The archive of the digital an-archive

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Abstract (E): The article starts from the notion of ‘the digital an-archive’, coined by Wolfgang Ernst, and then briefly frames the ongoing debates among archivists and other archive specialists to get some grip on the oxymoron-like nature of the digital archive. In the second part, we turn to the work of Michel Foucault, who first tried to re-articulate the notion of the archive into a more general epistemological category and then, in his later work, re-defined it as a primarily sociological reality marked by power differences. We will argue that Foucault’s epistemological re-interpretation of the archive-notch in terms of ‘the system of “utterability”’, or ‘the law of what can be said’, offers the possibility to conceptualise the deep structure of every database or computer system as ‘the archive of the digital archive’. In the last section, we take up again the notion of ‘the digital an-archive’ and briefly highlight its specific performative nature.

Abstract (F): Prenant appui sur le concept d’in ‘an-archive’ élaboré par Wolfgang Ernst, cet article présente d’abord les débats récents entre archivistes et autres spécialistes des archives, dans l’espoir d’envisager ainsi une nouvelle plus claire de la nature presque oxymorique de l’archive numérique. Dans une deuxième partie, les auteurs se tournent vers le travail de Michel Foucault, qui fut le premier à essayer de repenser la notion d’archive sur le mode d’une catégorie épistémologique plus générale, puis, dans ses travaux ultérieurs, de la rédénir comme une réalité essentiellement sociologique structurée par des différences de pouvoir. L’article défend l’idée que la réinterprétation foucaldienne de la notion d’archive comme « système du dicible », c’est-à-dire comme la « loi qui détermine ce qui peut être dit », offre la possibilité de conceptualiser la structure profonde de chaque banque de données ou de chaque système informatique comme l’archive de l’archive numérique’. Dans la dernière partie de l’article, les auteurs reviennent sur la notion d’an-archive numérique, pour en souligner le caractère spécifiquement performatif.

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1.

During recent years, the notion of the digital archive became a fixed expression in various theoretical and disciplinary contexts. In a rapidly growing body of knowledge, the new cyber-reality of networked databases is the starting point for highly speculative, often provocative claims about the nature of contemporary society and its relationships with the past, the present and the future. Thus, to give just one example, the organisers of the 2003 Rotterdam conference ‘Information is Alive’, subtitled ‘Art and Theory on Archiving and Retrieving Data’, argue that ‘the atomisation of the archive in the database has made the whole Art of Memory into a technological, interactive art that suddenly becomes a highly urgent topic. In the first place, for all those institutions that feel the need to "open their archives", secondly for all those who describe and study modes of being, and thirdly for all those who design and use our new archives, be it books, websites, cities or the like’ (Brouwer and
Mulder, 2003: 5). Following the authors of these enthusiast lines, the new reality of the digital archive is crucial for a correct understanding of our society: ‘We do not live in a society that uses digital archiving, we live in an information society that is a digital archive. Understanding the world means understanding what digital databases can or cannot do’ (ibid.:6).

As is well known, much of the literature on cyberspace and internet, virtual reality and new media, testifies of a rather naive technological determinism and is written in the flashy language of optimism (Castells, 1996; Van Dijk, 2001). More than once, the enthusiasm goes hand in hand with a highly metaphorical argumentation, witness the just quoted text. Yet, it remains to be seen if the notion of the digital archive is not as such an oxymoron that can only be used in a metaphorical way. We must indeed consider the eventuality that the digitalisation of information within the context of computer networks - or rather: computer mesh-works - creates a new reality that transforms the whole archival terminology, even the archive itself, into a literal metaphor. In this view, which we explore hereafter, networked databanks profoundly re-mediate the function as well as the practice of both archiving and data (re)search in such a thorough way that the actual outcome is a new medium. Following Wolfgang Ernst's book essay Das Rumoren der Archive [ The Rumour-Production of the Archives], one may call this new medium the digital an-archive (Ernst, 2002). The latter is and is not an archive in the traditional sense of the word. It is, for it actualises the storage function that is usually associated with the notion of the archive; it is not, for the digital an-archive is synonymous with an ever expanding and constantly renewed mass of information of which no representation at all can be made. This ‘sublime’ reality - or, rather: this ‘virtuality’ - can not be ordered or catalogued: it is a non-archived archive, and therefore an an-archive, a literally metaphorical archive.

