Roles and Worlds in the Hybrid RPG Game of Oblivion

Popular Abstract - Single player games are now powerful enough to convey the impression of shared worlds with social presence and social agency. Unfortunately, there are few clear definitions of 'world' as it applies to commercial computer games, or as it could be used to help improvements these games. With that in mind, this paper will explore a framework for defining virtual worlds and then apply it to *Elder Scrolls IV: Oblivion* (Figure 1) in terms of phenomenological, social, and cultural aspects.

Even though it is a single player game, several key features allow *Oblivion* to be considered as a social world. Despite these promising features, *Oblivion* fails as a rich cultural world. It could be further improved as a social world and perhaps even as a cultural world through various techniques

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ABSTRACT

Role-playing is both an important part of cultural learning (Hallford and Hallford 2001 pp231-236), and an important genre in computer games (Tychsen 2006). Roles are intrinsically related to the notion of social worlds, yet exactly how 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 the social versus cultural dimensions of both roles and worlds are seldom delineated. I suggest that the cultural and social dimensions of both real world and virtual world playing are important, and that commercial computer role-playing games (CRPGs) offer more opportunities to support deeper cultural aspects of role-playing.

Secondly, I wish 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. Thirdly, I'll discuss features for further research agendas to improve *Oblivion* in particular and CRPGs in general for the gaming public, and to explore their use as vehicles for simulated purposes.

1. INTRODUCTION

Can a single player computer game evoke the sense of a social or cultural world? Many critics have discussed multiplayer social worlds, not single player hybrid computer role playing games (CRPGs). However, as a recent example of a single player CRPG, *Elder Scrolls IV: Oblivion* has much to offer in the inter-relationship of world and player, and I will argue that it has further potential in the simulation and affordance of social interaction, communal identity and cultural learning.

Single player games are now powerful enough to convey the impression of shared worlds with social presence and social agency. Unfortunately, there are few clear definitions of 'world' as it applies to commercial computer games, or as it could be used to foster improvements these games. This is particularly significant for role-playing games. If I am correct in suggesting that one dimension 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.

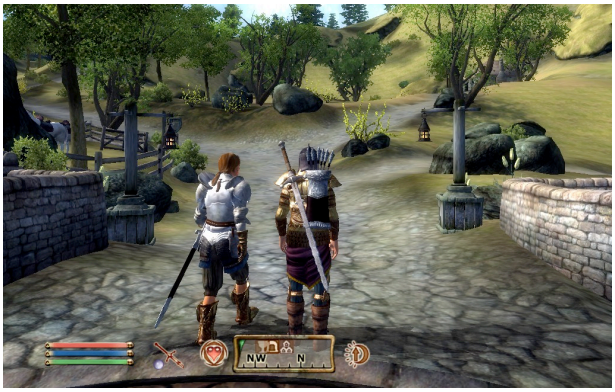

Figure 1: NPC and Player's Avatar in *Oblivion*

With that in mind, this paper will explore a framework for defining virtual worlds especially in terms of environment, society, and culture. Section 2 will examine the relation of roles to worlds. Section 3 examines the game *Elder Scrolls IV: Oblivion* (Figure 1) in terms of its environmental, social, and cultural aspects. Section 4 outlines some ideas to improve *Oblivion* in particular, and CRPGs in general. Section 5 suggests three potential criticisms of both my approach and its relevance to CRPGs, I then attempt to defend against these counter-claims.

2. ROLES AND VIRTUAL WORLDS

As the real world allows roles to be transfigured, expanded, overtaken or replaced, so should game worlds. Critics have mentioned roles in role-playing games are typically mere affordances, and the games do not involve genuine role-playing (Tychsen 2006). Then what are the features and dimensions of real-world roles and role-playing? 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. While it is true that roles are purposeful and goal-based, and they create and demarcate social identities, they also have a component of cultural curation (preserving and transmitting elements of social mores and values), while allowing for evolution and personalization.

Apart perhaps from the term cultural curation (which I will expand on later), this may seem self-evident. I would argue with that as I suggest 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.

The term "world" has been used as if it is self-explanatory in many recent papers and publications (Celentano 2004; Darken 1996; Okada et al. 2001; Ondrejka 2006). Even in the book entitled Designing Virtual Worlds, Bartle (Bartle 2003) avoids a detailed definition of what is a 'virtual world'. Klastrup (Klastrup 2002) also points out the difficulty in clearly defining the phrase. Ondrejka (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). For example, according to Weckström, his thesis on 'worldliness' in VR was inspired by his students, who described virtual environments as "empty and hollow, like stage sets…sterile" (Weckerström 2004 p9). That is not to say that virtual environments cannot be 'worlds' if they do not feature other people. Weckström (Weckerström 2004) wrote that to achieve 'worldliness', a virtual environment must allow for various ways of doing things. Johnson (Johnson 1997; Johnson 2005a; Johnson 2005b) and Steinkuehler (Steinkuehler 2006) have also argued that current massive multiplayer game environments are typically a mixture of vague and clear objectives, 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 possibility.

Secondly, a game world could have worldliness in terms of its social aspects. In such a game the player may be able to or be forced to choose between a range of self-identifying livelihoods and positions that allow one 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. 'Worldliness' in this sense is to what extent

the virtual environment or game can store, display and retrieve information on the encounters of people in places.

In a related fashion, 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, 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.

