

Rethinking literacies, learning and research methodology around archaeology in a virtual world

Julia Gillen

Abstract Through an approach I term virtual literacy ethnography I study interactions around archaeology in a virtual world. While archaeology was the thematic topic for a small group meeting to study a simulated shipwreck and associated artefacts, it also provides me with methodological inspiration. Distanced from the participants in time and space, never learning their real identities, I draw upon various kinds of multimodal records in order to establish a necessarily partial account. Recent work in ethnographies of archaeology uncovers its practices as historically and culturally constructed, seeing in turn how engaging in those practices constructs participants as archaeologists. Examining diverse evidence to study a particular site of engagement, I explore the activities through which we crafted new practices and identities as virtual archaeologists.

Index Terms archaeology, ethnography, learning, literacies, new literacies, virtual worlds,

ONE Friday evening in March 2008, I was hopping up and down in excitement, having discovered a wooden chest and skull within a submerged shipwreck. Working with other archaeologists, we eventually safely removed the finds and conveyed them to an incident room on land. In actuality, I was sitting in front of a pc in my own house, communicating with teenagers I never met face-to-face. Learning together in a virtual world, Shome Park, we were interacting in a simulated 3D environment, through personalized avatars. We could move around our island home and sea, collaborating together to work with artefacts and participate in events. However removed from physical sea, skulls and paraphernalia of archaeology I may have been, my excitement was real.

SHOME PARK

The Shome Park programme (SPP) was set up by a voluntary umbrella community of educationalists, young people, parents, teachers and anyone who wanted to join online discussions about the future of education in the twenty-first century. This community (in the loosest sense) was led by Peter Twining of the Open University, UK. *Shome* derived from an early characterisation of 'not school, not home' that, while not being a simple rejection of both those domains, suggested that the firm boundaries between them need to be shaken. The shared aim was to investigate and attempt to enact new models of education, centred upon a cradle to grave ethos, providing participants with increased range, responsibility and control of their learning and greater opportunities for collaboration. Technology is seen not only as a tool to support and extend existing practices but also as having the potential to transform ways of representing the world and of supporting learning.

In 2006 SPP decided to explore the potential of virtual worlds, considering their capacity to act as spaces in which visions of future practices and pedagogies can be built and experienced, making it "possible to construct, investigate and interrogate hypothetical worlds" (Squire, 2006, p. 19). With funding from a number of organisations at various stages of the project and a great deal of further voluntary input (see Gillen et al., 2009; Sheehy, Ferguson & Clough, 2010; for more details) the community decided to use Teen Second Life, the youth version of the virtual world Second Life¹. This virtual world was a technologically advanced 3D simulation without intrinsic goals, i.e. not a rule-governed game such as World of Warcraft. Having downloaded the client application and gained consent to join the project from parents, participants interacting remotely were in actuality located in homes, schools, workplaces or after-school clubs; mostly in the UK, some in the USA.

As the first 'closed' i.e. protected Teen Second Life project in Europe we 'imported' a few resources from e Second Life, but once the project was open it was up to participants to design artefacts and activities, establish ground rules and construct community practices and discourses. It is beyond the scope of this paper to give an overview of the enormous diversity of activities and participants that occurred on the island/s over the 13 months (Twining, 2009). Here I am concerned with two meetings of a small group, about one hour in duration, one week apart. The Time Explorers, people interested in learning about archaeology and ancient history, was organised by two teenagers.

RETHINKING METHODOLOGY FOR STUDYING NEW LITERACIES AND LEARNING

I term my methodology a virtual literacy ethnography, infused by ethnographies of archaeological practice (Edgeworth, 2006). With Boellstorff (2008) I find ethnography an appropriate approach to the study of activities in Second Life, notwithstanding the mediation of the interactions via the computer screen and in the absence of connections with project personnel in their other spheres of life. The challenge here as expressed by Vannini, (2009: 6) is to "recenter ethnographic methodology in a way that is more consonant with the subject matter of material and technoculture research." Thus the concern is not so much with the beliefs and attitudes of people, presenting themselves in the physical world, but rather what is revealed through multimodal, virtual communications. I emphasise literacy, recognising that, in line with the 'consistently negative representation of young people's new media language (Thurlow, 2007, p. 214) the diversity of literacy practices in a virtual world is often overlooked. In part this may be owing to the emphasis of the visual in discourses about virtual worlds and perhaps Second Life in particular²; it is actually an environment that demands constant deployment of literacy skills (Gillen, 2009). From an ethno-

¹ Teen Second Life and Second Life are trademarks of Linden Research, Inc.

