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Abstract

Literacy was once thought to be well-understood and well-defined. However, it has been argued that the digital world has disrupted any notions of literacy, supplanted with “new” forms of literacies in various new literacy studies and now, in the library and information science (LIS) scholarship as they apply to information literacy (IL). But, do the old forms of literacy in fact hold LIS back, and, do the critiques of conceptions of literacy fully represent that foundational scholarship? Are the “new” literacies really that different from traditional notions of literacy? A review of: concepts of literacy and IL that have been critiqued; core ideas of foundational scholarship on the shift from orality to literacy that stand at the center of the scholarly debate over literacy in general; and identifying conceptual foundations of critical reflexivity which underwrite “new” literacies is undertaken to inform the scholarly assumptions and claims of LIS and IL.

Introduction

Literacy was once thought to be well-understood and well-defined, particularly via the implications of illiteracy: poverty, backwardness, closure from the intellectual and emotional riches that reading brought and the economic advances literacy enabled. This template was applied to the personal level (still extant in the form of local literacy programs), the social level (as explanation of the endemic poverty of Appalachia or in large-scale drives to teach English to new immigrants, for instance), and the global level (as a key to the differences between the “First” and “Third” Worlds). This same basic template was the intellectual/epistemological backdrop to the perceived need for the ideology of reading: librarians should be educated to guide readers in selecting “good” reading among the wide choices on library shelves for moral/personal and civic reasons (emanating from the likes of Melvil Dewey but later taking more modern and even progressive forms) [1, pp. 94, 130; 2, pp. 158-160; 3-8]. Later versions of this template in librarianship were manifested as a result of the growing need to navigate large amounts of print information (and thus libraries) with the explosion of those resources (or be shut off from them and their educational benefits) in the form of Library Literacy, then Bibliographic Instruction, and finally Information Literacy (IL). The arguments for these came almost full circle back to the need for IL as a quasi-Deweyan guidance for lifelong learning [9, pp. 218-232; 10, pp. 2-3; 11, pp. 488-91; 5, p. 382; 6-8]. There are many good pieces of scholarship tracing and critiquing this history, and is not worth doing so

again here (for additional examples see [12-27]). This path and these connections have been strongly established in the literature.

However, it is widely argued that the electronic – and now digital – world has disrupted any notions of literacy *per se* in that technologies have “simultaneously broadened and splintered [it] into many literacies” [28, p. 1497] and as an “all purpose word literacy seems hopelessly anachronistic, tainted with the nostalgic ghost of a fleeting industrial age” (Tyner in [28, p. 1497]). The founding and growth of libraries was in parallel to the rise in mass literacy and education begun with the Enlightenment and continued through the 19th and 20th centuries [29, pp. 21-36; 30]. Thus, Michael Gorman [in 16, p. 33] could call libraries “children of the Enlightenment,” fully intertwined with the ideology of reading. In response to the broad and sustained critiques of the concept of literacy (to be reviewed), there has been a steady effort to recast IL as one of the “new” literacies for about the last fifteen or twenty years in an attempt to distance it from the more traditional (and now seemingly discredited) nexus of print/bibliographic/library literacy. This viewpoint, while perhaps not representing the majority of the IL literature (much of which continues to focus on standards, promotion of the idea, and best practices), has represented a significant portion of the theoretical “voice” of IL thinking and has consistently put forward a more varied and social view of literacy as a core idea behind shifting IL. For instance, a 1992 [11, pp. 493-495] review noted the inadequacy of traditional library programs to address old and new challenges, the absorption of computer literacy into the concept, the relevance of related rapid developments in

information technology, the need and potential for technology to overcome barriers of classification and between disciplines, and the need for an overarching integrated approach to this new form of literacy. A 1998 article [31] specifically characterized IL as a broad-based and necessary skill to successfully navigate the dynamism and synergy of new technologies and the economy (and the imperative to absorb both in librarianship to save academic libraries). Both authors took pains to distinguish new IL conceptions from initial definitions generated in the 1970s and 1980s which were too focused on academic assignments (and therefore formal library bibliographic classification and organization schemes) and too traditional – that is, based in the historically-conditioned ideology of reading and literacy as it has percolated through library practices. More recently, a number of authors [10; 12-19; 21-26] review the relevant professional literature and broader critiques and come up with alternative approaches and critiques of traditional notions of literacy built into the foundations of IL via its historical development.

This begs some questions: what, exactly, is this Leviathan of literacy that is holding us back or in such need of distancing from IL? And, do the critiques represent the depth of the exchange in foundational scholarship and debate that underwrites this vein of library and information science (LIS) scholarship? Finally, do the “new” literacies promulgated to deal with the new informational and technological realities (with which IL is being aligned) fully distinguish themselves from early notions of literacy as much as they claim? This paper will proceed to provide a perspective on those questions through a review of: 1) the concepts of literacy and IL that have been critiqued; 2) the core ideas

from the foundational scholarship on the implications (cognitive and epistemological) of the shift from orality to literacy that stand at the center of the broader scholarly debate over literacy in general; 3) the concept of critical reflexivity which is a result of literacy and underwrites the “new” literacies; and 4) implications drawn from tracing these ideas to inform the scholarly assumptions and claims of LIS.

