

#### ABSTRACT

Contemporary technological narratives are founded on a rhetoric of radical rupture with the past and absolute newness. In cyberculture, the cult of the new corresponds to a *kidnapping* of the past, which prevents an adequate perception of the contradictions and heterogeneous fluxes that traverse the dynamics of technology. In light of this situation, the goal of this work is to discuss the importance of recuperating history in recent media theories, especially within its manifestations in the German context. It purports to discuss the ideas of Siegfried Zielinski and Friedrich Kittler – two of the most important (and polemical) German media scholars – in search of elements that might restore history as a fundamental dimension for a reflection on media.

**Keywords:** media history, cyberculture, German theories

“We, amnesiacs all...”

(Geoffrey Sonnabend, *Obliscence: Theories of Forgetting and the Problem of Matter*)

It isn't an extremely serious problem that no one knows exactly what the term *cyberculture* means. After all, we quite happily live with a range of other words with meanings that escape us in a web of excessive complexity and cloudy semantics. Just to cite a few examples, “communication”, subjectivity” and “post-modernism” form part of a theoretical vocabulary which rarely succeeds in offering more precise meanings or less unstable definitions. For the sake of truth, this understanding of our inadequacy in terms of epistemology and vocabulary is probably due to what R.L. Rutsky has defined as the extreme “complexity of the techno-cultural world” (1999; 14), making the traditional position of theory (that of an active subject in the distant contemplation of a passive world) progressively more unstable. If today to theorize also means, in large part, to *fictionalize*, it is because that epistemological distance which allowed the inquisitor subject to imprison its object has disappeared.

---

<sup>1</sup> This article was presented to the *Communication and Cyberculture* Working Group at the XIX ‘Encontro de Compós’ at PUC-RJ in Rio de Janeiro, in June 2010.

<sup>2</sup> Professor of the Post-Graduate Course on Social Communication at UERJ and author of the books ‘Silêncio de Deus’, ‘Silêncio dos Homens: Babel e a Sobrevivência do Sagrado na Literatura Moderna’ (Sulina, 2008), ‘A Imagem Espectral: Comunicação, Cinema e Fantasmagoria Tecnológica’ (Ateliê Editorial, 2008) and ‘Avatar: o Futuro do Cinema e a Ecologia das Imagens Digitais’ (com Ivana Bentes: Sulina, 2010). He is Scientific Director of the Brazilian Association of Cyberculture Researchers (ABCIBER: biennium 2009-2011).

# MATRIZes

This is a situation which the German language, by chance, still expresses in its articulation of the word *Begriff* (concept) with the verb *greifen* (to take, to grasp). Today, it is more and more difficult to need concepts and terms. However, much more problematic than any indecision on vocabulary is the fact that cyberculture also shows a great tendency towards the erasure of its history. Its scope and lack of definition could be counterbalanced by investigation of its genesis and history. But the talk of technological innovation, especially within the sphere of digital technology, frequently starts from a *tabula rasa* of the time. Nothing existed before that which is new and nothing will exist afterwards, except for that itself.

Nowhere is this cult of *ex-nihilo* rupture and creation more evident as in the titles of works on the dissemination of digital technologies. Here are a few examples: “YouTube and the Digital Revolution: how the greatest phenomenon in Participatory Culture is transforming Media and Society” (Burgess & Green, 2009); “*Socialnomics*: how the Social Medias transform our Lives and the Way we do Business” (Qualman, 2009); “*Wikinomics*: How Mass Collaboration Changes Everything” (Tapscott, 2007). Such pet phrases are designed to produce in the reader a sensation of marveling at technology, infantile enthusiasm and disdain for all that is *old*. In fact, if more attention is paid to the rhetoric of many of these titles, one realizes the presence of certain features that are exhaustively repeated – and which don’t fail to constitute an ironic contradiction of the discourse of the radical innovation. In the first place, the didactic *how*, which places the reader at the school desk as he expects to be instructed in the mysteries of the profound technological and social transformations which are unfolding before him. Second, the sense of a permanent *revolution*; the idea that it is not enough to be new: it is necessary to establish a policy that demolishes the past. Finally, the exaltation of the innovation by means of a resonant and seductive neologism. It doesn’t matter that the subject doesn’t know the meaning of *wikinomics*. The term is attractive, imposing, trendy. It can only be dealing with something very important! We are moving here within territory where the meaning is less important than the production of a feeling.

