The Digital Reader / Meaning-Maker

Being a digital reader/meaning-maker involves more than reading, researching and exchanging information online. It involves negotiating everyday life within a world where the media shapes who we are, what we know, how we access information, our expressions of ourselves and our various negotiations with others (e.g., personal, professional, social, political, economic, cultural). Being a digital reader is not a fixed or static destination but an everchanging journey, involving relative, fluid and multifaceted engagements. In some ways, digital readers are likely to be involved in a conglomeration of engagements that draw upon their digital webbased meaning-making skills, especially their abilities to navigate the multiple dimensions of visual and text material within and across websites. In addition, they enlist various social strategies and plays as they engage socially on different platforms with different groups (e.g., friends and family, colleagues and project teams, affiliation groups or solicited others) by text and image, synchronized and asychronized with prescribed and less prescribed parameters perhaps dealing with people from different language groups and cultures more or less accessible and familiar with the digital frames. They need to navigate search engines, multilayered images and texts as they consider and weigh possible avenues and platforms for meaning making and their own networked exchanges through multiple lenses—that is, as constructivist, strategic, writerly, social, and global readers. Indeed, researchers studying the digital reader have drawn upon these frames to delve into and recommend approaches for digital meaning-making.

Information Explorer

The digital reader, in keeping with the broader notion of the reader as a constructivist and composer, is an information explorer. Befitting constructivist notions of meaning making, the exploration of digital sources of information requires engaging in text and media worlds that are multilayered, using a myriad of strategies. One key strategy is a form of forward inferencing (akin to prediction) both within and across texts, using criteria such as relevance, interconnectedness and coherence to guide one's consideration of ideas. According to research on web users (e.g. Coiro and Dobler, 2007), one of the key distinctions of successful online

comprehension is tied to the more frequent use of forward inferencing (versus backward inferencing)—as prompted by a hypertext link.¹ As Coiro and Dobler (2007) suggests, "... internet reading seems to demand more attempts to infer, predict and evaluate reading choices... to prompt some readers to orient themselves in a new and dynamic three-dimensional space ... to figure out how to get back to where they 'were.'" (p. 234). They suggest that the self-regulation of online comprehension seems tied to a similar set of recursive strategies of past models of composing (e.g. Tierney & Pearson, 1983). Online comprehension involves planning within and across websites, predicting and following leads, monitoring how and where to proceed and evaluating relevance and judging merits. As Coiro and Dobler (2007) explain:

Our findings suggest that the greater complexities in online reading comprehension may result largely from a process of self-directed text construction; that is, the process online readers use to comprehend what they read as they search for the Internet text(s) most relevant to their reading needs.

On one level, we observed skilled readers engaged in an ongoing "self-directed" planning process involving a series of inferences about what would best fit with their internal representation of the text's meaning. Simultaneously, on a second level, these readers constructed their own external texts. Each decision about which link was most relevant involved constructing the next element in the text they built. We observed readers actively anticipating and monitoring the relevancy of each new text unit, while quickly deciding whether to continue to add that text to their own external text by following deeper links within a page or to exclude that text and search elsewhere by clicking the back button as a fix-up strategy, for example. At the end of the reading session, it became clear that each reader had constructed not only his or her internal understanding of a certain text but had also constructed a unique external representation of the Internet texts most applicable to their needs. (p. 51)

¹ The notion of forward inferencing within and across texts and digital sources is consistent with a form of progressive refinement of meaning, as postulated by Collins, Brown and Larkin (1980). Similarly, it reflects the findings of researchers examining reading and writing as forms of composing involving multiple sources (e.g. McGinley, 1992; Spivey, 1984).

They contrast this with:

Readers who do not strategically plan and anticipate where they are headed within open Internet spaces may end up constructing a disjointed collection of random texts as opposed to a systematic compilation of carefully chosen texts from which to sift out a relevant point. Thus, an increased need to make forward inferences about text appeared to compound an already complex process of making bridging inferences about content in a manner that may prompt additional complexities to the process of reading online. (Coiro & Dobler, 2007. p. 53)

Essentially, it appears that there are at least three intertwined abilities and dispositions linked to successful explorations by the digital reader/meaning-maker: 1) The ability to move forward adroitly with predictions and forward inferencing across digitally-based information sources; 2) The ability to enlist knowledge of topics and their structures, including their possible web architecture; and 3) A disposition and focus that serves to cluster, connect or bring together ideas in accordance with the digital reader/meaning-maker's own goals. Befitting the discussion of a writerly reader, these require drawing information together from multiple sources in a way that is focused and deft rather than a random, snatch-and-grab of ideas (Eagleton, 2001). It is important, then, how meaning makers position themselves (including in terms of their goals, focus, perspective, and authority), engage in forward-forecasting, rapidly discern relevance, and integrate their own knowledge. Digital reading/meaning-making demands a high degree of self-regulated navigation, an ability to retain and revisit, focus on, and weave together or manage multiple inputs.

