



# From Heidegger Onwards – Why Data Science Is Social Semiotics? E-Leadership Takes the Lead

Angela Lacerda Nobre

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# From Heidegger Onwards – Why Data Science Is Social Semiotics? E-Leadership Takes the Lead

Angela Lacerda Nobre

Escola Superior de Ciências Empresariais do Instituto Politécnico de Setúbal,  
ESCE-IPS, Setúbal, Portugal  
Angela.nobre@esce.ips.pt

**Abstract.** Bridging different worlds of meaning, overcoming disciplinary borders and expanding horizons of theoretical and practical knowledge is the task of semiotics, in general, and of social semiotics, in particular. The role of the present paper is to question the emergence of information sciences' new paradigms through the use of philosophically grounded constructs. The argument is: contemporary societies, and the organisations they host, are bounded by thought and action mind frames, which practical philosophy is able to address, to identify and to make explicit. Heidegger's mastery work has set in motion a tradition which enables the design and exploration of the bridges between three different worlds: first, data science and its computing science paradigms; second, social semiotics, and its contribution to the understanding of meaning-making; and third, e-leadership, as a practical application of the fundamental ideas and concepts that are transversal to diverse disciplinary areas and that capture business making fundamentals.

**Keywords:** Data science · Social semiotics · E-leadership · Organizational information systems · Techno-science

The present poster addresses the links between the business contexts that are being influenced by the emergence of the big data phenomenon and the need to master the potential of e-leadership to the full. This implies explaining how practical philosophy is able to promote a better understanding of the semiotic and language based processes of meaning-making, which are present in every practical circumstance of organisational reality. Three steps, as a summary: (i) To do business is to buy resources in order to sell an idea; (ii) Ideas come in words, which come in sentences that capture information fields; information fields reveal an excess of information, which is captured by sentences in context; consequently, texts leave room for infinite ways of expressing the same idea through a multitude of existent or newly created words; and (iii) Human existence, or human nature, is artificially, that is, culturally created through language, which, in its written form, acquires a life of its own; this means that others may adopt the lessons and insights from written texts and give them new meanings, different from, and richer than, the author's original intentions; meaning-making is constitutive of human nature; through language, new cultural paradigms emerge, which may be captured by ideas, which are transformed in resources that may then be used as a raw

material for further ideas, that are the backbone of meaning-making; and such is the potential for development of all human made endeavours, including business organisations.

Heidegger's monumental contribution was triggered by a search for ontological and phenomenological quest for new meanings and new interpretations of contemporary societies. According to Heidegger's work, "technicity distorts human nature with an accompanying loss of meaning" [1]. The technological environment imposes complex questions on how to interpret meaning-making. Hegel's Phenomenology [2] enables addressing explicit directions for the design and development of IS, not as an isolated walled garden process, but incorporating end-to-end value creation processes involving the interests of all stakeholders. Ronald Stamper, developed the subfield of organisational semiotics in order to bridge the social world of organisational practices and norms, and the way information is represented through IS. Organized behaviour is norm-governed behaviour. Signs trigger the norms leading to more signs being produced [3]. Semiotics, as the study of signs and of sign systems, has a wide range of applications and of perspectives to be explored. To examine the structural nature of theory in IS, Gregor [4] claims the need to address its form, types and purposes. He argues in favor of the building of integrated bodies of theory that encompasses all theory types. "In the age of big data, ... the emphasis in industry has shifted to data analysis and rapid business decision making based on huge volumes of information." [5]. Computing science uses practical philosophy in order to decode loose strings of meaning. Through this process, computing science continuously creates new cultural paradigms. "Many marketing researchers believe that social media analytics presents a unique opportunity for businesses to treat the market as a "conversation" between businesses and customers instead of the traditional business-to-customer, one-way "marketing"" [6]. Monod [7] argues for the need for epistemological pluralism in IS research. He refers to the importance of the concept of "conditions of possibilities". Baskerville and Myers [8] address the issue of the practical relevance of IS research, and argue in favour of a methodological option for action research as a basis for improved results.

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