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To paraphrase the philosopher Husserl (Kim 1976), this is the conflict between the dynamic perspectival relation of the situation-horizon, (my view of my "situational perspective of interest and involvement in my own world"), versus the world-horizon, (that which persists outside of my or your own situational perspective). There is of course also the potential for social conflict, between my perceived role and my role (and fitness for that role) as perceived by others.

How does this tie in with role-playing? The three broad 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) somehow creates more conflict. The vaguely shared understandings of roles often create dissent and sometimes lead to open conflict. Roles are continually socially defined and their parameter are continually re-interpreted, identified with, or identified against. Hence the polemical tendencies of real-world RPGs that Tychsen et al. (Tychsen et al. 2005) have considered a weakness, I consider a strength. For the conflicts between players and the game master are remembered and reflected upon, not the roll of the die.

The third aspect of a world tailor-made for role-play is not so obvious and the impetus for my writing this journal article. 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 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. In the next section I will give an example (using a currently popular CRPG) why distinguishing between cultural and social aspects of virtual world design is important.

2.1 The Environmental Aspects of 'World'

Material culture theory argues that human interaction is between humans, humans and the environment (and externs,), between humans and artefacts, from humans to humans via artefacts and so on. The concept of 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 pp12-13). Externs are larger environment objects and processes that are not artefacts. This 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.

Extern does not only have relevance to archaeology. 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.

2.2 The Social Aspects of 'World'

Society defines who we are, how we communicate, and the values that we strive towards. Consider Wittgenstein's Private Language Argument (Wittgenstein 1963), sometimes rephrased as the Robinson Crusoe example. Imagine a human born alone on a desert island, could that person develop his or her own private language? If this person was abandoned at birth on a deserted island, without defined rules or human contact, he or she is unlikely to attempt self-expression through modification or collection of any artefacts left from the wreckage of past civilizations. So society is indeed necessary for culture to take place, it is perhaps even necessary for individual expression. Thus adherence to cultural rules and mores are ultimately socially governed, without social motivation, culture is merely a pile of objects.

It is the acceptance or condemnation of other people in a society that separates cultural 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 previous mores, in case people returned. Humans seek social affirmation and culture continues the values and identities that help mediate social behaviour even if other social agents are not currently present.

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, 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.

> "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." (Kroeber and Kluckhohn 1952 p357).

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 being 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 (Dormans 2006).

In many papers, articles and blogs that focus on virtual environments and game worlds, I see a 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. 2004; Riva et al. 2002; Rozak 2006; Schroeder 2002).

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.

It is not clear that we can say social presence is a group of people aware of each other while in a virtual environment (or computer game), because the general and more specific meaning of a society is that people who belong to it have shared values, beliefs, and/or identity. 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.

In this weaker sense, people in a chat room may well be experiencing human co-presence, without feeling that they are experiencing a strong sense or level of cultural presence.

Culture is created by people but it can exist in some form without the creators. To quote Agnew (Agnew 1999, p90): "…all people live in cultural worlds that

are made and re-made through their everyday activities."

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.

There may also be more than one group of originators. A virtual environment can thus be a palimpsest ('products of action'), where past social interactions are layered, echoed, and carved into the fabric of the environment. In other words, an environment that allows us to breathe in the past. The premise that visitors require other real people in the virtual environment in order to feel cultural presence is thus unsubstantiated and highly 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.

For Crang, culture is a collection of "sets of beliefs or values that give meaning to ways of life and produce (and are reproduced through) material and symbolic forms" (Crang 1998, p57). Crang extended Sauer's early writings and remarks that landscape is a palimpsest. I agree with Crang that culture is spatially and temporally embedded. Culture is an intangible connection and rejection of perceived patterns over space and time. How cultures are spread over space and how cultures make sense of space is thus interdependent. A visitor perceives space as place, place 'perpetuates culture' (frames it, embeds it, erodes it) and thus influences the inhabitant.

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. If cultural presence is a measure of how deeply a cultural force is perceived to imprint or ingrain itself on its surroundings;

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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. 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 customised 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 no identifiers as to how to behave in another culture.

3. OBLIVION AS A VIRTUAL WORLD

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. Recently, however, a new 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* becoming not just a social world, but also a cultural one.

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3.1 Environmental Presence in Oblivion

Rozak has written on the careful balancing of procedural and hand-designed objects that form the *Oblivion* landscape (Nareyek 2007; Rozak 2006). In terms of how a physical sense of world is afforded, *Oblivion* features animals ranging from butterflies to bears, sheep and deer that graze and move independently of the player, and plants that grow back seasonally after being picked by the player.

The flora also appears to have a geophysical relationship to the landscape. There are also attempts to symbolically convey colder, hotter or more humid microclimates. Rain, fog, and changes between night and day are major aspects of the landscape, and done so well that independent game designers have remarked they have travelled the virtual landscape purely to watch sunsets (Ruberg 2007).

Hocking is correct that *Oblivion* affords a rich sense of "self-motivated exploration" and there is also the sense of physical immersion. One can drown, be burnt, frozen or electrocuted, due to extreme climates, bodies of water, hidden traps, or the weapons of enemies (humans, demons, monsters, and animals).

There are several avatar animations to learn beyond the typical game mechanics of aiming and strafing, such as sitting, special movements with weapons, opening locks, and shifting between first and third person viewpoints (with the added vanity option of circling one's own avatar via a third person camera). The skin, facial features, age, gender, body shape, race, profession, birth sign and other aspects of the avatar can be chosen and changed while in the first level of the game, but with one notable exception, (being transformed into a vampire), these features are fixed after level one.

