Steven Tötösy de Zepetnek

Universidade de Alberta

THE IMPACT OF THE ELECTRONIC REVOLUTION ON LITERARY RESEARCH: A SOCIO-SEMIOTIC POINT OF VIEW

Preamble

In this paper, I will discuss some aspects of the impact of the electronic revolution on the study of literature. At the same time, the context out of which my discussion emerges is the notion of communication in a socio-semiotic and systemic context. My primary interest lies here in thinking about how a tool we call «the information high-way» impacts on and changes our communicative interactions and ultimately, how this impact and the resulting changes will reorient the study of literature. My theoretical points of departure are notions found in socio-semiotics, Niklas Luhmann's social interaction and systemic approach in sociology, as well as Siegfried J. Schmidt's systemic and empirical approach to literature, that in turn is based – among others (see, for example, Schmidt 1994; Tötösy 1992) – on tenets of Umberto Maturana's notion of self-referentiality and on tenets explored in Constructivism (Radical, Cognitive, etc.)

1. Definitions and a general perspective

The designation «socio-semiotics» draws attention to an aspect of Semiotics that prescribes that we investigate «the structure of all possible sign systems, and the role these play in the way we create and perceive patterns (or «meanings») in sociocultural behaviour» (Crystal 399). In the context of my objective, while «communication» as a form of human interaction may be defined in a semiotic sign systemic context, here it will be modified in the context of Niklas Luhmann's works (e.g., 1970-81; 1984; 1988; 1990) and the cognitive science oriented notion of (Radical) Constructivism.

In the proposed approximation of Luhmann's systemic model and Constructivism with the concept of Socio-semiotics, a further factor emerges. This factor is the notion of operationalism and functionalism. The notion of function is, of course, conceptualized in Semiotics. From a Semiotic point of view, in the social sciences and psycho-

logy, for example, functionalism means «structures, which fulfill the objective to maintain a system» (Nöth 154; my translation). This semiotic definition converges with the notion of system and operationalism of the Luhmann and Constructivism influenced framework of the *Systemic and Empirical Approach to Literature* (see, for example, Schmidt 1992, 1994; Tötösy 1992, 1993, 1994, 1995). The notion of communicative function with reference to language is again very similar to Luhmann's systemic concept of social interaction. Winfried Nöth's *Handbuch der Semiotik* defines communication as one of the primary functions of semiotic systems, in which the system is «utilized as a medium of communication, in other words, as an instrument of social interaction» (157; my translation). However, the difference in the understanding of the role of system between the Semiotic and the systemic or Constructivist notion is that the literary system – a system within larger system of social interaction and communication – is both in existence *a priori* and it is self-referentially motivated. With reference to literature and the study of literature, the researcher's task is to observe and to describe the how of the system. In other words, the observation of the «how» is the operational and functional task of the observer. This «how» of the observation and description has, however, several basic operational components. In other words, operationalism refers the observer to proceed in a certain manner which are predetermined by systemic factors. Among others, this procedure involves the observation and description of a second order observation (Maturana). Second order observation simply means to observe the observer.

In its most simplistic way, this second order observation involves the description of such as the objective of my discussion here, the systemic impact of the new tools of communication, collectively termed the «electronic highway» or the «electronic revolution», or «electronic technology». In other words, how does it and what is the impact of tool-generation and the use of tools of the information highway in the understanding and the study of the literary system? I propose that from an operationalist point of view the process and implementation of information technology suggests that the tools of the information highway, in other words, the information technology itself, impact not only on the primary activity, that of social interaction, i.e., communication in all of its Semiotic and other aspects including literature, but also on the activity of the study of literature. In other words, with Pierre Lévy's words, the information technology and the information highway «devient la norme, un nouveau système de l'écriture, une métamorphose de la lecture...» (1990, 42).

