Before Information Literacy [Or, Who Am I, As a Subject-Of-(Information)-Need?]

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ABSTRACT

In this paper, I discuss an alternative to information literacy and technical fixes for fake news and other such misleading information: the education and self-interrogation of the subject who needs information. Information has many different forms, types of truth claims and criteria for truth. Much of our daily information intake has nothing to do with true or untrue knowledge, but rather, involves tastes and opinions. If we confuse the conditions for public or learned knowledge with these, or even if we do not recognize how such knowledge also has its own institutional senses of taste, we will mislead ourselves based on false assumptions about what it is that different documents can inform us of. The subject-of-(information)-need, or the "user," is the bedrock notion of the subject in information retrieval, but it is constructed by the information environment it finds itself within. If the user cannot judge this environment before using it, then information literacy cannot be of enough help.

KEYWORDS

subject, information need, users, document, fake news

INTRODUCTION

There has been much discussion of how the internet and, particularly, social networks, have led to a post-subject world, or at least a world of a new subjectivity. But it may be objected that this is not necessarily true by evoking one simple example: that of so-called *fake news*. Fake news is nothing new, but what is new is how such news is delivered as a product of information technologies. The suggested response to this has been two fixes: first, that of developing better algorithms to sort the true from the false. The second is that of an older tradition, information literacy. We can see from these two sides, however, that we have not left the subject-object, subject-information divide. Here, I would like to insert a third alternative, a certain form of information literacy, but one that takes place before the evaluation of "information." I would like to suggest that a fundamental issue in information seeking is that of, first, the question of what is information on the internet, and with this, the very personal question that the subject must ask him or herself even before searching, namely, what sort of subject-of-(information)-need am I? We

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will see here that many of the most fundamental issues of human existence and information seeking are the same as they have always been. One problem is how and why this is obscured in the comparatively recent medium. Another issue is the difficulty of obtaining and using knowledge and how this cannot be separated from having and trusting in modern institutions. Knowledge may result in information, but information doesn't necessarily have to come from or result in knowledge. Information can be opinion, instruction and so forth (as Plato recognized).

INFORMATION AND DOCUMENT

For the first question of what is information on the internet, there is a surprisingly easy answer. As I discussed in my book Indexing it All: the Subject in the Age of Documentation, Information, and Data (Day, 2014), if we examine the history of information science during its development in the 1960s through the 1980s and beyond, we see a shift from document retrieval to information retrieval. Before information retrieval in the mid-1960s and beyond, the term information largely referred to the retrieval of physical, documentary items (or their photocopied replica). Gradually in the 20th century, starting with Paul Otlet's work at least, a more secondary meaning became primary: the meaning of the text or content of what was within the document (its "aboutness"). This shift from an interest in retrieving documents to retrieving information (this term corresponding to the aboutness of documents) was afforded by the greater emphasis upon the reading of descriptive metadata, not just as a heuristic of finding the document, but as a substitute for the document itself.

Within what we'll call traditional document retrieval, the retrieval of a physical item was gotten through the shelf placement of the document (let us take books as the privileged form here) and the knowledge of the librarian or the owner of the book, or, through bibliographic metadata such as titles, author name, item number and placement (for example, call numbers), and of course, subject or other indexing terms that described the "aboutness" of the book. These devices were not the information of the book, but rather, information about the book. But gradually, not only in modern information retrieval, but also before that in the increasing reliance of readers upon back of the book indexes and in journal abstracts, we see the emergence of a type of information that is representational, rather than hermeneutic in its reading, where the aboutness substitutes for the original text and where the metadata information substitutes for the information or knowledge that the book contains. This is a type of reading that begins, at least, with browsing.

(To be fair, however, we have to recognize that these phenomena are also just extensions of the documentary tradition of the book itself, whereby "knowledge" is seen as contained in a book, where signs within the book substitute for the processes of their inscription, and where libraries, rather than, say, expeditions and laboratories – as per (Latour, 1996) –or lived experience, are the privileged sites for knowledge. This world of *documentation* is one that we are still within, though now the internet often substitutes for the library.)