² For example, the 'snapshot' facility used for Figure 2 strips language from the screenshot

graphic approach to studying literacy, drawing on my own experiences as learner in the environment and staff member, I examine interactions across media, comprehending the use of tools in the course of purposeful activities imbued with cultural meanings. Scollon's (2001) notion of sites of engagement is useful here: he proposes that at the particular point in time when somebody deploys a new communicative tool, they are negotiating their way through the understanding of social practices they possess, however emergently as a novice, and acting as enabled by the meditational means perceptibly open at that point. For example, as a community we gradually learnt that the most effective way of advertising events was to list them all on an 'events page' in the wiki with linked 'sign-up' pages; during the early phases of the project considerable effort was wasted in advertising events on posters inworld, which were often not encountered by people through their avatars until too late. So we had to develop practices, - not simply, as ever, a matter of developing individualised operational skills, but in collaboration learning what worked best for what purpose, developing appropriate genres and registers (Barton, Hamilton & Ivanic, 2000).

I can make a simple comparison with the practices of archaeology. I have to search among huge record sets to find salient passages of chatlogs; read a considerable number of wiki pages to find relevant material; identify and study contemporaneous field images taken by myself and others; seek out secondary sources; and, perhaps most difficult of all, decide when I am going to create a boundary around what kinds of evidence and study of context I am going to consider before finalising my analyses and writing up. In this paper, for example, I decided to neglect any investigation of the project forum and video or machinima productions.

The image shows a screenshot of a Wiki sign-up page. The text is as follows:

Date: Friday 7th March
Time: 7:30 to approx. 8:00
Venue: Ruins
Max: 10
Organiser: Marsbar9 Schomer

Overview:
 In this session we will begin our work on the shipwreck, a mini project that brings everything we've done so far together:

1. Archaeological processes
2. Data Recording
3. Preservation
4. Ethics
5. Underwater Archaeology

Anyone can join up to the event, we are looking for more participants. Why not join us as we begin archaeology under the waves. ?

Some links to consider before hand:

- [Underwater archaeology](#)
- [Finding out about Archaeology beneath the waves](#)
- [A list of registered wrecks under archaeological protection](#)
- [Nautical Archaeology Society](#)

Figure 1. Extract from Wiki sign-up page.

Turning an ethnographic lens on the practices of archaeologists "encompasses all aspects of the production of archaeological knowledge" (Edgeworth, 2006: xii). This approach, emerging from within archaeology itself, has been a useful influence, in its subjecting to the same open gaze all aspects of archaeology perceived as cultural practice, from the use of a trowel to the construction of images. Van Reybrouck and Jacobs (2006) demonstrate how participation in archaeological practices in professional fieldwork sites socialises novices into archaeologists. This is wholly consonant with a view of learning as situated par-

ticipation in communities of practice (Lave and Wenger, (1991).

DATASET

For this paper I compiled a dataset of relevant records:

- my chatlogs of the two evening meetings
- two 'sign up' pages on the wiki
- a poster advertising four 'shipwreck archaeology' sessions
- 14 snapshots taken by me on 7th March
- 9 snapshots taken by me on 14th March
- brief fieldnotes written on 7th March
- mentions of the archaeology meetings on the SPP bliki (collaboratively written wiki, providing records of events, functioning rather as a blog)
- a presentation and accompanying script written approx. 7 months later by 4 students and another staff member, entering a competition as the 'Time Explorers' group reflecting on the shipwreck archaeology experiences.

FINDINGS AND DISCUSSION

In future work I intend to adopt a systematic approach to the analysis of my data. A possible beginning



Figure 2. Snapshot from 7 Mar 2008.

would be to identify all sources of evidence of instances where the participants themselves orient to practices of archaeology, in activities including verbal interactions. The wiki signup page for the 7th March session, an extract of which appears as Fig. 1 lists 6 themes. I could collate evidence under these as headings and examine how, working in collaboration and perhaps also as demonstrated by individuals, our agenda for learning about these was furthered.

