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Abstract:

In this text, Béatrice Galinon-Méléneć analyses digital reality as a “*black box of knotty implications for human beings*” who were the very ones who created it. Her anthropological approach has led her to conclude that today’s humans, like those of yesterday, are confronted individually with ethical choices: treating digital traces as *Ichnos-Anthropos (Human-Trace)* by studying the range of possibilities offered among *Homo homini lupus* or *Homo sacra res homini*.

Key words:

Epistemology of the trace, - Definitions of the terms *trace*, *mark*, *indication*, *fingerprint*, *Human-Trace*, *Sign-Trace*, *Body-Trace* – *Lettrure* - Systemic approach - Complexity vs simplicity - Ethics.

Field

Anthropology of communications, semiotics of traces

Principal influences emanating from authors (from past centuries) cited:

Bateson, Bourdieu, Goffman, Derrida, Eco, Ricoeur, Simondon, Varela & Thomson, Seneca, Spinoza.

Reliance on digital traces vs deconstruction of their meaning¹

Béatrice Galinon-Mélénez

“We must begin somewhere where we are
and the thought of the trace (...)
already taught us
that it was impossible
to justify an absolute point of departure”.
(Derrida, 1967)²

Introduction

Scientific articles on the question of “digital traces” have multiplied over the last ten years. In the information and communications sciences, many are those who problematize the relationship between individual writing done on screen, acts of mediation that follow and powers associated with their implementation. Ethics aims to restrict the enormous capacity for traceability offered, and the effect on the individual that these practices bring about. According to their area of interest, researchers study the consequences of these behaviours in the area of private interpersonal relationships, the professional sphere, the public space, and analyse the legal rules likely to channel the negative effects. The result is a theoretical corpus of work rich in various conceptual approaches to which it would seem difficult to contribute any original ideas. However, we have taken the risk of approaching *the complexity of the notion of trace* (Jeanneret, 2011) from the perspective of the *implications*³ and of proposing to explore the path of discovery to find the facets of the digital trace which still require clarification.

This point of view is effectuated from the *Human-Trace* paradigm, a contemporary anthropological proposition devised in ICS (Galinon-Mélénez, 2011), the contents and associated notions of which should therefore be specified (“Body-trace”, “Sign-trace⁴”). Development seeks to bring to light human responsibility in the choices that are made in the many invisible layers which develop digital traces culminating in a “screen reading”. This aspect seems all the more important for us to examine in that the figure of a *Human-Trace* becoming a “*wolf to man*” stands out more and more frequently today, be it in the context of religious terrorism⁵, data hacking⁶, for financial or electoral purposes or to start up nauseating rumours⁷.

¹ Translation by Isobel Hié (UK).

² Derrida J., *De la grammatologie*, Paris, Minuit, 1967, p. 23.

³ In French : *conséquence/trace*

⁴ At this stage of the introduction, we shall say that, by referring to the sign as *Sign-trace*, we wish to highlight that observation transforms the Capta reality into a sign whose meaning appertains to implications/traces due not to the presumed author but to his interpretant.

⁵ Cf. “globalization and the digital revolution have contributed to the proliferation of the ‘lone wolf’ phenomenon”, which have succeeded many times in carrying out actions, perpetrating several attacks in several countries”, *Libération* of 9 April 2018: “What are the strategies for preventing terrorist groups from exploiting digital communication media?” https://www.libe.ma/Quelles-strategies-pour-empêcher-l-exploitation-des-moyens-numériques-de-communication-par-les-groupes-terroristes_a96794.html

⁶ As we shall see, a “datum” results from a succession of sorting processes (figure 2).

⁷ Rumours of which Edgar Morin had already analysed the motives in the last century in Morin E., *La rumeur d’Orléans*, Le Seuil, 1^{ère} édition, 1969.

Other choices are possible: those that put digital traces at the service of knowledge and the common good.

As we shall see below, digital traces in themselves are “mute”: they constitute a form of *pharmakon*⁸, offering not only new opportunities in the evolution of knowledge – as, for example, Computerized Decision Support Systems, which have introduced artificial intelligence (AI) into medical diagnosis⁹ - new forms of risk prevention – such as, for example, the prevention of risks of epidemics¹⁰ - but also dangers when it comes to privacy protection¹¹ or the likely emergence of threats which are to be feared all the more as they are as yet unknown.