Through a small collection of representational vocabulary, then, information (like before it bibliographic documentation) becomes born, re-presenting documentary texts, which themselves constitute evidence of the rea. With scholarly communication, this sometimes leads to narrow, but still significant, domains of knowledge, because the original source is itself composed of narrow, professionally controlled, vocabulary. However, on the internet we encounter two differing issues: first, most searches are not for knowledge (at least institutionally mediated knowledge embodied in vetted documents), but rather for objects of taste (i.e., for information that I like or I agree with) and second, what is indexed is not necessarily vetted for knowledge by any institution.

To assess this, we need, again, to historically look back to the history of information retrieval, particularly what is known as "the cognitive turn" and "user studies" in library and information science (LIS) at the end of the last century.

If we look to the work of one of the most canonical and cited authors in information science in this area of research in LIS we can see several suggestions as to what starts any search for "information." In Belkin's theory of ASK (for example, (Belkin, 1977)), we see that information begins with 1) a need and 2) with the fulfillment of that need by searching for the right vocabulary. (Belkin's "anomalous structure of knowledge" or ASK is a condition of not knowing the right term to use for a search). Put in Lacanian language (R. E. Day, and Lau, A.J., 2010), this is the "subject of need," which begins any search for "information" (R. E. Day, 2014; Thomas, 2012). The acronym "ASK" may be a convenient heuristic for a theory of information seeking in an age when reference desks were still popular, but it somewhat obscures what's going on with information seeking and its search. The subject is not really lacking knowledge in the search, but rather, first, the subject is searching for information (knowledge may or may not be what is sought), and second, he or she is lacking vocabulary for such a search.

Perhaps unlike Belkin's theory, I would position the subject's need not as originating in a subject's cognitive state originally, but rather, as the dialectical product of whatever the forms and collections of information may be (R. E. Day, and Lau, A.J., 2010). This I ground in the fundamental condition of searching either in a physical or a virtual collection, namely, what is available in the situation of a task. That task can be concisely defined or vague, leisurely or scholarly. We start with a feeling of what we must do and what we must

need to do, and we then see what is available in order to do it. The specific information need is a product of what we see as available. It is a product of best fit, rather than exact match (exact match, if it does occur, comes later in time or it earlier occurs in place of a subject search, say in a bibliographic query).

What we still call "the internet" or "the web" today is composed of many different forms of information retrieval and linking, from search engines to social network algorithms. These serve different genres of information, knowledge and communication. And the authority levels of these range from personal to institutional authority, from opinion to knowledge, and from individual to collective social judgments.

Searching on the internet, as well as belonging to specific social networks, requires finding the right vocabulary term for what I need or who I am. Am I looking for photos of Coney Island hotdogs (also known as frankfurters, sold in Coney Island, New York) or am I looking for dogs that are hot and sweating in Coney Island some July day? For this, I rely on the socially privileged websites and terms that Google Search indexes (finding that the frankfurters vastly outrank the sweaty dogs in popularity, and so, ranking results). Likewise, on social networks the issue is vocabulary: am I a Harley-Davidson guy or an anorexic, and where do I find a group that corresponds to this name and the connotations or sociocultural feelings that I attach to that name?

What is unique about new media technologies (i.e., internet technologies) that use user-driven, post-coordinate, indexing and searching is that documents of text are indexed and searched for based on these small, representational units, that represent the document and thus, also, the searcher or user of information. Whereas in the book tradition bibliographic metadata was a heuristic in finding the text to be read, as modernity progresses the bibliographic material is not only representative of the text, but as data, it comes to constitute the text. In the case of social big data analysis, this latest documentary stage also treats the user's behavior as metadata, rather than (as was the case in the blurring of texts and human psychology in 19th and 20th century hermeneutic tradition) positing the human psyche or soul as a text to be read.