Would the themes themselves fairly describe the activities or would learning appear to have been di-

rected to other purposes, or even as arising unintentionally? Within the compass of this very brief presentation I can only offer a flavour of my data and interpretation.

Fig. 1 then, headed Archaeology session 6, Shipwreck 1, sets the scene for the meeting recorded in my chatlog and snapshots, one included as Fig. 2. Fig. 3 is an extract from the chatlog ('You' refers to my own avatar: Rowan.) Owing to space constraints I make just a few comments about this exchange, which oc-

curred immediately after some discussion of the visible crates and coins.

- From the time stamps and amount of text, it is evident that typing is taking place very fast, usually a sign of high engagement and affect.
- Line 2 is automatically generated by the software rather than by any avatar, and is almost certainly ignored.
- Line 17 is a greeting by a newcomer (who will shortly be greeted in turn).
- Lines 12, 13 & 15 concern difficulties Rowan is having in moving; she feels the need to apologise for this but the problems are (politely) ascribed to technical issues rather than any other possible reason, such as incompetence.
- Line 10 is understood by all present to have been crafted by Rowan, to convey enthusiasm.
- At lines 1, 4, 7, 14, 16 & 18 Topper is presenting his interpretations of evidence. Since those present (other than perhaps Steam) would be likely to think that Mars participated in the creation of the shipwreck, artefacts, skull and so on, there is probably a tongue-in-cheek quality to his apparent identification of inconsistencies.

Later in this meeting Mars suggests an attempt to lift some of the artefacts and transport them to an incident room; meeting the challenges this presented occupy a large proportion of the time in the following week's meeting.

1. [2008/03/07 11:38] topper Schomer: none f the evidence adds up
2. [2008/03/07 11:38] Gaea SParker is Online
3. [2008/03/07 11:38] marsbar9 Schomer: Why's that?
4. [2008/03/07 11:38] topper Schomer: some parts have rotted some not
5. [2008/03/07 11:38] marsbar9 Schomer: It happens
6. [2008/03/07 11:38] You: is it wet here I would have thought so
7. [2008/03/07 11:38] topper Schomer: well the human body has decomposed
8. [2008/03/07 11:38] You: oh really where?
9. [2008/03/07 11:39] topper Schomer: however the crates havent
10. [2008/03/07 11:39] Rowan SParker jumps up and down in excitement
11. [2008/03/07 11:39] marsbar9 Schomer: There's a skull up on the 2nd deck
12. [2008/03/07 11:39] You: sorry Topper and Mars my connection is odd
13. [2008/03/07 11:39] You: I can't move smoothlly
14. [2008/03/07 11:39] topper Schomer: it has a layout of a older ship than th cre#ates could have youbelive
15. [2008/03/07 11:39] marsbar9 Schomer: No worries - could be the lag, it's been incredibly bad lately
16. [2008/03/07 11:40] topper Schomer: skulls here are primate
17. [2008/03/07 11:40] Steam Schomer: hi
18. [2008/03/07 11:40] topper Schomer: its to big to be human yet resamele a rimate skull

Figure 3. Excerpt from chatlog. Line numbers added for ease of reference.

Without the experience of participating in the project, reading the chatlogs would be far more difficult. At times the flow of 'automatically' produced utterances, ie those programmed into Second Life or

scripted into bots quantitatively overwhelmed those spontaneously keyed in as by avatars. This is just one example of what one needs to learn to identify, to sort, in order to know what requires paying attention and what should be regarded as peripheral. Referring to a complex semiotic tool used by archaeologists, Goodwin (2006: 51) observed, "...human beings have the ability to secrete cognitive organization into the world they inhabit in ways that create new forms of both knowledge and action, while transforming the environment within which relevant activities are accomplished." Practicing archaeology in Shome Park is a vivid instantiation of this. Creating the 'finds' and designing the learning activities required the deployment of relevant knowledge; interacting over their 'discovery' required understanding of this particular form of embodiment and culturally informed perceptions, simultaneously in diverse modes. (Acting as a researcher at the same time as engaging in such an intense learning experience was further experiential load.)