The presentation of digital information often involves complex patterns that may include stacks of texts and images that are sectioned off and posted within web templates with links, or those that are linear or temporally-sequenced, or arranged in a host of other ways that may be altered during compilation and use or search and presentation. Just as form and function interplay with any architectural space, so does the form, patterning, or management of ideas influence the meaning-making that occurs in digital spaces. As researchers have predicted and found, such

meaning making is not always trouble free as one moves from one site to another and across layers. Indeed, with the web, depending upon the sophistication of the meaning makers, they may become lost, find themselves at a dead-end, or miss what they perceive to be a key data point or relationship. Indeed, meaning-makers may have experiences similar to being in a labyrinth (Snyder, 1996). Again, unless the digital reader/meaning-maker retains control of their navigational pursuits, their meaning making is prone to being overrun. It is essential that the digital reader/meaning-maker has the strategies and agency to navigate and build toward, from and on multilayered and multimedia communications and expressions of self and others. The architecture of online material, especially that with hyperlinks, thumbnails and annotations, seems to prompt the use of such features, albeit with varying success across meaning-makers in terms of assisting with the navigation of the texts. For example, in their studies of e-books and adolescent engagement, Teresa Dobson and her colleagues (e.g. Dobson, Luce-Kapler, Sumara & Davis, 2006) stress that hypertextual presentations within hypertext novels may prompt overly text-centered meaning making. Dobson et al. suggest that there may be a need to prompt readers' greater consciousness of their approach to these texts to enrich meaning-makers' engagements.

Social Player

Although digital reading may occur on laptop machines and may appear more individual than social, digital reading/meaning-making should be more of a human social endeavor than one driven by machines. In reality, digital reading has become increasingly social. It requires vigilance so that digital readers are not coerced but have agency and positionality in their social engagements, networks, collaborations, and community engagements. (This is not always straightforward, as digital ancillaries can fashion information searches and news releases to outside sources with profiles with certain ideological biases intent on advancing their own agendas.)

Indeed, in his pursuit of studies examining the participatory nature of digital engagement, Henry Jenkins has noted how digital meaning making involves socio-political-cultural dimensions—ranging from the intimate and personal to the global and intercultural.² Along these lines, Jenkins and his colleagues introduced the notion of participatory culture, prompted in part to reflect the social meaning making occurring across digital environments (See Side Comment III.8a.3). As Jenkins et al. (2009) emphasize, "participatory culture shifts the focus of literacy from individual expression to community involvement. The new literacies almost all involve social skills developed through collaboration and networking" (p. xiii).

As studies of social media suggest, digital meaning makers may explore communities and in doing so adopt one or more personae as they position themselves with others and their worlds in a fashion growing out of their subjectivities, alliances, choices, and so on. Sometimes meaning makers' engagement in constructing selves or multiple personae in the company of others forms an embodied experience of digital environments—a secondary engagement with or participation in the worlds constructed across or within or by layers of text and other media. For example, observations of students engaged in instant messaging suggest that the digital medium supports a fluid form of identity construction. In particular, Lewis and Fabos (2005) found that when adolescents instant message with one another they can shift identity almost simultaneously. As Lewis and Fabos (2005) stated, "...they enact identities that depend upon a running analysis of the online and off-line contexts" (p. 494). They describe how adolescents shift their interactions to fit the relationship and stance with respect to one another as they instant message (e.g., from confidante to advisor to cynic to empathetic supporter with the different participants), doing so in a fashion that is consistent with their overall sense of identity and understanding of the dynamics of the relationships.

² Jenkins builds upon the work of Ann Dyson (1995), who suggested, based upon her extensive ethnographic work with young learners through a social-cultural lens, that a major developmental challenge is not simply to create a unified text world but to move among multiple worlds and coordinate across multiple space/time structures toward defining self and how one is placed in the company of others. As Dyson (1995) stated: "Children are not first and foremost learners; they are first and foremost people living the complexities of their day-to-day lives" (p. 36). As children engage with texts, they seek to "imagine" relationships and situate themselves sociocultural and ideologically.

Similarly, in the research on hypertext and gaming, Squire (2006) and Gee (2005a & b; 2013a & b) look at how readers move from print to image to virtual or real environments, suggesting that their experiences and interfacing with tools within and across those spaces and worlds may simulate opportunities to perform in situations and try on identities. As Squire (2006) Gee (2005a & b; 2013a & b) suggest, certain virtual environments (e.g. Sim worlds and world-building games) may perpetuate certain political ideologies and ways of interacting with and constructing the world, which may contribute to identity formations. Squire (2006), for example, contends that "... games focus our attention and mold our experience of what is important in a world and what is to be ignored. The game designers' choices, particularly of what to strip away from a world, can be read as ideological when considered in relation to other systems" (pp. 21-22).

