The relevance of a critical approach in Information Studies

The Modern Invention of Information: A literary review of Ronald Day´s works.

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Introduction

Ronald Day is a professor of the School of Library and Information Science and the Director of the MLIS program, in Indiana University. He undertook his BA and MA in Philosophy, and this background can be appreciated in the depth of his analysis and reflections, and how he articulates the theories of remarkable philosophers of the twentieth century (Heidegger, Deleuze and Guattari, Negri, Benjamin, Althusser, Agamben) and incorporates them into his own field. Day also makes extensive use of Psychoanalysis (Freud, Lacan and Guattari) as an alternative theoretical resource to overcome the limitations of the use of cognitive and behavioral psychology in Information Science[1]. Through all these references to other disciplines and a sharp critical analysis of the mainstream discourses in Information Science, Day manages to present deep insights about the nature of information, and its role in social processes, history and human consciousness. Therefore, the final effect (or affect) of his work is to make us reflect on the relevance of the discipline for the study of modern societies.

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[1]   Psychology is particularly used in explaining information seeking behavior.

His oeuvre

In his first book, *The Modern Invention of Information: Discourse, History and Power,* published in 2001, Ronald Day outlines a comprehensive analysis on how discourses about the nature of information shape social order, introducing changes in political and power balances. The aim of the book is the deconstruction of the main academic discourses that support the ideological conceptualization of The Information Age. Day identifies three different stages or "information ages," each one with its own discourses, but all of them sharing a common general view of the role of information in society. These "discursive stages" correspond (1) to the years before World War II with the development of Documentation in Western Europe, (2) the time during and just after World War II and the beginning of the Cold War, characterized by the conduit metaphor[2] and Cybernetics, and (3) the rise of the virtual age of information through the global implementation of communication technologies.

Day was also involved in the English translation of *What is Documentation?,* the Suzzane Briet's classic manifesto that can be considered as one of the theoretical foundations of the discipline in France, and which is critically discussed in Day's first book.

His most recent book is *Rethinking Knowledge Management: From Knowledge Artifacts to Knowledge Processes. (2007),* co-authored with Claire R. McInerney. In this work, he analyzes critically the discourses of the sociotechnical human resources perspective, proper of late capitalism. It represents an application of his critical ideas about the concept of information and knowledge to the specific context of working environments.

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[2]   Term coined by Reddy in 1979 to describe the model of communication presented by Shannon and Weaver, and that has been accepted as the hegemonic metaphor to represent communicative processes. Day is very critical of this and other metaphors that distort reality.

Ronald Day has also contributed to the book *Critical Theory in Library and Information Science: Exploring the Social from Across the Disciplines*[3] with two chapters in which he articulates Heidegger's critic of information discourses and the theories of psychoanalytical in order to enhance Information Science frameworks.

We also can follow his ideas in all the articles he has published in different journals of the field, but especially in the *Journal of the American Society for Information Science and Technology.* In them he explores and extends the explanation of the main ideas presented in his books, and also *brings to the fore new insights about the discipline, its theoretical foundations, and its importance to understand other social realities.*

His Work and Ideas

The modern invention of information synthesizes most of the main concerns of the author, which have been developed and expanded along his career. Particularly, Day worries about the relation between information discourses and social realities, or in other words, how certain conceptualizations of the nature of information can project a political and epistemological justification for oppressive social orders. In this sense, the study of Information represents a key element in revealing the surreptitious mechanisms of re-shaping or re-framing social consciousness and perceptions, enabling new means of control.

Reading Ronald Day, we can realize to what extend the quality of information affects our perception of reality. The *linguistic turn*[4] stated the importance of language as the primary resource of thinking that affects our understanding of the world, Day continues through this open path, showing how the

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3   *Gloria J. Leckie, Lisa M. Give and John Buschman. Editors (2010) Critical Theory in Library and Information Science: Exploring the Social from Across the Disciplines*. Santa Barbara, CA: Libraries Unlimited.

4   We are referring to Saussure's linguistic turn, that led to the developments of structuralism, and later to post-structuralism and postmodernism.

conceptualization or understanding of the term "information[5]" has some important social and political implications.

We could talk about *information orders* as an underlying feature of social orders, the latter being made possible and justified by the former. Day focuses his analysis on the discourses that try to naturalize certain information orders, making clear that once an information order is naturalized it is much more difficult to analyze critically the resulting social order, because we cannot stand outside the thinking-frame provided by our preconception of what information is.