However, if the greatest sin of cyberculture is not the shadiness of the term that it expresses, but rather its hijacking of history, then not even this should dismiss the hypothesis of an intimate relationship between these two aspects. Removing the history from its origins and repudiating its genesis, cyberculture reinforces the idea of a reality of the order of the divine (and, therefore, impossible to put into words). It is no accident that this is an extremely fertile field for the manifestation of religious feelings and ideas (Cf. Felinto, 2005). And, as Hans Blumenberg recalls, “in the absence of history, there rests the opportunity for re-mythologizing” (1985: 150). This would probably explain the singular familiarity of archaic, modern and post-modern mythology at the heart of

cyberculture narratives. We find an interesting way of thinking on this connection between name and history in the work of Walter Benjamin. Polemical – like everything he produced – Benjamin’s writings on language reveal a conception of the relations between sign and object which challenge not only common sense, but also established knowledge. For Benjamin, the name of something is not simply something which is added to a previously constituted entity. On the contrary, it is the act of naming which constitutes the object itself, removing it from the speechlessness of its original condition. In the age-old debate between conventionalism and naturalism, Benjamin finds a third position which escapes the misleading objectivity of the first as well as the problematic mysticism of the second. For conventionalism, every connection between word and object is of the order of arbitrariness, of socially established convention; for naturalism, the origin of the word is found in an attempt to imitate the object, seeking to reach its essence (for example in the case of onomatopoeia). Effectively, in the two situations, the name constitutes a later given fulfilling the role of a label solely for the named object. For Benjamin, the name is that which transports the object to the plane of human existence, charging it with history and meaning. “The word does not exist to imitate an already given reality. It emerges beforehand, as something which gives body and meaning to the real thing” (Tackels, 1992: 28). The name is the vehicle of history, and, in this sense, has nothing to do with arbitrariness.

Along these lines, the absence of an historical perspective impregnating the term (and the form of existence) cyberculture, expresses its profound character: this fundamental non-definition which is allied to a decided rejection of time. The paradox of the name cyberculture is the fact that the history which should have charged it has been almost entirely wiped out. The history of the word cyberculture is the *history of its erasure from history*. As such, cyberculture constitutes a very particular phenomenon of contemporaneity, since, today, the uncertainty of the new would, apparently, be overcome. However, Boris Groys warns of the error of this ongoing conception, suggesting that the modern utopias have not been eliminated, rather that the new insists on returning, even though it is in a highly particular form:

“...the current post-modern representation of the end of history differentiates itself from the modernist representation through the conviction that there is now no need to await the definitive arrival of the new, since it is already here” [daß auf die endgültige Ankunft das Neuen nicht mehr gewartet werden müsse, weil es bereits da sei] (1992: 10).

The uncertainty of the historical experience always constituted a fundamental element of philosophical reflection in Germany. It is present, naturally, in Heidegger’s famous essay on the issue of the technique, in which the term and the notion of ‘*techné*’ are investigated from an archeological perspective. It is a central component of all of ‘Benjaminian’ thought – including his interest in historical ruins upon which modern

technological civilization was built. It also forms the investigative focus of the discipline of the *history of the media* (*Mediengeschichte*), which has grown in Germany over recent years. In fact, the term discipline is maybe not fully adequate, since the history of the media operates in the intersection of various understandings and disciplines. In addition, there is no single school or group of thinkers which makes up a defined field for the history of the media. In fact, if we define it, even vaguely, as a certain way of looking at the social and technological dynamics of the means of communication, we ought to recognize that it goes so far as to express a concern that is exclusively German. We could even risk suggesting that it deals with a growing general tendency of *scholarship* produced over the last few years concerning the new (and old) medias. We will return to this point later.

