

## **BOOK REVIEW**

*Language and Learning in the Digital Age*, James Paul Gee and Elisabeth R. Hayes. London: Routledge, 2011, vi +159. ISBN 9780415602778.

While the authors Gee and Hayes accord a secondary status to written as compared to oral literacy, both types of literacy are nonetheless defined as continuums of a language delivery system (p. 15). In the digital age, learning necessarily includes expert collaboration via the use of digital technology. Interaction in spaces such as chat channels, whispers, group chats, friend lists, guilds and guild chats (cf. Dickey, 2011) requires constant conversation between online users (cf. Steinkuehler and Williams, 2006). Similar to the diverse interactions that occur in multiplayer online games (MMO), exchanges in digital media with the opportunity for learning are prevalent across a spread of digital tools.

In studying a survey of learning practices from both conventional and advanced digital media formats, Gee and Hayes note that digital technology is a key feature of current education. They explain that the foundation of online interactivity has its origins in written literacy wherein the human body becomes displaced within abstract thinking. Metaphorical extensions in written literacy are in turn characteristics of a mode of influential thinking. This shows the cognitive ability to generate parallel understandings from basic references via prototypical extensions, thus enabling humans to exploit metaphorical schemata as mental constructs of varying concepts for solving scientific problems (cf. Gibbs, 1994; 1996). A society with the ability to execute abstract thought processing is then arguably more likely to prosper. In this way, written literacy is instrumental in the development of human civilisation.

In line with comparative learning practices, Gee and Hayes examine learning in formal/physical as well as informal/virtual localities including the school and the world in an online game. Regarded as typical school literacy, Gee and Hayes highlight essayist literacy as the current mode of knowledge development in most schools. Essayist literacy refers to expository and scientific writing as the typical features of formal education (p. 27). The digital development of knowledge processing, on the other hand, includes theory crafting in digital forums set up by online gamers. Furthermore, Gee and Hayes consider essay writing in school to be pretentious, non-committal on the learners' part and irrelevant to the students (p. 66). Theory crafting, however, maintains intellectual accountability since it includes all sorts of actual testing (p. 82).

Gee and Hayes link literary text with the fervor of online gameplay. Both the storyline and the interactive intricacies of a digital game induce an active mental projection from the learner and online gamer respectively. The similarity between a selected text and an online game indicates that digital media, like print

media, is a delivery system that attracts a particular set of followers. In this respect, digital media, as a learning technology, is similar to print in channeling content.

Another interesting point Gee and Hayes discuss is how social digital media blur the linguistic differences that exist in intimate talk, peer talk, status talk (superior versus subordinate dyads) as well as stranger talk. Gee and Hayes forge an understanding on diminishing single agent knowledge control by highlighting the vanishing linguistic indexes of each speech type in online interaction. Such awareness helps the reader understand the reason for the collapse of structured financial products globally. The "wisdom of the crowd" thus makes more sense than relying on a single expert.

When the economy collapsed, Alan Greenspan, considered the leading economic expert in the world and long-time head of the Federal Reserve Bank...said he had no idea why the collapse happened...Going [sic] it alone is out of date and dangerous. Greenspan needed to collaborate with people who thought about history, human psychology (and greed), cultural changes (including in business), institutional relationship, global economies and politics, and the sociology of human interactions within institutions (pp. 43–44).

The 2008 global bond scare is related to our trust of printed words. Plato had warned that the human nature has a tendency to neglect the responsibility to check printed words (pp. 47–48). As Gee and Hayes explicate, mute written texts in bold or fine print are opportune literal references, representing contrived truths that may turn out to be costly.

