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A Sociocultural Perspective on Negotiating Digital Identities in a Community of Learners

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Abstract

Three dimensional virtual world environments are becoming an increasingly regular feature of the education landscape, providing the opportunity for richly graphical augmented and immersive learning activities. Those who participate in these experiences must mediate through an avatar, negotiating and managing the complexities of this new variation of digital identity alongside their more familiar identity as learner and/or teacher/facilitator. This chapter describes some key moments in the construction of our own digital identities as a lecturer and a student in the Open University's community in Second Life™. We explore our experiences in relation to the impact of trust and consistency from a sociocultural perspective, privileging the role of social interaction and context where meaning is socially produced and situationally interpreted, concluding that social interaction is pivotal to any meaningful identity development that takes place. The chapter ends with thoughts for future issues surrounding digital identity in relation to lifelong learning.

Introduction

The chapter will use a sociocultural framework to scaffold two accounts of negotiated digital identity within The Open University (OU) community in the virtual world Second Life (SL); one as a tutor and the other as a student.

After setting out our theoretical position, we seek to define the context for our experience of developing digital identities as tutor and student in Second Life. This context will provide a brief background to virtual worlds and to the range and scope of their increasing use for education, as well as OU activities and the nature of our own positions within the history of this community. We then present individual accounts that highlight features of our identity development in Second Life.

We assert that our digital identities in the environment are socially grounded – that we construct identities by and through social interaction – and begin a dialogue to address the following questions:

What does it mean to develop a digital identity in a virtual world?

What roles do trust and authenticity play in the development of digital identity within an education community?

The chapter concludes by drawing on evidence from the personal accounts to support the assertion that social interaction is pivotal to the development of a digital identity as a member of a community of learners in a virtual world, and by considering near future issues of digital identity in relation to lifelong learning, with suggestions for further research in the area.

Perspective

As noted by Baumesiter and Muraven (1996), 'The relationship between individual identity and society is one of the classic chicken-and-egg problems. [...] Is society the sum or product of identities, or is it the source of them?' Identity can be argued to be assembled from organizing perspectives that come from both our own self-images and those that others hold of us, bringing together aspects of both individual and social cognition (Smith and MacGregor, 1992).

Sociocultural theories draw on the work of Vygotsky (1962), who proposed that the ability to construct meaning through systematic organization of information is culturally developed or imposed initially, but transfers structural organization into personal meaning by a process that emanates from an understanding of everyday concepts mediated by previous social and cultural development. Cognitive development therefore comes from a dialectical process of shared problem-solving as the individual passes through the Vygotskian zone of proximal development – a state of transition from needing help (scaffolding) to becoming independent in a task – assimilating the externally imposed or scientific concepts into the experiential or spontaneous.

Sociocultural theories propose that experience within our shared cultural perspectives provides us with the tools to make sense of information, both to ourselves and to others. We have a limited range of understanding about what drives our actions on a local basis, and little understanding of the impact of the greater contexts of our individual and shared cultural experiences, so a sociocultural research perspective seeks to enable researchers to make more sense of this impact.

Socioculturalists contend that learning is mediated (by cultural artifacts), distributed (by participation in a mediated activity) and situated (dependent on the culturally mediating artifacts). There is a shared assumption with Vygotsky that interaction and learning is made possible by a complex milieu of shared social, cultural and historical practice, for example our experience in family, school, community and university, but within this assumption there are a range of alternative methodological approaches proposed by more recent theoreticians, for example situated action (Suchman 1987), activity theory (Engeström 1987), mediated action (Wertsch 1991), distributed cognition (Hutchins 1995) and cultural psychology (Cole 1996).

Sociocultural theorists often exert that learning and/or development should be researched in authentic contexts, referring to the notion that learning does not exist in isolation but is closely linked to the culture and society in which it takes place. Thus, when learning takes place, the practical and sociocultural context in which it happens should be described.

Virtual Worlds and The Open University

A virtual world can be a richly graphical three-dimensional online representation of space, where one or many users move around using an interactive figure called an avatar. Teaching and learning activity in virtual worlds falls across all disciplines, and ranges from using an augmented meeting space to the facilitation of large-scale immersive experiences, driven by the '[...] significant potential for rich, immersive teaching and learning activities, providing semi-authentic contexts for simulation, role play and experiential learning.' (Peachey, 2008). Kirriemuir finds in 2009 that all but one UK Higher Education Institution has a presence of some sort in a virtual world and the dissemination of virtual world research has become a routine feature of most academic conferences, journals etc. Kirriemuir finds that the majority of this activity currently takes place in Second Life, and it is here that The OU has a virtual home. Many virtual worlds function as games, but for the purposes of this chapter we are concerned only with digital identity as mediated through the open environment of SL.

