

How Should We Read New Media and New Technologies?

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Abstract: According to conventional wisdom we frequently hear that “new media” and new technologies are revolutionising the world we live in. By investigating these presumptions in this article, I am going to try to review different critical perspectives interpreting new media and question the distinction between new and old media through Bergson’s philosophical method in order to identify “false problems” and “false divisions” as well as different concepts that we encounter in the world of new media today. I will also investigate what’s new about new media by considering their contiguity with old media as well as re-evaluating the political connotations of terms such as “convergence” and “interactivity” which are regarded by many commentators as false problems within new media. In this article I shall explain why we should use the following terms: “remediation” and “intra-activity” as opposed to “convergence” and “interactivity”, respectively.

Keywords: New media; digital media; convergence; interactivity; intra-activity; remediation; intermediation; repurposing; digitization.

Introduction

The question of technology and its use has been the main focus of media studies from the 1960s onwards, especially when it comes to “new media studies” and new technologies. It was McLuhan’s idea that “the content of any medium is another medium” (McLuhan, 1968, pp. 15-16). Logical though this may seem, McLuhan goes on to embrace a rather technologically deterministic approach. Focusing on this conception of media in their book *Remediation: Understanding New Media* (1999), Jay Bolter and Richard Grusin explain how they came up with their concept of “Remediation”: “We can reject McLuhan’s determinism and still appreciate his analysis of the remediating power of various media” (Bolter & Grusin, 1999, p. 77).

However, before considering their purpose of focusing on media *as dynamic phenomena*, we have to understand the main problems of analysing or reviewing the ways in which Marshall McLuhan and Raymond Williams (1975) referred to media and how they (or indeed whether they) received this concept of *dynamic phenomena*. We should also refer to other arguments as promulgated by Manovich in his book *The Language of New Media* (Manovich, 2001) and how he perceives new media and distinguishes them from other types of media. We should try to understand the media not just as one “object” but as a “collection of objects” which should be analysed economically, socially, culturally, politically, philosophically, theoretically and technologically.

Therefore, they need to be seen not as a separate phenomenon existing outside the world we currently live in but rather as a complex, hybrid process, which Bolter and Grusin (1999) call “remediation” that is also similar to Lister *et al.*’s approach in their book *New Media: A Critical Introduction* (Lister, et al., 2009) as well as Hayles’ term “intermediation” in her book called *My Mother Was a Computer* (Hayles, 2005). We should also acknowledge Karen Barad (2007) who comes up with the idea of “intra-action” which will be elucidated later in this essay.

I would argue that it is not helpful for us to understand the media by singling out one individual aspect at the expense of others, like Marshall McLuhan and Raymond Williams (the former being too *technicist* and the latter too *humanist*). Therefore, I suggest that, in order to understand the media, whether it be analogue, digital or new media, it is best not to be reductionist, as it has always been too easy to fall into the trap of saying it is either a “revolution” or “business as usual”.

There have been tendencies to depict new media as analogous to computing or a giant computer in accordance with Manovich: “From media studies, we move to something that can be called ‘software studies’ – from media theory to software theory” (Manovich, 2001, p. 48) However, it is also argued

that this perception of “new media are becoming a computer/computing” is simply misleading and is regarded by many commentators such as Lister *et al* (along with Bolter and Grusin) as being too deterministic and too progressive as it cuts off the continuity that exists between new media and old media and sees them as the last stage in the course of technological as well as cultural progress. It basically suggests that it acts as a substitution, a replacement and a breakthrough. At best, it might be useful in order to perceive what is currently happening; at worst, it is simply wrong as it has unhelpful connotations which suggest a certain view of progress.

My analysis, in terms of understanding the media, will be similar to that of Bolter and Grusin who put forward the term “remediation” on the basis of understanding the media as *dynamic phenomena* (Bolter & Grusin, 1999, p. 44). I will also suggest the term “intermediation” used by Hayles (Hayles, 2005, p. 15), as well as referring to Lister *et al.* who help us to understand “what is new about new media” better in non-linear terms (Lister *et al.*, 2009, p. 9).