We admit that this initial characterisation is as speculative, perhaps also as provocative, as the just denounced quotation and, more generally, as quite some literature on cyber-reality and the digital archive. We will therefore make a serious but necessarily selective effort to qualify our position. We start from the ongoing debate among archivists and other archive specialists to get some grip on the oxymoron-like status of the notion of the digital archive. Then we turn to the work of Michel Foucault, who first tried to re-articulate the notion of the archive into a more general epistemological category and then, in his later work, re-defined it as a primarily sociological reality marked by power differences. Foucault formulated his views before the advent of ‘the digital age’ or the breakthrough of ‘the information society’. Hence it is all the more interesting to confront his insights with the reality of the digital archive. More particularly, we will argue that Foucault’s epistemological re-interpretation of the archive-notion in terms of ‘the system of “utterability”’, or ‘the law of what can be said’, offers the possibility to conceptualise the deep structure of every database or computer system in terms of ‘the archive of a digital archive’. In the last section, we return to the notion of ‘the digital an-archive’ and briefly highlight its specific performative nature.

2.

It is immediately clear that the concepts of ‘the archive’ and ‘the digital’ point to different, even heterogeneous historical and practical contexts. Thus, the practice of archiving is deeply entangled with the history of writing and print culture, of administration and paper work (in the most general sense of the word). On the contrary, the notion of ‘the digital’ refers to the more recent possibility to re-code not only texts but also sounds or
images as numerical information, as bits and bytes or combinations of zeros and ones (compare Manovich, 2001). This has elicited a shift from material archive-systems towards immaterial information-banks. We leave open whether numerical data-files can be considered as texts and, related to this, whether the production of digital records can be regarded as a new phase in the ‘logo-centric’ history of writing. For that matter, certainly Michel de Certeau (1992), and probably also Jacques Derrida (1998), would answer this question with a definitive yes. Yet, such an affirmative stance presupposes a broadened, predominantly epistemologically oriented notion of writing that clearly transcends its historically institutionalised meanings.

Of probably greater importance for the ongoing discourse on the digital archive are the paradigmatic differences between the traditional archive-notion and the new cyber-reality. Whereas the concept of the archive primarily refers to the stable - or rather: the stabilised - storage of textual documents, the re-mediation of older media within the super-medium of digital language goes hand in hand with the vast expansion of flexible computer networks and highly unstable public or private databases. Digital information is indeed predominantly produced in view of its transportation and circulation within the World Wide Web on the one hand, in order to make possible future operations or calculations on the other hand. In both cases, the data storage anticipates active operations: what is stored in databases has, or does not have, a use-value in the present. One may, or one may not operate with the retrieved information, and this distinction is fundamental. Indeed, only the effective operative use of digital data transforms the numerical bits and bytes into meaningful units (Manovich, 2001; Simons, 2002). This reminds one spontaneously of Wittgenstein’s famous dictum that ‘the meaning is in the use’; yet, the notion of ‘use’ should be given here the double meaning of strategy and tactics as spelled out by Michel de Certeau in The Practice of Everyday Life (de Certeau, 1988). Indeed, the operations with digital data either have a strategic or a tactic nature: either they are intimately linked with the exercise of power - a point we will take up again hereafter -, or they are interwoven with tactical navigating practices. Notwithstanding the importance of this difference, data use is in both instances synonymous with a genuine performativity that re-uses and re-combines, re-configures and re-contextualises the digitally encoded input (compare Esposito, 2002: 287-368).

Usually, strategic as well as tactical data operations transcend the traditional function of the archive, i.e. the stable storing of information in view of proving, witnessing or representing a past event. The classical archive is founded upon the read-only paradigm, whereas the internet and digital databases are radically user-oriented. The traditional notion of the archive therefore implies a thorough split between a document and its interpretation, witness the dominant epistemology of historiography or the implicit premises of juridical practice and positivist law. In contrast, digital information anticipates its re-use: it is there to be worked upon; it is stored in view of re-calculations (databases) or re-searches (the internet). The prefix ‘re-’ refers to practices that re-configure the stored information according to, for instance, a statistical procedure that explores possible data patterns or a particular search engine (again a point that we will elaborate later on). The already mentioned Wolfgang Ernst therefore concludes that ‘we go from an old-European culture that privileges storage towards a media-culture of permanent transfer’ (Ernst, 2002: 14). This shift is actually confirmed by the design of computers. As Ernst rightly stresses, ‘the von Neumann-architecture of computers locates the data that are to be processed in the very same space where the programs for their processing are located - a coincidence of storage and instruction. Therefore, the inventoried file differs already for a
certain time from the database of former times; memory is no longer given in a stable way as the condition for future history writing, but is offered in user-oriented way. (.) What is thus taking shape, is the *dynamic archive*’ (Ernst, 2002: 120).