Objects can be picked up and collected or stored (or even transferred to NPCs), and they weigh down the avatar in terms of speed. Heavier objects make noise when they move or fall down steep inclines or are accidentally knocked from tables, and the heavier the object picked up, the more likely a player is spotted. NPCs can be bumped out of the way, but can also hear or see people in good conditions within a certain range. So the sensory and spatially explorative aspects of the game are powerful and rich, but *Oblivion* seems to struggle with the second type of world, the social one, it lacks expressive agents (Mateas 2003).

3.2 Social Presence in Oblivion

However, there are both resolvable and less resolvable social presence issues and limitations with *Oblivion*. There are a few minor glitches such as monsters level up with players, the dialogue dialects do not appear related to the races or towns, and the same character can have different voices for different dialogue, but there are also major design areas where I believe *Oblivion* can be more engaging and enriched as a game world (if not as a game); namely, through player embodiment, object possession, social stigma, persuasive interaction, and gossip.

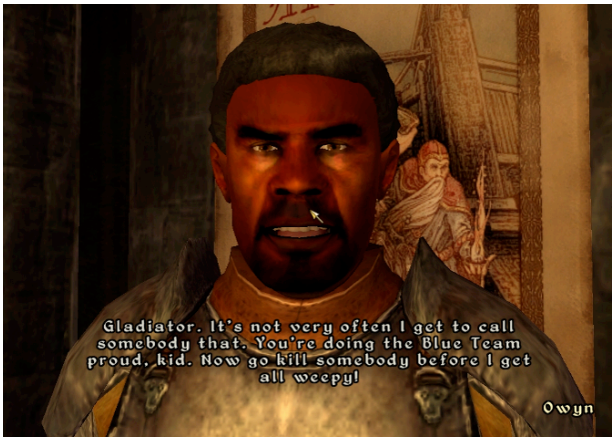

Figure 2: Auto-close Up For Conversation

The first striking social behaviour feature of *Oblivion* is that of constricted and automatic gaze-directed physical co-presence. The player and inhabitants automatically have their gaze directed to each other within a certain sight-range (Figure 2), and their bodies twist (even when seated), to look at you (Figure 3). This is a form of alterity, otherness, but also awareness of this otherness.

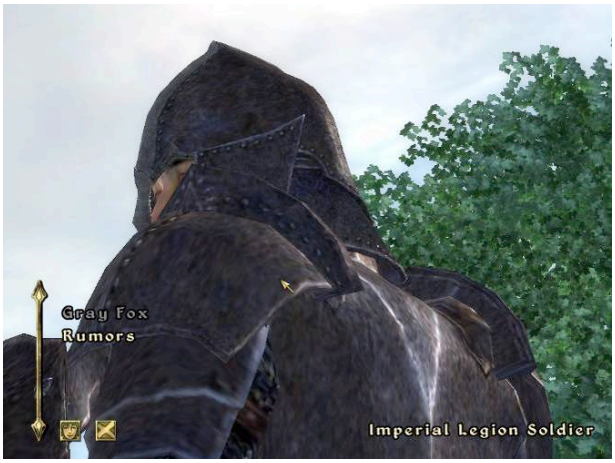

Figure 3: Gaze

Experienced with online virtual environments, which lack this automatic head-following of other avatars, I initially found this technique conveyed a powerful sense of presence, but it begins to lose its impact with ongoing familiarization. In the current version the default head movement seems to be a universally standard convention. If the movement and speed were tied to how excitable or excited is the NPC that may add to individual character development and to the current dramatic tension. The alacrity, speed of movement, and range of movement could be related directly to the health of the player's avatar or to its stamina, or to how many enemies have recently attacked it.

Conversely, actions such as fighting and spell casting currently require deliberate action on the part of the player, which means that the player's avatar is really a three-dimensional placeholder rather than a defined and distinctive personality (Figure 4).

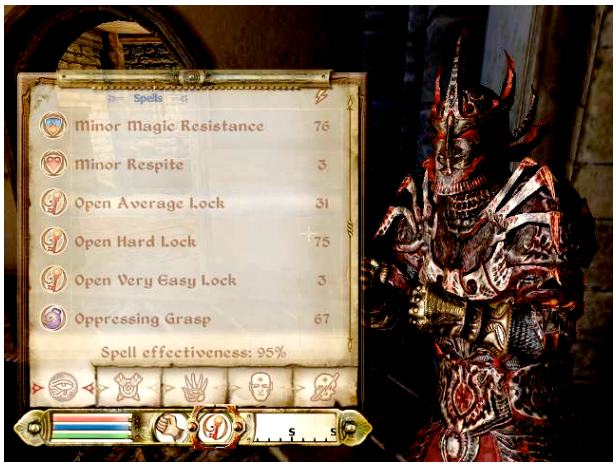

Figure 4: Spells Require Conscious Selection

In a genuine RPG the player is more of a puppet master, perhaps there could be an option allowing the player's avatar (the hero) to take on common player actions and decisions as default behaviour. The game could also allow the hero to become more self-directed when enchanted or tired, or become more self-directed when the situation is directly related to the quest, and the player has been single-minded in solving quests one by one rather than by skipping between them at various stages of completion.