What are ‘New Media’?

Despite the ideological connotations and conceptual limitations of the “newness” as it may be evaluated as better compared to the old, this term can arguably be inclusive and useful as it is not reducible to any kind of existing technologies as long as we are aware of technological over-determinism. Some terms such as “interactive media” might be one example of unhelpful, reductionist definitions as they imply interactivity which is a rather problematic and questionable concept.

I will revisit the possible reasons why I use the term “new media” later in this essay even though they are not completely new. When it comes to defining new media, interestingly enough, although Manovich and Lister *et al.*, along with Bolter and Grusin, seem to be split over this issue, they seem to mention the difficulties of describing exactly what they constitute. Nevertheless, it is Manovich who tries to give us a shortlist of new media in his book *The Language of New Media*. For him, they (generally) consist of “The Internet, websites, computer multimedia, computer games, CD-ROMS and DVD, virtual reality” (Manovich, 2001, p. 19). On the other hand, it doesn’t seem to be so clear-cut for Lister *et al.*, who consider the main characteristics of new media to be “digital, interactive, hypertextual, virtual, networked and simulated” (Lister *et al.*, 2009, p. 13). For them, new media means:

Those methods and social practices of communication, representation, and expression that have developed using the digital media, multimedia, *networked* computer and the ways that this machine is held to have transformed work in other media: from books to movies, from telephones to television (Lister *et al.*, 2009, p. 1).

Despite the usefulness of these terms as a means of identifying what new media look like, they don’t necessarily tell us what they are. Questioning the newness of new media does not necessarily mean that either “there is nothing new under the sun” (as Lister *et al.* disagree with that as well) or that there has been significant subsequent change or replacement within the media, as Manovich tends to say. The fact is that we haven’t seen a change in the way in which computers have swallowed the whole of analogue media; that is simply not the case. However, there is, certainly in part, something new in new media ever since the dramatic recent expansion in the availability of PCs and especially ever-increasing mobile devices, which are the main theme of this year’s conference, surrounding users or audiences enabling them to become more engaged with mediation and the medium itself.

Remediation

Remediation, according to Bolter and Grusin, can be defined as: “New media are doing exactly what their predecessors have done: presenting themselves as refashioned and improved versions of other media” (Bolter & Grusin, 1999, p. 15). From this statement one can see the connection and co-existence between new and old media and recognise that their relationship is *cyclical* rather than linear. It’s a perpetual cycle that doesn’t necessarily progress to a finite conclusion. The term “refashion” absolutely reveals what is involved. Remediation expresses a process through which not only new media but also old media re-fashion, recycle and, last but not least, *repurpose* themselves. This continuity may also mean an ongoing conflict or an “entanglement” between opposing forces

which are brought into being in order to save and balance each other's existence. No single medium today seems to submit to another's authority. Instead, along with the entities surrounding them, they tend not to interact but in fact "intra-act" with each other and are ultimately mutually counterbalanced in order to keep pace with the rapid development of advanced technology.

In order to see how connected and networked the media are today, we should visit Bolter and Grusin's diagnosis of the status quo:

Digital visual media can best be understood through the ways in which they honour, rival, and revise linear-perspective painting, photography, film, television, and print. No medium today, and certainly no single media event, seems to do its cultural work in isolation from other media, any more than it works in isolation from other social and economic forces (Bolter & Grusin, 1999, p. 15).

If we apply this intriguing interpretation to our daily lives, we can undoubtedly recognise the inevitable co-existence of TV channels, newspapers (whether paper or digital) with even Smartphone, tablet PC applications or computer software resembling each other's content, design, purpose, etc. We can't possibly talk about a complete original platform which works in isolation: be this software, an application, perhaps even mobile phones nowadays. Thus, smartphones not only don't offer themselves *per se*, but also encourage their customers to be a part of network society.