Users of the SL environment, usually termed residents, are unrestricted by any externally imposed narrative (e.g. game or role play) and can design and create whatever they want/need to function inworld. SL has its own currency with a fluctuating exchange rate, and

operates a free market economy. The Open University UK¹ registered its first island in SL in 2006. What began as one and then two individuals' research project (Bennett and Peachey, 2007) expanded to become a university-wide resource, with a variety of project activities (Twining and Footring 2010, Minocha and Ahmed 2010, Broadribb and Carter 2009). The Open University has since been recognised by the Eduserv-funded Virtual World Watch as a "hub" of virtual world activity in the UK academic community (Kirriemuir, 2009). The OU presence in SL has developed from small scale, where all users knew each other, to a large and thriving virtual community, modelled on Oldenburg's (1991) physical world concept of Third Place (Peachey, 2008₂ and 2010), with a regular flow of old (return) and new visitors.

A virtual world provides The OU with a space where students can meet and interact socially in a way that is rarely feasible in the physical world. As previously noted, 'The OU community in Second Life, active enough to support its own learning by organising a variety of special interest and discussion groups as well as social events, demonstrates a significant achievement in using the affordances of a virtual world to overcome some of the core challenges to our student's learning experiences' (Peachey, 2010).

Anna has been active in the OU SL community almost from the very start, working with Jacquie Bennett who held the original teaching fellowship that owned our first island. Anna's company² developed the OU social island, OUtopia³, in March/April 2009. She continues to teach inworld as an Associate Lecturer, as well as supporting a wide variety of other teaching and learning activities.

Greg joined the OU SL community as a student, attending a course event that coincided with the opening of Open University Island⁴. He spent a year in SL as a student, and shortly after the end of his course was approached by Anna to consider joining her with a new contract for extended management of the OU SL space. He is now a Project Manager with overall responsibility for the day to day running of the OU islands.

Describing experience

Deciding what to include in the following accounts was difficult, as by definition to include is also to exclude. In choosing to explore our experience from a sociocultural perspective we are making a theoretical stand, and our inclusions will inevitably be biased to support that stand. Personal experience and reflection will prejudice categorical distinctions between individual and social, acquisition and participation; Sfard (1998), for example, argues for the wisdom of respecting a variety of perspectives rather than leveraging acquisition and participation metaphors to enforce a single standpoint. We offer our reflections as vignettes, acknowledging that the data therein describes our own thoughts, is not verified or triangulated other than by the observations of peers, and excludes a huge volume of material that, unseen, might be argued to provide the potential for alternative perspectives. However, it is our overwhelming belief that the bulk of our experiences supports a sociocultural perspective, and hence we offer the following accounts as excerpts from that body of evidence.

The evolution of Elsa Dickins (first person account, Anna)

I entered Second Life in October 2006 at the insistence of a colleague in my research special interest group (Jacquie Bennett). I resisted her perseverance for a long time because I vaguely understood Second Life to be a game, and I didn't 'do' computer games.

I gave little thought to the name I chose as I registered my account, although I now perceive that I selected a sensible, no-nonsense option reflecting my attitude to visiting the environment, and I picked the only default avatar that had any reflection of the physical me, with dark medium length hair (see Figure 1: Original Elsa). I didn't expect to be there for anything longer than a single visit.

¹ The largest university in the UK and the world's first successful distance teaching university

² Eygus Ltd

³ Previously called Open Life Village

⁴ Previously called Open Life



Figure 1: Original Elsa

My first activity inworld was teleporting to meet Jacquie on Cetlment⁵, which was at that time almost entirely undeveloped. In my mind's eye I can still picture exactly what I saw, such was its impact on me, with a third person view of my own avatar hovering just above the ground with arms outstretched. I was suddenly and unexpectedly incredibly excited by this blank three-dimensional canvas, and by all the creative possibilities it offered for working with students. I then noticed Jacquie, with pink hair and snakeskin boots (these are all I can remember of her look during that first visit). Distracted, I typed my first question: 'How do I get boots like that?' and was delighted when she passed me a pair and explained how to wear them.

Within my first couple of days in Second Life I acquired (with Jacquie's help) a pair of glasses for Elsa that she still wears over 4 and a half years later, despite many other changes to her appearance. The glasses were very similar to the glasses I then wore in the physical world (essentially, transposed artifacts), and I felt comfortable having a reasonably sensible appearance that had some resonance with the real me. All my clothes came for free and I settled into jeans and a Ramones T-shirt for several weeks, before turning blue and trying a pink salwar kameez that Jacquie picked up at a yard sale⁶ while she reincarnated herself as a sun goddess. During an experimental period I edited my appearance quite often, as did Jacquie, playing with my skin and hair colour and outfit, although I was never anything but a female human. Quite early on I picked up a box of free wings, and became attached to a particular set that seemed to suit me – I liked to feel that Elsa looked sensible, but with a quirky element that gave a nod to the environment. Eventually I bought some more detailed wings and, like the glasses, they remain a constant in my appearance.

