be elements of play inside rituals (Kilmer 1977, 158). For example, in *Religion as Play, Bori-a Friendly Witchdoctor*, Frank Salamone (1977, 166) argued that ‘both play and the sacred suggest the game-like quality of socio-cultural life...Play and sacred ritual suggest the possibility of change ... New games can be played with different rules.’ This is an interesting counter proposal; rituals allow us to see social structures are flexible and short-lived, but it is also a reminder that if we see games as a system of rules, when we try to simulate cultural activities we risk losing the anthropological insights into the relationships between rituals, play, games and society.

Rituals do not necessarily share all of the above features; but they are certainly not features of personal habits. And we can see that rituals require more than just physical (or virtual) attendance. They require complicit engagement and adherence and on the part of the performers, either care, dedications through years of training and / or complete frenzy.

We also seem to have inside our heads an inclination to situate through rituals and through habits of going about our daily lives. Tilley noted (1999, 29): ‘Rituals not only say something, they do something.’ While Hodder attempted to show how hermeneutics (the study of interpretation, originally of historic texts) could be used in archaeology and he explained that ‘ritual regulates the relationship between people and environment’ (1986, 23) and that artefacts indicate the shared intentions of their creators (1986, 25).

Rituals may allow us to see through the eyes of the original inhabitants, or at least feel that this place once belonged to someone else. Rituals aid our memory; they commemorate important cyclic observations, changes in season, tides and constellations. They allow us to connect back to nature and to wider family groups for both symbolic and practical reasons. Rituals can also function as a rite of passage or as social control. Most importantly for our purposes, rituals are a way of preserving and passing on cultural knowledge. Yet how does one design for a cultural ritual taking place in a particular cultural place in virtual heritage environments? Digital environments typically lack an in-world social authority or audience to ensure rituals are practiced correctly; participants are not fully physiologically immersed in the digital space; they lack the means to fully teach ritualistic practice; they also lack reasons and incentives to develop and refine rituals through long-term practice.

Staging Rituals

There are certain clues in the above paragraphs that might help us use technology to simulate the staging, process and reception of rituals. To ensure that the required people 'are in the moment' we need camera tracking of their faces or gaze detection (or use Head Mounted Displays). Camera tracking can also show their posture and level of repose. We could also use biofeedback to keep track of their physiological levels of excitement and calm.

To ensure that performers take care, we can also exaggerate the scene-destroying affordances if their attention wavers. If their avatar moves or looks around too often, perhaps the voice of the performing character becomes muffled. Outside noise becomes apparent and increases in volume, NPCs shuffle away, or the screen dims. We can program interactive events to only trigger when certain events (such as the passing of cosmological bodies) take place. We can have events; textures and 3D objects triggered or transformed depending on the level of user engagement (determined from gaze detection, head tracking, biofeedback, movements or other behaviours of the avatars). We could also deliberately exaggerate sounds inside certain areas or spaces, to make the breaking of ritual all the more obvious.

To clearly demarcate differences between sacred / ritual space and profane or mundane space, we can transfer the lessons developed in building sacred architecture. There are quite a few historical heuristics in the design of architecture. For example, where movement (along a path) is required, there do not decorate. Where designing places of repose (centres), there decorate. Create sightlines to line up sacred objects from certain vantage points. Design different textures and apparent cleanliness to demarcate sacred and profane space, as well as raise and heighten floors and levels and ceiling heights to spatially distinguish the two. Use symmetry for sacred spaces, asymmetry for functional spaces.

GAMES AS WORLDS

Now that we have established some simple definitions, we can ask if CRPGs can be social or even cultural worlds. It is true that single player games are now powerful enough to convey the impression of shared worlds with social presence and social agency. A practical reason to explore single-player worlds is that they don't require highly sophisticated AI, which also makes great demand on computational performance.

Many theorists have focused on multiplayer social worlds, not single player hybrid computer role playing games (CRPGs). However, as an example of a single player

CRPG, *Elder Scrolls IV: Oblivion* (as well as its successor, *Elder Scrolls: Skyrim*), has much to offer in the inter-relationship of world and player and it has further potential in the simulation and affordance of social interaction, communal identity and cultural learning.



Figure 1: Oblivion had simple social feedback.

The most recent *Elder Scrolls* games share seasons and changing weather patterns, a large and changing landscape, hostile creatures, inventories, and various types of possible interaction that are not just typical adventurer violence (praying, healing, reading, weapon creation and repair skills, persuading and charming, causing fear, creating followers, recognizing and collecting flowers and animal specimens for alchemy experiments, buying and selling, sneaking and thievery, inducing disgust or revulsion, fomenting frenzy and chaotic behaviour, trapping souls, and so on). The Non-Playing Characters (NPCs) have a life of their own, are of different races and professions, have detection awareness, and can speak dialogue, and be persuaded charmed or repelled. All these features can be modified by the *Creation Kit* available in *Skyrim*, or by the *Oblivion Construction Set*.

Limited Role-Playing

Even though it is a single player game, several key features allow *Oblivion* to be considered as a social world (Figure 1). Despite these promising features, *Oblivion* fails as a rich cultural world. Roles are designed for game-balance and act more as initial affordances and concrete templates than as social profiles that allow and record differences between social expectations and individual behaviour. In other words, while certain performances can lead to expulsion from guilds, there is little if any curatorial responsibility, roles are really attribute parameters, they are not made, they are followed and maximised. The later versions of the game (*Skyrim* and *Elder Scrolls Online*) do not yet appear to have addressed these issues apart from featuring enhanced graphics, the ability to control via voice on the Xbox Kinect and the multi-player nature of *Elder Scrolls Online*. *Skyrim* also allows the player to discover preferred skills, rather than

basing them on racial characteristics, which was how *Oblivion* chose to set the base individual skills.