At the beginning of his first book, Day also draws attention to the shift in the meaning of the term "information" from the old times, when it was used only as a verb (to inform), to the modern times when we think about it as a substantive (the information), something able to produce effects on people's consciousness. This recalls the etymological meaning of the word *in-formation*, to give form to something, to put a form inside others' minds. When we take it as a substance that is central in society, as in expressions like Information Society or Information Age, it could be translated as "a society shaped through the introduction of certain ideas or principles" according to certain interests and a predefined model of society.

The shift from the verb (to inform) to the substantive (the information), applied to the model of society gives the impression of a final, ultimate and inevitable state of affairs, instead of a dynamic process of multiple interactions that gives form to social realities. This shift synthesizes the heart of Day's concerns about Information: the alienation of human actors or subjects through the reification of the knowledge, and the deep roots and extensive consequences of a positivist assumption of humans as *users[6]*.

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[5]   Which affects also the related concepts of knowledge, communication and meaning.
[6]   This concept is explained later in this paper. It is the idea of human being as users of tools, that taken to its end can

However, we have a long way to go before reaching that conclusion. First, we have to understand Day's critical analysis of the "scientific" discourses about information, and the hidden totalitarian drifts that result from its positivist world views. Second, we have to delve into the depths of the human being, guided by phenomenological philosophy and psychoanalysis, to understand the key role of information and knowledge. Third, we need to put it all together to propose new approaches in Information Science, and project its influence in other social study fields.

Ron Day leads us masterfully through the first two steps, providing insights and reflections of great value. However, Day seems to be limiting himself to the field of Library and Information Sciences (its audience and its journals), while all his contributions can only achieve their real significance by reaching (and merging) with other fields of knowledge, because the relevance of the critical study of information goes far beyond a single academic discipline

First step: Critical Discourse Analysis

The review of the main discourses about information begins with the development of Documentation in continental Europe, during the first decades of the 20ᵗʰ century. According to Day, the proper characteristic of Documentation was the idea that information systems and management should be at the service of the progress of science and society. In other words, Documentation was a direct implementation of the positivist assumptions about history, society and science in the area of information management.

The main achievement of Documentation was the development of the bibliographic system by Paul Otlet, through a process of deconstruction of meaning "*into simpler, molecular forms, which were then*

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leads to an utilitarian account of life.

linked together as a data base by means of the Universal Decimal Classification system" (P.XX.)Otlet was very optimistic about the effect of this "objectified" knowledge over society, it represented the rule of reason and would lead inevitably to world peace and global human understanding. However, despite Otlet's brilliance and honest intentions[7] his *vision of documentation* [is] *a vision of a society in which standardization -technological, aesthetic and psychological- is a necessary condition for true knowledge* (Day, 2001 pag 20).

Suzzane Briet's manifesto *What is Documentation?* represents one step further in the standardization of society through the reification of knowledge. Briet's Antelope[8] is an example of how actual living beings can be objectified as "documents" subjected to "bibliographic" indexation. This means that in order to be available for human use, everything should be converted in information. *Briet* [and Otlet] *accepts without hesitation the modernist argument for progress* (Day, 2001 pag. 35), which presumes the human being is inevitably evolving toward a global society organized and structured in accordance to the principles of reason. Both authors imagine the science of documentation as an advocacy for this ideal, helping to organize and standardize the knowledge of the world, and hence the world itself; in accordance to the (naïve) positivist paradigm of their time.

Despite his criticism, Day also acknowledges the contributions of these authors to the general field of Information Studies, as we can see in the preface for the translation of Briet's *What is documentation?* This ambivalent sentiment toward the targets of his criticism becomes more clearly adverse as we move forward in time, and also, as the link between information theories and systemic interests, such as the legitimization of capitalism after World War II, becomes more evident and less innocent.

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[7]   Day expresses his admiration for Otlet's integrity and honesty in desiring world peace and being straight forward and clear about how he thought it would be achieved through the accumulation and management of positive knowledge.

[8]   Briet's book begins explaining the case of an Antelope in a zoo who could be interpreted as a document, as it carries the specific information of what it is an Antelope.

After World War II new discourses pertaining to information began to emerge, like Weaver's implementation of Shannon communication theory and Wiener's Cybernetic Theory. The main features of this period were the conduit metaphor (Reddit, 1979), and what Day calls the Discourse of man, which means that the authors presented their theories and works as based in *what is more "human" in the "human being":* namely, the use of information to represent the world, producing order and avoiding chaos. It is through this idea of human nature that Weaver and Wiener tried to naturalize the conduit metaphor and the utilitarian concept of communication and human interaction.