Literacy spaces almost inevitably privilege some lenses, epistemologies, and ideologies over others. As studies of affiliation groups indicate, digital spaces may not always be a political or utopian. Indeed, they can be alienating and dismiss members depending upon their affiliation with certain persons and ideas. The digital meaning maker therefore needs to be conscious of the norms and conventions of the digital social groups with which they might engage. As Bryson, MacIntosh, Jordan and Un (2006) suggest, one might find a haven or prison, or have a sense of belonging or dislodgement, in such spaces. Similarly, it has been argued that these new literacy spaces may be predisposed to certain ways of exploring or defining self. In other words, certain literacy spaces may be predisposed to certain ideologies over others, subordinating certain worldviews and ways of knowing (Bruce & Hogan, 1998). As Boldt, Lewis, and Leander (2015) note:

from a post-human perspective on affect and emergence, humans are not merely "using" materials in mediated activity; rather, humans and materials enter into affective relationships and intensities, the nature of which is often not prescribed. Foldings of the human and non-human are constant and complicated; people "use" things and things "use" people, and these movements and relations can be rife with affective movements (e.g., Ehret & Hollett, 2013). (p. 436)

Building upon the socio-political functioning of digital resources has both promise and peril. As several groups of scholars—Rogers, Winters, Perry & La Monde (2015), Alvermann, Hagood, & Williams, (2001), Hull and Nelson (2006) and Schneider and King (2020)—have shown and argued, access to digital resources offer students the possibility of propelling their literacy practices across spaces and in and out of schools, blurring traditional boundaries and forms of literacy practices. These spaces also allow students to "juxtapose and transform genre practices for critical purposes, engage in the playful instability of genres, selves, and messages, and re-narrate their stories and identities in the process" (Rogers, Winters, Perry & La Monde, 2015, p. 29).

Digital social spaces can be tricky to navigate, depending upon the parties involved and the purpose and manner of negotiations. Interpersonally, readers can be involved in banter that can proceed less than wittingly. For example, as we operate globally, these matters have additional potential complications as norms and conventions shift—especially when digital pursuits may be colonizing or operate disrespectfully in the interest of some but not others. A form of shuttle diplomacy tied to an ethic of respectfulness may be needed to marry the norms of the community with the interests of those outside. Otherwise, these interests can easily collide or compete within and across such spaces, revealing potentially emancipatory practices to be colonizing instead.

In Closing

The roles and expectations for readers have changed with the ongoing advances in and uses of technology. Reading has shifted as digital engagements have moved from positioning the reader as a recipient and consumer of ideas to a creator, architect, collaborator, producer and director—enlisting digital images, videos, texts within an ever-growing expanse of multilayered modules that afford a palate for shifting social relationships. The digital reader/meaning-maker's engagements can range from what might be considered constructivist processes in complex multilayered knowledge areas as well as forms of social play that can extend to critical and artistic consumption and expressions that are more fluid than fixed. For the digital reader/meaning-making, there is a forward dynamic process, often akin to ongoing improvisation

as new ways to engage with ideas and one another are adopted. Consistent with these characteristics, Spiro, Collins, and Ramchandran (2007) describe digital meaning makers as "...being conductors (or jazz improvisers), rapidly bouncing excerpts from rich video clips off of each other" (p. 98). They further emphasize that if the material is somewhat familiar and rich in content, meaning makers "...capitalize on their affinity for this mode of 'quick-cutting' across dense images (cf. Stephens, 1998)—and their accustomedness to nonlinear processing ... to criss-cross between many video excerpts to speed up and deepen the process of building interconnected knowledge from experience (Spiro et al., 2007, p. 98).

These engagements might be described as multivocal as readers engage with multiple personae both within and across texts or digital spaces, building sets of virtual relationships with both imagined and real worlds and people. Plus, these engagements occur in the context of navigating and journeying through worlds. Readers cultivate ideas and spur meanings using range of texts wherein ideas are explored and mixed, created and critiqued, savored and digested and used as fuel for future expressions and further considerations.

As Deuze, Blank and Speers (2012) suggested in their article, "A life lived in the media:" Media become a playground for a search for meaning and belonging—not just by consumption...by producing, co-creating, redacting and remixing...we do not see people as hapless victims of this seemingly disjointed worldview. We locate the potential power of people to shape their lives and identities and produce themselves (and therefore each other) in media. (p. 6)

One should not underestimate and discount the agility, flexibility and creativity needed to do so. Considered through a critical lens, digital reader/meaning maker are not rote (at least, in the non-school world) as they rapidly position themselves as performative inquirers with others in a fashion which is discerning of the relevance and discursive ongoing dialogical provocations and opportunities. At one level (or perhaps across all levels), these engagements involve conversations with oneself in the company of others. They involve constructions which are performative and discursive. At another level, they are akin to conversations that may entail reflective meaning making and negotiations (e.g., across a set of e-mails or text messages or texts authored by others). At yet another level, digital meaning making involves others—imagined or

real. It might entail trying to understand what the author wanted you to think or act and coming to terms with your own goals, understandings and acts. It might entail exploring possible worlds and imagining or re-imagining possibilities for oneself. Finally, at a more macro-level, it is tied to how we are networked and positioned with others in the context of both local and global exchanges. It mirrors or perhaps makes more attainable the metaphor of reader as composer more attainable, perhaps even inevitable especially tied to meaning making that befits a sociosemiotic form of transmediation across various sources, multiple layers and interfaces involving various positioning of forms of text and images (e.g., Lemke, 1993; Reinking, 1997; Seigel, 1995; Spiro 20061 & b, 2007),

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