The traditional notion of the archive leads to a similar conclusion, but with a different stress and, particularly, with a completely different evaluation (see esp. Chabin, 2000). For if one sticks to the wisdom of the archivist, one will not observe a profound change but only mourn a profound loss, i.e. of stability. The classical archival paradigm indeed privileges the stable storage of information and therefore relegates its flexible use to the realm of interpretation. The latter is considered to be speculative in a legitimate or illegitimate way, depending upon the distance between the used text and its actual reading, the invoked sources and their framing by a particular narrative or argument. According to the classical archival paradigm, the crucial problem of databases and their actual or virtual interconnectedness within cyberspace is therefore not only their open-ended, use-oriented nature. What appears to be even more problematic is the instability of the sources or records themselves. Databases are indeed constantly renewed, within private networks as well as within the publicly accessible domains of internet. This constant updating is a direct consequence of the new paradigm of ‘permanent transfer’ or ‘the dynamic archive’ (Ernst), which privileges the active user above the stable source, the need for present information or information that is also (re-)usable within the present above a more or less accurate representation of the past within that very same present. In the light of the traditional notion of the archive, all this is highly problematic since updating is synonymous with de-stabilisation. Hence in her book *Je pense donc j'archive* [*I think, therefore I archive*], Marie-Anne Chabin - a French archivist specialised in numerical archives - gives a negative answer to the question ‘if a database is a document, a fortiori an archive’ (Chabin, 2000: 171). For ‘the problem is indeed the open nature of the database, since in the present it is no longer what it was a year ago and will be again very different next year. Let's not beat around the bush: in order to archive a database, at least when it merits it, one has to close it’ (*ibid.*).

Openness versus closeness, passive storage versus active use, stable sources versus updating, and the paradigmatic predominance of the written or printed document, also in the treatment of images and sounds (both need words in order to become meaningful) versus the abstract numerical super-code of zeros and ones: all these oppositions point to the more general differences between new and old media, information that is or is not computer-mediated (compare Manovich, 2001; Simons, 2002). Of course, this difference is not a tight watershed. From the point of view of new media, more than one old medium appears to be a forerunner, or at least an anticipation of some of the characteristics of the computer as a universal media-machine. Nevertheless, the above considerations suggest that ‘the digital' and ‘the archive’ are clashing notions because they refer to the basic, and opposite, characteristics of new and old media. More particularly, we observe a quasi-bifurcation in the ways the digital archive is observed and evaluated by traditional archivists and other archive specialists, and we can relate this dividing line to the current characterisations of the main differences between old and new media. This already indicates the necessity of a genuine media-theoretical view on the notion of the digital archive. Precisely the same conclusion can be drawn from the confrontation of contemporary data-storage and -processing with Michel Foucault's scattered remarks on the status of the archive.
One can find many casual considerations on the notion of the archive in Foucault's writings. This is not the place to sample all of them: we limit ourselves to the two most prominent conceptualisations. The first one tries to turn the archive-notion into a broader epistemological concept and is articulated, although in not always very clear ways, in *Archaeology of Knowledge*. Foucault's main other conceptualisation goes in a completely different direction. Indeed, in *Discipline and Punish*, Foucault puts the archive-notion into a historical perspective and argues that there exists a genuinely modern practice of archiving because of the breakthrough of a new power regime. Let us have a closer look at both notions and confront them with contemporary cyber-reality. For the sake of argument, we will be rather brief on Foucault's reinterpretation of the modern practice of archiving.