By January Jacquie and I had permission from the University to use Cetlment Island as the location for our joint tutor group tutorials, and my role changed from builder to teacher. At this point I settled on an appearance that is relatively unchanged today, other than hairstyle and clothing, as it felt more appropriate to maintain a consistent appearance for my students (see Figure 2: Elsa today). They, however, certainly changed their own appearances over the duration of the course, according to the amount of additional time they spent in Second Life (in my experience more time inworld usually equates to more time and care spent refining appearance).

⁵ The first island owned by The OU, funded by the COLMSCT CETL

⁶ A place in Second Life where content is available for free or at minimum cost



Figure 2: Elsa today

Jacque (inworld since 2004) had used her own first name for her avatar, and I've noted that a number of colleagues since have also done so, but my students had to contend with Elsa as my alter ego. It is a Second Life etiquette that only avatar names are used inworld, but I made no effort to direct this for my students and noted that they conform to it anyway quite naturally. We posted a list to the tutor group forum so that everyone had an easy reference for names and I found it interesting that none of my students used their own real names for avatars, or had (apparently) any problem switching names between forum and Second Life communications.

Before I began teaching in Second Life I felt that my behaviour was more playful and more exploratory of the boundaries of the environment. It could be argued that my teaching coincided with my becoming socialized to the norms of the environment, but I was definitely aware of the burden of responsibility that came with the routing of my professional role inworld and adapted my behaviour accordingly. Also it is my experience that to a degree there are different norms to each island space in Second Life, be it shopping mall, role play game, college campus or whatever, and our island regulars were exploring and creating our own rather than conforming to external pressures. I have always enjoyed Second Life for the opportunities it offers to work with students, and do not participate in any wider community inworld, rarely venturing beyond The OU regions.

2006-7 was also my first year of using Facebook, and early on I chose to accept 'friend' requests from students. For probably 80% of my time as a Facebook user I have used a picture of Elsa in my profile, despite the profile being in my real name. In December 2008 I posted a picture of Elsa specially dressed in a Christmas outfit as shown in Figure 3: Christmas Elsa on Facebook. A friend was quick to comment that Elsa might look 'a trifle indignant' in such garb (see Figure 4: Facebook comment) and I agreed. By this point I was well and truly engaged with Elsa as a third person.



Figure 3: Christmas Elsa on Facebook



Figure 4: Facebook comment

As our inworld community has expanded I have found that students are usually eager to share and offer authenticity for their physical world identities, and that Facebook is a quick and easy way to do so. Many students and staff who have met casually inworld (ie not as part of a formal learning group such as a tutor group) have gone on to meet in the physical world, and I have developed several such friendships. The student community also use restricted-access University forums to verify identity and to discuss activities in the virtual world.

My work in Second Life has moved on enormously. Jacquie died in September 2007 and I took on management of all the University activity in virtual worlds. Cetlment was closed and we replaced it with another island developed to a different plan, and saw our student community expand from those first tutor groups, a total of about 25 students, to the many hundreds of students who now, in February 2010, have access to our spaces. My role as teacher to my own student groups has been expanded to encompass caretaking for the greater community, and within that development Elsa has become stable and taken on a number of conventions that see her recognized as an authority figure. Quite early on in the development of what is now the regular community, students casually took up calling Elsa 'Mummy'. The community has now grown to the extent that I am no longer familiar to/with all regular visitors and hence hear that title less often, but the notion of a fondly observed authority figure endures, as illustrated by the following recent instant message, a typical exchange between myself and a student who contacted me as soon as I logged in one evening (time stamp is PST):

[12:45] <Student>: elsa - an impromptu party is happening on hrd⁷

[12:46] <Student>: wine and cigars are being hidden now u are online lol⁸

The (adult) student was telling me about the party in order to invite me, but playfully engaging with and acknowledging our roles by claiming that partygoers had noted me coming online and were hiding virtual contraband.

Elsa's profile in Second Life gives her date of registration, and in October 2009 staff and students threw her a surprise 'RezzDay' party, celebrating her third birthday. I definitely have a sense of value in being one of the few community 'elders' and would suffer quite a complex set of (negative) emotions were my avatar to become corrupted and/or for whatever reason have to be replaced, not least the sense that I had lost a significant credential in her age. I am protective of both avatar and identity.