Drawing upon the "double logic of remediation" in their book, Bolter and Grusin reveal the nature of "immediacy" meaning, in a nutshell, realism and "hypermediacy" indicating, as a shorthand definition, fascination with media in themselves. These are the essential elements of the dynamic process that can be observed throughout the history of media. For them, remediation works within the logic of these two terms. *Immediacy*, referring to its connections within the context of media and mediation, expresses the medium's unending desire to disappear in order to create the sense of transparent presence, in other words, abandoning its audience's idea of what is it like to be" in a particular place or position. This could be a computer game trying to achieve a "photorealism", or it could be a cinema film trying to create "authenticity". In short, it raises the tantalising prospect of ultimate interface by eliminating immediacy. In their book, the most extreme example they use in the current context of cinema is "Hollywood to replace actors with computer generated animations". In the final analysis, it posits a hypothesis of modal immediacy that wants to remove itself "so that the user is no longer aware of confronting a medium" (Bolter & Grusin, 1999, p. 25).

The other necessary half of remediation is *hypermediacy*. In their view, it is quite the opposite of immediacy. Hence, they define it as the "double logic of remediation". For example, it could imply displaying lots of TVs on a single computer screen. Quoting William J. Mitchell (1994), they say that it reflects a "process or performance rather than finished artwork." Today, for them, what we have been viewing on our screens from the 1980s onwards represents a transition from "homogeneous to heterogeneous": diverse, fragmented and multi-functional screens that "compete for users' attention". This also refers to a shift in the form of representations from text to icons in which command-based computing is replaced by interface-based technology which can also be flexible depending on what users want in terms of their size, number, positions on the screen, etc.

If we are to see how they are connected as well as the double logic they constitute, they propose that, while immediacy wants to make itself invisible, simultaneously, hypermediacy, in other words, a "collage aesthetic of different media forms and styles" makes us aware that it exists as a medium that expects to capture our fascination. They claim that those two elements have been in interplay throughout history (Bolter & Grusin, 1999, p. 31). By combining these two characteristics of remediation, this concept enables us to recognise new media as much as all media to be a cyclical representation of history rather than a linear continuum.

So, if we go back to their quote claiming "No medium today, and certainly no single media event, seems to do its cultural work in isolation from other media" we can see the justification of their claim through events we have witnessed via the media such as Michael Jackson's death, the "credit crunch", "Wikileaks", etc. Clearly, we cannot possibly separate these events from their mediation. Bolter and Grusin argue that there is a complex correlation between an event and its mediation; therefore there isn't necessarily a dominant element. Rather, as mentioned at the beginning of this article, it's a "dynamic, progressive and complex process", which should be approached from a variety of viewpoints. Therefore, it's their *hybridity* which should not be overlooked.

Bergson's Philosophy of False Problems and Divisions

In order to analyse the media in this respect, we should seek to distinguish “false problems” and “divisions” which are stated as the first rule of Bergson's philosophical approach known as “division of reintegration” (Deleuze, 2002). We should briefly remind ourselves of the three rules of this methodology:

1. Distinguishing between true and false problems;
2. Distinguishing between differences in degree and differences in kind;
3. Considering the object of our inquiry in terms of its temporality.

The reason why we refer to this rather theoretical analysis is not that we want to study Bergson's philosophy; instead, we will seek to apply this approach in order to distinguish the false problems that we encounter today. It is useful to pinpoint the real problems in the media that we currently critique in this essay as dynamic *phenomena* and it is helpful for getting rid of the ideas that might not be relevant for understanding what is going on in the world of new media and technology at the moment. It is Bergson who simply wants us to come up with better questions and better phrases. For him, these questions might be more interesting and useful than the answers.