Where do these metadata of need and identity then come from? Here again, as throughout the documentary tradition, we must look at the sociotechnical systems involved. Google Search is a link analysis system whose influences were science based bibliometric citation analysis systems and sociometrics (Rieder, 2012). The distance between scholarly bibliometrics and Google Search are significant, however, as peer review documents and domain specific vocabulary are not the totality of what Google indexes and searches, nor are professional communities dominant in social networks. Instead, the internet includes not only vetted knowledge, but also a wide range of opinion, trivia and other information. In-

deed, as new media has gradually been remediated by old media, we see the same old media support of popular taste and corporate sponsorship of expression shaping the new media, particularly in online journalism.

In the light of all sorts of fake news, illegitimate knowledge, our addiction to our electronic devices, etc., we need to come to terms with a fundamental fact: knowledge is hard to create and come by. It requires education, methods, institutions, the preservation, organization and access to valid and reliable documents and data (the information domain traditional given to libraries), good faith dialogue and continuous traditions. For the most part, though, we are the same as most creatures and we simply follow each other through forests of information by habit and taste, even sometimes when we are being knowledge producing or rational creatures. Knowledge requiring senses of procedure and rigor of various degrees and types in the production and judgment of signs as being "knowledge." To put it succinctly: knowledge requires institutions and institutional parameters for its production; it is hard, and in all senses of the term, costly work for individuals and for society. Information may or may not want to be free, but knowledge is not. We shouldn't be fooled otherwise.

This fact brings us to a position that sometimes clashes with notions that the internet (earlier, libraries – this was the basis of modern public libraries out of "working men's" libraries, after all) make every man or woman a knowledge holder and knowledge producer. An information seeker and an information user or producer is not necessarily a knowledge seeker and a knowledge user or producer – as can easily be seen with fake news.

This brings us back to what began this article. Information literacy claims that it is the evaluation of documents - internally in terms of their rhetorical composition, and externally in terms of their relation to producers - which gives us knowledge-reliable information or not. This is not totally ungrounded. However, I would suggest that prior to this it is education which gives us a user interested in knowledge or not and able to discern the difference between what he or she or anyone else simply says and what constitutes conditions for seeking and producing knowledge. For a user interested in knowledge, the information of the internet - or any documentary space, however (and this is a much more radical claim, namely one challenging the privilege of libraries as the primary space of knowledge) – cannot be sufficient, in itself. Knowledge is a product of institutions, their methods, their techniques and their means and conditions of judgment. Particularly academic libraries are important institutions in these processes, but they too require educated people to use them. In turn, education requires, too, a politics that supports the creation of educated people and knowledge. The failure to achieve these elements even today is very much in evidence in fake news.

WHO AM I, AS A SUBJECT-OF-(INFORMATION)-NEED?

The fundamental question that a user has to ask, prior to any search or any judgment of information is, then, What kind of subject of an information need am I? What am I looking for? For knowledge or opinion? For what type of knowledge? What are the conditions by which information in a domain or sources becomes or is presented as knowledge? What are the conditions by which truth claims may be made, and what are the different types and stabilities of truth claims within a domain? And most of all, what am I trying to do with the information? Some of these questions can be handled within the arena of information literacy; some are much broader, lying not only in media literacy, but also in understanding how knowledge is done, and also, an honest assessment of what my relation to such processes are.

Being a subject of the need for knowledge is not easy: it takes patience in reading, education and understanding. It takes trust in institutions and in certain traditions. It requires a political state that supports such institutions, traditions and persons. And, on the other hand, being a subject of need with taste may not be easy either, in another way, as I can be led astray by the brand and by crowd psychology and forget my own bodily limits in the face of desirous, but also disastrous, lifestyles (excess exercise, eating disorders, etc.) or even my own ignorance and prejudices, which find easy company with others on the internet.

The subject of need has to choose what information to use and what information tools to use in order to get different types of information. Am I a gamer, a browser, a scholar with these materials? What type of scholar? How does the information system socially and epistemically position me in not only relationship to certain documentary materials, but also in relationship to my very being and my use of time and my relationships to others? How much is my time spent on information systems, and for what purposes? How does such a mediation create a further subject and subject of need as me, not only in terms of information needs, but in terms of subjects of needs more generally, and even more, of knowledge and information able to serve others' needs? In short, how do varieties of information and information systems - and indeed, documentary and information systems more broadly - shape the agency and person of myself and the world around me? What am I going to do with my time?