CONCLUSIONS

As Bauman (2010) asserts, communicative practices are historical and experiential emergents. Contexts for "new literacies" such as virtual worlds can offer opportunities for creating innovative learning experiences. But this is not to suppose technological determinism. This specific community of practice, including by this point its considerable history, tradition of collaboration and support for learning, shaped the site of engagement that was shipwreck archaeology. The Time Explorers creatively rethought practices drawn from our knowledge of archaeology gained from media in which we were positioned as consumers – watchers of TV, readers etc. In their public presentation several months later, Time Explorers wrote, 'Shome Park has given its students a real chance to study History and Archaeology in new ways which are more engaging and interactive than those used in the classroom.' In SPP we practiced a new kind of archaeology and shaped new identities as virtual archaeologists.

Finally, along with Goodwin (2006: 52) "I have found it useful to use ethnographic analysis of archaeological practice to investigate how human beings build the actions that constitute the social and cognitive worlds they inhabit together." "Build the actions" is an unusual collocation, but, when everybody is interacting in ways they experience as 'real', yet in the sometimes captivating setting of a virtual world, it does seem apposite.

ACKNOWLEDGMENTS

Julia Gillen is grateful to the Shome Community, especially the necessarily pseudonymised teenagers mentioned in the text for the learning experiences. For researching SPP since, she has particularly bene-

fited from working with Peter Twining and Rebecca Ferguson of the Open University and Anna Peachey, Eygus Ltd. Details of funders etc are available from the project webpages at www.schome.ac.uk.

REFERENCES

- Barton, D. Hamilton, M. & Ivanic, R. (Eds). (2000). *Situated literacies: Reading and writing in context*. London: Routledge.
- Bauman, R. (2010) 'It's not a telescope, it's a telephone': encounters with the telephone in early commercial sound recordings. In S. Johnson, & T. Milani (eds) *Language Ideologies and Media Discourse: texts, practices, politics*. Continuum. pp. 252-276 .
- Boellstorff, T. (2008) *Coming of age in Second Life*. Princeton: Princeton University Press.
- Edgeworth, M. (ed.) (2006) *Ethnographies of archaeological practice: Cultural encounters, material transformations*, pp. 45-55. Lanham, MD: AltaMira Press.
- Gillen, J. (2009) Literacy practices in Schome Park: a virtual literacy ethnography. *Journal of Research in Reading* 32 (1) 57-74.
- Goodwin, C. (2006) A Linguistic anthropologist's interest in archaeological practice. In M. Edgeworth (ed.) *Ethnographies of archaeological practice: Cultural encounters, material transformations*, pp. 45-55. Lanham, MD: AltaMira Press.
- Scollon, R. (2001) *Mediated discourse: The nexus of practice*. London: Routledge.
- Sheehy, K., Ferguson, R., & Clough, G. (Eds.). (2010). *Virtual worlds: controversies at the frontier of education*. Hauppauge, NY: Nova.
- Squire, K. (2006) From Content to context: videogames as designed experience. *Educational Researcher* 35(8) 19-29.
- Twining, P. (2009) Exploring the educational potential of virtual worlds – some reflections from the SPP. *British Journal of Educational Technology* 40 (3) 496-514.
- Van Reybrouck, D. & Jacobs, D. (2006) The mutual constitution of natural and social identities during archaeological fieldwork. In M. Edgeworth, (ed.) *Ethnographies of archaeological practice: Cultural encounters, material transformations*, pp.33-44. Lanham, MD: AltaMira Press.
- Vannini, P. (ed.) (2009). *Material culture and technology in everyday life: Ethnographic approaches*. New York: Peter Lang.

Julia Gillen is Senior Lecturer in Digital Literacies in the Literacy Research Centre, the Department of Linguistics and English Language, and the Centre for the Centre for Mobilities Research, at Lancaster University, UK. Her qualifications include a PhD from Manchester Metropolitan University and a Postgraduate Certificate in Online and Distance Education from the Open University. She is a member of the American Educational Research Association; British Association of Applied Linguistics; International Society for Cultural and Activity Research; UK Literacy Association and the Royal Historical Society.