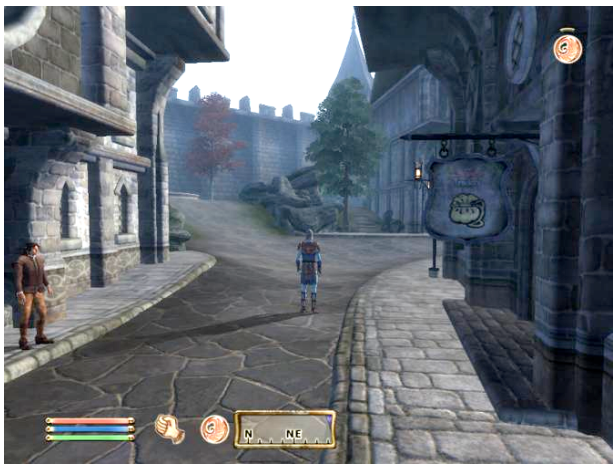

Figure 5: Player's Avatar (Hero)

I remarked above that the player's avatar, the hero (although anti-hero or villain can also be chosen), also has a default head swivel when NPCs walk past. This is useful to remind the player of other avatars in the area but it could also be more expressively tied into the gameplay. As the hero can act slightly independently of the player (entering a room, the hero automatically glances at other people), why not when the hero is enchanted or for some other situational or event-based reason, increase the auto-behaviour of the hero independently of the player's intentions? Perhaps

unknown animations or skills of the hero could be triggered when passing near certain key objects, phobias or environmental conditions, or would this break immersion.

There are character attributes, which help the hero to sneak past hostile NPCs, depending on what they are wearing, the size of any object being picked up, and how dark it is. The detection factor is apparently directly related to how observant the NPCs individually are, but this factor could be enriched by also considering how much the hero is carrying, and how reflective their armour is. Interestingly, the hero can increase their sneak skill, but only when NPCs are nearby, and the hero's sneak skill also increases with successful pick pocketing (Anonymous 2006).

Sneaking is one of the most polished of *Oblivion*'s game mechanics, so I am only tentatively suggesting tweaks. If the hero could create diversions and deflections while sneaking, and if the music could gradually change (slow down or stop playing) this may also add to the sneaking experience. When people sneak in real-life, their relative speed is so slow that everything in fast motion appears even quicker, perhaps game engines could also make use of this psychological phenomenon. As an aside, if moving quietly underwater perhaps breathing could slow down if the swimmer moves very slowly.

The AI can also be modified, dramatizing the NPCs' spatially triggered and event-held adherence to perceived feelings of possession and privacy, and the ways in which they react in terms of physical action and facial expression to the hero, history, and appearance. For example, when you (as the hero) enter a house, especially if you have picked the lock, the NPC may run towards you and tell you to leave.

Unfortunately the possessive behaviour of the NPCs seems hard-coded, so far as I can see, there are no interesting variants or hero related variables to this behaviour, and NPCs do not seem worried about the hero making a mess or eating fruit or affecting other objects.

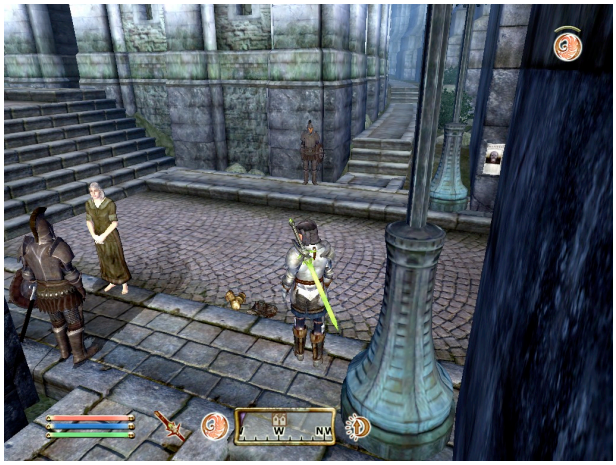

Figure 6: Dropping valuables is perfectly safe

Although rooms have many artefacts that can be moved, picked up, pick pocketed or stolen, the ways in which they are handled is not satisfactory. For example, a hero can enter a smithery or armourer's workshop, bump into everything which then falls on the floor, and the inhabitant, (trader, smith, armourer), is oblivious to this accidental or deliberate vandalism of their shop. The artefacts are usually just empty props (although carrying them can slow down the player's character or augment the character's attributes).

The player can also buy a house in many of the towns but cannot lock it. Dynamic vandalism by the NPCs would however create an interesting dilemma for players who like to both hoard artefacts and to wander. The player can just drop objects (Figure 6) and then return to them later. Nobody steals the player's possessions even though the towns and the Imperial City are full of thieves and beggars, and bandits roam the countryside.

In the guide to *Oblivion* (Bethesda Softworks 2006), the player is warned that unsheathing a weapon can draw a hostile social reception from the NPCs, but I only managed a few scowls from the guards, it did not seem to affect gameplay. Although NPCs automatically watch the hero walking past, the type of clothing or armour the hero chooses to wear (with one exception, Necromancer robes), does not draw attention. Hence, a hero in nothing but a loincloth can walk into a church with no comments from the local clergy.

If a hero exits from the sewers under the imperial city, or has not slept for many days, there are no adverse comments from the NPCs. Since *Oblivion* has quests where environmental extremes such as frost and fire can affect the hero, and as one of the hero's character attributes is their charm, it seems remiss to not have a 'cleanliness to uncleanliness'

feature. The appearance of the human player only draws distinctive NPC responses in extreme cases, such as when the player is wittingly or unwittingly turned into a vampire, (many NPCs refuse to trade or converse if this happens). Conjuring also creates a few comments from NPCs (Figure 7), but does not seem to affect gameplay.