Becoming Kickaha Wolfenhaut (first person account, Greg)

I had been an Open University student for eight weeks when I entered Second Life on 7 April, 2008. I created my account in order to attend a maths tutorial there, choosing the name Kickaha Wolfenhaut out of fondness for a favourite literary character.

I chose a default avatar which reflected my real life gender and race and gave it the Swarzeneggerian physique nature had denied me (see Figure 5: Original Kickaha). An hour

⁷ Open University HRD Island

⁸ lol is a commonly used text abbreviation for laugh out loud

later – as soon, in fact, as I realised that the greater part of Second Life’s male avatar population resembled world-class bodybuilders – I began experimenting with alternative looks. I made it skinny, enlarged its nose and attached an outrageous Mohican hairstyle. The desire to be unique overcame my desire to be beautiful largely because, in those first days, my existence in Second Life was a solitary one. Everything from my biker boots to my renaissance home was chosen to please my own eye.



Figure 5: Original Kickaha

My maths tutorial was cancelled but by then I had become comfortable with the virtual world and its interface, so I found myself an inworld home and set about decorating. Significantly, I treated Second Life very much as an environment to be enjoyed for its own sake. I purchased virtual land, erected a beautiful building and bought cool clothes for my avatar. But I didn’t dress to impress other users; I called my wife over to the computer and showed her. I was a player of shoot-’em-up games who had come to Second Life purely to get the most possible out of my maths course. Since neither swotting nor shooting are particularly social activities, Second Life was not a social tool for me. In fact, being shy by nature in the physical world, I actively avoided contact with others in the virtual one.

I first experienced formal learning in a virtual world at the 2008 T175 Festival (a fun event for students of the OU’s “Networked Living” course). One of the tutors had prepared a self-guided building exercise. Failing to notice the tutor’s beautifully written detailed instructions, I somehow instead found myself reading a summary page, listing simply each keystroke and click necessary to complete the task. This simple mistake meant that not only did I finish the exercise having learned nothing about building in Second Life, but that I was suddenly and unexpectedly centre-stage. I was The One Who Finished First (that tutor still calls me a “Master Builder”) and this did not go unnoticed. The fact that I had finished the exercise almost by accident and was probably the least able builder present only added to the unwelcome sense of exposure I suddenly felt. If I was not in Second Life for company, then I certainly wasn’t there for attention. That was the moment I learned that I needed more insulation than a human avatar could provide. The following week I traded human for avian; my avatar became a bird (see Figure 6: Kickaha today).



Figure 6: Kickaha today

Although adopting a non-human appearance helped me feel less vulnerable, it was immediately obvious that being a 28-inch raven at the university’s virtual halls of residence was unlikely get me the obscurity I craved. In short, the bird I had bought was a hit. People spoke to me and, cushioned by my prophylactic bird, I felt able to reply. They asked about the

avatar, and my small amount of knowledge (i.e. the name of its maker) gave me confidence. My online personality thrived and I painlessly made the transition from recluse to community member. But my avatar's metamorphosis, and the concurrent changes in my own sense of identity, did not stop there.

The appearance I had hoped would shield me from my peers had brought me closer to them but also made proximity tolerable. This was a heady experience for a hermit. The ability to do what I would with my appearance had at last been joined by strange new urges: The desire to dress to impress; the temptation to show off.

The bird took up smoking. He affected to wear a black fedora. People started to abbreviate his name to Kick. I started to like it. People seemed to find my sense of humour more palatable. Light-hearted mockery from the knee-high bird rarely failed to get a laugh; I suspect that the same remarks would sometimes have fallen flat, or even caused offence, had they been uttered by a six foot human. This isn't just about the avatar: It comes full circle, because people's reactions to my first comment would influence my second one, and so on. Thus was a personality born and my digital identity came of age.

The bird was essentially an item of off-the-peg clothing, but the heightened sense of safety it gave me allowed the positive reactions of my fellow students to shape my digital identity in unexpected ways. Moreover, my physical world identity assimilated these changes. Simply put, I became an extrovert – and this was far from incidental. In my schooldays I was not part of the “in crowd” and this had a negative impact upon my performance, since I came to view school generally as a hostile environment. In Second Life I can meet teachers and fellow students on my own terms. Able to choose which aspects of my personality to share with far more selective precision than in face-to-face contact, I find that I have a confidence I never had in previous learning experiences. Safely cocooned within an avatar of my choosing, I have a buffer between myself and those with whom I interact. At school I was an underachiever, whereas I find the opposite is now true. That Second Life has liberated me is, at the very least, a contributory factor.