As is well known, Foucault (1991) describes in *Discipline and Punish* the advent of 'the disciplinary society'. One of the striking characteristics of this new power configuration is the thorough renewal of the kind of individuality that is considered to be 'archivable'. In pre-modern times, to become the object of description and of remembrance via archives was the privilege of the powerful. Their lives and deeds were documented, and the documents were stored in a relic-like fashion in family and official archives. This completely changes in modern disciplinary society. Broad categories of ordinary individuals are now the primary targets of surveillance and control, of examination and archiving. What is archived, thus Foucault notes, 'is no longer a monument for future memory, but a document for possible use. And this new describability is all the more marked in that the disciplinary framework is a strict one: the child, the patient, the madman, the prisoner, were to become (.) the object of individual description and biographical accounts' (Foucault, 1991: 191-192). The constant surveillance and examination of individuals within the contexts of semi-total institutions such as schools, hospitals or prisons goes hand in hand with a permanent and detailed documentation. Every observed individual is a potential case, every case of 'abnormality' results in a dossier that concisely records all the relevant facts, and every dossier creates an objectified individuality that is not linked to one's feelings or character but to observable, body-related events. Or in the words of Foucault himself: 'The examination leaves behind it a whole meticulous archive constituted in terms of bodies and days. The examination that places individuals in a field of surveillance also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them' (Foucault, 1991: 189).

It is immediately clear that the trend towards digitalisation not only facilitates the practice of modern - that is: individualising - archiving. The transformation of handwritten or typed dossiers into computer files also greatly simplifies the possibility to aggregate individual data and to compute general trends or to isolate specific 'risk groups'. Moreover, and this is probably the decisive point, much more behaviours or practices can be documented, stored in a data base, and used for control ends. Banks and credit card companies, stores and enterprises, museums and universities.: nearly every kind or organisation nowadays monitors via sometimes massive databanks the individual behaviour of customers and workers, of both clients and personnel ( Lyon, 2001). We have meanwhile become accustomed to the fact that within contemporary 'surveillance society', our consumer tastes and professional performativity are constantly monitored and digitally documented. Thanks to digital archives and intelligent agents or so-called knowbots, we are related to a particular life-style or stamped on a specific profile. One cannot contest these external characterisations, for they are backed by often numerous data on what we have done, chosen or said.
There is much to say for the thesis that the digitalisation of the modern, individualising practice of archiving confirms Gilles Deleuze’s succinct but perceptive characterization of our society as ‘a society of control’ (Deleuze, 1990). In contemporary society, bodily disciplining still exists of course, but it is supplemented by an ever-growing body of digital documentation that can be used for or against the documented lives. The juridical prohibition to network databases without an official approval is to secure ‘the society of control’ against the transformation into a totalitarian society. Nevertheless, the by-now institutionalised practice of producing digital databases that document ordinary individual lives warns against an all too optimistic view on ‘the information society’ and digital archives. Indeed, the information society is also a society of control via information; and the digital archive comprises numerous private networks in which we acquire an always particular external identity on the basis of information stored in databases.

4.

As said, Michel Foucault’s first important re-articulation of the archive-notion can be found in *Archeology of Knowledge*, originally published in 1969. In his important review of that book, Gilles Deleuze called his friend ‘a new archivist’ (see Deleuze, 2006). At first sight, this may seem strange since in *Archeology of Knowledge*, Foucault actually tries to explicate the implicit methodological framework of his previous studies on the birth of the clinic, the history of madness, and the shifting relationships between ‘words’ and ‘things’. This largely explains the rather abstract epistemological twist he gives to the notion of the archive. According to Foucault, the archive is neither synonymous with the sum of all the written traces of the past nor with the institutions that secure their further storage and access. As Deleuze (2006) rightly stresses, the novelty of Foucault’s view on the archive has everything to do with his thesis that it consists of statements or utterances. Not that the archive is only a corpus of statements. Rather, the archive is the quasi-transcendental but always historically particular system that makes specific statements possible, thus framing both language and every specific corpus of utterances during a particular period. In Foucault’s own words, ‘the archive is first and foremost the law of what can be said, the system that dominates the appearance of utterances as singular events. (.)’ The archive (.) is that which is at the root of the utterance as event and defines in the body in which it happens from its very beginning the system of its “utterability” (Foucault, 2002: 186-188). In short, in the view of ‘the early Foucault’, the notion of archive refers to the general system of formation and transformation of utterances. Such a conceptualisation has indeed not much to do with archives as storage depots. It is noteworthy that Foucault actually recasts the notion of archive in terms of the central concepts of *Archeology of Knowledge*. Indeed, the definition of the archive as ‘the law of what can be said’ or ‘the system of “utterability”’ nearly literally repeats the characterisation of the notion of ‘discursive formation’, undoubtedly the master-concept in *Archeology of Knowledge* (and itself a re-working of the notion of epistémè, the master-concept in *The Order of Things*).