As a caution against this, this review recounts an interview produced for a televised segment on 13 April 2011 wherein Dr. Mo Ibrahim provides an insight to current perceptions of Africa. The billionaire, whose foundation awards \$5 million dollars to selected African politicians practicing good governance, was critical of the famine-stricken and war-wreck image the mass media creates Africa – a prejudice based on a mere 3 out of 53 countries across the continent. Knowledge, in this respect, is distorted due to a subjective notion of newsworthiness. Furthermore, this review informs that online users in the digital age are not just those conventionally deemed IT savvy. Computer scientists are racing to design enabling technology with multi-dimensional interfaces and digital systems convenient for senior citizens are becoming a current market trend.

On one hand, the assertion that gender differences in computer use and skill is negligible as human-computer interactivity becomes commonplace in our daily lifestyles (Norman, 2008; Sew, 2010). On the other hand, however, access to online game shows that gender biases still exist. Asking "what games do

women want?" implies erroneously that women have a negative attitude towards online games with violent content. Women are in fact denied social and technical access to try out the digital products or participate in a male dominant MMO space (Taylor, 2008). The interest in and skills of online games are closely linked to gaining access, which is often stereotyped according to gender. The capacity to acquire information via digital technology augurs well for the eradication of subjective and stereotypical barriers keeping knowledge from its seekers.

Readers are reminded that digital media may not have any particular impact on society. Any positive or negative outcomes depend on their unique application. Digital media may have its educational benefits if users are properly mentored in formal learning environments. Indeed, Gee and Hayes argue that the "wisdom of the crowd" optimizes learners' propensity to deal with some of the complex systems in the world through system thinking. Gee and Hayes present a case study involving expert collaboration to identify good problem solving strategies among members of a virtual community. The amateur gamers involved belong to "Elitist Jerks", a digital forum established online for "World of Warcraft". It was found that they managed to enhance gameplay skills by ensuring members had strict codes of conduct requiring research, data analysis, mathematical calculation and argumentative skills. This collective effort is comparable to real-world collaboration in, for instance, a scientific community (pp. 84–85).

Three points in the book, however, warrant some criticism. Firstly, an oversimplification is noticeable in the argument regarding readers' textual fascination with online gameplay. While the game-culture of *World of Warcraft* actually affects student-to-student dynamics in a real learning environment involving the MMO (cf. Dickey, 2011), the impact of literary appreciation, is less pronounced, not least as it is limited to an internal appreciation that manifests solitarily, if at all.

Secondly, prior to adopting a neutral position on digital media, Gee and Hayes cite Carr (2010) who frames digital technology as a threat to mankind. A fourth and a second year undergraduate that this reviewer spoke with in 2010 confessed that the mental distraction from surfing the Internet was to their constant consternation. Monitoring online activity may nevertheless be an insufficient bulwark against the rapid transfer of information in the brain. Polarised concentration in the mind of Internet users should be a matter of concern (Sew, 2011). Furthermore, a recent study reports that young children using tablets and smartphones are actually exposed to social health risks that include a tendency to display erratic emotional outbursts (see Teng, 2013).

Thirdly, the claim that languages have a universal system with similar basic properties (p. 7) is a weak one – especially when one considers that there are many languages based on tonal systems. In these cases, new meanings are generated with each tone change. The number of tones varies internally among Chinese dialects, for example, with nine in Cantonese (Sew, 2008), seven in

Taiwanese and four in Standard Mandarin (Lin, 2007). The varying tonal systems in languages challenge the linguistic principles the authors draw from observing one, two or even three standard average European languages.

This aside, Gee and Hayes allow their readers to view digital media as a conducive tool for developing literacies relevant to the modern world – not least as the use of social digital media does support different learning styles (Anderson, 2008). Foreign language education at tertiary level, for example, can capitalise on *YouTube* clips by combining real and virtual zones of human comprehension in blogging (Sew, 2012).

In short, this book offers a holistic view on the intricacies of learning in this age of digital technology. In reminding readers that learning has been a progression from face-to-face interaction in oral literacy to gradually more abstract terms of thinking in written literacy, the authors provide many convincing arguments and facts that digital social media is a welcome avenue for effective teaching and learning.

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