Coming together

We both had identities in the physical world - student and tutor - which we brought into the virtual world. How we mediated in that environment, however, required considerable development of the identities we maintain in a physical setting. In our accounts we have both focused on the significance of our appearance, and how this formed and was formed by our interactions with others: until someone else draws meaning from the appearance of your avatar, it is simply the equivalent of playing dress-up with a paper doll.

The interactions that have shaped our digital selves, and how we feel about them, are without doubt socially grounded. Today the characters of Elsa and Kickaha are so strong that we and others talk easily about them in the third person, assigning anthropomorphisms that an uninitiated observer would dismiss out of hand. These identities have not been shaped in a void, but assembled through social and cultural development, scaffolded by our experienced peers taking us both through our own zones of proximal development (albeit to very different schedules), and shaped by the cultural perspective of our relationships with the university and a sense of what might be expected of the student/tutor roles in more familiar environments. The Kickaha that existed before his interactions as a student and member of the OU community was simply a tool for Greg to interact with the environment, and similarly Elsa became herself (and constrained by herself) when Anna's role as a tutor inworld was established. Piaget (1995), a contemporary of Vygotsky, contended that development necessarily precedes learning, whereas Vygotsky argued that social learning precedes development. In the case of our identity development in SL, we find convincing evidence to support the Vygotskian perspective.

What does it mean to develop a digital identity?

When you step into an immersive 3D virtual world your digital identity becomes personally meaningful to those around you, even those with no vested interest beyond a transitory interaction. This is one of the key things that differentiate the concept of your digital identity

within a virtual world from the dozen database fields your bank calls your digital identity. So, although the definitions most relevant to database engineers might also be applicable to the kind of digital identity we are concerned with, the people and concepts to which they apply are not necessarily the same. We favour the notion of a *construct of credentials*, which is universally applicable. We and all members of the community in Second Life left one set of constructs at the door - our real names, addresses, birth dates, and sometimes bank account details – surrendered to Linden Lab⁹ in return for permission to enter the virtual world.

Our first steps on entry were to make cosmetic changes to our avatar's appearances. An OU student who works as a volunteer Greeter in the university's Second Life regions confirms that we were not unusual in this: "When the newbies arrive, most want to know how they can change their hair and clothes. Usually questions about how to actually do stuff or find the party come later." While editing an avatar's appearance is fun – and considerably easier than the physical equivalent – it is not necessarily a shallow exercise. This is a context for setting the first outwardly discernible indications of inworld digital identity, and we contend that this is only truly meaningful when your avatar meets others. A user with a poor body image may be gratified by tweaking his or her avatar so that it reflects an ideal, but it is when he parades his tanned, toned torso on the virtual beach that he benefits in a measurable way.

Many veteran SL users speak of inhabiting their avatar as something that has personal meaning, but are also happy to agree that the avatar is merely a "bunch of pixels." In Second Life I (Greg) am occasionally obliged to edit my appearance, changing it from bird to man, in order to test a particular animation or interactive gadget which would be stymied by my usual avatar. If I meet a member of our community on these occasions they are invariably fazed by the change, but are able to process and absorb it. A typical text comment would be "Ooh – it's really weird seeing you like that" before settling in to a normal conversation. This shows that the transplant of identity from avian avatar to a humanoid one is accepted, albeit uncomfortably, and indicates that digital identity is not exclusively linked to the avatar.

However, in the physical world millennia of evolution have left us with certain expectations that the face of a best friend will not change overnight and although we can cope with such changes (otherwise all post-operative cosmetic surgery patients would find themselves friendless) they are not insignificant. The truth is that we are accustomed to consistency. We expect and prefer it. This is as true in virtual worlds as it is in the physical world and it has been our experience that those whose avatars remain broadly unchanged enjoy a higher degree of acceptance in the community. So, although a digital identity in a virtual world can exist independently of an avatar, our shared social, cultural and historical practice means that digital identity is deeper and more credible if bound to a consistent image.

Wadley and Gibbs (2010) observe that there is debate over whether users play their avatar as a character (much as a movie actor works) or a puppet channeling their true self. It is our experience that we tend strongly towards the latter, directed by the need to manage our physical world identities of tutor and student inworld. Some of those who take part in fantasy role-play in other SL locations maintain a separate avatar (an 'alt') for that purpose. This suggests that while Second Life's possibilities for self-expression are many, community members are consciously selective about which aspects of their online identity – or, indeed, which identities, they reveal to which people. The students *can* be anything or anyone they wish, but this is tempered by the need to fit into their chosen communities. The cultural artifacts of the OU logo, along with puns on the word Open (eg Open Arms for the virtual pub, and Open Minds for the virtual community centre), are widely apparent on OU land in SL, providing a constant reminder of the context for the space. Wang & Evans (2008) found that the amount of overlap between physical world and virtual world identity depends on a person's social identity in a given virtual context. As Workman (2008) puts it: "The identities that students create in virtual worlds don't need to be accurate reflections of their daily lives. Rather, they must possess elements popular in whatever culture students seek membership. [These elements] serve the same purpose in declaring to the virtual world that 'I personify these values and interests.'" Savin-Baden (2010) identifies this practice when exploring the digital identities of teaching staff and calls it identity multiplication – using different identities in

⁹ The owner-operator of Second Life

different spaces/settings, but with a sense of coherence that relates back to the physical world identity.

