Drawing on a history of the virtual

towards understandings of children's and young people's digital literacies in virtual online spaces

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This work draws on:

Soler, J. & Gillen, J. (2009) "£5,000 on building a school that doesn't even
exist." Children and teenagers in virtual worlds: a media study of literacy issues. Paper presented at the British Educational Research Association annual conference, University of Manchester, 2-5 September.

Soler, J., & Gillen, J. (2009) A threshold moment for virtual worlds: literacy issues relating to children and teenagers portrayed in the newspaper media. Paper presented at the 45th UK Literacy Association Conference, University of Greenwich. July.

& Projected work…

Interdisciplinary, historical overview of media examples

Implications for dynamic understandings of virtual worlds & literacy issues

Outline of presentation

- Interweave tale of history of virtual worlds with historical and contemporary media quotations
- Implications for dynamic understandings of virtual worlds & new literacies

methodology for media searches (with J. Soler)

- Use of Lexis newspaper database to search English language nationally based newspapers world wide
- Key search terms: 'Virtual worlds', 'Literacy', 'teenagers', 'children'
- Period 1990-present (searches establish that this represents period where emergence of 'virtual worlds' as a term in the press)

Media examples

Year	newspaper	Shortened title
1992	The Independent (London)	Almost anything is possible- virtually
1995	Dallas Observer	Caught in the web
1999	The Guardian (London)	Think Piece: Victorian classroom values
2000	The Guardian (London)	Wicked world: Grapevine where schools share good ideas
2008	The Times (London)	When hatred comes to your home page
2009	The Times Educational Supplement (London)	Virtual learning- Untangled Web

Current (complex) conceptions of virtual worlds have 3 significant historical antecedents

1. Virtual reality prosthetic devices

(influenced by SF [Ok, nd])

"The helmet, rather like a personal flight simulator, contains a tiny display screen on to which the software projects its version of reality. If you turn your head, the virtual world turns with you." (*Almost anything is possible virtually, 1992*)

2. Video games, esp. strategic simulation games with multifarious goals, moving > online, multiplayer

- "Architects and designers are using virtual worlds to convince supermarkets they need new warehouses – by showing how efficient these would be" (*Almost anything is possible virtually, 1992*)
- "Alexander Jason, a ballistics expert and computer programmer, produced a VR animation of the shooting…." (*Almost anything is possible virtually, 1992*)

Micropolis – Open source version of Sim City for One Laptop One Child

3. MUDs multi player dungeons, domains or dimensions

"A new Moo on Metronet needed local help with "building" …. MOO stands for MUD Object Oriented…role-playing game similar to Dungeons and Dragons."

Caught in the web, 1995

Richard Bartle in 1983, first developer of MUD:

"What I would like to see – and it's a long, long way off – is some local or national network with good graphics, sound effects and a well designed set of worlds of varying degrees of difficulty. In this true meritocracy, you will forever be encountering new situations, new difficulties, new solutions, and above all new people. Everyone starts off on an equal footing in this artificial world. "

"TV is passive; on the Internet you're using your imagination, and you're actually with other people. It's not like a drug. It's more comparable to reading – your brain's engaged, it's a broadening experience…..a Discovery Zone for bright adolescents." (Caught in the Web, 1995)

"Through programming, children would be able to actually do things, create things, make things happen."(Think piece: Victorian classroom values, 1999)

"Almost immediately they were finding ways to interact with their friends' avatars… The children began communicating with the Orkney pupils through the avatars they met in the virtual world…Time for them to create landscapes of their own." (Wicked world: Grapevine where schools share good ideas, 2000)

"They're developing teamwork skills and communication, as well as literacy and numeracy skills."(Virtual learning – Untangled web, 2009)

Radical innovations such as ‘virtual worlds’ have been shaped through interaction with the wider cultural landscape.

Sustained divergent views on the implications for (literacy) education.

Sustained tendency for hyperbolic and ‘moral panic’- but also a gradual development of more subtle understandings

But what is balance?

REVIEWS

The Scientific Research Potential of Virtual Worlds

William Sims Bainbridge

Online virtual worlds, electronic environments where people can work and interact in a somewhat realistic manner, have great potential as sites for research in the social, behavioral, and economic sciences, as well as in human-centered computer science. This article uses Second Life and World of Warcraft as two very different examples of current virtual worlds that foreshadow future developments, introducing a number of research methodologies that scientists are now exploring, including formal experimentation, observational ethnography, and quantitative analysis of economic markets or social networks.