The conduit metaphor is a concept extensively used by Day to expose the managerial approach to the nature of information. It understands information as a pure message transmitted intentionally and consciously from one actor to another. It is born from the intention to control, to build order from chaos, and to counteract the entropy in order to survive. This metaphor represents the interest of the man to control and dominate the nature outside him/herself, and inevitably that also includes the control of others and of human nature itself. Communication is represented as the effect of one consciousness over another, and becomes a synonym of control.

Against this discourse, Day advocates for a more complex perspective over human communication and human consciousness, one that accepts the prevalence of the affects in human interactions over the effects of information transactions. In this sense, the concept of noise, a value to be ignored and reduced to the minimum according to the conduit metaphor, is reinterpreted: *how can we deny that noise is not only inherent* (to communication) *but also prior to any sense of community?* (Day, 2001 pag. 57) In other worlds, the communication of affects and the sharing of meanings could be part of the outsider "environment" that the conduit metaphor tries to eliminate in the pursuit of human efficiency and the survival of closed systems.

Cybernetics represent one step further in the way of the conduit metaphor, trying to create a complete informational representation of systemic social interactions. It is built upon the idea that language should be developed through a comprehensive account of *"all the possible human communications"*, from which the speakers would have *freedom of choice* to express themselves according with the available possibilities. Obviously, this reference to the term freedom is delusive, because what it really means is the limitation of expressive possibilities. And Day doesn't miss the opportunity to point this out, as well as the metonymic call in support of the political discourses of the Cold War[9].

In opposition to this comprehensive account of all communication possibilities, Day states the importance of the unperceived and unconscious dimensions of information, knowledge and communication, and denounces that the attempt to control and master these realms only can lead to domination and alienation of human nature. The title of the 1950 edition of Wiener's work, *The Human Use of Human Being,* is highly representative of this. Cybernetics departs from a definition of human nature as a user of tools to satisfy his/her desires and needs. So, human communication is understood in the same way, as the use of human by human, neglecting automatically any sense of community beyond this conscious use of everything.

The third stage is "the virtual" information age, and its discourses are analyzed through the works of Pierre Lévy. Day chooses this author not for his theoretical relevance, but for his exaggerated rhetoric over cyberspace that *allows us (often unintentionally) a critical distance to examine these tropes and claims in a rhetorical manner, rather than in a manner of being forced to obey the "inevitability" of historical law in our jobs or in our quest for knowledge […]* (Day, 2001 pag. 63) The internal contradictions and ideological bias of Levy's work are extensively exposed in the book[10], as a *series of*

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9   *Freedom of choice* is a call for the idea of free market and the *free world* against socialism.
10   However, it seems that what most bothers Day is that Lévy takes the term and the concept of "virtual" from Deleuze and Guattari, two leftist theorists (philosopher and psychoanalyst) whose work has a great influence in the thinking of

historical examples for demonstrating the force that ideological power exerts in naturalizing not only vocabulary but also objects and subjects toward constructing a historical future as well as a historical past, (Day, 2001 pag. 62) both of them presented as inevitable, inescapable and even desirable. At this point, Day's hardens his criticism by exposing the short sighted and delusive discourses of the virtual information age, that in the name of practicality tried to justify and support the technocapitalist expansion through the colonization of the consciousness.

The later works of Day continued this criticism over the trend of reification and commoditization of information. He put an special emphasis in the analysis of Knowledge Management discourses, which represent a fertile area to show the juncture points between informational theories and socio-economic practices. This is the issue of his last book (2007) *Rethinking Knowledge Management,* co-authored with Claire McInerney, and his 2002 article: *Social Capital, Value, and Measure: Antonio Negri's Challenge to Capitalism,* where he rescues some ideas of Italian theorists from the Autonomy Movement of the 1960-70. The main idea of this criticism against Knowledge Management is that it attempts to appropriate the human knowledge in benefit of the companies, and it is an extension of the reification project of converting popular, immeasurable and communal knowledge in one commodity more. It is also interesting to mention here the concept of *social capital*[11] as a way to "capitalize" *social relationships and intellectual creativity*.

Day and his insights about the role of information in society.

[11]   The reference to Piere Bourdieu and his works around this concept and that of cultural capital en *Distinction* (1984) and *The forms of capital* (1986) is missing, and it could be relevant to explore it, as it shows a different way to approach the issue.

Second step: Looking for alternatives

It is sometimes difficult to shift from the critical analysis of others' discourses to the construction of alternative discourses able to address the same issues in a *different[12]* way.