Of course, the idea that social influences are essential to cultural integration is far from new; Vygotsky (1978) claimed that they took absolute precedence over those from within. Crucially though, in digital virtual worlds such as Second Life, the writing of an identity is not begun on a *tabula rasa*, but inevitably carries narrative and meaning from the individual's original identity, and possibly his or her extant digital identities. By no means all of the pre-existing facets of identity will be represented – e.g. holding a degree has no direct use when one tries to defeat monsters in a virtual world (Wang & Evans, 2008) – but nonetheless the digital identity will be influenced by the “real” one without exception. Even a wholly invented persona, deliberately created as an escape from reality, is subject to this rule, based as it is upon a set of parameters determined by the existing identity.

Furthermore, the development of digital identity is not simply a linear process from “birth” to maturity. In most contexts the process is an iterative one (as recognized for example by Garcia's MAMA¹⁰ cycle, 1966) and this is particularly so in the case of virtual worlds. We have both experienced events where our inworld identity has influenced our physical world identity, and we took time to refine our identities, a process which neither of us claim is concluded. However, virtual worlds are unique in that a considerable part of digital identity (ie. one's appearance) therein cannot pull the physical world identity into line with itself. So bulging biceps, perfect hair, or being a bird might help a quiet student overcome shyness in the virtual world, but the cosmetic trappings must remain in the virtual realm. It is only the newfound confidence that can be exported.

Finally, in addressing what it means to develop a digital identity, we consider the notion that identity in any context is both what we say about ourselves and also what others say about us. What others say about us becomes, collectively, an instrument of social order, so we argue that identity is strongly linked to reputation, asking:

What roles do trust and authenticity play in the development of digital identity within an education community?

It is often noted by the most casual of observers that three-dimensional graphical spaces raise issues of trust and virtual identity – “but how do you know who you're *really* talking to?” As noted by Turkle, ‘Traditional ideas about identity have been tied to a notion of authenticity that such virtual experiences actively subvert’. Never mind that the same question can be asked for any digital collaboration mediated without a webcam, there is something about the strong sense of physical presence that prompts people to raise this question most frequently in discussion around virtual worlds. Social cooperation of any kind in this environment is predicated on some level of trust and shared perspective. In an education community, where the foundation of collaborative learning is built on trust (Smith and MacGregor, 1992), this becomes particularly significant.

Trust and authenticity in the physical world are formed from a wealth of cues, for example (in no particular order) appearance, voice, mannerisms, tone, body language, material attachments/belongings and reputation. In a virtual world there are far fewer trust cues, requiring people to work hard establishing their character. In Second Life, as in many virtual worlds, avatars carry a profile indicating among other, user-supplied, content the date on which the avatar was registered and the groups to which they belong. An established avatar belonging to authentic-sounding groups (e.g. for a tutor, education-themed), and perhaps a grammatically correct, well-spelled and punctuated self-written profile statement that links to a physical world identity comes with a degree of authenticity in the environment. This provides significant currency in a community. Similarly, as we have touched on already, maintaining a consistent avatar has been linked to stability of identity, contributing to social norms and behaviours becoming established within avatar groups (Schroeder & Axelsson, 2000), which we link to sociocultural positions of shared social practice. We each went through an experimental phase with our avatars' appearance but then, as we assumed our respective identities inworld, this phase was concluded and we committed to a single image that remains

¹⁰ moratorium, achievement

broadly unchanged. In Elsa's case particularly, this felt like an important step in establishing an identity with some authority that could be trusted by students. Cheng et al (2002) also found that 'Persistent user identity allows users to invest in their online reputation, encouraging them to be accountable in their interactions with others and to act more 'responsibly'.'

Reputation therefore has a high value, as it is arguably the hardest gained and most reliable of the available credentials. It has to be earned and this is something that takes time although, once established, is reinforced through an extended social network. Our digital avatar identities have their own reputation based on our behaviour inworld and, as our community has developed from an inworld start (as opposed to a network whose members know each other in the physical world), our identities have been shaped both through and from this reputation building, as well as being increasingly linked to our reputations in the physical world. The use of Facebook, and linking of avatar names to verified student identities in the OU-restricted virtual world discussion forum, indicates that core members of the community are keen to register their reputation and consistency.