Improving Embodiment

Oblivion has a mild form of spatial detection, it is possible to be directly behind an NPC and attack repeatedly without being detected, but generally the NPCs find attackers from the direction they were attacked from and NPCs can be bumped from observing special areas without them noticing who bumped them! However, *Oblivion* lacks a social understanding in this spatial awareness. Social worlds often feature attempts at natural language processing (Perlin 2005), understanding a player's keyboard inputted questions and answers. Of course that misses the tone and stressing of verbal dialogue but a great deal of real world social understanding is also acquired through viewing the gestural, facial and postural expressiveness and habits of other members of a community.

In designing a social world, a believable NPC should have some idea of how a human player's avatar feels inside the space, their intentional state and affinity to objects and how they behave in the space according to perceived role and social status. Creating a believable emotionally expressive actor (NPC) is difficult (Perlin 2005, Fabri, Moore, and Hobbes 2002) but the problem also involves giving the NPC enough information about the player behind the hero character (Perlin 2005).

If head tracking (via commercially available sensors attached to caps or similar), eye-gaze tracking (via a webcam or similar) and biofeedback data were fed directly into the NPC's AI, the NPC could make more player-related choices. Tracking head movement and gaze direction and perhaps postural changes could allow the NPC more ability to relate directly to the intentional and focused state of the player and it could also help the ability of the player to mimic roles of NPCs in the game (see next section for elaboration of this point). Luckily, *Skyrim* can be played with an Xbox Kinect and modifications could allow more subtle gestural actions.

We have also connected biofeedback to games and game mods (*reference to be added*). Using a commercial game engine we fed GSR (galvanic skin response) from the player into the game to change the game play in direct response to the 'excited' level of a player, but using biofeedback creates more problems. One major problem is how best to indicate to the player how their biofeedback affects gameplay. If done well, communicating this biofeedback via NPCs could increase the immersivity of the game and it could also enhance the apparent intelligence of the NPC.

However, this biofeedback should also be communicated indirectly back to the player through triggered or default behaviours of their avatar. Perhaps the avatar becomes jumpy when the player's GSR increases; perhaps when the player's heartbeat or breathing slows down their avatar does not visually scan so often. *Oblivion* and *Skyrim* allow the player to switch between first person and third person view, but biofeedback could automatically override this automatic camera change when the player becomes excited. When music suggests a nearby enemy, the field of view could also automatically widen and switch to first person.

Participatory Culture, Open Stories And Book Design

Like *Oblivion*, *Skyrim* features books containing minor narratives to help game-play. Librarians also play an important part in the meta-narratives and minor quests, as does a certain dragon archivist. These books can be stored or traded but now they can also be

modded via the game's *Creation Kit*. The game can be modded and videos can be inserted as cutscenes, but the books can also feature new text and the text can be automatically read by new voices (Figure 2). Here are some ideas for using the new book modding tools in 'Skyrim.'



Figure 2: Skyrim mods allow modders to incorporate voice overs, movies and their own books

Books can become gameplay keys: when collected together, text from books adds to map information or provides more abilities or gateways to different places (portals). Books can also double as triggers: the designer or placed could place books to trigger specific events. Books could also be created from text fragments. The fragments might need to be found and placed together in the right sequence for the entire book to appear. It is also possible to import RSS feeds as images (PNGS). Books could be collected and used to train NPCs. By opening books to specific pages certain events or other forms of knowledge could be communicated to the NPCS.

There could also be a version of the memetic drift idea that I have discussed in (*reference to be added*). The player could be required to trade specific books in order to see a progression of ideas or counterfactual worlds. Perhaps trading specific books affects the NPCs or changes in the social dynamics.

Another idea might be that of augmented storyteller. For example, the player is asked to find flowers and herbs and connections or metals or crafts and match to descriptions that they read in books in the game. With some modification, the game could add player-created screenshots and movies into the books to create alternative histories, individual travel guides, or personal memory collections.

A more complicated idea would be that of author discovery. The player's task might be to find specific book authors. They might be required to match the written dialogue to the spoken language used by NPCs, the authors are hidden in the game as typical NPCs.

CONCLUSION

I have suggested three components of role-play that need to be incorporated into a rich role-playing game and three aspects of virtual worlds that may help enhance role-playing

- A virtual world should enable freedom of choice, individuality, but also a complex fate. An important part of role-play is role-selection and a world rich in such affordances would allow a multitude of possible paths
- A virtual world has the capacity to afford the social jockeying of position as roles are socially defined, shifting and often challenged by other social agents
- A virtual world allows us to act as curators of tradition. For role-playing allows society to carry forward its goals, values, structure and messages.

I also suggested three dimensions of presence that all help virtual worlds afford a sense of role-play. These are physical presence, environmental presence and cultural presence.

Unfortunately *Oblivion* and *Skyrim* are not fully developed cultural worlds, the player does not hermeneutically interpret the virtual world, nor are their actions hermeneutically interpreted. One may argue the limitations that I discussed are the inevitable consequences of single-player computer games. I would counter that CRPGs in general could be further improved as a social world and perhaps even as a cultural world and I provided some design ideas to help us improve these CRPGs. The suggestions included enhancing the sense of embodiment, incorporating differences between active and reactive player and hero behaviour (perhaps through biofeedback), creating dynamic cognitive artefacts, allowing for social role mimicry and (if multiplayer), staggered questing.

I hope that the issues I raised will help designers and game scholars understand (and explore further) how cultural presence is much more difficult to attain than social presence, but that it is a valuable pursuit. Also, if these issues can be remedied, CRPGs (and their in-game editors) can be employed more effectively as a learning tool for educators in history, heritage and cultural studies.

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