It is worth pointing out, however, that the German interest in history and its forms of approach bear peculiarities which neatly distinguish it from other ways of seeing, such as the typically Anglo-Saxon, for example. These distinctions appear in a revelatory manner in a comparison of North-American cultural studies and the German *Kulturgeschichte*, especially in the form in which it is practiced by an author such as Friedrich Kittler. As Claudia Breger (2006) suggests, the Germans tend to interest themselves in the triad of *systems*, *cultural memory* and *media hardware*. Effectively, the writings of Kittler become hermetic on many occasions (for readers coming from the field of the Humanities) not only for their individual style, play on words and cryptic structure, but for their dense use of notions from areas such as mathematics, physics and chemistry. In line with his profoundly anti-humanist penchant, Kittler takes pleasure in dissecting the firm technical and scientific aspects of the objects (normally medias) which they have studied. On this point, we can discern a type of reaction that is distinguished by the influence which the Toronto School had on his thinking. Furthermore, the impact that French post-structuralist thinking had on his work is also undeniable. However;

his 'distinctly Germanic' character effects itself through the ways in which he interprets such impulses (see Winthrop-Young & Wutz, 1999: xvi) and mixes them with ingredients from a German philosophical tradition to which the French masters themselves were exposed – notably the works of Heidegger, Nietzsche and Hegel (Breger, 2006: 113).

In Kittler (as with various other German theorists), it is only possible to think of the media from a systemic, historical and *materialist* perspective. The various medias form systems which overlap and fit together seamlessly with the systems and networks of social dialogue which they involve. For that matter, Kittler's own singular style – ironically nicknamed *Kittlerdeutsch* ('Kittlergerman') (Cf. Winthrop-Young, 2005) in Germany – reflects this proposition, showing that the content of a thought is inseparable

from the expressive materiality through which it is manifested. The medias are, above all, also *devices for recording and annotation* (*Aufschreibesysteme*) and, therefore, supports for the cultural memory which we understand precisely thanks to the means of communication. In *Grammophon Film Typewriter* (1986), these three technologies for recording allow the arrangement of all in a cultural panorama of the beginning of the 20<sup>th</sup> century, marked by the disappearance of what Kittler calls *der Sogennante Mensch* (*the so-called man*).

In this post-symbolic reflection upon the psychic, sensorial and corporal impacts of the medias, history does not play a mere background role, but rather leads the way. It is this positioning which allows the break with technological triumphalism and discovery of the (frequently obscure) elements of the genesis of current technoculture. It is no mere coincidence that the book starts and ends with references to fiber optic cables and the general process of the digitalization of culture. As Kittler suggests, “a total media connection in a digital base will erase the very concept of the means” (1986, 1999: 2). This disappearance of the means is correlated to the disappearance of history, and combating this oblivion is, today, perhaps one of the most important tasks to which the theory of media can dedicate itself. This doesn’t necessarily only (and always) concern the recording of what has been forgotten, but also (and perhaps most importantly) imagining what could have been, mapping discontinuities and jumps. This is because the most primary historical exercises tend to adopt an evolutionist and finalist perspective on the trajectory of medias. When history fleetingly shows its face, it is done by hiding itself behind the mask of triumphalism. Cyberculture therefore, appears to be the natural result of a long journey which, from its earliest beginnings, has been travelling towards this conclusion. Fighting with this *historical naturalism* means suggesting other possible histories, cataloguing their apparent weaknesses and professing an (un)archeology which considers, as Siegfried Zielinski (2006) does, the *Deep Time of the Media* (*Tiefenzeit der Medien*).

In this, one of the most singular books on the history of the media written in recent times<sup>3</sup>, Zielinski returns to times much longer ago than those dealt with in traditional history-focused writings on the media. As Kittler does in *Vom Griechenland* (2001), Zielinski revisits classical Greece, in the expectation of producing another type of technological history which, instead of seeking the old in the new (as various authors have been doing recently), he attempts to find the new in the old. In this unique approach, he clearly reveals the connections between art and technology and the imagination and reason. In the end, it is in the field of *art-media* that we find the

---

<sup>3</sup> ZIELINSKI, S. *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means* (English translation from *Archäologie der Medien: Zur Tiefenzeit des technischen Hörens und Sehens*), 2006.

horizon of experimentation capable of inaugurating new uses and interfaces which will later on be incorporated into the medias' traditional grammars. This attention to the aesthetic dimension of the technological is another fundamental element of German thinking – see also the examples of Grau (2003), Weibel (2003) or Flusser (2002). In a certain way, it appears to provide continuity for the arguments of the classic *Die Frage nach der Technik* (1949), the central proposition of which is the search for the determining of the essence (*Wesen*) of technology in the Greek notion of *poiesis*, *production*. For Heidegger, the richest meaning of technology rests in a form of uncovering or bringing about the presence of creative order. Contrary to modern technology (despite both representing forms of shedding light), the Greek '*techné*' constitutes a non-instrumental, artistic, form of production.