Adrian (2008), proposes that 'Reputation is a fundamental part of your virtual self. [...] who you are becomes more a function of the community's view of you, your behaviour and your contributions to a particular piece of a virtual world. In this [...] environment of collaborative creativity and interaction, representation becomes malleable and reputation becomes community-created.' This perspective supports our contention that digital identity in a virtual world education community is very closely linked to reputation.

Conclusions and Future Trends

We have used a broadly sociocultural approach to contend that social interaction has been pivotal to the development of our digital identities in a virtual world, and to frame our questions about what it means to have a digital identity, and what roles trust and authenticity play in the development of a digital identity within an education community.

We find that a digital identity in a virtual world begins as a construct of physical credentials that develops according to social interaction. It is closely but not inextricably linked to, nor is it the same as, an avatar. Change in avatar appearance is tolerated, but a digital identity is enriched by consistency. We bring elements of our physical selves and culture into the virtual world, but we are often selective about which elements we choose to channel in which community, probably more so than when we do this in the physical world. Identity is compounded in our reputations, and we find that trust and authenticity are valuable commodities to a digital identity in an established community.

Our account here is based on our own experiences, which provide rich seams of evidence to support our sociocultural perspective, but are inherently subjective and personal with limited scope for generalisation. We feel that this, and a necessary word limit, restricts us to merely the tip of how much there is to explore about digital identity in our community. We would welcome the opportunity to explore alternative perspectives, especially drawing on a larger evidence base, and to make comparisons with other learning communities in virtual worlds. In considering our roles as tutor and student (and latterly guardians of the community) we have also been drawn to activity theory as a meta-theory for the OU community and how it can be modeled as an activity system (Engeström 1987). We intend to explore this in more detail in a future research period.

A recent issue at The OU has raised new questions about our responsibilities towards students when we ask them to take on digital identities in such richly graphical environments. A student event brought several hundred newcomers to our regions, some of whom were Muslim women, for which none of the default avatars (provided by Linden) were appropriately dressed with respect to head covering, causing them some distress. Just as in the physical world, educators must recognise that individuals have different needs and that we have to provide for that where it is feasible to do so. Future discussions for us all will include debate and ultimately policy on the reach for Equality and Diversity in virtual worlds. If we bring students into such environments, should we provide the avatars? Is it reasonable to expect students and tutors to all conform to human, gender-appropriate avatars and dress

conservatively for education activities? Hemmi et al. (2009) considered the notion of 'honesty' in online spaces for teaching and learning, suggesting that many students viewed alternative constructions of identity as morally wrong, and we suggest that research to explore this position in specifically virtual world spaces would be extremely valuable to the teaching community. Eastwick and Gardner (2009) conducted an experiment finding that racial bias is brought into virtual worlds, and there is huge scope for further work in this area, tied to the responsibilities above.

We watch with interest the current rationalization of virtual world platforms, as a slew of environments come and go (eg Google Lively, There, Metaverse), others change hands (Olive) and mainstays (Second Life, Open Sim) grow by becoming increasingly focused on supporting the needs of their emerging core markets, of which education is one. Signs (including as monitored by Virtual World Watch, see www.virtualworldwatch.net) are indicative that activity in virtual worlds will continue to grow and that more academic staff and students will find it necessary to adopt an avatar-mediated digital identity in order to teach and learn in such an environment. As this activity, and inherently the diversity of our communities increases, it is vital that we continue to explore how people develop these identities in order to best manage, support and, in the best sense, exploit them for learning.

