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A brave new world: considering the pedagogic potential of Virtual World Field Trips (VWFTs) in initial teacher education

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Abstract: In its broadest and historical sense, place-based education refers to education that occurs outside of the physical boundaries of a school building (Dewey 1910; Sobel 1996; Theobald 1997; Woodhouse and Knapp 2000). Place-based education, colloquially referred to as the ‘field trip’, is predominantly considered a pedagogic tool of the sciences. It involves a physical movement from the school-based location to a place of interest, for example, a geography field trip to an ecological landscape or science visit to a local museum. This paper considers the use of virtual world field trips (VWFTs) within the context of a pre-service Teacher Education programme. The paper presents data from one undergraduate module offered on a programme of initial teacher education. The paper identifies three significant elements of virtual world field trips: place, people and content. First, the virtual world can provide access to places not possible in the offline context as a result of geographic, economic or religious factors. Second, exposure to and dialogue with a variety of world views can challenge students’ assumptions, facilitate reflection and provide an opportunity for one-to-one teaching encounters. Third, from a teacher educator perspective, engagement in virtual world field trips can provide a space for teachers to model teaching methodologies and model creative learning techniques, thus providing student teachers with an insight into different approaches to teaching.

Keywords: Pre-service education, Virtual worlds, Information and communication technology, Virtual world field trips.

1 Introduction

This paper considers the use of virtual world field trips (VWFTs) within the context of a pre-service teacher education programme. The rationale for this research stems from the challenge to all higher education academics to develop their pedagogic practice and engage in innovative curriculum design. In recent years, there has been a considered movement away from a *top-down* didactic approach toward collaborative engagement in the teaching and learning process *with* students. Academics are challenged to offer ‘more varied provision to a growing number of students in an era when they can no longer depend on ever-increasing allocation of funds’ (Bradwell 2009, p. 26). The issue of innovative pedagogic practice is even more critical within the field of teacher education. Teachers are at once purveyors and creators of digital content (Toffler 1980, p. 11), engaged in connected learning (Siemens 2005), moving in smart mobs and collaborating through pro-am clusters (Rheingold 2002; Leadbeater and Miller 2004). Thus teacher educators have a decisive role to play in influencing pre-service teachers’ creative and careful use of information and communication technologies to support and enrich their classroom practice (Instefjord and Munthe 2016, p. 77). It is within this context that technology is considered an imperative for transforming the provision of teacher education programmes and practice, and the subsequent new millennial learner experience (Higher Education Authority 2011). Matthews, Andrews and Luck (2012) suggest that educators need to consider how new technologies ‘will add pedagogical value to their learning and teaching practices to achieve positive student outcomes’ (p. 18) rather than

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adopt technology in an uncritical manner. The purpose of this ethnographic study is to ‘lead to transformation and rehumanizing action in the world’ (Robinson, 1994, p. 37).

2 What are field trips?

In its broadest and historical sense, place-based education refers to education that occurs outside of the physical boundaries of a school building (Dewey 1910; Sobel 1996; Theobald 1997; Woodhouse and Knapp 2000). Place-based education, colloquially referred to as the ‘field trip’, is predominantly considered a pedagogic tool of the sciences. It involves a physical movement from the school-based location to a place of interest, for example, a geography field trip to an ecological landscape or history visit to a local museum. Interactivity within the environment is dependent upon the context and available human and financial resources. Stainfield, Fisher, Ford and Solem (2000) argue that there has been a movement from an ethnographic ‘look see’ approach to problem-oriented fieldwork activities (p. 256).

More recently, field trips involve students immersing within a new culture for an extended period of time, for example, a language learning international field trip. Such activities, though inherently valuable for the participants, have practical disadvantages relating to financial resources, time, student equity, language barriers, logistical and preparation problems (Stainfield, Fisher, Ford and Solem 2000, p. 256) and culture shock (Furnham and Bochner 1986; Harris 1995; Ward et al. 2001; Bochner 2003). This paper argues that 3D multi-user virtual worlds, such as Second Life, can provide a new context for understanding and participating in field trip activities.