If Zielinski reveals his fascination with ideas such as the *Dead Media Project*, a type of museum of dead technologies created by the science fiction writer Bruce Sterling, his fundamental alliance is firstly with a form of analysis of the history of *creative media*. This alliance is carefully set out in the collective work *The Book of Imaginary Media: Excavating the Dream of the Ultimate Communication Medium* (2007), a collection of texts on fantasy and visionary technological projects. The *variantology of the media*, a new field of research invented by Zielinski, consists of a form of production of knowledge which does not reject creative exercises or philosophical speculations from its domain<sup>4</sup>. As he explains prior to publication of the three volumes of the *Variantology* collection:

Instead of looking for obligatory trends, dominant means or imperative points of disappearance, we ought to be capable of discovering individual variations. Fractures or points of mutation will possibly be found in the dominant historical plans which may offer useful ideas for navigating the labyrinth of that which is currently firmly established. In the long term, the *corpus* of individual un-archeological studies should form a *variantology* of the media (2006: 7).

Anyway, Zielinski's publication is based upon the desire to rescue a past that technological dynamics, especially in cyberculture, continuously seeks to conceal. The idea of a continuous progress, one that is without discontinuities and is absolutely linear, has reached a level without precedent in the present technological civilization. Curiously, in these post-modern times in which it is apparently impossible to believe in meta-narratives such as those of science or philosophy, the only place in which progress continues to carry any substance is in the area of technoscience. In fact, as Jean-Jacques Salomon suggests, the demands of progress and technological mutation have acquired a form of religious conviction in post-industrial societies (1999: 9). The

---

<sup>4</sup> Here we find, maybe, one of the reasons for Zielinski's fascination for Vilém Flusser, one of the most regularly quoted thinkers in German media theory publications. His concept of philosophical fiction presents a number of points of contact with the suggestion of variantology in the media.



insistence of cyber-cultural imagination with the themes of childhood and origin have nothing to do with history; on the contrary, these themes point toward a state of the ideal being, free of time or space. In a movement which progressively shortens time, the technological dynamic fulfills a fetishistic role: it is as if the technological objects had magically appeared out of nothing, without precursors, predecessors or history. Much less a deep history or temporality, as Zielinski desires. This last point represents the vast scissions of time which may be found in the domain of geology or the natural sciences. In the field of the history of the media, the notion of *Tiefenzeit* (*Deep Time*) expresses a metaphor which, as surprising as it may seem, is not really all that innovative. It is precisely in Benjamin's publication that we find a similar proposal, when he suggests reading the vestiges of culture and industrial civilization as a naturalist reads a book on nature. In one of those typically 'Benjaminian' paradoxes, the coming together of the natural and the artificial serves as an instrument of illumination and criticism of one in relation to the other. In this way:

qualities usually attributed to the old organic nature – productivity and those of a transitory nature, as well as decline and extinction – when used to describe the 'new inorganic nature', which was the product of industrialism, named precisely that which was radically new with respect to it (Buck-Morss, 1991: 70).

For this, in a book which discusses technological means of communication, we find the atypical return to ancient Greece. After all:

This concerns the exposure, in the midi-archeological, of dynamic moments which abound in heterogeneity and, as such, enter into a tense relationship with the various moments of the present, making them relative and more decisive (2006: 11).

This creation of a tension with the present, almost entirely absent from the triumphalist narratives of cyberculture, has nothing necessarily apocalyptic about it. It is not concerned with combating the present or submitting it to a nostalgic view of the past, but rather to also creatively imagine *how it could have been*. At least in the version proposed by Zielinski, making *Mediengeschichte* not mean simply a recuperation of a past missed out by the vision of continual progress, but rather seeking – if you will allow me the neologism – *heterochronies*. Something that is not so distant, also, from the Benjaminian proposition of escaping to the empire of the history of the winners. Other histories, other possibilities, other views, flavor the theory with a dose of imagination – is this such a serious sin?