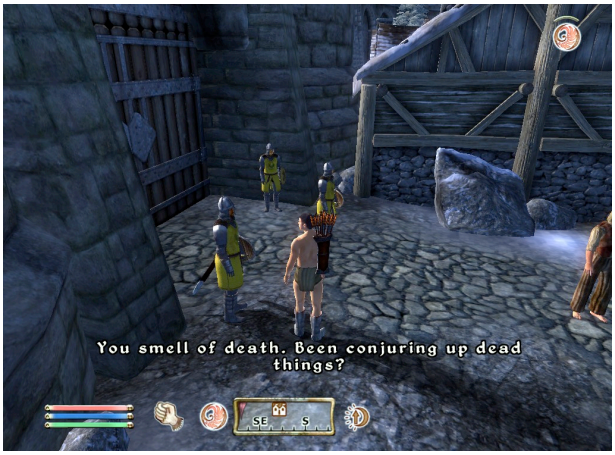

Figure 7: Some Activities Cause Adverse Comments

The NPCs may have information that would help a human player solve a quest, but they need to be charmed or bribed to feel friendly enough towards the player before they will divulge this information (Figure 8). Many players have criticized this feature for being clunky and breaking the player's immersion. Although the idea is good, the implementation (at least on the PC), is let down by the ugliness of the procedural facial animation, and by the non-intuitiveness of the spinning 'bribe wheel' (my term, not *Oblivion*'s!)

We don't see our own avatar, there is no body language, and the psychological mapping of the interface is unnatural. Perhaps if there were interfaces allowing players to guess the timing of jokes via breath or pitch or stress on individual words, this would appear more realistic. The NPC's face could lean forward or backwards; or the sound of their breathing changed as we coaxed, bribed or joked with them. To gauge bribes on the appearance, race, or professional class of the NPC, or how close NPCs are to guards, or the shabbiness of the area the NPC is currently in, may also help improve the believability. *Oblivion* lacks emotionally expressive avatars that according to Fabri et al. (Fabri et al. 2002) and Mateas (Mateas 2003) augment social immersion.

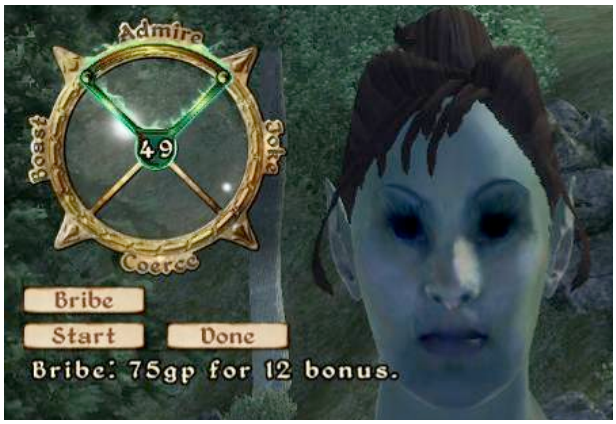

Figure 8: Persuasive Interaction

The NPCs wander around on their own daily and weekly 'beats' (paths), but they also meet up and talk to each other. I emphasized talk to rather than talk with, as it becomes very clear to the player that this chatting shows itself to be monologues randomly set, and rarely reveals meaningful information to the hero. Along with more appropriate tips on the loading screens, the gossip could be more dynamically adjusted to the progress and developing back story of the hero.

As the player has many options in developing their hero's attributes, the game could track the personalization tendencies of the player and offer helpful hints. For example, if the player tends to level up via agility rather than via luck, the NPCs could drop hints as to where agility-enhancing quests or artefacts are located. As *Oblivion* is hampered by the NPCs having set voices, perhaps there could be NPC travelling bards who mimic both the information and the voices of people they have met, the NPCs could talk in their sleep or in a trance (i.e. while possessed by spirits), or the information could be written down as fading overlaid notes on top of books (although now we are approaching a notion of a cultural world).

3.3 Cultural Presence in Oblivion

I believe *Oblivion* fails as a cultural world. Part of the blame may lie with the points system. Evolving from the traditional RPG game, the points system may make sense for such clear and measurable qualities such as strength or speed, but it starts to lose believability in terms of intelligence and personality and seems downright stupid in terms of varying races and cultures. For example, there are references to past histories (that could be told by or for any race), and while NPCs make references to racial or cultural characteristics, the differences between the races (or species), seem to be merely how many more points they tend to have in specific character attributes.

NPCs remember failure or success of individual quests, but the actions of the player do not really impact on the main world (apart from the main quest of destroying the gates of *Oblivion* and protecting Martin). Because there are no real cultural affinities to landscape or to artefacts, and as the races are found in the same towns and ruins, cultural differences primarily show up in character animations, scales, and weaknesses to frost or fire. Despite being a fantasy similar in genre to, say, the epic Lord of the Rings by Tolkien, *Oblivion* does not open up the sense of a self-supporting cultural world. It does not make us believe the races have a perceived cultural destiny, that knowledge is lost to them or that it is protected, or that they each speak dialects or idiolects or share symbols incomprehensible or alien to other cultures.