2. *Impact, changes, and observations*

It is evident that society in the Western hemisphere is much pre-occupied with information technology and the process and impact of the information highway and their collective potential in all domains of society. To illustrate the local situation in English-speaking Canada, one has to open only the *Globe and Mail* to find editorials,

dedicated sections, and simply ubiquitous references to this issue daily. The references range from the straight technical to the more socio-semiotic. For example, in the May 13, 1994 issue of the *Globe and Mail* a full 22 page advertisement under the title «Superhighway to Information Heaven» with key articles appeared, covering subjects from Cable, Education, Glossary, and Internet to Technology, Telecommuting, Telemedicine, and Telephone. And in the May 31, 1994 issue of the *Globe and Mail* in the article «Books a Dying Art? Don't Believe It», Pulitzer Prize winner E. Annie Proulx discusses the impact of the electronic media and argues that «In a curious way the computer emphasizes the unique virtues of the book... [and] Nobody is going to sit down and read a novel on a twitchy little screen». Proulx also writes that the «electronic highway is for bulletin boards on esoteric subjects, reference works, lists and news – timely, utilitarian information, efficiently pulled through the wires». While the author of the article may be right in her perception that the electronic highway is indeed a «tool» of communication facilitating the process of information and in her prediction that the screen is not going to replace the readers' preference for the tactility of a book, she also misses the view of a larger picture.

The larger picture is that while the electronic revolution is primarily a creation of tools for communication, it at the same time impacts the process of communication in its foundations. In Niklas Luhmann's theory of communication, there is a differentiation between medium and form whereby medium is defined by such examples as light, air, or noise and on a higher level such as money, power, and freedom, while form is defined by such as language, organization, or institutions (Bolz 44-45). Analogously, then, the information highway is another type of medium. It appears however that Luhmann's theory stops here: it negates dialogue with the technology of the new media (Bolz 50) and arrives, essentially, at the same conclusion as Proulx and reflects on the existence of society built on «sacred texts» (George Steiner).

With a divergent opinion, Norbert Bolz, in his most recent book, *Am Ende der Gutenberg Galaxis. Die neuen Kommunikationsverhältnisse* (1993) argues that Gutenberg's invention resulted in that the book became medium *and* form (192). But he proceeds with the argument that typography (in essence the technology of the printed word) represents the *raison d'être* of the Gutenberg galaxy and its subject is the passive, non-responsive reader (194). Against this static state Bolz argues, with László Moholy-Nagy and Marshall McLuhan, for example, that creativity, information, and communication in its latest shape, in hypertext, become radically temporal and provisory (198-99). What this creates is, in his opinion, a release from the typographical prison, from the prison of the «hard copy» (200). Bolz forcefully suggests that typographical reading gave way to screen reading, at least so with children in schools today. This understanding converges with, for example, Pierre Lévy, who argues in his book *La Machine univers* (1987) that «L'écriture, en transposant la culture orale, l'inscrit dans un temps nouveau, dans un autre cycle de la mémoire sociale. De même, l'informatique recode les anciens contenus culturels pour les faire entrer dans de nouveaux circuits de traitement et de communication» (41). Lévy also recognizes, albeit in a

more conceptual way, that audience and readership is impacted by the new forms of communication and information retrieval.

While I agree that this is the case in many countries in their urban schools, this may not be the case alltogether even in the technologically most advanced countries of the Western hemisphere. It is another matter that there is good reson to hypothesize that the screen reading mode is what is coming, including the various ways of communication on and with the computer screen. I do agree with the author that the prominence of screen reading and screen communication does indeed result in a different construction and process of communication: that the concept of reality is substituted by function, that classification and causality is substituted by configuration, and that thinking in the reflective mode is under the constraints of the necessity of immediate response (202).

The most immediate and important impact the electronic revolution will have on literary studies is the cumulative result from the electronic revolution's equally cumulative effect on social interaction, so immediately or also secondarily connected. For example, while the above discussed impact on the reading of books may not happen in the way George Steiner or E. Anne Proulx suggest, the information highway will have and already has had, presumably, an effect on audience and readership. Not necesseraly on the first level of the actual reading of a book, however. Rather, this impact is cumulative in factors of secondary or tertiary activity such as the reasons for reading a book and the how of dealing with the book after its reading. For example, it would give us empirical evidence and further food for thought if we knew what the frequency of the reading of a particular novel may be *after* the viewing of a film or video.

George P. Landow, in his seminal *The Convergence of Contemporary Critical Theory and Technology* (1992) discusses a range of areas where the electronic technology, that is the information highway including hypertext, impacts the process and the outcome of the study and the pedagogy of literature. Most importantly, Landow's explanations of the nature and effect of the electronic technology and hypertext touch on both the situation of social interaction in general and on the shape and form of the literary system he calls the «nonlinear network» (23-27). Drawing, among others, on J. Hillis Miller, Landow too sees the convergence of impact based on the «limitations of print culture, the culture of the book» (28).