Recent sociotechnical developments involving online worldlike environments have made possible new kinds of research in the social and behavioral sciences, nine interesting challenges for computer and information science, and suggest new potential for education across all the sciences (*1*, *2*). We can use the term "virtual world" to describe an electronic environment that visually mimics complex physical spaces, where people can interact with each other and with virtual objects, and where people are represented by animated characters. The diversity of current virtual worlds can be represented by the creativity-oriented environment Second Life (SL) and the massively multiplayer online role-playing game World of Warcraft (WoW). To date, about 6.5 million people have entered SL and WoW reports that it has 8.5 million subscribers, so the impact of this technology is beginning to be felt by society.

The user enters each via a personal computer running special software that connects to one or more servers that pass information back and forth between users over the Internet. Both simulate very large three-dimensional environments filled with virtual objects through which the user may subjectively walk, swim, or fly, and in the case of WoW, with thousands of simple artificial intelligence (AI) characters to interact with. Each user is represented by an avatar and can talk with the others by typing in a chat channel or through optional voice communication (*3*). Both worlds sustain complex internal economies with their own currencies, both enable users to do useful work for each other, and both offer software tools to facilitate social interaction, although some of their specific features are quite different (*4*–*6*) (Fig. 1).

In terms of scientific research methodologies, one can do interviews and ethnographic research in both environments, but other methods would work better in one than the other. SL is especially well designed to mount formal experiments in social psychology or cognitive science, because the researcher can construct a facility comparable to a real-world laboratory and recruit research subjects. WoW may be better for nonintrusive statistical methodologies examining social networks and economic systems, because it naturally generates a vast trove of diverse but standardized data about social and economic interactions. Both allow users to create new software modules to extract data.

The present moment marks a major historical transition. Video games and computer games are in the process of evolving into something much richer, namely virtual worlds, at the same time that electronic games are surpassing the motion picture industry in dollar terms and beginning to cut into television. Already, many families forgo watching TV dramas to quest together in WoW. Previously separate forms of electronic communication are merging in what Americans call ubiquitous computing and Europeans call pervasive computing. The current generation of video game systems—XBox 360, PlayStation 3, and both the Nintendo Wii and the Nintendo DS portable—all connect to the Internet, and games designed for cell phones or Internet-connected pocket computers are proliferating. Researchers are exploring the methods needed to create an entirely new generation of games, called pervasive LARPs (live-action role-playing games), that have players act in the real world while simultaneously interacting over the Internet via wireless mobile connections (*7*–*9*).

During this time of transition, when there is active speculation about the investment opportunities, it is exceedingly difficult to estimate the current economic impact of virtual worlds, let alone project the future. For example, a Web site called *Wowhead* that was merely about WoW recently sold for 1 million dollars, and the game's $15 monthly charge across many subscribers could generate hundreds of millions of dollars per year (*10*). Virtual worlds differ as to whether their internal currency can be exchanged for dollars (SL, yes; WoW, no), so economists face the scientific dilemma of how to count wealth generation inside the games, in addition to the external dollar investments and returns. Exploratory studies by Nick Yee suggest that most players are in fact adults, disproportionately male but with a wide variety of occupations and demographic characteristics (*11*), so virtual worlds are not simply a childish fad. However

Fig. 1. The Stormwind Auction House in WoW. The three figures wearing vests and standing on platforms are the computer-generated auctioneers, whereas the dozen other figures are characters belonging to real human beings participating in auctions involving a thousand or more people. The one waving in the center is the avatar of a scientist who is studying this virtual world and the computer-assisted systems it provides to facilitate social interaction and economic exchange.

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What this means for new literacies

- Blurring of distinctions between reading and writing
- Collaboration
- Creativity, playfulness
- Multimodality

(Gillen, 2009; Kress, 2003; Knobel & Lankshear, 2007; Lankshear & Knobel, 2008; New London Group)

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Immersion – yet artificial or real?

"…she believed her daughter was wasting real emotions on something which was 'unreal' since it took place online." (When hatred came to the home page, 2008). VWs and virtual reality (Bainbridge, 2007)

"Human beings are adaptive systems continually producing and exploiting a rich world of cultural structure…With the focus on a person who is actively engaged in a culturally constructed world, let us soften the boundary of the individual… (Hutchins, 1995, p. 288)

Further implications

New understandings of notions of human agency and subjectivity (Suchman, eg. 2009)

Entanglements of the human, perception, materiality (Barad, 2007)

Possibility of designing new futures, untrammelled by technological determinism

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