The Critiques of Literacy

The issue of literacy is inextricably intertwined with reading, the teaching of reading, writing, the teaching of writing, speech/orality and the acquisition of language, and as noted, the technologies affecting text and its changing nature. These different perspectives all sprout a somewhat different strand of critical scholarship, and so while this can not be a comprehensive review of each area, a characterization of the arguments against traditional assumptions and thinking concerning literacy is possible. First and foremost, critiques of literacy and the theory, research, and practice of the teaching of reading attack literacy acquisition concepts of “neutral” and “autonomous” skills, “uniform” their in effects across cultures which are rooted in the work of behavioral psychology [32; 33]. For instance, core notions that literacy is “the sole responsibility of the school [and] a ‘lockstep’ process that moves from oral language development (speaking and listening) to print literacy (reading and writing)” [34, pp. 1513-1514] are fully debunked. Similarly attacked is the concept that as a “*tool*, literacy consists of the technology of alphabetic code. As a basic *skill*, literacy is the ability to operate this tool

—to decode and encode text—above some agreed level of competence” [35, p. 281].

These traditional approaches tend in the main to isolate the evidence concerning literacy to experimental methods on individuals (with substantial instrumental implications), and screen out the “noise” of local conditions or alternate beliefs that “interfere” with the model [32, p. 135]. In contrast, the new literacy studies assert a key concept: that “literacy is always part of some larger social practice other than just literacy itself. We never just *read* or *write per se*. [W]e can only read a text if it is housed within a social practice that gives it meaning...” [35, p. 282] (see also 36). Paulo Freire named the neutral skill-acquisition approach to literacy the “banking” or the “digestive” or “nutritionist” models of literacy education: the teacher makes a “‘deposit’ that a student is expected to ‘capitalize.’ The more efficiently he does this, the better educated he is considered” in one version, and in another illiterates are “thirsty” or “hungry” for knowledge, or “empty” in need of “filling” or being “fed” with words not of their choosing in order to know [37, pp. 21, 45]. He argues that this is fundamentally authoritarian (“she who knows teaches those who do not know”) and “reduces learners to objects of the directives he imposes” leading to a profoundly unjust social and political order. Literacy and education are thus inherently an economic and political matter [38, pp. 41, 139; 39].

The historical imperatives of world wars and increasingly sophisticated industrial and then information economies have led to various attempts to mass-standardize “functional” literacy. This conception of literacy has been embedded to the point that it

became a United Nations (UN) focus to enable social and economic development in poorer regions of the globe [33, p. 52; 40; 41]. Graff [42; 43] has called this the “literacy myth,” noting that, historically, standards and expectations of literacy, methods of teaching it, and societal expectations are all highly complex and contingent, not at all limited to the issue of schooling, and thus notions of our periodic literacy “crises” and calls to return to “prior” “standards” have no legitimate intellectual basis (see also [41]). The automatic connection between literacy and economic development is also vigorously challenged: “if there are not enough jobs for men able to work, teaching more men to read and write will not create them” [Friere in 39, p. 311] (see also [42, p. 65; 29]). Thus “in academic circles, the literacy myth is on its last legs [and] attention is shifting ... to the often ignored language and literacy skills of non-mainstream people and to the ways in which ... school-based literacy often serves to perpetuate social inequality while claiming ... to mitigate it” [43, p. 149].

Closely related are the critiques of the idea of one “literacy.” Questions concerning traditional conceptions of literacy as an individually attained, autonomous skill point to ethnographic research, sociocultural contexts, and “the social practices and conceptions of reading and writing. The rich cultural variation in these practices and conceptions leads us to rethink what we mean by them and to be wary of assuming a single literacy where we may simply be imposing assumptions derived from out worn cultural practice onto other people’s literacies” [44, p. 1] (see also [32; 33, p. 53; 35; 36; 45-47]). The autonomous model of literacy, in other words, tends to privilege a specific academic form

of literacy and the powers embedded therein [32; 48, p. 91]. These approaches all more or less posit many literacy practices and meanings derived and socially constructed in different contexts, for instance as a *sign* of learning (vs. its actual use to learn or engage in abstract thinking), as a practicality to write checks or keep inventories [32, p. 136], in the juxtaposition of potential texts for a high school literature course like a comic book vs. the de facto “boundary” of literary texts [49, p. 1492], or in virtual realities wherein we have assembled “collages of our ... selves ... for specific informational purposes” [33, p. 58]. The other key notion to this vein of critique are the assertions that technologies (E-mail, the Internet, Multi-User Dimensions, virtual reality, hypertext, mobile communication technologies, digital visual manipulation, etc., etc.) all present and change the nature of text, exploding the concept and therefore of one literacy [28; 32, pp. 138-139; 33, pp. 54-58; 50]. James Paul Gee is perhaps the most prominent to argue the related idea that excellent learning principles well beyond mere old-fashioned literacy are built into the social media of games, like making players co-creators/designers of the game, and giving information just in time or on-demand as needed. He notes thirty six such strengths of gaming as a learning-teaching tool [51; 52]