The other potential cultural aspect of *Oblivion*, the many books found throughout the settlements and ruins, are really for entertainment only, although occasionally providing tactical advice, they do not really expose the inner workings of different cultural values or ideals. As the game engine uses dynamic three-dimensional modelling and texturing, as well as shader-generated screenshots, it would have been possible to create graphic overlays over the books that dynamically personalise them with the quests or physical appearance of the player's avatar.

I can however give one example of real world related cultural knowledge. One can learn how to pick flowers, plants and mushrooms in order to create potions with varying effects (Figure 9). Each type of plant will cease to exist if picked incorrectly (each plant differs in its 'picking spot', which is typically the stem or edge or centre). As specific plants are required for certain potions (which may in turn be required by specific quests), learning to identify the correct plants and how and where to collect them, becomes an acquired skill. If there were social challenges where the hero was quizzed on which ingredients are which (say in order to advance in the Mages guild), this could add to the depth of the game.

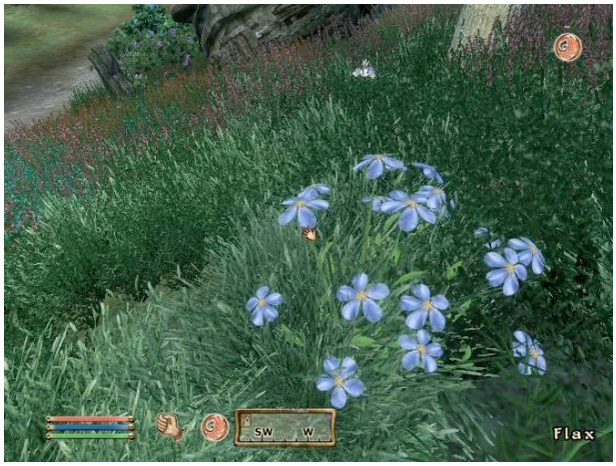

Figure 9: Pick Up Ingredients Correctly

Unfortunately but understandably, *Oblivion* already has so many options it does not force the player to learn all the correct symbols; the player only needs how to access the menu. If there was an option to force the player to learn symbols in order to survive (a form of 'twitch knowledge') this may add to the feeling that genuine skill and knowledge is developed by immersion in the game.

Early virtual environments and early virtual worlds were considered sterile and empty. *The Elder Scrolls IV: Oblivion* is superior to its predecessor *The Elder Scrolls III: Morrowind* in fleshing out a simulated sensorial environment featuring both procedural and handmade texturing (Rozak 2006). This richness of place qualia is not only due to the detailed NPCs, buildings, and artefacts but also to the rich and dynamic environmental processes that occur independently of the player, (such as climate, weather, flora and fauna). In the sense of a world as a meta-set of environmental externs, *Oblivion* is very impressive.

Secondly, *Oblivion* also appears to be a rich social world, in the way the NPCs appear to exist independently of the player and the player quests, through their daily rituals and a sense of property ownership, but also in how they glance or look at the player. *Oblivion* also features social conversation, sneaking, target maps, inspiration and repel features, automatic close-ups and the ability to pick up and move objects.

Yet *Oblivion* is arguably weak on role-playing. If we could use Dorman's three criteria (Dormans 2006) of a good role-playing game, (narrative, social and ludic), *Oblivion* fails on the social sphere. For example, the stories embedded inside books may further remind the player how much social creativity is not actually within the game, the roles and attributes one chooses seem rather arbitrary and independent of the external environment (but

not combat situations), and the NPCs that the player deals with only in rare cases affects the player's social standing with others. In short, the actual role-playing is weak.

There are also more technical design flaws. The gossip is not meaningful, the mapping and observation is not subtle, and the bribe-style function is clumsy, but these issues can be resolved. I would further punish players for being careless, for knocking over objects or bumping into NPCs, or for dressing inappropriately.

Until these flaws and omissions are rectified, *Oblivion* does not go far enough as a social world, let alone as a cultural one. And even if some writers such as Rozak (Rozak 2006) when discussing *Oblivion* seem to conflate the cultural and the social, there are important reasons to distinguish between the two. However, its extensive modding ability does at least promise to extend the notion of a virtual world as interconnected socially controlled realms rather than as a static and ubiquitous virtual environment.

4. IMPROVING OBLIVION

4.1 Improved 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 (Fabri et al. 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).

Andrew Dekker and I have connected biofeedback to games, for example using *Half life* 2's Source game engine (Dekker and Champion 2007), we fed GSR (galvanic skin response) from the player into the game to change the zombie spawning and shaders of a horror level mod in direct response to the 'excited' level of a player (Figure 10). Using biofeedback creates more problems, one is whether and how to inform the player of their biofeedback and how it affects the gameplay. Communicating this biofeedback via NPCs could increase the immersivity of the game but it could also enhance the apparent intelligence of the NPC.

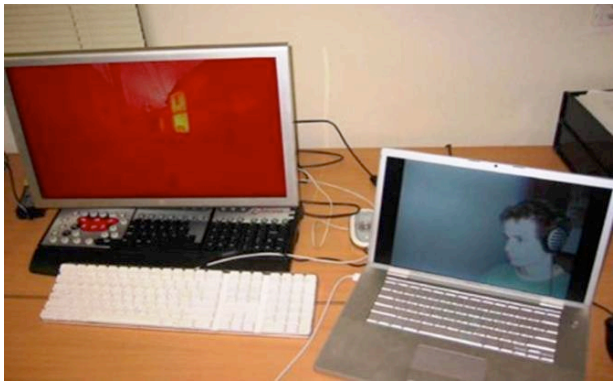

Figure 10: Biofeedback driving Source game engine Shaders

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 goes up; perhaps when the player's heartbeat or breathing slows down their avatar does not visually scan so often. *Oblivion* allows the player to switch between first person and third person view, but biofeedback could automatically override this, when the player becomes excited. When music suggests a nearby enemy, the field of view could automatically widen and the view could switch to first person.