It is important to remember that the history of German media, especially in the form practiced by authors such as Zielinski or Kittler, clearly recognizes that the medias themselves are co-responsible for our perception of time and history. As Sybille Krämer points out so well, making reference to the latter author mentioned above, what

is peculiar to our time is this temporal reversibility allowed by technological means of recording. “Kittler’s medial-historical investigation is located, therefore, in the epochal transition from written to technological mediums, and this is a fundamental procedure for the archeology of the present” (2006: 97). Also along these lines, the research into the historical dimension of the technological is vital: to understand that forms of temporality are the result of the use and popularization of the different medias. If one of the most loaded themes of cyberculture is the idea of real time, this possibly points towards a desire for total ‘presentism’ which is at the core of the cyberculture imagination. In real time it means that which takes place without temporal difference, without breaks. Taken to its paroxysm, this expression implies an absolute temporal *punctus*, deprived of dimension, extension and history.

As we saw at the beginning of this text, the concern over the historical dimension of the means does not find a haven only in German universities and institutes. In truth, in opposition to the de-historicized imagination of cyberculture, a growing portion of all academic literature concerning the new (and old) medias has dedicated itself to the rescue of this concern with temporality. In fact, outside Germany, in some of the most recent (and most interesting) works on digital communication technology, this is the central perspective, based as much on agreement as on the creation of tension with the thoughts of authors such as Kittler, Zielinski or Luhmann. It is in this way that, especially adopting the German *Mediengeschichte*<sup>5</sup> as its background, Lisa Gitelman insightfully highlights the contemporary sensation of our having reached the end of media history, which “probably accounts for the strange eternal originality of the new medias today” (2006: 3). For Gitelman, this feeling of permanent innovation rests upon a perception that modernism would now be *complete*, and our familiar temporal sensibilities near their end. On the other hand, one may cite the work of Mark Hansen, who, in *Embodying Technesis* (2000), furiously (and with an attitude which is often confrontational) discusses the diffuse program of research better known as *materialities of communication*. His objective is to go beyond the representational reductionist perspective characteristic of many studies on technology – incapable, therefore, of really considering what Hansen calls the “robust materiality of technology”:

What is lost in representational reduction is not only a certain amount of abstract technological otherness, but the host of concrete materializations by means of which the technologies make an impact upon our practices (and not only our communicational practices) in accordance with logics which are strongly post-hermeneutic (2000: 4)<sup>6</sup>.

---

<sup>5</sup> And citing Kittler’s proposal on the removal of the concept of media itself through digital technologies (Cf. Gitelman, 2006: 3; Kittler, 1999: 1-2).

<sup>6</sup> And from here, the importance of studies which seek to evaluate the corporal/cognitive impacts of cyberculture technologies. The topic of *hapticity* of the new medias has been studied, for example, by Laura Marks (see Touch, 2002), whilst the relationship between technology and bodies is the subject of investigations by Mark Hansen (Cf. 2000).



As we have had the opportunity to discuss on other occasions, (Cf. Felinto, 2007), this concern with the material effects of technology also constitute a recent focus of attention on media theories. It has appeared in the thinking of Flusser, considered by Germans as being one of the most important representatives of what could be defined as *a theory of German media*. The philosopher, who throughout his entire life never abandoned his precious typewriter<sup>7</sup>, liked to play with the German words *Tasten* and *tasten* (noun and verb), respectively keys and feel, touch. As Paola Bozzi defines it:

[Flusser's] goal is a diligent tactile communication of thought with its object being the conscious reaction to the dominant character of meaning: therefore, nothing to do with philosophizing "with the hammer", but rather the utopia of a non-violent understanding which "is born internally out of contact with the objects" (2005: 9).

As such, it is maybe not unreasonable to argue that the deflating of history in technological narratives is correlated to the primacy of the hermeneutic practices and procedures in diverse fields of knowledge. The empire of interpretation would constitute an ideal environment for what we could define, with Benjaminian inspiration, as a *history of the same*. And certainly, in a constant affirmation of the new – in a narrative of linear progress without discontinuity – nothing can be truly *new*. The excessive attention that is traditionally conferred on the meaning of the messages of the means and the social discourses should be allied to an historical conception in which the variation of the technologies and their different material impacts is decidedly secondary.

In this way, the proposal of a *variantology of the media* makes sense not only as a recovery of lost historical dimensions, but also as a fundamental consideration of the materiality of the means and historical contexts in which they emerge. The deep time of the media should not be as much quantitative as qualitative, being directed towards the density of the differences and its distributions (Cf. Zielinski, 2006: 5).