At first sight, Foucault’s first re-articulation of the notion of archive seems of little or no use for the understanding of the contemporary digital archive. Yet, one may detect a very direct link. Seen from the point of view of new media, the archive as ‘the system of “utterability”’ is very close to, if not identical with, the technological notion of program. No digital database, and no access to and use of such an information bank, without all sorts of algorithms or instructions that frame the abstract data and make commands
possible, which specify in the form of particular filters and applications the informational nature of the uncountable bits and bytes (for instance in terms of pixels, voxels or letters), and which ensure an always specific interface between the digital data, their specification and the user (on these three levels, see Simons, 2002). The structural or temporal couplings between different programs in public or private data-networks function as an invisible system which makes possible a vast array of operations, resulting in an always specific patchwork of 'utterances' - of texts, sounds, images,. In general, and this notwithstanding the many existing forms of so-called open sources and open net-ware, one therefore operates in the final instance within the digital realm of the non-operative , which consists of excluded operations and therefore of utterances impossible to produce. Illegal hackers precisely try to open up this realm.

In line with Foucault's epistemological conceptualisation, we can define this hidden performativity of computer programs, which make information production simultaneously possible and impossible, as the archive of every digital archive. This archive is not neutral, but embodies an invisible and difficult to grasp form of 'digital power' that is at the same time symbolic and real. Symbolic, since this power is exercised by way of discrete signs, via the always specific encoding of zeros and ones; real, since it transforms strategic decisions into non-observable facts - into data procedures and protocols - whose seemingly technological nature actually only marks a new phase in the already long history of the naturalisation of the social gap between 'commanders' and 'commanded'. Or as Wolfgang Ernst (2002: 136) notes: 'Behind every collection [of information] that is dressed-up in a narrative or iconic way stands a bare technological structure, an archival skeleton that is with strategic consciousness withdrawn from discursive access on the level of the interface (.). Apparently without irreversible hierarchies, the system of technical transfer and storage protocols is beyond the visible surfaces much more rigid than a traditional archive ever was'.

In a media-theoretical perspective, 'the archive of the digital archive' is the unobservable medium that re-mediates the medium of the digital, or the digital code, in such a way that numerical data can be worked upon. This medium makes the data user-accessible and translates the discrete combinations of zeros and ones into readable sign-ensembles, such as texts, sounds or images. In line with Régis Debray's 'mediology' (Debray, 1991) or Espen Aarseth's considerations on 'the cybersemiotic paradigm' (Aarseth, 1997), 'the archive of the digital archive' is the active and necessary in-between in the relationship that links the empty signifiers of the digital code with the user. As Jan Simongs (2002: 117-126) rightly stresses, this ample fact contradicts the traditional dual definitions of the sign, or of sign systems, in terms of signifiers and signifieds (de Saussure) or of signs and 'interpretants' (Peirce). Indeed, the constitutive role of all sorts of programs in cyber-reality asks for a triadic conceptualisation: sign, medium/machine (actually: always specific programs), user. The implied programs unavoidably mediate the relationship between digital signifiers and users since there can exist no relationship at all without programs: no digital archive without an always specific archive, in the just defined sense. The way(s) the data can be worked upon as well as their phenomenological appearance(s), for instance on a screen, both depend upon the technology or the programs which the data are opened up with.

As a medium which actively and selectively re-mediates the
abstract digital information, every ensemble of programs is in a genuine sense performative. The programs make the specific information, they produce via procedures or algorithms the particular information corpus that 'reaches' the user(s). To be more precise, every activated program results in a selection and translation of numerical data: the latter are literally recounted. This implies that computer programs do not read or interpret the digital 'substance' which they select, and which is also their own 'substance'. Therefore, they neither know that they operate with discrete signifiers nor realise that they operate within (potential) meaning. For this very reason, it is not correct to consider a computer or a computer-network as a quasi-consciousness or as a technological competitor of human consciousness. As Elena Esposito rightly stresses in her stimulating study Soziales Vergessen, such a comparison overlooks the 'most interesting aspect of a computer': the capacity to change signs without using the difference between signifier and signified, or between sign and meaning, or between self-reference and external reference, which is non-existent for a computer. The computer operates with signs that are not signs for him. What only counts for the computer, is the production of differences (0/1), and it is completely indifferent on which base this happens. The machine only operates with the difference as such. One can therefore also say that a computer does not know any hardware (Esposito, 2002: 295-297).

