

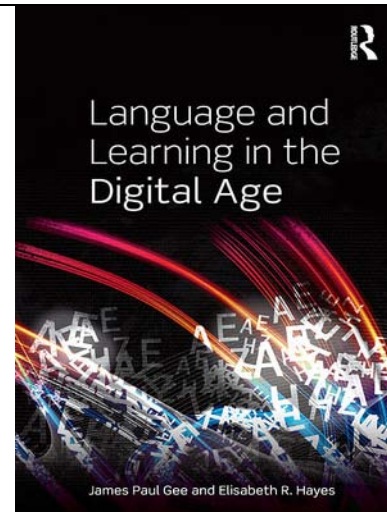
## REVIEW OF LANGUAGE AND LEARNING IN THE DIGITAL AGE

### Language and Learning in the Digital Age

James Paul Gee  
Elisabeth R. Hayes

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### Review by Paul Rama, [University of California Irvine](#)

Gee and Hayes' latest work, *Language and Learning in the Digital Age*, is an informative read dealing with the potential, perils, and implications of digital media. Parallels and comparisons are drawn between oral language, literacy (defined as reading and writing), and digital media, and how these latter two have altered the way we communicate and interact. As leading authorities on games and learning, Gee and Hayes illustrate their arguments with examples from video games, including *Second Life* and *World of Warcraft*. These, along with non-game examples such as a cat listserv, "birding" (p. 72), and amateur science, contrast school learning with that found in "passionate affinity spaces" (p. 69), which are argued to be ideal spaces for personally meaningful, situated learning. The authors challenge institutionally valued literacy skills, which have been reinforced in our current school systems. The book's title describes the content of this work, which succeeds in illustrating how language, which is essential to learning, is once again being shaped, this time by digital media.

The introduction lays out the premise of the book, which is that "digital media 'power up' or enhance the powers of language, oral and written, just as written language 'powered up' or enhanced the powers of oral language" (p.1). In the next two chapters, the authors give an historical account of the relatively new developments of literacy and digital media. Gee and Hayes relate how literacy changed oral language, setting up their historically contextualized account of how digital media (like literacy before it) is reshaping communication.

Briefly, they argue that oral language, available to all humans (barring any major impairment), existed for many thousands of years prior to reading and writing (literacy). Oral language is dialogic and flexible, allowing for speakers and hearers to interact to clarify meaning. Rich as we are with oral language, once literacy began to flourish, words once spoken could travel beyond the limitations of time and space. Speakers were no longer required to convey information; however, the intentions of the speaker (writer) could be interpreted in unintended ways. Whereas oral language is highly interactive yet fleeting, and written language permanent yet inflexible, digital media offers a high degree of interactivity, while also possessing the relatively permanent nature of writing.

Gee and Hayes explain that "Digital media like (like text messaging, *Twitter*, and other social media) are bringing back concrete images and experiences, as well as metaphors for understanding the abstract and complex" (p. 12). Language and literacy is being powered up by digital media, resulting in new forms of (digital) literacy. This makes possible the rise of new literacies beyond reading and writing print text,

allowing for meaning-making using multiple sign systems (i.e., video, images, multi-media, etc.). Through online games, blogs, and social networking sites, diverse groups of people are interacting on a scale that defies time and space. How does the impact of digital media on our everyday lives affect how we learn? The next two chapters begin to set the stage for answering this question.

Chapters 4 and 5 touch upon the qualities of language that affect relationships. According to Gee and Hayes, language is never neutral; it falls along a continuum from bonding to distancing, though in essayist writing, which is reinforced and valued in schools, most language is considered distancing. Out of convention, essays and academic writing are not intimate or impassioned; these are created for a fictional, rational reader, even though students may be writing for their teacher, or other students who they personally know and who exist in reality. This idea of writing for, or interacting with, strangers is extended in Chapter 5. Examples of total strangers bonding through virtual interaction via *World of Warcraft* and *Second Life* are presented, illustrating how digital media, games in this case, allow us to experiment with identity and to be, think, and act in new ways.

