

# An Afterword to *Indexing It All: The Subject in the Age of Documentation, Information, and Data*

by Ronald E. Day



## EDITOR'S SUMMARY

For his book *Indexing It All: The Subject in the Age of Documentation, Information, and Data*, Ronald E. Day was honored with the 2015 ASIS&T Best Information Science Book award. In this afterword, Day explains that the book examines the concept of “aboutness” in the modern documentary tradition covering information science and data science. In writing the book, Day wanted to sort out the relationship between subject and object, between user and document, the core of information science and prelude to information retrieval. He considers the transition of a text serving a group audience to a document serving individual user needs, facilitated by an array of digital technologies. Referencing historical precursors Paul Otlet and Suzanne Briet, he considers documentation as evidence that, depending on the viewpoint chosen, may be a construction or a representation of a concept. Day considers his book a dystopian work, asserting that information technology has been charged with answering both information and cultural needs and has given rise to users’ addiction to technology. He anticipates data and documents to both influence and be influenced by evolving technologies, cultural forms and social norms with the document form persisting, though transformed.

## KEYWORDS

information science	subject indexing	cultural aspects
information technology	concepts	social aspects
documents	information needs	

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Editor's Note: *Indexing It All: The Subject in the Age of Documentation, Information, and Data* (MIT Press, 2014) received the 2015 ASIS&T Best Information Science Book award.

*Indexing It All* investigates ‘aboutness’ or evidence in modern documentation, information science and data science (which together I call the ‘modern documentary tradition’) and how this occurs through technological and ideological mediation. The book is particularly concerned with describing the modern documentary mediation of human subjectivity as a type of social positioning theory.

I had at least six intentions when I wrote *Indexing It All*.

The first was formal: in an age of journal articles, web articles, books with chapters by different authors and multimedia materials, I wanted to see what could still be done with the organic form of the single-authored monograph. This dovetailed nicely, too, with the Hegelian dialectical structure of the book, since Hegel’s philosophy is in the form of historical stories.

Second, I consciously chose to write a historical story made up of concepts in order to create understanding, rather than explanation alone. Many historical works, not least in information science, take the historiographic form of appearing to be ‘historical information’ – i.e., a narrative that represents historical facts. But anyone who has written such works will attest that historical works are also stories. This is to say that they try and probe and illustrate an instance or understanding of experience. This is what I was trying to do through writing a historical story made of concepts. (Note that the equivalent for the English word ‘history’ in many Western European languages can also mean ‘story.’)

Third, I wanted to conceptually and historically work out the logic of the subject-object, user-document relationship, which is at the heart of the documentation-information science tradition, qua ‘information retrieval.’ Thus, I read the modern documentary tradition into social computing, big data and even into android science. The book is a type of observational experiment offered to the reader for his or her consideration and experience. I wanted to offer up a vision that said something like this: if the modern documentary tradition extends through these technologies in terms of not only techniques, but its logic of uniting users and documents, this is what it would look like.

Fourth, I wanted to bring into this book my own experiences as a person in the world, not least as an older person whose life bridges pre-digital and digital technologies, mass media and new media, critical theory and whatever comes from this in an age when ‘new media’ mixes in with older modern subjectivities and older political forms of governance. I wanted to do this not as a privileged observer, but as a rather ordinary observer.

Fifth, working from an Hegelian perspective, I wanted to describe a moment of simultaneous subjectification and objectification in data, where both persons and texts are turned into documents that are ‘useful’ in terms of socially calculated needs. This marks a moment when the metaphysical subject of Western philosophy and psychology becomes a documentary subject within economic and governance structures utilizing both statistical and big data measures for immediate predication and longitudinal prediction, and it marks a moment when documents seem to become individualized for particular, rather than group, ‘user’ needs. The modern documentary tradition is thus seen as technologically and socially extending into new media and new communication ecologies (but maybe not constituting them). Stated in the Hegelian language of dialectical “Aufhebung” (in English, “subsumption” or “sublation”): the modern documentary tradition ‘closes’ as a dominating episteme (Hegelian ‘idea’) at the end of the historically progressive reduction of texts and persons to being documents and users, and then into coordinated, mutually conjoined data points based on ideological-technical trajectories of ‘need.’ However, this ‘end’ is a ‘beginning’ for a new historical episteme or idea of ‘machine

learning,’ which is distinct from the modern documentary paradigm, but is also founded, at a new epistemic and possibly a new ontological level, on the advancement of that. The ‘idea’ of being as the identity of subjects and objects through representation closes, but it is subsumed at a higher level of representation, one whose ‘idea’ or ‘consciousness’ is now that of machine learning, where machines learn through data from other machines. This is still a human ‘idea,’ but increasingly one where humans are giving over their project of not only knowledge, but recognition (together, what Hegel termed “consciousness”), to machine-machine mediation.

And finally, I wanted to register the effects of the above at the present time, so that the book has tinges of a sort of horror tale told at a moment when technologies and social relations and even the planet itself are at the brink of the collapse of modernity at the very moment of the near global triumph of modernity (climate change most of all, but also the epic battles of modernity against other cultural ideas, the total surveillance and tracking systems of big data, and the closing off of a notion of self, understood as sets of hypothetical potentialities, and now increasingly understood as a set of known and traceable possibilities).

From this perspective as well, the book has an ironic relation to the revelatory nature of both Otlet and Briet’s historical tales of documentation as being a destined social and epistemological salvation, as well as Silicon Valley tales of digital technology and digital capitalism as salvations to physical aging, global climate change, income inequity and so many other ‘grand challenges’ of our current modernity.