The literacy/orality divide is critiqued, and it boils down to two basic issues. The first is an attack on the idea that there is a “Great Divide” between the preliterate/oral and literate environment, and the literate environment’s impact on the structure of mind – essentially privileging scientific rationalism (and a host of other cultural developments that follow like cosmopolitanism, democracy, bureaucracy, etc.) [40, p. 63] (see also [32;

42; 44, pp. 5-7; 36]). There is, they assert, a strong vein of bias toward Western, academic forms of rationalism and intelligence that seems to inherently justify existing states of relative personal, social, and global forms of power [32; 33; 37; 39; 48, pp. 91-92]. Also, the argument goes that if the Great Divide “were the case, then scientific thought should also have taken the same dominant form in other cultures that evolved their own literacies” whereas they did not in most cases worldwide [40, p. 63; 26].

Second, the critiques question that there are fundamental differences between orality (or oral culture) and literacy (or literate cultures). Critics point to a host of social, cultural, and anthropological circumstances that dramatically complicate an over-simplified dichotomy. For instance, in the Middle Ages there was clear contestation between the written and oral, and written documents reproduced the (weightier) words of oral ceremonies and held the traditional badges of orally sealed bargains [42, p. 69]. Work on the same era points to print as illustrating and extending orality via people “elaborating particular passages out of context and filtering what they read through oral forms” [53, p. 308]. Others point to the clear bleed-through between orality and literacy in *the* classic case study: “Greek speculation in science, philosophy, and mathematics had begun as early as the seventh century, that is, before literacy had become at all widespread in any state [and while these efforts were clearly] vestiges of the earlier oral culture” they nevertheless served as the basis for later intellectual developments – like Plato [54; 48].

Graff [42, pp. 69-70] continues to see orality and literacy as reciprocal and complimentary and not mutually exclusive, with oral traditions perhaps in re-ascendancy

due to electronic media. Reviewing research on the oral/literate mix among Hmong refugees in Philadelphia, Street provides a good summary conclusion for many of the arguments in this section when he notes that “it makes little sense to talk of ‘literacy’, when what is involved are different literacies; and equally it makes little sense to compare ... by distinguishing between ... oral and literate practices when what is involved are different mixes of orality and literacy” [44, p. 10]. In this example, he argues, there is ample evidence of socially constructed – and understood – literacies for different purposes (school literacy – larded with cultural forms of authority needed to survive – vs. the role of negotiating between the new literate culture and traditional Hmong practices in the community), and constant shifts and negotiation between the oral and the literate. Last, others point to systems of writing which never continued down the path of abstract representation and writing – like those with pictographic scripts representing the object directly. Ironically, modern business communications seem to be evolving toward this model with their heavy reliance on semasiographic symbols like pie and bar charts which directly picture quantities [40, p. 63]. Thus the straight line of development from writing, reading/literacy to abstract thought and away from orality is challenged.

The Critiques of Information Literacy

A review of the bibliographies of the critiques of IL does indeed reveal the influence of these ideas. Core authors in the new literacy studies (Gee, Tyner, Street, Lankshear, etc.)

are cited along with literature reviews on the subject, a wider literature positing various and multiple literacies, social constructivist perspectives, and very often LIS authors who themselves identified this theme (and core authors and literature reviews) early on and introduced it into the LIS literature. This subset of LIS literature thus fairly closely tracks the same critical themes of the larger critiques of literacy. For instance:

- A number of publications note the dozens of forms of “new” literacies (e.g. cultural, visual, multiple, interactive, workplace, media, critical, consumer, cross-cultural, moral, historical, scientific, mathematical, technological, political, geographic, and multicultural, etc. [9; 10; 20; 55] and the relative position of IL within this constellation [21; 24; 27, pp. 3-11; 56]. To this we now add the need to be literate in the social media of Web 2.0 and the related new fad of gaming [57; 58] The sometimes-implied and sometimes-explicit point is that the bibliographic and textual basis of IL has long ago been exploded leaving traditional approaches outmoded [24, p. 439].
- Like many of the “new” literacies, the IL critiques inherently question neutral and cognitive models of information processing which posits a progression “from data to information to knowledge” [10, p. 5]. They seek to situate learning and learners to understand them within specific contexts, specific structures of technology and knowledge/information production, and it critiques “pure” and “schooled” forms of literacy tied to academic and other forms of authority –

library and indexing classification systems among them [10; 12-14; 18; 21; Hjørland in 22; 23; 24 26; 59-62, pp. 91-95].