Chapter 6 reaffirms and elaborates upon earlier ideas surrounding institutionalized control over language production. This chapter details how digital media fosters collaboration, something they argue is lacking in education. For example, Gee and Hayes relate how big, global economic decisions being controlled by one expert (Alan Greenspan), caused economic turmoil. They note that communication among experts from relevant fields may have resulted in wiser decisions, which would reflect a key shift offered by the collaboration inherent in the digital age.

In Chapters 7 and 8, Gee and Hayes offer a critical view of schools, which is that they have largely failed to effectively leverage new media for learning. School learning, with its emphasis on institutionally valued forms of writing, such as essayist literacy, is contrasted with passionate affinity-based learning, which is organic, relevant, and driven by groups of people who share common interests. Passionate affinity spaces focus heavily on space(s), in many cases digital, where groups who share common interests (i.e., affinities) interact. Shared interest, distributed knowledge, nondiscriminatory affiliations between people (of different skill levels, races, gender, and socioeconomic status), and multiple routes for participation, are just a few of the features that characterize passionate affinity spaces.

The examples from *Second Life* illustrate how two women gained valuable programming skills, becoming respected experts in creating game content. *Second Life* is a graphically-rich, three-dimensional virtual world filled with people (represented by digital avatars) engaged in an array of user-driven activities ranging from exploring the virtual environment, to socialization and romance. The passionate affinity space of *Second Life* allowed the women to explore practical, personally relevant content. Though this expertise is not traditionally valued in schools, these women gained valuable real world skills relating to business, design, global communication, and computational skills, to name a few. One woman who struggled and received poor grades in school-valued geometry was able to apply geometry in complex ways building objects in *Second Life*.

Gee and Hayes discuss how schools give students the “game manual” (p. 117), teaching them the rules of the game without actually allowing learners to play the game. For example, students learn the laws of physics, while conducting very few actual physics experiments. “Playing the game,” or carrying out tasks related to learning, is essential in creating opportunities for learners to gain embodied experience with concepts and language, which then leads to situated understandings. As schools increasingly teach to tests, students learn how to answer test questions, often failing to gain practical understanding over the content being taught. Students learn what they need to advance through school systems, meanwhile gaining what they really need for future success in life in passionate affinity spaces.

Chapters 9 and 10 illustrate the concept of passionate affinity spaces. In Chapter 9 Gee and Hayes discuss how games, possessing the beneficial features of passionate affinity spaces, create opportunities for deep analysis, collaboration, and experimentation. Theory-crafting in *World of Warcraft* is a prime example of

passionate affinity-based learning. Many players “become ‘scholars’ of the game” devoting “the sort of research and analysis we associate with science to the complex system that is *WoW*” (p. 82). Examples in this chapter include players’ calculation and analysis of game mechanics such as DPS (damage per second) and player-created mods that add functionality to the game. Passionate affinity spaces like these allow for amateur game analysts and creators, like the players in the examples, to contribute in meaningful ways on par with experts (who, in the case of *WoW*, have implemented many of the ideas flowing from these passionate affinity groups).

Chapter 10 builds upon the idea that passionate affinity spaces allow for amateur contribution in domains once reserved for experts. Using a cat listserv, amateur cat aficionados discussed everything from cat health to breeding, with the same type of complexity and experience demonstrated in the preceding chapter’s *WoW* example. Cat owners participating in the listserv became intimate strangers, unacquainted in the real world, yet bonded through digital media over their common passion for cats. Their collective experience empowered them in such a way that they became knowledgeable enough to question the expertise of professionals, often informing their real world cat decisions with the wisdom of the online group.