References

- Adrian, A. (2008). No one knows you are a dog: Identity and reputation in virtual worlds. *Computer Law & Security Report* 24(4), 366-374.
- Baumeister, R. & Muraven, M. (1996). Identity as adaptation to social, cultural, and historical context. *Journal of Adolescence* 19(5) pp405-416.
- Bennett, J. & Peachey, A. (2007). Mashing the MUVE - A mashup model for collaborative learning in Multi-User Virtual Environments. In *Proceedings of the International Conference of "Interactive Computer Aided Learning" ICL2007: EPortfolio and Quality in e-Learning*.
- Broadribb, S.C. & Carter, C.J.P. (2009). Using Second Life in Human Resource Development. *British Journal of Educational Technology*, 40(3), pp.547-550.
- Cheng, L., Farnham, S., & Stone, L. (2002). Lessons learned: building and deploying shared virtual environments. In R. Schroeder (Ed.), *The Social Life of Avatars* (pp. 90-111). London: Springer. P597. In Peachey, A. (2010) Living in immaterial worlds: Who are we when we teach and learn in virtual worlds? In K. Sheehy, R. Ferguson & G. Clough (Eds.) *Virtual Worlds: Controversies at the Frontier of Education*. Nova Science Publishers: New York.
- Cole, M. (1996). *Cultural Psychology* Cambridge, MA: Harvard University Press.
- Eastwick, P. & Gardner, W. (2009). Is it a game? Evidence for social influence in the virtual world. *Social Influence* 4(1), pp.18-32.
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research* Helsinki: Orienta-Konsultit.
- Hemmi, A., Bayne, S. & Land, R. (2009) The appropriation and repurposing of social technologies in higher education. *Journal of Computer Assisted Learning* 25, pp. 19-30
- Hutchins, E. (1995). *Cognition in the Wild* Cambridge, MA: The MIT Press.
- Kirriemuir, J. (2009). *The Spring 2009 Snapshot of Virtual World use in UK Higher and Further Education*. Bath: Eduserv Foundation.
- Marcia, J. E., (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology* 3, pp. 551-558.
- Minocha, S. & Reeves, A.J. (2010). Interaction design and usability of learning spaces in 3D multi-user virtual worlds. In D. Katre, R. Orngreen, P. Yammiyavar & T. Clemmensen (Ed.) *Human Work Interaction Design: Usability in Social, Cultural and Organizational Contexts*. IFIP Advances in Information and Communication Technology. Springer, pp. 157–167.

- Oldenburg, Ray (1991). *The Great Good Place*. New York: Marlowe & Company.
- Peachey, A. (2008). Education in Second Life. In *CSI Communications* Vol 31 Issue 12.
- Peachey, A. (2008). First Reflections, Second Life, Third Place: Community Building in Virtual Worlds. Paper presented at *Researching Learning in Virtual Environments 08* available from http://www.open.ac.uk/relive08/documents/ReLIVE08_conference_proceedings.pdf, last accessed 20/02/2010
- Peachey, A. (2010). The Third Place in Second Life: Real Life Community in a Virtual World. In A. Peachey, J. Gillen, D. Livingstone & S. Smith-Robbins (eds) *Researching Learning in Virtual Worlds* London: Springer.
- Piaget, J. (1995). *Sociological Studies*. London: Routledge.
- Savin-Baden, M. (2010) 'Changelings and shape shifters? Identity play and pedagogical positioning of staff in immersive virtual worlds', *London Review of Education*, 8:1, 25 - 38
- Schroeder, R., & Axelsson, A.S. (2000). Trust in the Core: A Study of Long-Term Users of Activeworlds. Paper presented at *The Digital Borderlands, a Cybercultural Symposium*.
- Sfard, A. (1998). Two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), 4-13.
- Smith, B.L. & MacGregor, J (1992). What is collaborative learning? In A. Goodsell, M. Maher, V. Tinto, B. L. Smith & J. MacGregor (Eds.) *Collaborative Learning: A Sourcebook for Higher Education* National Center on Postsecondary Teaching, Learning, and Assessment: Pennsylvania State University.
- Suchman, L. (1987). *Plans and Situated Actions. The Problems of Human-Machine Interaction*. Cambridge: Cambridge University Press.
- Twining, P. & Footring, S. (2010). Exploring Schome Park educational alternatives. In A. Peachey, J. Gillen, D. Livingstone & S. Smith-Robbins (Eds.) *Researching Learning in Virtual Worlds* London: Springer.
- Turkle, S. (1995). *Life on the Screen*. (p.185). New York: Simon and Schuster.
- Vygotsky, L.S. (1962). *Thought And Language* Cambridge, MA: MIT Press.
- Vygotsky, L.S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Wadley, G. & Gibbs, M (2010). Speaking in character. In W. S. Bainbridge (ed) *Online worlds: convergence of the real and the virtual* London: Springer-Verlag.
- Wang, F. & Evans, M.A. (2008). Identity transformation in real and virtual worlds: The overlapping world view. In *Proceedings of the 2008 International Conference on Cyberworlds*. Washington DC: The IEE Computer Society. pp.81-85.
- Wertsch, J. V. (1991). *Voices of the mind: A Sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.
- Workman, T.A. (2008). The real impact of virtual worlds. *The Chronicle of Higher Education* 55(4) p.12.

Key Terms and Definitions

Avatar: Visual representation of a person in a virtual environment

Instant Message: IM, a private message within a virtual environment

Inworld: Taking place within a virtual world

Island: Unit of landmass within a virtual world

Newbies: Newcomers to a virtual world

Second Life: A virtual world owned and managed by Linden Lab

Virtual World: A persistent web-based environment available to a massive body of users, increasingly functioning with a rich three-dimensional graphical interface