3 Methodology

The data presented in this paper are drawn from one optional Religious Studies module, ‘Religion and Cyberspace’, offered through the medium of Second Life (SL). The module was offered to twenty, third year undergraduate student teachers of Religious Education. During the course of the module, each lesson involved a movement (teleportation) from a virtual class-based location to a relevant location in the virtual world. For example, the topic ‘Virtual Pilgrimage’ was explored through a simulated Hajj pilgrimage.

In keeping with the exploratory nature of this research endeavor an ethnographic methodology was considered

most appropriate. On a daily basis teachers engage in informal ethnographic practices. Teachers observe their students engaged in learning activities, they are inquisitive about the events that occur in their classrooms, and they reflect on their role as teacher. This enables teachers to improve their own competencies and capabilities, and subsequently the learning experience for their students. However, such activities ‘often become invisible because they become so regular, patterned and ordinary’ (Frank 1999, p. 3). The educational ethnographer sheds light on ‘the culture of teaching and learning as they occur in people’s ordinary daily activities’ (Preissle 1999, p. 650).

In choosing to employ ethnographic methods in a virtual world, we are aware of the ‘paradox of conducting a non-traditional ethnography in a non-traditional non-space with traditional sensibilities’ (Markham 1998, p. 62 as cited in Wilson 2006, p. 308). Moreover as traditional ‘insider’ and ‘outsider’ categories, to some extent, collapse in the virtual world, the ‘subject’ ethnography is also challenged. Nevertheless, ‘adopting and interrogating ethnography keeps it alive, contextual and relevant’ (Jeffery 2011). A virtue of ethnography is the focus on intersubjectivity, ‘treating people as subjects who relate to other people as subjects (as opposed to abstract demographic objects studied by quantitative methods’ (Robinson, H. A. 2005, p. 37). A variety of data collection methods was employed to contribute to a comprehensive description of the actions within the virtual world setting. The data collection techniques employed included participant observation, textual chat log transcript collection, field notes, unstructured interviews, student and teacher reflective journals, and in-world photography (Fitzsimons 2012).

4 Understanding the Virtual

The context for this research is Second Life (SL), a 3D multi-user virtual world, owned and managed by Linden Labs. To the external observer, the virtual world of SL appears similar to computer games and massively multi-user online role-playing games (MMORPGs). All three are ‘a 3D worlds that are populated by 3D avatars’ (Aldrich 2009, p. 1). In addition, all three media can involve role-play and collaborative activities. Without a doubt, they are aesthetically similar. The three, however, are not synonymous. SL advocates balk at the reference to SL as a ‘game’ and likewise do not appreciate references to SL residents as ‘players’ (Boellstorff 2008, p. 22).

A large and ever growing body of literature attempts to provide a holistic definition of virtual worlds (Castronova

2006; Bell 2001; Boellstorff 2008; Søraker 2009; Aldrich 2009; McKeown-Orwin 2012; Wang 2011). Drawing the literature together, the authors propose the following definition comprising six generally accepted characteristics. SL may be defined as a *computer-mediated, persistent and synchronous spatially based world that is inhabited by people* represented through avatars and is *highly interactive*. First, SL is a computer mediated platform, it is ‘maintained, recorded and rendered by a computer’ (Castronova 2006, p. 11). Next, SL is a persistent virtual world and, in this way, the differentiation between computer games and virtual worlds becomes evident. The virtual world cannot be ‘paused’ (Bell 2008, p. 3). SL is always ‘on’, even when the resident is not present. Third, SL is a synchronous world that operates in real time. Fourth, it is spatially-based, existing outside of the physical realm. Fifth, SL is inhabited by people who are represented through three-dimensional avatars. Finally, the virtual world is highly interactive; there must be ‘a human in the loop’ in order for SL to exist and function (Wang 2011, p. 619).