4.2 Dynamic External Cognitive Artefacts

Sterelny traced the ancestors of the map (cave paintings) back over 30 000 years:

> "With the invention and elaboration of pictorial representation, humans came to be makers of specialised epistemic artefacts. It is very difficult to date the first appearance of specialised epistemic artefacts, but unmistakable, superbly executed paintings are over 30,000 years old (Mithen 1998). In Mithen's view, the use and elaboration of epistemic artefacts explains the extraordinary acceleration in both the richness and the variability of human cultures over the last 50,000 years or so. He thinks our archaeological record shows the marks of a cognitive breakthrough." (Sterelny 2004)

Sterelny further wrote that maps are "tools for thinking". That means maps are epistemic artefacts, they are items that structure our knowledge outside of our minds. They are not just external to us but also portable, designed to function as representational resources.

How could a game-orientated social world use this idea? Consider a floor map in *Oblivion* (Figure 11), it shows where the hero is located, and where the quest object or person is (but gets confused by different floors). Imagine an overlay of faint footsteps reminding the player where their hero character has looked in previous visits. Perhaps the translucency of floor areas and wall outlines become more opaque the more the player's character has used or approached them. Using biofeedback, maps of pre-visited areas could perhaps have overlay colours relating to the level of excitement the player experienced when last visiting the area.

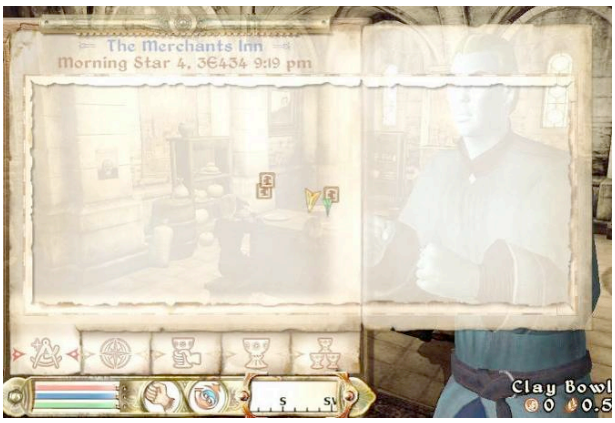

Figure 11: *Oblivion* interior map

We could also apply this strategy to artefacts. Boess (Boess 2008) has noted that role-playing in design education is greatly helped augmented by the use of props while Dornan (Dornan 2007) has noted the lack of ritual in computer games. It is true that in *Oblivion* weapons and other artefacts are damaged by continual use, or are more effective against certain other artefacts, and their effectiveness is also modified by the skills of the player's avatar. Yet this is not role-playing. How well the player fills or innovates a role does not directly affect the artefacts.

If artefacts were so affected and recorded their time in use, where and how they were used, and against or for certain types of roles, might help develop more nuanced and compelling role-play. Consider a multi-player game where the more often used artefacts could have more faded textures as well; popularity fades the objects in question or conversely makes them more prevalent. For significant quest objects, snapshots of previous encounters could be triggered when the hero picks up the object. With biofeedback the popular or significant artefact or building could glow according to its popularity or impact on previous players. As for artefacts that are used for rituals, perhaps they could only be employed effectively when external conditions are more peaceful (less active), and the hero's speed and gaze direction is slow and consistent.

4.3 Social Role Playing Mimicry

I have outlined in another paper this idea (and there I called it a reverse Turing test (Champion 2005)). I mention it here as it has specific significance for CRPGs even though it would require elaborate spatial awareness, hero expressivity and natural language processing. Essentially the idea is to convey cultural knowledge is through an impostor-style game where the hero has to adopt, steal or change (via a spell) their appearance and try to infiltrate a local community through effectively imitating certain professions, races or individuals. Unfortunately, *Oblivion* currently does not clearly and consistently distinguish between NPCs in terms of race, locality, profession or voice, and it would require more spatial awareness to allow for a rich role-playing experience.

4.4 Multi-player Staggered Quests

Oblivion is not multi-player (Bethesda Softworks 2006), and the company has stated it will remain that way (Onyett 2006) but there is a community mod currently allowing two players (and in future up to eight players) to visit the same game world

(Atomic Staff Writers 2006; Paulsen 2006). If *Oblivion* could successfully handle multi-player (and the Gambryo game engine itself can), perhaps there could be added staggered quests to increase the sense of a lived-in world with characters that have full social agency. Fans of the game have designed voluntary role-playing activities, so there does appear to be interest in more social role-playing (Agnew 1999). This may take the burden of believability off the polygonal shoulders of the NPCs. Currently NPCs are NQCs (non-questing characters), which means they become far too predictable.

With a quest that is too difficult for one player on a certain level, the quest could allow for the player to wait until another player appears and helps them solve it, or they have to wait until another player solves a related quest before they can complete theirs. Or, depending on their race and profession, players could meet other players on different quests. If a player finds someone else has solved a quest such as stealing a magical stone, perhaps their own quest could then change to bringing back the magical stone.