- Within the LIS literature there have been explorations of the historical development of literacy and its changing statuses [24; 17] and specific challenges to thinking which characterizes LIS and IL work as traditionally based in literacy. Noting LIS's oral roots and new professional challenges with affinities to orality, this work questions the power relations inherent in the dichotomy between conceptions of literacy versus orality/illiteracy [11, p. 486; 17].
- Finally, there is the closely related notion that IL is constructed through – and is best understood by – discursive or dialogical means. While this is closely related to the contextual understanding of information production and seeking as it informs IL, there is a further emphasis on “shared discourse about the meaning of practice, enterprise, identity, mutual engagement, the sharing of artifacts and narratives, and a ‘rapid flow’ of information” in constructing learning and learning environments [60, p. 183] (see also [23, p. 337; 19; 23; 61]).

Hence we arrive at a challenge to the very idea of IL at a recent program sponsored by the Association of College and Research Libraries (ground zero for IL standards and advocacy). In a debate on whether or not IL was a “fad and waste of librarians' time and talent,” Jeff Rutenbeck, then-director of digital media studies at the University of Denver, declared that IL is not something that can be learned because, like literacy itself, it can't be defined, then measured. It is past time, he stated, to “move print-centered literacy into

the digital world” [63]. In sum, the challenges to theories, ideas, and teaching about literacy have percolated through the IL and LIS literature concerning traditional and narrow ideas and foundations of IL practices. However, a closer look at the foundational scholarship on the shift from orality to literacy, which spurred an intense debate and forms the basis of much of the critique of the idea of literacy itself, yields a more complex picture.

Orality to Literacy: The Foundational Scholarship

The broader literature attacking conceptions of literacy and its benefits (which in turn informed the critiques of IL and its antecedents) emanated as responses to theory and research on the “consequences of literacy.” A 1963 paper by Goody and Watt [64] is the clearest and earliest statement of what came to be known as the literacy thesis. This and later work by others was not intended as a stand-in for traditional and received ideas about literacy. However, their work has consistently been read and responded to as having those implications [36, p. 72; 32; 40]. This is an oversimplification as we shall see. After working through “cultural traditions in non-literate societies,” “kinds of writing and their social effects,” and “alphabetic culture and Greek thought,” Goody and Watt summarize and conclude that, with literacy in the now-modern sense established,

human intercourse was ... no longer restricted to the impermanency of oral converse. [I]t was only when the simplicity and flexibility of later alphabetic writing made widespread literacy possible that for the first time

there began to take concrete shape ... a society that was essentially literate.... In oral societies the cultural tradition is transmitted almost entirely by face-to-face communication; and changes in its content are accompanied by the homeostatic process of forgetting or transforming those parts ... that cease to be either necessary or relevant. Literate societies ... are faced with permanently recorded versions of the past and its beliefs; and because the past is thus set apart from the present, historical enquiry becomes possible. This in turn encourages skepticism ... not only about the legendary past, but about received ideas [through the process of] recording of verbal statements and then ... the dissecting of them [64, pp. 67-68].

Goody, an anthropologist, sees in his and others' studies of oral cultures and oral-cultures-in-transition a broad fundamental change: the introduction of writing into oral cultures allows them "to preserve speech so that communication can take place over time. It is a process of distancing" [65, p. 39]; "Its essential service is to objectify speech, to provide language with a material correlative" [66, p. 1]; "[T]he analytic process that writing itself entails ... make[s] possible the habitual separating out into formally distinct units of the various cultural elements" – which destroys the mystical "wholeness" of non-literate societies [64, p. 68]. A great deal of this is pinned on the development of *particular* kinds of writing, in a *particular* set of circumstances, at a *particular* place: ancient Greece [64], a thesis roundly attacked (as noted) as inherently Western scientific-rationalism centered with all the concomitant implications.

To these strong, seemingly categorical and value-laden statements on the consequences of literacy are a number of important amendments within this literature. For instance, Goody is rather testy lately about the triumphal implications of Western forms and definitions – and how consistent and beneficial they really are [67]. The other prominent scholar associated with the literacy thesis is Walter Ong who also makes a case for the centrality of literacy as “absolutely necessary for the development not only of science but also of history, philosophy, ... and indeed for the explanation of language (including oral speech) itself” [68, pp. 14-15]. However (and in stark contrast), Ong has been accused of “romanticizing” orality and oral cultures [48, p. 92]. Perhaps more important, he continually stresses the gradual nature of the shift, and the infinite gradations and overlaps in between. He writes of long periods when both writing and oral cultures coexist, that “in all the wonderful worlds that writing opens, the spoken word still resides and lives. ... Writing can never dispense with orality” [68, pp. 2, 8; 46]. This is a point also repeatedly made by Goody: there is no strict division, no “Great Divide” [64; 69, pp. 105-109]. Both Ong and Goody stress the closed, sometimes “dead”, sometimes rigid nature (both in social effects and in creative contexts) of texts once they are written, in contrast to oral language and culture [68, pp. 71, 131-133; 66, pp. 2-3]. And, in concert with those who critique his thesis, Goody readily acknowledges that social contexts like class, location of literacy practices, or simply prior experience, shape the experience and meaning of reading and text [69, pp. 292-293].