5 Understanding Virtual Worlds

Defining the virtual world of SL is less than straightforward; moreover, understanding the activities which take place in SL can prove equally challenging. Within the context of computer games, players’ actions are categorised as ‘play’ or ‘game play’. Generally within SL, residents do not engage in the type of play that requires the resident to ‘ramp up’ toward a defined end goal (Yee 2004). Certainly they engage in role-play activities; however, their actions within the virtual world are not usually referred to as ‘play’. Consequently, residents’ interactivity can be difficult to comprehend. Frequently, those engaged in virtual world activities are questioned about ‘reality’.

Immediately, the use of the adjective ‘real’ proposes a black and white dichotomy. By implication, the ‘real’ world is the physical world and the ‘virtual’ world is a pale imitation. The world of SL, however, blurs the boundaries between what we understand, in the traditional sense, of ‘real’ and ‘virtual’. Boellstorff et al. propose that Huizinga’s play metaphor, the Magic Circle, is useful for clarifying the issue. Huizinga argued that all play occurs in a marked-off space: a football pitch; a doll’s house; a virtual world; a dreamscape. Regardless of the location, ‘all are temporary worlds within the ordinary world, dedicated to the performance of an act apart’ (Huizinga 1955, p. 10). Huizinga’s Magic Circle, which clothes the virtual space, is not an impenetrable membrane but rather a porous

one that allows ‘bleed through’ (Boellstorff 2008, p. 23). In SL, ‘bleed through’ is notable in many areas, predictably in the SL marketplace and human relationships. This suggests that within SL ‘many states of affairs are just as real as (or no less illusionary than) “real reality”’ (Søraker 2009, p. 2).

6 Understanding Pedagogic Practice in the Virtual World

Within the literature, higher education teachers using the SL platform favour experiential learning methods; constructivism is reported to be the most prevalent pedagogic approach adopted by virtual world educators (Duncan et al. 2012, p. 6). Experiential learning is considered a ‘pedagogy constructed through vocational practices; thus it is both socially constructed and contested’ (Usher 2009, p. 175). It challenges the role of academy and school-based curriculum in the teaching learning process (Hartley, Ludlow and Duff 2015). In this way, the approach might have a place in supporting a more democratic approach to learning. To varying extents, the experiential approach in virtual world contexts, such as SL, is supported with collaborative learning activities and other web-based platforms, for example, Moodle and YouTube (Cheong 2010; Mahon et al. 2010).

7 Findings and Discussion

Within this research, the findings suggested that three interconnected factors that contributed to worthwhile learning in VWFTs included; Place, People and Content.

7.1 Place

The data highlights the critical role the exploration of virtual place had in the participants’ learning experience. During the course of the module ‘Religion and Cyberspace’, each lesson involved a movement (teleportation) from a virtual class-based location to a relevant location in SL. This conceptual movement is referred to by Stainfield, Fisher, Ford and Solem (2010) as a Virtual Field Trip (VFT). In this research, each VFT provided a contextual learning experience. By way of illustration, the topic ‘Virtual Pilgrimage’ was explored through a simulated Hajj pilgrimage. While many students gave rich descrip-

tions of their experience, Ryan's commentary highlights the experiential nature of learning within the simulation:

What I enjoyed most about the simulation is the fact that we were constantly moving around Mecca looking at the different attractions. This made the class a lot more interesting as we were not just in the same place all the time. I also thought it was a great idea that we had to dress in typical Muslim clothes, and we also got to cast the devil away by throwing stones at the three pillars which was very good. The thing I enjoyed least about the simulation was the fact that it did take a while moving from the different places in Mecca. I got lost for a while but was able to find my way back a while later, but I didn't think I would be able to find everyone again as the area we were in was so large....I think this was a worthwhile activity because I remember everything about Mecca in detail whereas if we just learned about it in a classroom environment I wouldn't have learned as much or have been interested in the topic as much. (Ryan, reflective journal entry, April 2012)