Notwithstanding the correctness of the last observation, which inverts Friedrich Kittler's (1993) famous saying that software does not exist, an external observer may very well distinguish between a computer's hard- and software or, more to the point, between data bases, users and the many programs that mediate between both. As was already suggested, most users actually do not observe the at once mediating and performative role of the different sorts of programs on which they rely when storing, retrieving or processing information. 'The archive of the digital archive' is invisible; it belongs to what Boris Groys describes in Unter Verdacht: Eine Phenomenologie der Medien ['On Suspicion: A Phenomenology of the Media'] as 'the sub-media space within which hierarchies of carries of signs lead into dark opaque depths' (Groys, 2000: 18). Groys stresses that every kind of archive has a 'carrier medium', such as paper or film, a computer or a computer network. The archive consists of signs or ensembles of signs, and the signs imply the existence of material carriers. It seems logical to include the carriers in the archive, yet Groys decisively argues against this view: 'Books are not part of the archive, but texts are; canvasses are not, but paintings are; video accessories are not, but moving images are. The carrier of the archive does not belong to the archive, in that it carries the sign of the archive, without itself being a sign of the archive. The sign carriers remain hidden behind the signs they carry. The archival carrier is fundamentally removed from the observer's view. The observer sees only the media surface of the archive; one can only guess at the media carriers' (Groys, 2002:19).

The last observation seems particularly adequate in the light of the already hinted at non-observation of the metaphorical 'inside' of 'the outside' - or rather, the output - of databases and -networks by their average user. When one considers the activated programs as the crucial components of the 'media carriers' of computer-networks, which is a plausible stance, they are indeed part of 'a darker sub-media space'. Groys points to the paradox that this strange space - perhaps it is an instance of the famous Lacanian Real? - is not accessible when it functions. One can only have access to a server or a computer when the machinery is switched off, thereby deleting the information which it carries. In short, it is only possible to access either carrier(s) or readable signs that contain information - accessing both at the same time is impossible. Besides, in data-
networks the geographical distance between the user and the digital source - not to say anything of protective devices - makes it ipso facto implausible that the former accesses the latter. Even more than the user's computer system, it is a black box: closed off, even sealed off.

Groys' 'sub-media space' refers to a reality beyond the realm of signification and is to a great extent synonymous with what we called, inspired by Foucault, 'the archive of the digital archive'. As already observed, this space or 'meta-archive' is the proverbial third term that the new media oblige us to conceive when conceptualising the relationship between sign and user. 'The archive of the digital archive' re-mediates the abstract numerical information into readable information or meaningful signs, is therefore crucial for digital reality, but remains invisible as such. It is, in short, a specific kind of spectre (Derrida, 2006): 'the sub-media space', viz. 'the archive of the digital archive', is present-absent in the digital archive.

6.

Media are metaphors, as Marshall McLuhan (1966) already noted. In line with this idea, Simons (2002: 126) observes that older metaphors such as 'the world is a book' or 'the world is a stage' are nowadays replaced by the image of 'the world as a database'. These kind of metaphors imply a basic conception of reality, a profound definition of 'what the Real really is'. It is indeed proverbial media-theoretical wisdom that the dominant medium within a culture frames that culture's dominant view of reality and, in relation to this, its overall notions of the most accurate way of knowing or representing reality (compare Mulder, 2004). Thus, oral cultures regard the voice as the primary medium of truth. What the cosmos or a particular event actually 'means', is revealed by the words, including silences, spoken by Gods or prophets, wise men or lunatics. By contrast, the culture of the written and, in particular, the printed word shows a marked tendency to privilege the text- or book-metaphor. The text or book has to be deciphered by professional interpreters or 'readers'. Therefore, writing and printing were - and still are - the necessary media-contexts that simultaneously elicited and naturalised the overall project of hermeneutics (including semiotics).