Second, there are corollary interpretations of current shifts from oral to written culture that broadly support Goody and Ong, for instance, in the painfully and self-consciously contested terrain of postcolonial literature in environments of struggle between oral and literate culture, played out in writing [70]. Another powerful and germane area of research is in the work in/on schools and children's transition from (oral) language acquisition to literacy. David Olson has been one of the leaders in this area. Greatly simplified, Olson stresses the differences between utterances and text. Children, in learning to speak and then read, learn the "distinction between what sentences, and words ... mean and what speakers and writers mean by those words and sentences," and this, he postulates, is a by-product of literacy [71, p. 155]. Much of this derives from clinical work with children in language and reading acquisition. Olson sees different contexts – and therefore uses – of language, and therefore different conceptions and meanings of truth flowing from literacy. There is a crucial difference between "the development of a literate culture and ... how original meanings are acquired in early language learning," and it comes down to the difference between utterance ("language as a system dependent ... upon nonlinguistic and paralinguistic cues for sharing of intention") and text ("an autonomous system for representing meaning") [72, pp. 275-276; 73]. From this flows similarly graded distinctions in educational terms between orality and literacy [74, p. 152], and the historical-cultural conditioning, ability to objectify, and dis/advantages afforded by literacy and "fixed" words – and the difference this all makes [74, pp. 151, 153-154; 75, p. 47; 76, pp. 258-266].

A recent study tends to bear this thesis out. Botticini and Eckstein [77] trace the considerable historical evidence concerning the “comparative advantage” of the Jews in skilled and urban occupations back to first century A.D. educational reforms that mandated the reading of the Torah. Their research led them to conclude that learning to read one language enabled the Jews to read others, and the higher levels of Talmudic debate required higher literacy and fostered rational thinking. All of this made them highly valued human capital, and thus the Jewish transition from farming to urban, skilled work was not the simple product of very real discriminatory barriers to land-owning or prohibitions on money-lending for non-Jews (as commonly thought), but rather the inherent advantages in commerce from the mandated ability to read and write and its continued development at higher levels.

Also, there is little contention on this side of the debate concerning the muddy nature of the development of the Greek alphabet and the oral *and* written originations of Greek epic poetry as we know it. It is the *writing down* of this originally-oral form that, it has been argued, was the tipping point for this particular and powerful form of literacy.

Essentially it comes down to the incomplete and sometimes conflicting evidence from a variety of disciplines (such as archaeology, forensic linguistics, classics, etymology) over when – and from whence – the Greeks developed a flexible alphabet, when literacy began to spread beyond common, simple functions (for instance of inventory) and into thinking and thought in ancient Greece, how much of the epic poetry was composed as oral (with rhythmic formulas, standard epithets and other repetitions to aid memory in recitation) vs.

how much was composed in writing (i.e. containing complex intra-textual references and subtle variations in meanings that are clearly composed in writing, impossible to retain and recite with precision, and essentially meaningless in oral/song form), and exactly when it was written down, why, by whom, and what it means [78; 69, pp. 105-109]. In making their argument initially in 1963, it was unfortunate that Goody and Watt moved quickly from the Greeks to later developments, citing Max Weber's work as highly suggestive of why Western rationality proved dominant [64, pp. 65-66]. This probably led to the ferocity of later critiques asserting that the literacy thesis inherently supported scientific and academic rationality and Western domination. However, Weber can also be read persuasively as explanatory of the differing outcomes of an intellectual-technological development, such as writing, due to profound social and cultural differences. This shows up in his work on bureaucracy and world religions [79, pp. 196-44, 267-359] and the differential development of capitalism within the West [80].

Nevertheless, the absorption of new earlier dates and sources of alphabetic writing, phonetic components in Chinese script and the early existence of schools and elements of literacy instruction in China, consideration of the effects of writing in India, etc. tend, in Goody's argument, "to strengthen rather than lessen the case for emphasizing the social and cognitive effects of writing" [69, pp. xvii-xviii]. It is still a difference that makes the difference. Even Derrida [in 73, p. 2] acknowledged that "it is certainly not just one fact among others." Decompressed of the political implications read into the literacy thesis, the issue comes down to the simple point that "what is cognitively innovative about

literacy is not universally exploited by all cultures with writing” [81, p. 169]. Despite claims that it “cannot be reconciled with a social-practice view of literacy” (usually coming from the social-practice camp) [40, p. 63], it is clear that these two camps coexist rather than exclude one another [48]. Like the exclusive ability to write or interpret texts, oral transmission can be a tool of maintaining power as well [53, pp. 307-308] and the *meaning* of the act of writing was originally attacked by Plato *in writing* [43, p. 149; 68, pp. 80-82]. There seems little point in defining in opposition two fundamental points: 1) that in fixing words, text has enabled in some cultures what has proven to be a particularly powerful form of thinking via the distancing and skepticism in examining the record; and 2) that the reading of texts continues to be infused with oral traditions, and further, they are read in an almost infinite multiplicity of ways and circumstances [53].