I propose that information is different from knowledge, but only if we take an opposing view to the trajectory of the term "information" in the twentieth century. Information is the quality of being informed. But this is a highly ambiguous - "theoretical" and affective – state of affairs, one that leaves the nature of knowledge, as well as of the world and the subject, still to be formed and discovered. And it is a sign of our times that such a simple, but "risky" notion of information is not only evaded but also buried by a reified and commoditized notion of "information," for the "world" as a whole now seems to be once again wagered on an ideological rhetoric of information and its promise of a future. (Day, 2001. pag. 120)

This extract is the final paragraph of his first book. In it, Day proposes an understanding of information as the process of being informed, and of knowledge as the experience instead of a ready-to-hand answer. This leaves the door open to the unknown and the uncertain, as final sources of human creativity and freedom. It is a "risky" option, because it supposes to recognize the presence and value of what escapes our control; but it is the only possibility of avoiding the escalation[13] of social control and the alienation resultant from the positivist path.

Day's main argument, based on Heidegger, Deleuze and other authors, is that information is part of the human being, it is an expression of his/her consciousness, his/her means of social communication, as

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[12]   We could be tempted to change "different" here for "in a more positive way", but maybe the failure of Positivism has something to do with the whole idea of "positive (effective) knowledge", and maybe knowledge is better achieved through a negative process that captures reality more from the point of view of what cannot be, than of what it [positively] is.

[13]   This idea is widely present in the concept of the Society of control from Deleuze and Guattari.

well as the raw material for knowledge and thinking. Thus, its reification and commoditization leads to the alienation of the human being. He suggest that we probably should return to think of information as a process, which is non-separable from human experience and practices.

Heidegger's phenomenology is one of the most important referents to support this position. His work against metaphysics and the representational model of information points out that language cannot represent a reality outside consciousness, but it is through language and consciousness that reality is created, accessed or *unveiled[14]*. Therefore, information as a process is the experience of reality, instead of its representation. Heidegger also puts in question the "scientific" approach to the study of reality or nature as something external from the human being, criticizing its foundation over metaphysics.

The reference to psychoanalysis is also a rich ground for the reflection on the nature of information and its relationship with the human being, particularly with how the self is constructed through its interaction with the world. Day uses this reference to psychoanalysis from the very beginning of his work, but probably it is in the article *Death of the User,* where his ideas in this area are more clear and conclusive. In it, Day advocates for a shift in the way LIS conceives the user of their services in Libraries. In that process he also articulates an interesting reflection on the relation between subjects and objects, applying the theories of lacanian psychoanalysis to information seeking behavior and information needs. The main point is that there is a reciprocal relationship between subjects and objects: while subjects utilized objects (documents) to inform themselves, the subject itself is constituted by the objects that in-form and connect him/her with a the "symbolic order" of society[15].

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[14] In "Martin Heidegger's Critique of Informational Modernity" (2010b), Day mentions the word *aletheia*, from ancient Greek, which he takes from Heidegger, who takes it from Parmenides, a pre-Socratic philosopher. This recall the connection that Heidegger had to do with the pre-metaphysics philosophers, in order to find new ways of superseding metaphysics. Other important presocratic present in Heidegger is Heraclitus, who theorized about the *Logos,* which means at the same time language, reason, consciousness and even being. The main characteristic of pre-Socratic philosophers is how they used the words, and the complex, abstract, meaning they embed in them, giving an account of reality that is unreachable through the plain, "scientific" or metaphysic way of thinking/talking.

[15] Lacan would say "the Other" instead of "society," but we prefer to avoid using terms that are not going to be, at least

This means a shift in the concept of user, in the sense that it is not conceived as someone looking to cover an unsatisfied need for knowledge (the ASK model) – a knowledge which is supposed to be objective – but as someone who is conformed in the process of seeking and learning, and who needs to position (and re-position) her/himself in relation to whatever he/she finds. This conception radically changes the role of the librarian, from trying to satisfy knowledge needs to a more integrated, dynamic and socio-culturally situated response[16].

Deleuze and Guattari also offer a fertile set of reflections to Day's objectives. The importance of affections in human interaction, or the difference between power as a creative force, and power as a controlling force are some of the core ideas of these authors. The *subject invents himself or herself* (Day, 2010c) through the interaction with others and the sociocultural realm, therefore they claim that human desire can better express itself as a transversal flow of affections and interactions, than according to some teleological principle. In fact, they claim that at the end of the day, the idealization of some final and natural (morally mandatory) end to human desire is what derives in controlling dynamics.

Negri and other Italian intellectuals also influenced Day's work with their studies on the practical effects of knowledge management as a means of alienation of social knowledge embedded in individuals and communities. Their work articulates also the difference between power as creativity and power as social control, and the control and drive of desire by capitalism. The fight against this appropriation of meaning and knowledge by capitalist forces seems to be the way out from the alienation processes.

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slightly, explained.