*Indexing It All* is dystopian in the inverse manner that most technologies tales are utopian. What it attempts to do with this, though, is to open up the very cultural or metaphysical logic that still infuses documentary-information technologies with a sort of symbolic charm where they not only are seen to answer information needs, but to answer cultural needs. The great salespeople of Silicon Valley have been social and cultural psychologists; they don’t, or didn’t, sell just mobile phones, but as the book’s chapter on Otlet suggests, they sold and still sell momentary solutions to socio-culturally based psychological needs. The iPhone is a

little buddy in the United States that answers the needs of lonely and busy people; cellphones elsewhere may have other forms and address other needs. Fundamentally, they have known how to address not only information needs, but the need of this society and culture to be sold some technological fix that is sometimes as problematic as that which it attempts to address (what I have called “psychotechno-pathologies”). Technology “users” are addicted to the most popular technologies because of deep psychological needs that are socially and culturally conditioned. The repetition of cultural norms and social forms is what constitutes political economy.

I’d like to note that *Indexing It All*’s insight that people conform to documents understood in terms of ‘aboutness’ (in library cataloging, “subjects”) comes from my past work as a librarian at the reference desk. The still popular cognitive theory in library and information science that information professionals should match or correspond the ideas in users’ brains with the contents of records and other documents is a mentalist fallacy based on a faulty notion of mind and brains and a misapplication of the correspondence theory of truth. There are no ‘information needs’ floating around in ‘information seekers’ or ‘users’ heads. Minds are made up of cultural forms and social ways of doing things. The expressions of minds are not limited or reducible to the function of brains, which are anatomical devices having specific physical affordances that, when combined with cultural and social affordances and other physical affordances (mouths, hands, objects), lead to meaningful expressions. Each personal mind constitutes a unique toolbox, made up of learned or selected cultural forms and social tools (and, of course, the physical affordances) through which we experience the world, become who we are and express ourselves.

In libraries, as in other places such as stores, where we are seeking things, we adapt our preliminary desires to what is available. Once, in a Shanghai grocery store I was looking for packages of dates. Not being able to read or speak Chinese, I compared the pictures on the boxes and bought one of them, and since the fruits inside tasted like dates I then concluded

that I got what I needed. This type of token negotiation is what communicative understanding is about. I often demonstrate this in class by placing two identical pieces of chalk in front of a student and then I point ambiguously to the pieces of chalk and I demand that the student hand me ‘that’ piece. The student hands me one of the pieces, and I say ‘thank you.’ How did the student know that I meant the one piece of chalk rather than the other? Was it because I somehow subconsciously transmitted this message to the student or the student magically read my mind in a way that not even I could read my own mind? No. It is because I said ‘thank you.’ That’s what communicative understanding is about and what information seeking is about. We perform what Ludwig Wittgenstein called “language games” with meaningful tokens in the world and then when we are satisfied well enough that our intentions and meanings have been understood and our needs fulfilled, we say, ‘that is what I needed,’ ‘that is what I intended and meant.’ Fulfilling information needs in subject queries has *nothing* to do with finding equivalents in documents to something in user’s ‘heads.’ It has to do with negotiating meaningful sign tokens (in language and other forms) – ‘vocabulary.’ It is the same with any other form of understanding or communication.

I’d like to make one last point about *Indexing It All*. The book’s reading of the modern documentary tradition is according to the notion of documentation as ‘evidence.’ Seeing documentation as representational evidence is, generally speaking, a tradition coming out of Paul Otlet’s works, but it has had a strong influence upon neodocumentation in library and information science during the past quarter century or so. In *Indexing It All* I read Suzanne Briet’s 1951 book, *What Is Documentation?* somewhat within a neodocumentalist perspective. Readers of my earlier works, however, will note that I have some doubt as to whether Briet’s text can fully be read in this way, for in the opening page of *What Is Documentation?* documents are discussed as “*indice*” (an indexical sign) beyond being simply evidence. While still evidentiary in that work, indexical signs are socially and culturally constructed and are not, as in Otlet’s works, directly representational of empirical entities. Even though I

stress socio-cultural and technical mediation in *Indexing It All*, and of course speak of evidence in terms of indexes and documentary indexical positioning, the relative identification of Briet's *indice* with Otlet's and neodocumentalist 'evidence' may not be fully warranted by Briet's text. In the book that I am now working on I am working in more detail on the differences between Otlet and Briet's epistemology of documents and documentation.

We now exist in a world of communicative and informational richness whose records, documents and authors may be neither as fixed nor as permanent as they were in the classic documentation era. Social networks, large data flows, recursive and social algorithms, and machine learning are all built out of and contribute to the mutability and temporal flow of data, and these can lead to very provisional documents. *Indexing It All* is, to

paraphrase Hegel, a sort of Owl of Minerva flying at, or more accurately, through, the dusk and into the dawn. I think that it is true in its vision of the depth and history of the modern documentary tradition, but it also reads that tradition into a new set of technologies, and maybe even new cultural forms and social norms, which may eclipse it in many ways in the future, while continuing to be haunted by its most essential ghosts, sometimes even more intensely.

This is the new world that ASIS&T needs to critically engage. Even with the use of older documentary techniques in new technologies we are continuing into a particular type of what I call 'post-documentary' age, where the document form is not left behind, but neither is it left as it was, instead being transformed within communication and media ecologies and through machine learning and social networks. ■