This excerpt highlights how the experience of 'place', in this case virtual Mecca, significantly contributed to the student's understanding of the topic. Here, Ryan's reflection suggests he experienced a degree of presence during the activities. The broad use of the term presence is sometimes equated with an experience of feeling at one within a virtual environment. Sheridan describes presence as a 'sense of participation and involvement' (1992, p. 121). Further to this, Lombard and Ditton write that presence in a mediated virtual world occurs when that world 'seems truly "natural," "immediate," "direct," and "real," a mediated experience that seems very much like it is not mediated' (1997, n.p.). For example, Ryan identified 'constantly moving', 'looking about', 'throwing stones' and getting 'lost'. Ryan attributed his learning to his active exploration and investigation of the Hajj replica: 'we were not just in the same place all the time'. He wore the traditional pilgrimage clothing, participated in the ritual activities, and completed the phases of the Hajj pilgrimage with his peers. Additionally, he suggested his understanding was deeper and more nuanced than if he had 'just learned about it in a classroom environment'.

The student's tangible experience of being 'lost' also demonstrates the importance of having a sense of being in a believable environment in order to experience presence within that environment. When asked to speak further about this, the same student, Ryan, reaffirmed the importance of *place* in his learning.

Before visiting the Hajj in second life I was very naïve about the place. In some ways I would have liked to remain that way. Now that I know about it and what happens at the Hajj, I would love to visit it. However, I know that this is impossible. Therefore by using SL, and with thanks to the creator of the Hajj making the

experience as realistic as possible, I was able to emerge myself in the visit.

Interestingly, Ryan described how the experience of the virtual Hajj whetted his appetite for visiting Mecca. He acknowledged that '*this is impossible*' because of his religious affiliation. This highlights an interesting point. The virtual environment can afford students an opportunity to visit, to explore and to engage in a multiplicity of worlds that may never arise for them in the offline 'real' world. The virtual context can provide a rich context for overcoming geographic, temporal, economic, and religious constraints.

7.2 People

People, represented through virtual world avatars, played a significant role in the students' learning experience. Throughout the module, students engaged, interacted and dialogued with SL residents from a wide variety of world views and backgrounds. In most cases, residents shared rich personal experiences about their practice of faith within the virtual world and 'real' world contexts. In following extract James' discussion of his interaction with a guest speaker within the virtual world challenges his understanding of the local reality of practising faith within a virtual context: '*he opened my eyes*'.

In the last class we had a discussion with an evangelical Christian. He practises his faith in SL and organises events for other Christians practising their faith in SL. These range from bible readings or social events like a DJ set playing Christian music. He opened my eyes to different types of Christian music that are viewed as mainstream music. However, I have to admit the only group that I recognised was U2. He said he sometimes receives criticism from Avatars who do not share his feelings. I feel that, if you could arrange a closed event in SL to which only invited guest could come, I think it could become a very powerful tool for communicating and for developing language and cultural skills. (James, reflective journal entry, April 2012)

In this extract James empathised with the challenges the speaker faces, and attempted to propose a constructive solution to the dilemma: '*if you could arrange a closed event*'. Putting the student's views about open versus closed communities to one side, he considered that a '*closed event*' could provide '*a powerful tool for communicating and for developing language and cultural skills*'. In a similar vein, Marissa highlighted how in-world dialogue with members of the Church of Latter Day Saints helped to progress her understanding of that faith community:

I feel you always learn the best you can from a story or looking at someone else's life. Today we looked at New Religious Movements; we studied the Church of Latter Day Saints. The Mormon Church sees God as the Supreme Being of the universe. However, He gradually acquired that position over a long period of time by living a perfect and righteous life; I gathered this when they began speaking of what they believed in. How I would incorporate this into my classroom would actually be to explain that this is not a cult. I have believed for years that this religion is a cult. From speaking with people in this religion I do not feel that now; I feel that they differ in small ways to us but overall not in any major way. What I found to be most interesting about Mormonism in Second Life would be the fact that people would still become members of this religion if they feel too scared to do so in the real world. They are welcomed in this way and it is good that people can find faith confidence and friends in second life. I would use this in my class and I would not portray this religion as a cult. I would encourage my class to ask questions about different religions and study them so that I would be eliminating this barrier of prejudice in religion within my class. I shall keep the notes that I have recorded from this class and use them when I am teaching New Religious Movements again. (Marissa, interview transcript extract, March 2012)