Critical Reflexivity

There is, however, one critical, key concept which has crossed these boundaries. It does not merely coexist on one or the other side, but rather infuses both. It is worth repeating the key phrases from Goody and Watt on this: “...faced with permanently recorded versions of the past and its beliefs; and because the past is thus set apart from the present, historical enquiry becomes possible. This in turn encourages skepticism ... not only about the legendary past, but about received ideas [through the process of] recording of verbal statements and then ... the dissecting of them [64, pp. 67-68]. Ong makes similar distinctions between forms of cognition driven by orality vs. writing when he writes of

“the chirographically initiated feel for precision and analytic exactitude,” and that “by separating the knower from the known, writing makes possible increasingly articulate introspectivity” [68, pp. 103-104]. Reviewing his own and others’ work with children and the acquisition of writing, reading, and literacy, Olson notes that, when children are first introduced to written language, “they assumed that writing was directly related to the world, rather than to *language about the world*.” Education in literate practices is then the already-identified process of distancing and objectifying [73, p. 3] and “mak[es] language into an object of thought and discourse” [76, p. 258]. He calls this “metalinguistics,” noting that higher levels of literacy demand an understanding, for instance, between an assumption (which should be acknowledged), and an inference (which should be justified). “[W]hile not exclusive to literate culture, writing in a literate culture tends to exploit metalinguistic concepts much more so often than does speech” [76, pp. 263-264].

Rather than using pejorative terms or highly-specific theoretical-epistemological terminology, for our purposes here this general concept will be called critical reflexivity. It is the argument here that, in critiquing the idea of literacy and information literacy, the various “new” literacies continue to rely on and attempt to teach and enhance the *cognitive results* of literacy – critical reflexivity. To be clear here, this point is *not* about the centrality of *print* or *bibliographic* literacy *per se*, but on the cognitive tools developed by literacy (critical reflexivity) which all the various “new” literacies seek to instill and enhance. To give one broader instance of a critic of extant literacy practices,

for Paulo Friere, “literacy is humanising to the extent that it becomes critical, dialogical and praxical” – and this clearly means engaging the social and ideological constructs around reading, what is being read, why, and under what circumstances [39, p. 319, 37; 82]. The problem here is getting “outside” of that context, rising “above” specific circumstance “requires us to study the social groups and institutions within which we are socialized” – and thus relies on replicating some of the very patterns of thinking that are meant to be overcome in order to do that [43, p. 164]. Ong simply replies that this distancing, this alienation, this stance of achieving critical reflexivity “can be good for us” and that “we need not only proximity but also distance” [68, p. 81]. Critical reflexivity is the skepticism and dissection Goody and Watt identify as, at least in part, a consequence of literacy.

Literacy (Information and Otherwise): New?¹

The critiques contained in the new literacy studies *and* the simultaneous goal of critical reflexivity are not difficult points to trace in descriptions of the various new and multiple literacies: that learning and literacy is social in nature and critical in intent is manifest throughout. It percolates throughout in the consistent call for critical distance, context, comparison, and skepticism in new and emerging formats and social circumstances calling forth the new forms of literacy. For example:

¹ The author would like to thank colleague Dorothy A. Warner for her generous willingness to share sources, insights, and materials gathered in the course of preparation for her forthcoming book [83], in particular the materials drawn on here and previously: on general and disciplinary IL standards and best practices and sources on the historical development of bibliographic instruction through IL.

- The “multilevel, multimodal, multisensory, and organic process of interaction between the person and the textual environment” must account for the importance of higher order thinking in information processing and that knowledge bases are all significant factors. “New literacy challenges” contain critical reflexive concepts like the ability to continue to recognize the “centrality of form, content, and presentation [and] the manipulability of information” [33, pp. 58-59].
- Intertextuality explicitly means standing outside the “function of social practices associated with the use of language and relating one text to another in “an attempt to create systematic inquiry ... and build an understanding of ... nuances and consequences” [49, pp. 1490, 1492]. Even more explicit: intertextuality means the evaluation of conflicting evidence, comparison, contrasts, and argumentation [84, p. 147].
- New and critical literacy studies seek a critical-reflexive outcome by seeking to step outside dominant cultural concepts – like power relations – in order to critique and transcend them. There is also recognition that these “new” literacies and the means to study them are now ironically tied to economic efficiencies in workers. They have by now “infiltrated mainstream domains of education and work” calling forth a “need for return to more traditional perspectives” [32, p. 140].
- Visual literacy, it is argued, is needed to overcome the “nonintellectualism” of visual learning tools which are “without rigor and purpose” [85, p. 10-11], and to

counter the impact of images, the functions of which are not understood: it “is vital in a society where virtual ‘reality’ is competing with the ‘real’ for attention” [10, p. 16].