As with all information systems – physical libraries, museums, online databases and the internet – the choice of when and how to use them and for what ends shapes the mind and agency of the person using them - i.e., the subject.

Some have proposed that the internet creates a post-subjective political space, because of its collectivity and the collective, emergent, nature of information on it. But, on the one hand, I still retrieve documents that I need. And on the other, through socially mediated algorithms, such documents in-

creasingly appear to me in terms of an "I" whose need is obviously socially constructed.

CONCLUSION

We are left with the conclusion that information literacy, much less technologically mediated means for finding true information, can only be incomplete responses to fake news and other misleading forms of information. This is because not all information needs involve knowledge and not all information can be knowledge. If we say that information is informative, then the term *information* applies to a vast amount of information that lies outside of those institutions and practices that constitute, at least public, knowledge. An "information age," in this sense, is something closer to an age of attention, on the one hand, and an age of documents on the other. What it isn't necessarily, however, is an age of knowledge.

Since so much of our lives are now mediated by information and communication devices, and so much of that mediation involves information that is not knowledge, the subject must be able to interrogate him or herself about the constitution of self and mind which such ever-present mediation results in. So, too, must education institutions reassess the relatively recent, and sometimes still held, belief that information and communication technologies in education themselves directly result in more knowledgeable people.

The relation of the subject to documentation has changed recently, with greater social mediation of its representation and retrieval. However, the fundamental ethical relation of the subject to the symbolic has not changed, other than now inhabiting a much greater portion of our lives. In the midst of this increased symbolic mediation by the omnipotence of digital technologies in our lives, the interrogation of the self and the need for education becomes even more intense. The subject has not gone away at all, but in fact, has returned with a vengeance in its coming to and going from digital information and communication technologies like the internet. And too, the problem of the time of the subject stands out even more. And last, but not least at all, knowledge remains still a difficult and hard to achieve goal for people and societies - harder still, in some ways, given the proliferation and ubiquity of all sorts of information. We are still very, very far away from a "knowledge society" as the basis for politics. Education for knowledge remains a goal. And we often lose an educated self, as well.

In short, the enlightenment project remains quite unfulfilled, even in the midst of the information explosion, and the ethics of the self remains more pressing than ever. If anything, fake news and the politics and psychology of such should tell us how pressing these issues are. We cannot escape these issues by simply speaking of techniques or new technologies to address fake news. For fake news is part of a phenomenology of information which now awakens the dormant questions of knowledge and the self which its explosion momentarily, once again, hid.

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REFERENCES

- Belkin, N. J. (1977). Internal knowledge and external information. In M. de Mey (Ed.) *International workshop on the cognitive viewpoint* (University of Ghent, Ghent, 1977). 187-194.
- Day, R. E. (2014). Indexing it all: The subject in the age of documentation, information, and data. Cambridge, Mass.: MIT Press.
- Day, R. E., and Lau, A.J. (2010). Psychoanalysis: Freud, Lacan, and Deleuze and Guattari. In Lisa M. Given and Gloria J. Leckie (Eds.), Critical theory in library and information science: Exploring the social from across the disciplines. Santa Barbara, CA: Libaries Unlimited.
- Latour, B. (1996). Ces réseaux que la raison ignore laboratoires, bibliothèques, collections. *Le pouvoir des bibliothèques. La mémoire des livres dans la culture occidentale*. Paris: Albin Michel. 23-46.
- Rieder, B. (2012). What is in PageRank? A historical and conceptual investigation of a recursive status index. *Computational Culture*, (2).
- Thomas, N. (2012). Algorithmic subjectivity and the need to be informed. First Conference Proceedings of the Technology and Emerging Media Track, Canadian Communication Association conference, Kitchener-Waterloo, Ontario. http://www.tem.fl.ulaval.ca/en/waterloo-2012/