Currently the single player travels through the game world, solves quests, perhaps buys houses and fills them with acquired weapons, clothing, books and artefacts, but that is the limit of inhabitation. If there were multiple players entering the game world at different times, and engaging in different quests, they could decide to settle in a town, learn a local role and slowly try to fit into the local AI-directed culture. When these 'settled' players discover human-directed characters they could decide to enrich or divert their world-knowledge, or play an elaborate game of confusing them as to whether they are an NPC or not.

4.5 Learning Tools

Using *Elder Scrolls III: Morrowind*, a group of students created an archaeological learning tool: the player develops Egyptian god-like powers through exploring and decoding Egyptian hieroglyphs while avoiding the rather grumpy skeletons (Figure 12). The construction set that is included with *Elder Scrolls IV: Oblivion* allows for even more powerful and accessible modding and scripting.

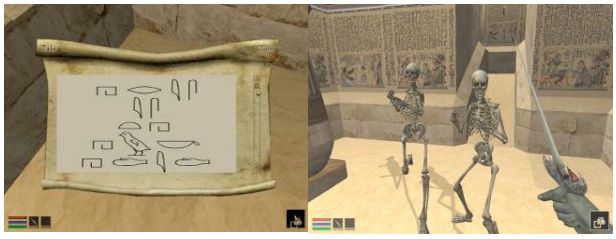

Figure 12: Egyptian Archaeology using *Morrowind*

However, to create genuine cultural worlds, such games need to afford the sensation that the NPCs are inscribing the game world with their social agency, or their social beliefs are made material, or players need to be able to express their socially held beliefs in the game world in a way that is remembered and interpretable.

5. POTENTIAL CRITICISMS

It could be objected that the cultural is but an aspect of the social and hence it is not significant to highlight differences. However, in virtual heritage environments the lack of cultural presence despite obvious social presence, suggests to me that the same issue could affect a rich and deep experience of thematic 'world' as it is experienced through role-playing in a CRPG. The experience that one is not alone does not logically necessitate that one has the sense of being in a distinct and invigorating culture.

When these 'settled' players discover human-directed characters they could decide to enrich or divert their world-knowledge, or play an elaborate game of confusing them as to whether they are an NPC or not.

Secondly, perhaps using *Oblivion* as a case study is mistaken, after all, it is not multi-player. Yet this is what makes its shortcomings and opportunities so interesting. I suggest that even though it is a single player game, turning it into a multiplayer game does not automatically answer the issues I raised. Yet some features of *Oblivion* could be easily adopted to help create a sense of 'role' and 'world' as they relate to not just to social identity but also to cultural emergence, while other features are still to be explored, and it is worthwhile to do so. So I am not attempting to review a game, I aim to develop a theory that can be tested against commercial CRPGs and *Oblivion* has enough traits of the genre and enough sheer size and scale to act as a test scenario.

That said, I agree that the issue of how a computer can take the place of a human judge is truly difficult (so much of role-play in the real world requires another social agent of human intelligence as judge and co-actor). Yet exploring how a computer program (or in this case, game), can act as a social judge is still a bona fide research question (Tychsen et al. 2005). For such an investigation may also illuminate how human actors perform and judge social roles, and which aspects can be simulated or are inimical.

Thirdly, one may object that the above theory is not relevant to commercial game developers. Yet if I am correct to suggest there is a paucity of CRPGs that allow genuine curatorial role-playing, and if curatorial role-play encourages players to remain in the virtual world, surely this is of great benefit to commercial interests? This aspect of role-play may also help improve game-play and user testing through the player actively developing and enriching both the features and the challenges of sustaining and establishing social roles.

I also have a second audience in mind, those interested in using games and game editors to immerse and educate students and the public in virtual learning environments (Figure 13). A single player game has some advantages here, for example, it does not need to worry about students or unwanted visitors distracting other students from authentic situated learning. Secondly it is easier to design, distribute and maintain in relation to specific learning outcomes. *Oblivion* has a great deal of potential in this regard (Greeff and Lalioti 2001), especially compared to other commercial games that feature editors. It is relatively straightforward to import 3D assets, and to script events, and has a built in terrain and weather system.

Figure 13: Macquarie Lighthouse Heritage Project

6. 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. I also suggested three dimensions of presence that all help virtual worlds afford a sense of role-play. 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 behaviours preserved and transmitted through ritual, artefact, and inscription.

I also noted that social presence does not necessarily require multiple players (although single-player social presence is definitely much more difficult), and that cultural presence does not have to be alive (active). One thing that is required is hermeneutic richness, the depth of interpretation available to understanding oneself or others through artefacts and other cultural remains.

What of *Oblivion*? Even though it is a single player game, several key features allow *Oblivion* to be considered as a social world. 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.

One may argue the above limitations are the inevitable consequences of single-player computer games. I do however believe that *Oblivion* (and CRPGs in general) could be further improved as a social world and perhaps even as a cultural world. 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. It is my hope that the issues I raised will help designers understand 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.

7. ACKNOWLEDGMENTS

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article. The image of biofeedback driving a horror game is courtesy of Andrew Dekker; the image of Egyptian archaeology is courtesy of Benn Chisholm, Ryan Fairhurst, Alexis Peters, and William Gordon. The image of Macquarie Lighthouse as created in *Oblivion* is courtesy of Eric Fassbender at Macquarie University.

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