In her own words, Marissa says *'I have believed for years that this Religion is a cult'*. In light of the experience during this VWFT, Marissa reconstructed her previous understanding in favour of a new understanding that perhaps *'they differ in small ways to us but overall not in any major way'*. The motivation to alter her opinion emerged as a direct result of diverse social interaction within the virtual environment *'from speaking with people in this religion'*. Marissa identifies how this meaning-making experience will impact her teaching of this topic in the future: *'I would use this in my class and I would not portray this religion as a cult. I would encourage my class to ask questions about different religions and study them'*. In this way, engagement in a diverse suite of VWFTs can provide a space for empathetic engagement with the other.

7.3 Content of SL Field Trips

The content specific to each SL field trip location had a significant role in students' learning. During the module we explored the concept of Cyber Sangha (online Buddhist communities) during a VWFT to a Buddhist Temple. In the following excerpt, Lauren identified openness and community, central characteristics of Cyber Sangha, as prominent features of the location:

It is a place to gather, share, and connect. It is a place where one can go and explore the rituals and participate in meditation. It is a place where one can speak freely and at ease without being judged. It is really informative and enjoyable. I also found

that it was easy to use as there is a schedule for each day and notifications pop up to remind you of such events. And when I was about to meditate a notification popped up reminding me to pray for those in Japan, which showed that it was up to date and also nice that these people are remembered even in SL. (Lauren, chat log transcript, February 2012)

Lauren's experience of the simulation gave her an insight into the ritual and practices of another worldview. In addition, the experiential content present during such field trips helped students to make the connection between the theory of a teaching and learning methodology and its application. For example, an activity-based learning methodology was possible in the US Holocaust Memorial museum because of the interactive elements in that environment. Here students took on the role of an investigative journalist piecing together the events of the Night of Broken Glass. As the content provided in the simulation was rich and engaging students invested the time to explore it carefully. As a result, students not only learned about activity-based learning as a methodology but also about that historical event. In a similar way, the Hajj simulation delivered the lesson content on 'Virtual Pilgrimage'. Students experienced a virtual pilgrimage and additionally learned how simulation can be employed as a teaching methodology. In essence, exposure to the content readily and freely available in the virtual world assisted students in their own meaning-making process.

8 Summary

This paper presents the potential of VWFTs for the enhancement of pedagogic practice and learning in a pre-service Teacher Education context, in the process demonstrating the type of transformation which can be effected by technology (Higher Education Authority, 2011, Crotty, 2014, Farren, Crotty and Kilboy, 2015). It identifies three contributing factors to learning through VWFTs. First, the virtual world provided access to places not possible in the offline context as a result of geographic, economic or religious factors. The data suggest engagement with such places facilitated deep learning. Second, exposure to and dialogue with a variety of world views challenged students' assumptions, facilitated reflection and provided an opportunity for one-to-one teaching encounters. Third, the content available during field trips facilitated two levels of learning. The data indicate students came to a personal understanding of the lesson topics through interaction with content in the virtual world. Next, the data suggest the content enhanced students'

understanding of how teaching and learning methodologies can be applied. Finally, the underlying message encountered from engagement with SL residents strengthened the students' conception of interfaith dialogue and ecumenism. All communities approached to contribute to the module agreed without hesitation, giving of their own free time in a generous manner. Some contributed as guest speakers and facilitated students on their SL residence. Others invited students to engage in or observe prayer services or other ritual activities. This collegial contribution and open interaction impacted positively on the teaching and the learning experience - demonstrating to pre-service teachers the value of technology to enable connected and collaborative learning. For teacher educators, the adoption of a curriculum-led collaborative approach can provide pre-service teachers with insight into how syllabus content can be utilised creatively in the classroom. In so doing, student teachers can be facilitated in their consideration and reflection of how the lesson content could be creatively imagined in their own classrooms, with or without the use of such technologies. In sum, there is merit in adopting VWFTs through the use of the wider SL community resources for enhancing student learning experience.

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