The profiling of the individual is another double-faceted example. Mediations take place each time and the role played will be understood better when Figure 1 has been read. Their operating traces reduce the complexity of the real and when the resulting Data become massive (Big Data) and are kept in *cloud computing*¹² the question arises of the implications of the meta power granted to the *cloud* manager over individual people’s privacy.

On considering with Derrida that the possibility of trace is “*a prior right to everything that is called sign*”¹³ and that “*the order of the signified is never contemporary*”¹⁴ in that it is dependent on the trace, we introduced the notion of “sign-trace”. Basing our approach on the notion of *sign-trace*, we arrived at the idea that, when humans attempt to go back to the first trace – the origin of which differs according to beliefs or scientific hypotheses – they reason using *sign-traces* which they locate historically.

In respect of *sign-trace* analysis, a starting point should therefore be set. One of writing (in the ordinary sense of the term) would seem all the more appropriate given that working on digital trace consists in part in questioning digital writing. As beginning this way makes it possible to see that contemporary issues on digital traces are not as new as they seem, we shall adopt it in

⁸ *Pharmakon* : In Greek, the *pharmakon* refers both to the remedy and the poison. Plato uses this term to explain that any remedy used to provide an improvement disrupts the system which in return produces non-neutral or even dangerous effects. The term *pharmakon* has been used by many philosophers after Plato. Among contemporaries, the most well-known is Bernard Stiegler who employs this term by contextualizing it to the analysis of the Internet after which, in the previous century, Jacques Derrida had himself recalled the ambivalent character of writing. Derrida J., "Plato's Pharmacy" in: *Dissemination*, translated by Barbara Johnson, Chicago, University of Chicago Press, 1981, pp. 63-171. French version, Derrida J., « La pharmacie de Platon », dans *La dissémination*, 1972, p.77. http://www.occt.ox.ac.uk/sites/default/files/derrida_platos_pharmacy.pdf

⁹ AI (Artificial Intelligence) – Computer systems which exploit data by miming the cognitive procedures of human experts – is used in medicine as a decision aid. Computerized decision support systems continuously gather together publications, articles, works, abstracts, etc. This corpus, collected and interpreted, is used by doctors who are confronted with cases that are unfamiliar to them or rare in absolute terms.

¹⁰ It is apt to shield against risks of epidemics. But the experience of *Google Flu trends* shows some misinterpretations made in the capture of queries made by users on search engines: up to 20 August 2015 “when you typed in Google keywords like “flu”, “symptoms”, “thermometer”, “muscle pains”, “pulmonary congestion”, “cough”, the search engine did not list only the web pages in response to the internet user’s request. These terms, typed by millions of web users worldwide, were analysed by an algorithm, country by country (29 exactly), to provide a localized and updated prediction of the peaks in flu even before the health authorities. (...) Although it was credible at the outset, the service in fact was shown to have over-estimated flu epidemics”. In 2013, *Google Flu Trends* produced the American predictions which were 50% higher than those from the Centers For Disease Control and Prevention. And the predictions turned out to be false: Devillard A., “Google arrête de prévoir (mal) les épidémies de grippe”, *E-santé*, 10.09.2015.

¹¹ Risks to privacy are in principal established within a legal framework (for example, via the CNIL, Commission Nationale Informatique et Liberté – *National Commission for Computing and Freedom*); but, as we shall see below, risks remain.

¹² *Cloud computing*: place where data are concentrated in huge amounts without users’ knowing the location of the place storing their data.

¹³ Derrida J., *De la grammatologie*, p. 92.

¹⁴ Derrida J., *De la grammatologie*, p. 31.

a central manner in this chapter and associate with it the very old notion of *lettrure*¹⁵.

Lettrure is a term that was already in use in France in the 12th and 13th centuries. It has been updated today because “the French language does not possess the equivalent of the English word *literacy*, which refers to the ability to read and write”¹⁶. We consider it also as a sign-trace to signify – as we shall remind you throughout this chapter – that the sign without the presupposition of the trace is mute and that digital writing is a *sign-trace* that reading reifies.

(The rest of this article cannot be accessed on-line).

¹⁵ *Lettrure*: in the Middle Ages, referred to reading and writing activities perceived as a single activity. Cf. *infra* paragraph 4.

¹⁶ Maud Sissung cited in Souchier E., « La « lettrure » à l'écran. Lire & écrire au regard des médias informatisés », *Communication & langages* 2012/4 (N° 174), p. 85-108.