- Multi- and hypermedia literacy are touted for their “potential cognitive implications ... including text, graphics, video, audio, and virtual reality simulations” [50, p. 1493]. Yet the goals for this type of literacy – “emergent, self-organizing, and self-renewing” [10, p. 11] – are at base critical-reflexive and remain elusive. Reviews of the research consistently raise the question of efficacy, that better-abled users of these tools are, unsurprisingly, better able to take advantage of them, and that *preferences* for colorful interactive formats often compete with or impede high-level *performance* of tasks [50, pp. 1495-96; 86; 87].
- On the recent matter of social media and games/gaming, Gee [51; 51] and others note that “popular literacy practices” in this environment place the learner at the center, involved in the production of knowledge, and they “celebrate” the social nature of text production in the form of “free support and advice, ... collective benefit [and] co-operation before competition.” However, these lead to critical-reflexive results such as critique, peer review, and a recognition of levels of expertise and specialized vocabulary [88]. (These authors tend to ignore the decisively non-critical and consumerist role consistently slated for these pop-culture products. For example “knowledge production” and dissemination is frequently the posting of pictures of one’s self and friends socializing; games

(Monopoly, for instance) have previously been used to inculcate consumer and market values [89-91]; and newspaper horoscopes convey passive politico-consumerist values [92, pp. 96-99]. These are all long established analyses, still self-evidently applicable to gaming. Perhaps the point of social media and gaming really is to sell more online services.)

On the matter of information literacy, one could argue it is hopelessly tainted by its heritage and environment in education, libraries, bibliography, books and printed texts. As Bawden [9, p. 225] notes, though the terminology of IL's antecedents fell into some "disrepute as being too ... centred on library resources ... in practice it has ... 'always transcended what its name implies'." In any case, the later models of IL are clearly beholden to traditional notions of literacy and the ideology of reading as the LIS critiques of IL show us. Yet, they readily name as their goal a basic kind of critical reflexivity toward sources of information as fundamental to learning as definitions and descriptions show. This occurs throughout both the discussions of IL and versions of IL within disciplinary IL standards and best practices:

- An influential 2002 definition from a higher education accrediting agency states that IL means "evaluating [information] critically [along with] its sources; incorporating selected information in the learner's knowledge base [and] understanding the ... issues surrounding ... information and ... technology..." [93, p. 1].

- IL's role is cast as enabling a "critical consciousness about information ... to ask questions about the library's (and the academy's) role in structuring and presenting a single, knowable reality" [18, p. 7].
- Among the "10 core competencies" across all disciplines, the California State University system identifies the need to "evaluate information," "organize and synthesize" it, and "use, evaluate, and treat critically information received from the mass media" [94].
- Several versions of media literacy for communications education explicitly set out to "develop an informal and critical understanding of the nature of mass media, the[ir] techniques ... and impacts" for people in a democratic society [95, pp. 417-18].
- Teachers operate in the social-constructive context of the classroom, but they must also know the "central concepts, tools of inquiry, and structures of the disciplines" in order to teach them effectively and be a "reflective practitioner" [96].
- Science students must recognize the relationships among "primary, secondary, and tertiary sources [and that they] vary in importance and use with each discipline." The goal is that the student "critically evaluates the procured information and its sources" [97].

These concepts occur again and again throughout both the LIS and disciplinary-related literature on IL (see also [20; 23; 84; 98]).

The contention here is not that IL is or must be print based, nor that these new concepts of literacy (both in and out of LIS) are illegitimate because they do not posit a print basis. Rather, the point is that, far from having intellectually and technologically exploded, shattered, complicated, de-textualized, or de-contextualized literacy *per se* beyond recall, inherent in the “new” literacies’ outcomes are conceptions of critical reflexivity grounded in the cognitive-intellectual results of literacy itself. This is the intellectual-epistemological hurdle these new literacy studies and theories have not successfully been able to address or absorb, and it has shown up in the descriptions of the “new” and multiple literacies which have flowed from these critiques. In turn, the LIS literature which seeks to utilize the critiques of literacy to move IL into a “new” literacy vein itself skips past the foundational scholarship to which the new literacy studies and theories are responding. The critiques within LIS have successfully linked the ideology of reading as it has interwoven with and informed various forms of library/bibliographic/information literacy to the broader critiques of literacy. However, the new conceptions of IL which flow from those critiques display the same contradiction: conceived as a “new” literacy, IL and its variants seek to utilize, teach and enhance the critical-reflexive intellectual basis of literacy itself. The argument here also explicitly challenges the notion that the new technological environment has entirely deconstructed literacy: the act of defining and grounding “new” literacies in order to step outside of this evolving context for critical understanding is a core notion made possible by basic literacy itself. The new literacies inherently rely not on print *per se*, but the cognitive effect of critical reflexivity of literacy *per se*.