The content of Chapters 9 and 10 are reinforced in the next chapter, which discusses how digital media is democratizing expertise. As previously noted, non-discriminatory affiliations based on common interests are a hallmark of passionate affinity spaces. Everyday amateurs can engage in these spaces, and are measured by their content, not credentials. Amateurs can even shape content developed by professionals, as is the case in many popular video games. Throughout this work, Gee and Hayes have successfully given the reader an informed, historical account of language and power; here they circle back to the amateur, and how this group has returned to the sphere of influence, thanks in large part to digital media.

While not explicitly stated, Chapter 12 adopts what appear to be situated cognition and sociocultural theories of learning. From this paradigm, meaning arises from the learner’s interactions with other people and the social context, and is mediated by symbolic (e.g., language, image) as well as material tools and technologies. Experience needed for embodied, situated understandings greatly differ in school and real world contexts.

Chapter 13 identifies three social formations. While interpretation in the oral social formation was controlled by authority (claims to divine authority, rank, etc.), and the literate formation controlled by institutions (with the research and credentials to interpret), the digital social formation remains relatively open. The authors write, “control in the digital world is much less top-down and interactively negotiated than in the literate social formation. In the digital formation we see flexible, interactive, and dialogic interpretation often controlled neither by authority nor institutions” (p. 126). The implications of this, both positive and negative, are discussed.

The final chapter expands on the implications of digital media. Critics suggest that today’s youth are unable to focus for sustained periods of time; they cannot deeply and reflectively read long texts. The authors state that critics of youth today are in reality bothered by how youth multitask. Contextualizing multitasking historically, the authors argue that multitasking has always been necessary, though it is especially important in the digital age. They illustrate this with *Rise of Nations*, a real-time strategy game that requires players to execute a high number of actions-per-minute in order to be successful. Other important implications include the customizable nature of digital media, which allows consumers to choose what they pay attention to and what becomes marginalized. Gee and Hayes raise concerns that issues have the potential to become polarized, as consumers customize their media, drifting to the extremes of their interests, which is not in the best interest of society.

The implications of digital media in the present have been discussed, and the future remains uncertain. The authors reference the force for change that digital media will have over time, like literacy before it. Gee and Hayes mention Levi-Strauss’ ideal human world, which they describe as “many diverse groups

each working out a different way of being human, close enough to other groups to occasionally steal and borrow, but far enough away so as not to fight or homogenize into one bland whole” (p. 141). This world, presumably being shaped by digital media, is a provocative yet underdeveloped idea; it is largely left to the reader to connect this with the rest of the text.

There is little mention of what can or should be done, if anything at all, to ease schools away from a focus on memorizing facts and into effective use of digital media for language development and meaningful, contextualized learning. As described above, passionate affinity-based spaces like those found around gaming highlight what is being learned out of school. So then how do we transfer, if such a transfer is even possible, this type of learning into schools?

To summarize, *Language and Learning in the Digital Age* is a clearly written, informative text with examples that illustrate the power of digital media. Many of the ideas presented here have already been explored in the authors’ prior works; in many ways, this text streamlines and slightly improves those ideas. For example, passionate affinity based spaces is treated with more depth in Gee’s *Situated Language and Learning* (2004). The authors have added “passionate” to affinity spaces, reflecting only a superficial change, since affinity spaces, as presented in Gee (2004), are made up of individuals who share the same passion. Likewise, the examples of games and learning follow what has been laid out in *What Games Have to Teach us About Language and Literacy* (2003). This is not a criticism of the value of this book; it serves well as an introductory text that provides clear examples and issues surrounding digital media. This work does not build the field as much as it offers a concise, enjoyable read familiarizing readers with the topic. However, there is less here for those who have read the authors’ prior works or other books on this topic. In short, *Language and Learning in the Digital Age* is an approachable read, ideal as an introductory text for undergraduate and graduate courses studying digital media.

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## **ABOUT THE REVIEWER**

Paul Rama is a doctoral student at the University of California Irvine. His research examines video games and simulations, and the potential of these to provide second language (L2) learning opportunities. His current projects examine the types of learning that occur through video game play, and the potential of commercial MMOGs like World of Warcraft in creating affordances for L2 acquisition.

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