This form of *intensive* media allows us to find certain past forms in the present which, however, were pushed into the margins of history due to the heterodox nature. Lev Manovich (much inspired by Kittler<sup>8</sup>) points towards this recuperation of past forms when he establishes a number of interesting connections between digital cinema and certain phenomena characteristic of cinema's early years. *Flash* animations return a visual form that was typical of the fringes of early cinema to the heart of experiences

---

<sup>7</sup> The importance of the typewriter to Flusser, analysed in detail by Paulo Bozzi, reminds one of Kittler's fascination with this haptic technology in *Gramophone Film Typewriter* and the works of Martin Stingelin on Nietzsche's typewriter (Cf. Gumbrecht & Pfeiffer, *Materialities of Communication*, 1994).

<sup>8</sup> See, for example, the references to Kittler in *Software takes Command*. Disponível em: [http://softwarestudies.com/softbook/manovich\\_softbook\\_11\\_20\\_2008.pdf](http://softwarestudies.com/softbook/manovich_softbook_11_20_2008.pdf)

with digital images: that appeared by the attraction to the illusion of movement in equipment which created looped animations, such as praxiniscopes and phenaquitascope (Cf. Manovich, 2001).

In all these arguments we find, therefore, two important points: the overtaking of the hermeneutic point of view and the importance of an historical and/or archeological view in the contemporary theoretical clarifications. It should be repeated that, in actual fact, the two issues overlap each other. For Hans Ulrich Gumbrecht, the theme of post-hermeneutics or non-hermeneutics is closely connected with the adoption of a new approach to temporality: history should no longer be *interpreted*, but rather *experimented*. From this position, texts concerned with the theme of materiality should essentially be described and not interpreted. This is what Gumbrecht attempted to do in 1926, *Living on the Edge of Time*, a heterodox, non-linear book, written in the form of encyclopedia entries with the aim of producing in the reader the sense of experiencing the year 1926.

We wish to visit the worlds which existed before terms had been born and we want to experience them directly. A 'direct experience of the past' would include the possibility of touching, smelling and tasting these worlds in the objects which contributed to their make up. This concept emphasizes a sensual aspect of the historical experience which was underestimated (if not repressed) for a long time – without necessarily constituting an aestheticization of the problematic past (1997: 419).

In view of what has been offered here, it should now be asked: what can we offer to the history of media, allied to a renewed consideration of the media materialities? Firstly, an instrument capable of balancing the triumphalist rhetoric of cyberculture without this slipping into apocalyptic or nostalgic discourses. Secondly, the perception that all radical separation between *new* and *old* or *digital* and *analogical* technologies (a mistake made all too often amongst us during research for masters and doctorate degrees) is unproductive and essentially mistaken. Finally, an understanding of the media dynamics which allow a better analysis of the creative processes and the successes or weaknesses involved in the different forms of technological and communicational experience.

Despite there still not existing extensive or competent examinations concerning the field of media history, we may suppose that this will come to be structured into a clearly formed program of research (of an interdisciplinary nature, of course). That this represents an area that is more and more important in the studies of communication and technology is undeniable. Along these lines, it appears appropriate

to close this paper by citing the only attempt at systematizing (and defending) studies of media history which we have managed to find up until now. Only the future can say with certainty that our best bet is on the past.

In summary, the balance of the future of studies of the new medias rests in a return to the communicative past. At least the past has already taken place, whilst the future has not. And if at times we enjoy the predictions, in an imaginative way, we do not need to forget that the historical study uses the same (and even more far-reaching data, even though it is incomplete. The historical record and the continual re-conceptualization of the path to the present expects a refreshing attitude from the historian of new medias – at the same time imaginative and cautious, literary and literal (Peters, 2009: 26).

## REFERENCES

BLUMENBERG, Hans. *Work on Myth*. Cambridge: The MIT Press, 1985.

BREGER, Claudia. Philhellenic Fantasies: Gods, German Scholars, and the Gift of Greece: Friedrich Kittler's. In: *Theory, Culture & Society* n. 23; 111. London: Sage Publications, 2006.

BUCK-MORSS, Susan. *The Dialectics of Seeing: Walter Benjamin and the Arcades Project*. Cambridge: MIT Press, 1991.

BURGESS, Jean & GREEN, Joshua. *YouTube e a Revolução Digital: como o maior Fenômeno da Cultura Participativa está transformando a Mídia e a Sociedade*. São Paulo: Aleph, 2009.