[16] There is not an specific proposal in the paper, but Day points out the need for a change in the model and also mention Social Informatics as an example of a field in which the model has been shifted to include *the study of subjects and objects (in the form of persons and technologies) as epistemologically joined entities in specific organizational settings.* (extract from note 4 of the article, Day 2010c).

Another influential author relating Day is Walter Benjamin, who is more concerned with the use of mass media as a means of transformation of society through the inoculation of ideas; which is also supported by the model of information as a reified commodity. Benjamin developed some ideas about how media and art could be liberating like, for example in what he calls "the moment of recognizability," in which the materiality and the rhythm of reality can be recognized, in opposition to fantasy stories that distort reality and separate consciousness from it.

Third step: projections and limitations

In one way or another, all these authors converge in the idea that language and knowledge are part of the being, and cannot be isolated from it. It is still not clear what is the difference between information and knowledge, what are the definitions of both concepts, and how should we put in practice a new understanding of them. Or in other words, we have to find out how to apply these insights in different fields and institutions, in order to resist and counteract the development of a control society[17].

As a Library and Information Science (LIS) scholar, Day makes a good effort in the application of these ideas to his field. As we said earlier, the issues treated by Day go way long beyond the specific interests of LIS, and are highly relevant in any field related to human or *social sciences[18]*. However, he seems to be caught in a double bind that keeps him from breaching the limits of the discipline, and at the same time does not let him feel completely part of it and its project. In other words, he frames most of his arguments in relation to LIS and all his publications are related to the field, but the scope of his

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[17]   We are taking here the concept directly from Deleuze and Guattari. It seems that the final effect of knowledge and information management is the extension of the means to control (and use) the natural-creative power of the society.

[18]   We are thinking here in a broad understanding of social sciences, maybe neglecting the relevance of the concept of Humanities. From the point of view of (pos)modern sociology (*logos* of society), the term humanities can be confused with aesthetic or rhetoric disciplines, and that could affect the credibility of the studies of human-social issues.

theoretical reflections goes beyond the discipline and criticizes its most precious beliefs (as the need to treat information as a resource). This is clear in The Death of the User, where he neither presents a clear alternative framework for the librarians and information researchers[19], nor opens the field to a higher integration with other social sciences and critical philosophy. In some way, he is like a foreigner in his own field[20].

On the other hand, this situation is indicative of a latent problem in Information Science: the tension between specialization (encouraging centripetal attention) and the integration with other disciplines to build a comprehensive understanding of the human world(s), which needs a more *expansive* attitude[21].

Furthermore, Critical Information Studies can only achieve its real sense in the interaction with other critical disciplines.

The role of information in society is so crucial, that these reflections about the nature of information cannot be encapsulated as a simple academic feature. The arising of the technical reproduction and the development of the mass media, as well as the new information and communication technologies make this type of work quite relevant to understand our present situation. Nowadays, the development of the Internet, Social Networks, artificial intelligence and "big data" management provide clear examples of how the commoditization of information – and the alienation of human experience – are perfectly able to produce totalitarian realities. Therefore, there is an important need for the development of alternative discourses and practices that can counteract or resist the current drift, and in doing so we have to

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[19] And that may be why some librarians reacted stating that the user is not dead: *"A year later, in response, an ASIST panel organized by the Society's special interest group in user studies declared that the user is not dead."* (2011a)

[20] This is a personal impression that could not be accurate.

[21] The widely used term of multidisciplinary is a trope that hides the fact of the inevitable overlapping and commonality of social sciences or disciplines. A trope that paradoxically encourages an artificial self-assertion of the identity of each field, a sensation that can be expressed by the common question: "What can you contribute to the multidisciplinary set as an specialist in your field?" That is why we are not using it here, because we believe more in a merging process or, at least, in blurring the boundaries between disciplines.

articulate the knowledge from many different fields in a coherent and comprehensive new account of reality, both in a normative and in a descriptive sense.

Either way, Day's works point out at the heart of the general problems in modern societies, like the complex relationship between control and freedom, and how capitalist dynamics affect this balance (we should also think about geopolitical balances, but that is another issue.) This problematic permeates all social institutions, as well as everyday social life. In this sense, it is remarkable how in his last article, Day addresses the challenges of the University in late capitalism in light of his previous conclusions about commodification and reification of information and knowledge. In it, Day explains the crossroad at which the University stands, between its fundamental role to educate critically and to empower society for the exercise of democracy, and the economic necessity of producing qualified workers for the capitalist production machinery. In this recent article, Day presents also a specific set of recommendations for the enhancement of the teaching role in Higher Educational systems, proving how Critical Information Studies (and social knowledge in general) can help, and are central, in the building of a better society.

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