Concurrently, we will review key concepts and ideas, in particular the notion of “convergence” and “interactivity”, usually associated with new media which will be regarded as “false problems”. Although they might not be entirely inappropriate concepts in the context of different issues and they can tell us about new media to a certain extent, these are terms which might constitute certain political connotations such as “progress” or represent an achievement from old to new, from A to B. They do not help us to understand what contemporary media and technologies actually are.

So, if we offer initial definitions, convergence is generally the “coming together of previously distinct technologies, separate economics and separate cultures.” On the other hand, interactivity is “a more powerful sense of user engagement with media texts, a more independent relation to source of knowledge, individualised media use, and greater user choice” as opposed to that of old media, which are usually accused of being “passive” (Lister *et al.*, 2009).

Of course, just as we are distinguishing between false problems or divisions, it will be suggested that *there are better terms in order to understand the media as a hybrid, organic phenomenon*. We should not fall into the trap of “limited dualism” or “binary oppositions” such as “theory and practice”, “technology and use”, “determinism and constructivism” as they are difficult to avoid and render the debates surrounding the new media redundant. These fields are not *divisible* as it is neither possible nor useful to draw a line or establish a boundary between them. Therefore we should refer to *remediation* instead of *convergence* and *intra-activity* rather than *interactivity*.

What Actually are Convergence and Interactivity?

The reason why convergence is a false problem is because it is associated with technological progress emphasising “space” rather than “time” in terms of Bergson's analysis. As the term *convergence* might suggest a change in the way in which the amalgamation of different technologies is leading to one being replaced by another, *remediation* seems to be a better word implying “process” rather than “progress”.

For Katherine Hayles, “convergence” demonstrates the danger of “linear causality” for convergence enthusiasts such as Manovich, who, as we have already explained, has misread the media in that sense. “The convergence of all media into one” for Hayles, “has the effect of flattening” this process into *teleology*. Using the example of print, she says that digital text has already affected print text in terms of the printed books we are seeing today, “moving from straight text to visual” (Hayles, 2005: 31). In fact, for Lister *et al.*, convergence seems to bring about fragmentation as opposed to the notion of synthesis: “Television, online video delivery, internet communications and telecommunications combined in one ‘black box’ that will look something like a phone” (2009, p. 202).

However, in the world we currently live in, the notion of convergence implying progress does not stand up to scrutiny. The state of play in the realm of computers and platforms is quite the opposite. It is the apparently endless proliferation of these devices and the rapid dispersal of innovative hybrid technologies which seem to challenge this idea of convergence. A perfect example of this trend is the

Apple tablet computer iPad¹ (which is already becoming obsolete) and its hybrid status in the world of mobile devices. This is far from unique; however, it also begs the question that if the idea of convergence isn't a false problem, then why do we still have laptops, mobile phones & desktop computers which don't seem to be coalescing but are actually becoming fragmented and dispersed?

The emergence of these technologies does not justify the claim of *singularity*, the term that is used in artificial intelligence (AI). On the contrary, they represent the outcome of a process that can be defined as remediation, reconfiguring existing tools and concepts whereby new media re-fashion and re-cycle old media technologically and indeed commercially. This can be alternatively characterised as the metastasis of the divers (hybrid) gadgets permeating us day by day as opposed to their being submerged or packaged into a black box. Consequently, it's the users who get caught up within an "upgrade culture" which doesn't end.

However, Henry Jenkins in his 2006 book *Convergence Culture* perceives that there is indeed something that "has converged". It's the content. In his words, "convergence represents a cultural shift. . . it is we who are convergent. . . to seek out information and make connections between them" (Jenkins, 2006, p. 3) Since a merger of all the portals and mechanisms of communications technologies has yet to be seen, the claim of media convergence is not convincing.