FELINTO, Erick. *A Religião das Máquinas: Ensaio sobre o Imaginário da Ciberultura*. Porto Alegre: Sulina, 2005.

\_\_\_\_\_. *Passeando no Labirinto: Ensaio sobre as Tecnologias e Materialidades da Comunicação*. Porto Alegre: EDIPUCRS, 2007.

FLUSSER, Vilém. *Vampyrotheuthis Infernalis: Eine Abhandlung samt Befund des Institut Scientifique de Recherche Paranaturaliste*. Göttingen: Hubert & Co, 2002.

GITELMAN, Lisa. *Always Already New: Media, History and the Data of Culture*. Cambridge: The MIT Press, 2006.

GRAU, Oliver. *Virtual Art: from Illusion to Immersion*. Cambridge: the MIT Press, 2003.

GROYS, Boris. *Über das Neue: Versuch einer Kulturökonomie*. München: Carl Hanser, 1992.

GUMBRECHT, Hans Ulrich & Pfeiffer, Karl Ludwig (ed.). *Materialities of Communication*. Stanford: Stanford University Press, 1994.

\_\_\_\_\_. *1926: Living at the Edge of Time*. Cambridge: Harvard University Press, 1997.

HANSEN, Mark. *Embodying Technesis: Technology Beyond Writing*. Ann Arbor: University of Michigan Press, 2000.

HEIDEGGER, Martin. Die Frage nach der Technik. In: *Gesamtausgabe*, Abteilung I, Band 7: Vorträge und Aufsätze (1936-1953). Pfullingen: Günther Neske, 1990.

KITTLER, Friedrich. *Gramophone, Film, Typewriter*. Stanford: Stanford University Press, 1999.

\_\_\_\_\_. & VISMANN, Cornelia. *Vom Griechenland*. Berlin: Merve, 2001.

KRÄMER, Sybille. The Cultural Techniques of Time Axis Manipulation: On Friedrich Kittler's Conception of Media. In: *Theory, Culture & Society* n. 23; 93. London: Sage Publications, 2006.

MARKS, Laura. *Touch: Sensuous Theory and Multisensory Media*. Minneapolis: University of Minnesota Press, 2002

MANOVICH, Lev. *The Language of New Media*. Cambridge: MIT Press, 2001.

PETERS, Benjamin. And lead us not into thinking the new is new: a bibliographic case for new media history. In: *New Media and Society* n. 11; 13. London: Sage Publications, 2009.

QUALMAN, Erick. *Socialnomics: How Social Media transforms the way we live and to Business*. New York: Wiley, 2009.

RUTSKY, R.L. *High Techné: Art and Technology from the Machine Aesthetic to the Posthuman*. Minneapolis: University of Minnesota Press, 1999.

SALOMON, Jean-Jacques. *Survivre à la Science: une Certain Idée du Futur*. Paris: Albin Michel, 1999.

TACKELS, Bruno. *Walter Benjamin*. Strasbourg: Presses Universitaires de Strasbourg, 1992.

TAPSCOTT, Don. *Wikinomics: como a Colaboração em Massa pode Mudar seu Negócio*. Rio de Janeiro: Nova Fronteira, 2007.

ZIELINSKI, Siegfried. *Deep Time of the Media: Towards an Archaeology of Hearing and Seeing by Technical Means*. Cambridge: MIT Press, 2006.

WEIBEL, Peter & SHAW, Jeffrey. *Future Cinema: the Cinematic Imaginary after Fim*. Cambridge: the MIT Press, 2003.

WINTHROP-YOUNG, Geoffrey. *Friedrich Kittler: zur Einführung*. Hamburg: Junius, 2005.

## Electronic addresses

BOZZI, Paola. Rhapsody in Blue: Vilém Flusser und der *Vampyrotheutis Infernalis*. In: *Flusser Studies*, n. 1 (online), novembro 2005. Disponível em <<http://www.flusserstudies.net/pag/01/bozzi-rhapsody-blue01.pdf>>.

FELINTO, Erick. *Vampyrotheutis: a Segunda Natureza do Cinema: A 'Matéria' do Filme e o Corpo do Espectador*. Apresentado no Colóquio Internacional "Cinema Tecnologia e Percepção", e em vias de publicação pela editora Contraponto. Disponível em: <<http://www.flusserstudies.net/pag/10/felinto-vampyrotheutis.pdf><http://www.poshumano.wordpress.com>>.