As already mentioned, in 'the digital age', the world as we (can) know it looks like a gigantic database, a vast amount of possible information. The empirical fact that ever more information about the world is digitally stored, processed and transferred, gives credibility to the metaphor of the database. Cyber-reality itself actively performs the basic metaphor to which it has given birth, thus strengthening the idea that what can be known has the form of discrete data and will end up as a digital database (or a least a fragment of a database). Simultaneously, a new imaginary horizon has taken shape. This new societal phantasm is the dream of digital completeness, or the reproduction of all knowledge of reality within cyber-reality. Much can be said for the thesis that the phantasm of digital completeness is the principal driving force behind the general process of the digitalisation of information on the one hand, and the further exponential expansion of Internet on the other hand. Not unlike the 18 th -century Encyclopaedia of the French Enlightenment-movement, this imaginary project articulates cyber-reality in terms of a gigantic digital archive of human knowledge. Yet, in sharp contradiction with a printed encyclopaedia, or with a traditional archive, cyberspace - witness internet - has neither a stable order (a point we already discussed) nor a general order. This brings us back to our initial characterisation of cyber-reality, which we hereafter explicitly reduce to the public part of
The basic ordering device of a traditional archive is the inventory of all documents or artefacts and, more generally, the catalogue (for what follows, see esp. Esposito, 2002: 287-358). The catalogue of a library or a museum is a synthetic device that memorises in an ordered, stable and abridged form the total content - or the already opened up sections - of an archive. In short, the catalogue represents in a metonymic way the stored information. That the latter may be forgotten by all living human being is therefore no problem as long as the information is indexed in the prosthetic memory of a catalogue. Precisely this immanent relationship of memorising and synthetic representation between catalogue and archive disappears in cyber-reality. Evidently, many databanks, networks or public sites have inventories in which every singular item is recorded and classified. Yet, the internet as such - but the same is true for most extensive private computer networks - is not organised on the base of a specific indexical set of procedures. Cyberspace has no overall memory: it is an an-archive because it lacks the capacity to remember in an ordered way. Within the reality of internet, remembering is simply synonymous with forgetting. The decisive question is therefore how this immense capacity to forget what is there can be used to produce user-relevant information.

Cyber-enthusiasts often acclaim the radical openness of cyber-text. Its non-linear, non-hierarchical and fuzzy character, thus their optimistic story goes, offers the user a much larger degree of freedom than other text- or media-genres. Thus, Aarseth (1997) qualifies cyber-text as ‘multi-cursory’ and ‘ergodic’. On the one hand, the surfer again and again selects one of many possible trajectories, and on the other hand s/he often has the possibility to determine the direction on, or of, a specific path. Jay Bolter (1991) therefore regards the world of hypertext as the genuine realization of Roland Barthes's notion of expanded text. Indeed, a lot can be said for the thesis that within cyberspace, information and meaning production are much more a matter of signifying ('significance') than of signification: the play of signifiers takes over in the search for definitive signifieds. Yet, as Barthes (1977) himself already stressed, the process of signifying always presupposes the frame of signification: no productive or anarchic 'geno-text' without a communicatively understandable 'feno-text'. In a comparable way, most internet-surfing combines processes of signifying and signification, of playfulness and meaning, in always particular forms. Also, the actual use of cyber-text is framed by the contemporary equivalent of the classical catalogue-device, which is not given the attention it deserves in most considerations on internet and cyberspace.

Internet is, for sure, a gigantic non-inventoried digital archive. Nevertheless, this an-archive is easily accessible, be it in a highly selective way, thanks to search engines such as Yahoo!, Lycos, Google, Alta Vista, Hot Bot. A search engine is of course a mnemonic device but differs from the traditional catalogue since it does not function according to the logic of synthetic memorising or indexical representation. The hallmark of every search engine is indeed that it actively produces an always particular digital archive with every new user-command. More particularly, the search engine is an unstable performative memory that does not represent in a metonymic or meaningful way the traces of a given and stabilised past but constructs information in the present by recounting bits and bytes. ‘The static model of data storage is replaced by the dynamic model of the construction of data that are produced again and again in line with the commands of the user’, as Elena Esposito rightly argues. 'Of course, search engines have databases as their premises, (.) but these files are not really documents and are not treated as texts. Everything happens on the surface. The machine
manipulates the data in a physical way, on the base of redundancies, of the closeness and topological ordering of the data. All this happens without meaning playing a role at all’ (Esposito, 2002: 357).

In line with our earlier observations on 'the archive of the digital archive', Esposito's acute statement leads to the conclusion that the digital an-archive is not that 'anarchistic'. It has a 'sub-medial', usually hidden and non-accessible programmatic organization that also characterises the search engines used when surfing the net. At the same time, the performativity of a search engine indeed highlights the dynamic nature of the internet as a dynamic archive: with every new search, new information is produced; a new archive is momentarily generated. Perhaps the basic archival question is therefore the non-remembering of the countless productive events or searches that happen in cyberspace day after day. We are surrounded by a digital history for which we do not have an eye yet.

Bibliography


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