Conclusion

What should we draw from this? The very first thing is to question the inherent claim or assumption that IL must of necessity distinguish itself from its history of Bibliographic Instruction (and its variants) by invidious distinctions with “old fashioned” forms of literacy. This premise simply does not hold up upon examination since critical-reflexivity became the central point of efforts in dealing with information and information systems in whatever format. It is worth noting here that the old systems still do exist (primarily in the form of printed indexes and reference works, and print collections), and they remain central to scholarship and cultural memory. There is more than a bit of denigration of prior work in the field, ignoring the clear continuations, overlaps, and debt that “new” or modern IL owes to its predecessors. We in the field are struggling right now in our IL efforts with the central issue of Bibliographic Instruction: how to get a meaningful foundation imparted to students quickly so that they can self-monitor, self-edit, self-critique, and learn in a critical-reflexive way as they gather research and information [99]. It is not the contention here that IL is already on pure, solid intellectual/epistemological foundations. Rather, there have been solid practices and successes along the way, and those are the unacknowledged foundations we stand on. “New” forms and purposes of IL will not do much good running away from literacy. In the circular pattern shown in this article, they will end up back at many of the same issues.

Second, there is a great deal of bandwagon-ism about all of this, and it has much of the air of the original (and still extant) euphoria in the profession about technologies. While a certain amount of sobriety concerning the electronic and digital age seems to have finally taken root, we are currently faced with high flying claims about fundamental cognitive shifts being rapidly brought about by that age. The so-called shifting demographic of librarianship has generated its own cottage industry with insights that "we are what we watch" and how we watch it on television - which is indicative of generational communication shifts in the field [100]. Closely tied to this are simultaneously sweeping and blithe observations concerning new modes and formats of information and how they are changing the way the generations learn (and thus that comparisons between them are therefore incommensurate) [101; 102]. Librarianship's literature is full of such claims:

- "Gamers are digital learners [and] game design ... provides a prototype for ways to make the library and its resources more visible and intuitive to users [103].
- [L]ibrarians recognize the value of using multimedia technology in reaching the inquisitive minds of visually oriented students" [103].
- [I]n heavily relying upon television, the Internet, videos/DVDs, and other primarily visual sources of information, students may simply be using the modes of information seeking that are the most ... effective for their particular learning styles" [104, p. 49].
- Today's students are dramatically different" [105, p. 19] and they "will profoundly impact both library service and the culture within the profession" and

as a consequence of their interaction with technology throughout their lives, they “have high-level questioning and thinking skills and lower-level *prima facie* knowledge” and they may learn more through mind-mapping/visualizing research and information [106, pp. 34, 36].

Much if this is imitative of longstanding speculations. The claims for learning and the enormous investments and dubious research surrounding the introduction into classrooms of film, radio, instructional television, and then computers from 1920 to the 1980s was accompanied each time by enormous publicity and favorable “research” [107]. The introduction of computers to children (both at home and in educational settings) was argued to “bring about new forms of learning which transcend the limitations of older linear methods” and was accompanied by a “generational rhetoric ... powerfully reflected in advertising for computers” [108, pp. 77-78]. Now claims are being made concerning cognition as it relates to information and communication technologies and an epistemic shift from ‘theocentrism’ to anthropocentrism,’ to ‘polycentrism’” [109]. Gaming has previously been noted, but the iPod evokes sweeping, absurd claims like "playlist is character," and that it offers "an entire way of viewing the world" and the ability "to transform civilization, and with it human nature” [110]. Given that we have yet to fully parse the two and a half thousand year old shift from orality to literacy, and then the later shift to print, assertions about whole new epistemologies and forms of cognition based on the latest consumer products are hollow and silly, and should disappear from our professional literature.

Third and last, this analysis is not a denigration of the goal of critical reflexivity in any and all forms of literacy. Reflective, critical practice and reading of “texts” (in all their multiplicity of forms) *is* a crucial and worthy goal, and fundamental to core notions of an educated citizenry. It is not the case of an “aha!” moment, and thus a call to go back to mechanical, instrumental, and economic forms of functional literacy, nor to conservative forms of education which strive to make us “culturally literate” in the “best” of our values [111-113]. Rather, this is an argument about and an explication of a fundamental concept underwriting “new” literacies: that they will be stronger acknowledging their cognitive and epistemological roots and working from that base rather than going through the tortuous path of attempting an intellectual severing of that relationship.

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