The most important result of Landow's but also of Bolz' discussions about the mechanism and impact of electronic technology is the suggestion that the literary system – as postulated by Schmidt or Kernan, for example – in its autopoiesis conceptualized and defined within the larger Luhmannian system of communication appears to loose its semi-permeable self-referentiality. In other words, the implications of the electronic highway are decentralization and the proliferation of communicative possibilities and, at the same time, «electronic linking shifts the boundaries between one text and another as well as between the author and the readers and between the teacher and the student» (Landow 33). In my view, the information technology in all its ramifications impacts the study of literature in one area in particular and that is the area of audience (i.e., readership). In consequence, if the audience is impacted by change and

if the readership of literature is undergoing profound changes as to how literature is read and processed in Western society, also the study of literature and literary theory will undergo significant alteration. This alteration is then not only in the domain of the first order, that is in the factoring of computer use and speedy communication such as e-mail, or even in the pedagogical possibilities of hypertext but importantly in the foundations of communication, literary and other. Finally, these shifts also postulate that literary research and communication research be concentrated on field work as Christopher Podmore suggests in his provocative essay, «Communication as Method and Radical Practice», in the recent volume entitled *Mediating Culture*. Podmore's postulate of radical practice, meaning audience and readership research contains many of the tenets proposed in the systemic and empirical approach to literature and converges with most of the epistemological and other tenets of Luhmann and Radical Constructivism.

In returning to the most obvious operational effect of the information highway, that of the access to data, I would like to touch on a controversial but significant question of literary scholarship. This question is the problem of basic data gathering but which affects the outcome of scholarship in importants ways. The electronic highway has impacted and is in the process of further facilitating the access to data and the creation of reading i.e., hypertext. On a basic level, the access to data I am referring to is what Anne Proulx described as «bulletin boards on esoteric subjects, reference works, lists and news – timely, utilitarian information, efficiently pulled through the wires.» This accessibility to primary data, for instance the access on CD-ROM to the international bibliography of the MLA, should make the prevalence of repetitiousness in literary scholarship unacceptable. My contention here is that too often that is suggested as new and original in scholarship has appeared before. The researcher claiming originality does so in the face of not having done sufficient primary research. This mechanism is facilitated by established forms and methods of presentation of argument in literary research. In the Natural and Medical Sciences it is unheard of that a topic or subject of research is introduced and discussed without at least a brief set of references to sources in which the same or similar has been dealt with. In literary studies one frequently encounters works which are uninformed in the sense that the author neglects similar research done elsewhere. I am aware that many other factors such as the lack of knowledge of languages – particularly so in North America – or power plays – for example in French intellectual circles where explicit references or footnotes to what is decided by the author to be common or «insider» knowledge are consciously omitted, when in actuality the matter is only known to the few in the particular, let's say, a Parisian inner circle – also may play a role resulting in conscious or subconscious knowledge omission. But often it is simply the lack of primary data accumulation and the following acquisition of familiarity with the similar subject of inquery that is the result. A few examples will illustrate my point. As far as systemic and socio-cultural approaches are concerned in the study of literature, Tony Bennett's *Outside Literature* and Jerome McGann's *The Textual Condition*, although both of a socio-cultural and systemic orien-

tation, make no reference to any systemic (literary or other) theory except to that of Bourdieu in the case of Bennett. A similar case, although more rare in German scholarship, occurs with the work of the by now often quoted book of Dietrich Schwanitz, *Systemtheorie und Literatur. Ein neues Paradigma* (1990). Although Schwanitz clearly argues from a system of literature base, he does not mention anyone of the system persuasion except Habermas (with works 1962-87) and Luhmann (with works 1970-88) and neglects the large corpus of the most immediately literature directed large corpus of Siegfried J. Schmidt and his colleagues. Another example of works where the systemic approach is simply intuitively followed is the recent book of Patti White's *Gatsby's Party: The System and the List in Contemporary Narrative* (1992). This author appears totally unaware of any system oriented work before her own and *quasi* reinvents the wheel. I am suggesting that these kinds of works will have to give way to more informed states of mind and research results.

It is difficult to predict whether advances in information technology will remedy the sorry status of data access I am speaking about and, more importantly, whether the access to data would affect a more rigorous way of literary scholarship. In my opinion, even if we cannot hope for a radical change, at least there undoubtedly will be an increase of literary scholars who will employ *au minimum* the information highway as a tool and thus demonstrate a high competence of primary information gathering, hopefully resulting in a higher level of knowledge as well.

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