

Abstract for Gender and ICT conference: Umea Sweden March 2011

Second Life, Second Chance: using virtual worlds to support women returning to SET

Women often experience difficulties in returning to Science Engineering and Technology (SET) work after maternity. The working hours and workplace requirements demanded by many SET employers are often difficult to manage when combined with taking prime responsibility for children. Many women in the UK switch from full-time to part-time work after maternity, but this option is not offered by many SET employers, and where available the penalties in terms of career progression are perceived to be high (Herman 2009 ; Pantelli, 2006).

Maternity is only one of the causes for the high rate of women's attrition – women also leave mid way through their careers due to powerful “antigens” in SET cultures such as isolation, mysterious career paths, hostile macho cultures, systems of risk and reward and extreme work pressures (Hewlett et. al. 2008). Those who try to return to SET face a host of problems in doing so, some of which are very specific to the SET labour market. The *Maximising Returns 2002* report estimated that about 24,000 women who were SET graduates returned to employment in 2000, but only about a third of those returned to SET occupations. Women with SET degrees who had dependent children of whatever age were less likely to be employed than mothers who were graduates in other disciplines.

The Open University developed an online course - *Science, Engineering and Technology: A Course for Women Returners* - in 2005 as part of a UK government and EU funded project, with the aim of supporting women who want to return to their SET careers after a break. So far over 900 women have participated in the programme (known at the Open University by its course code T161), from all areas of the UK and Republic of Ireland. Women's education programmes from the 1970s onwards had recognised the power of bringing women together to share and validate their experiences, and this course drew on models of support for women that grew out of this tradition. In a survey of participants, the main barriers to returning that they reported included lack of confidence (66%), lack of recent work experience (64%), lack of contacts and networks (51%), and lack of interview practice (46%). One of the frequent feedback comments from women on the courses is the relief they experience in discovering others who are ‘in the same boat’, enabling them to understand and recognise the gendered nature of their situation as a structural rather than a personal problem. In response to evidence that the issues faced by returners are often related to their isolation and lack of contacts and networks, the original funding for the course included money to run local networking events in different UK regions, which enabled the women to meet each other in the physical world as well as virtually. However although the course continued after the funding period ended (at which point it became open to male students), we were no longer able to offer these face-to-face sessions. Thus a range of online activities and networking opportunities were created to reproduce the peer support that these women might otherwise get from a face-to-face group meeting. These include a series of online forums and a course wiki.

In 2010 we introduced an activity based in the multi-user virtual world Second Life™. Students were invited to take part in a meeting on Second Life and provided

with a specific date, time and location, just as they would be for a physical session. These meetings were repeated at intervals during the course, including one session to which visiting experts from industry were also invited, providing a chance for students to ask questions about current issues in a particular sector.

Informal reflections on the use of Second Life were very positive and over half the students in the cohort participated, many arranging to meet up “inworld” for a reunion 3 months after the course ended. In light of such encouraging results, and in order to better understand the value of using this approach with women returners, we planned and carried out a structured research study around the same format of virtual world activity with the subsequent cohort of students.

Since the first graphical virtual worlds went online in the 1990s, their standout affordance has been the facility to meet with others, in real time, in a shared space that provides a strong sense of physical presence. This affordance has been exploited in multiple ways, notably through massively multiuser online role-playing games (MMORPGs) such as World of Warcraft, but also through the myriad of groups and communities found in open (narrative-free) virtual worlds such as Second Life.

The Open University established a presence in Second Life in 2006, holding the first virtual world tutorial with students in October that year, and has since expanded that presence to 7 virtual islands¹ for a variety of both immersive and augmentative teaching, learning and social activities. In 2007 we provided inworld ‘Halls’ that proved the catalyst for social use of the environment by staff and students. This use was mapped to a Third Place model (Oldenburg, 1991), used in the physical field of community building to describe a social environment such as a regularly frequented coffee shop that is distinct from the first and second place norms of home and workplace.

Studies to date around the OU Second Life community have not specifically explored a gender perspective, but a rough estimate from ethnographical experience would suggest that more than three quarters of our thousand plus inworld group are female. This is much higher than the division exposed in a study of over 3000 virtual world users by Yee (2006), who found that around only 1 in 6 of his respondents were female. This study included game worlds, and we suggest that within a learning community the motivations for using a virtual world are quite different, and that it is women who are at home in traditional female roles, studying part-time, who are drawn to the social nature of the environment. It was this observation that led to the initial pilot of Second Life activity for T161 students.

Most of the growing body of research that centres on gender in virtual worlds is focused on the performativity and embodiment of gender through experimenting with forms of the avatar (for example Hussain and Griffiths, 2008, Dumitrica and Gaden, 2009), and does not seek to explain how issues relating to physical gender may be explored within the environment other than through manipulation of the avatar. Participants within our study engaged individually with their avatars to varying degrees, but generally there was minimal personalisation and the avatar was predominantly the tool that each used to engage with the environment and each other. We are hence able to privilege a wider range of questions relating to gender that can be addressed using the body of evidence gathered through forum postings, Second

¹ In Second Life virtual land masses come in units of islands, equivalent to 65,536m² (about 16 acres) of physical space

Life chat transcripts, survey results and planned telephone interviews:

- To what extent has Second Life fulfilled the needs of returners (eg networking and social contact, supporting their shared experience of 'being in the same boat')?
- Have their experiences of SL been more or less gendered than VLE forums?
- Does the gendered choices of avatars affect performance and/or participation in the group?
- How well does Second Life replicate or enhance face to face networking?

References:

- Dumitrica D and Gaden G (2009) Knee-High Boots and Six-Pack Abs: Autoethnographic Reflections on Gender and Technology in Second Life. *Journal of Virtual Worlds Research* 1(3)
- Herman C (2009) "Paying the price: the impact of maternity on career progression of women scientists and engineers in Europe" in Ihsen S, et al (eds) *Gender and Diversity in Engineering and Science (Report 39)* VDI, Dusseldorf
- Hewlett, S. A., Buck Luce, C., Servon, L. J., Sherbin, L. S., Shiller, E., & Sumberg, K. (2008) *The Athena factor: Reversing the hidden brain drain in science and technology*, Harvard Business Review Research Report.
- Hussain Z and Griffiths M D (2008) Gender-swapping and socializing in Cyberspace: An Exploratory Study. *Cyberpsychology & Behavior*, 11, 47-53.
- Knowles M (1984) *Self-directed learning: A guide for learners and teachers*. Associated Press, Chicago in Peachey A *The Third Place in Second Life: Real life community in a virtual world* in Peachey A, Gillen J, Livingstone D and Smith-Robbins S (eds)(2010) *Researching learning in virtual worlds* London: Springer
- Oldenburg R (1991) *The great good place*. Marlowe & Company, New York
- Panteli, N. (2006) 'Returning to IT: Employment and Development after a career break in the United Kingdom', *Labour and Industry* 16(3): 133-150.
- Peachey A *The Third Place in Second Life: Real life community in a virtual world* in Peachey A, Gillen J, Livingstone D and Smith-Robbins S (eds)(2010) *Researching learning in virtual worlds* London: Springer
- Yee, N. (2006). The demographics, motivations and derived experiences of users of massively-multiuser online graphical environments. *Presence: Teleoperators and Virtual Environments*, 15(3), 309-329.