There are some other approaches towards the notion of interactivity that might not be a false problem for some commentators such as A. Barry. According to him (2007) interactivity might be an alternative to "discipline". In Foucauldian theory (1991), this comes from "power" in order to establish "correct training" through which discipline can create ideal citizens, in this case "active, neo-liberal citizens". Consequently, in contrast to the old discipline, this new interactivity suggests "you may" and "discover" as opposed to "you must" and "learn". This seems to be similar to the thinking of the Frankfurt school, which criticised the cultural and political implications of broadcast media and now seems to be celebrating the emergence of new media. This is because for them it is a more imaginative and democratic use of the media as they have long desired (Lister *et al.*, 2009: 74).

In contrast to these arguments, it is clear that the idea of interactivity carries with it the notion of progress, therefore we will suggest the term 'intra-activity' as mentioned by Barad (2007, p. 33). Because interactivity tends to see users and the media as separate entities and regards the media as objects by emphasising space and *spatiality* rather than *time* and *temporality*, it foregrounds the concept of "progress" instead of acknowledged or unacknowledged "process". For her, the relationship between new technologies and users is based on "co-existence" and "co-institution". It is even more dynamic than *interactivity* as it emphasises entanglement whereby users and media "co-evolve". If anything, they go hand in hand, acting and living together. They are part of the same reality and eventually part of us rather than being separate entities (Barad, 2007).

On this matter, Lister *et al.* again seem to have a lot to say. Quoting Aarseth (1997, p. 48) in their book, "To declare a system interactive is to endorse it with magic power", they think that interactivity has ideological meanings. When considering the value added characteristics of new media, interactivity clearly has something to do with current neo-liberal, individualist discourses as has been discussed before. They argue that it prefers to favour "consumerism" and will eventually sustain the concept of "upgrade culture", which treats users as "consumers" who are now enjoying the "freedom of choice", choices that are coming from the "array of possibilities offered by the market". Metaphorically, it can be seen to resemble an ocean of opportunity within which users are floating around and exploring a plethora of possible options.

At this stage, I would argue that these choices mostly point to a commercial end-product. In fact, it indicates a change from "viewer" or "reader" to "user" representing the new media audience. Therefore, interactivity has more to do with consumerism than *democracy*. Artist Sarah Roberts' view might also be enlightening:

¹ An iPad2 advertisement narrative goes like this: "This is what we believe: Technology alone is not enough. Faster, thinner, lighter...Those are all good things. But when technology gets out of the way, everything becomes more delightful, even magical. That's when you leap forward. That's when you end up something like this." Doesn't it sound like immediacy to you? [The transcript of this advertisement has been taken from the video on Apple's web site. Copyright © 2011 Apple Inc. All rights reserved]

The illusion that goes along with [interactivity] is of a kind of democracy...that the artist is sharing the power of choice with the viewer, when actually the artist has planned every option that can happen...it's a great deal more complex than if you [the user] hadn't had a sort of choice, but it's all planned (Penny, 1995, p. 64).

Another problem with interactivity is that it has a rather rhetorical approach to old media claiming that these weren't really "active". But if we take into account what Roland Barthes says in *Death of the Author*, he claims that we are never passive readers when we read a book; as far as he is concerned, we, i.e. the readers, are actually writing it at the same time we engage with it (Barthes, 1977). Similarly, in her book *Meeting the Universe Halfway*, Karen Barad says in the prologue that "It is not so much that I have written this book, as it has written me" emphasising the process of *intra-activity* which foregrounds *act with* as opposed to interactivity that implies a less dynamic meaning like *act between*.

In order to avoid being too absorbed by the deeper philosophical issues concerning interactivity and convergence, we will move on from these two terms, so that we can see the media more in terms of "their dynamics" & "power relations" in the context of *time and temporality* rather than *space and spatiality*.

Having established these principles in congruence with this debate on the nature of new media and recognising them to be misleading "false divisions", we have already suggested the terms *remediation* and *intra-activity* in place of *convergence* and *interactivity*, respectively. If we move on to the second rule by taking into account Lister *et al.*'s perception of new media as "continuity" rather than "novelty", it's possible to say that new media are not necessarily entirely new, therefore constituting "difference in degree" rather than "difference in kind". Thirdly and finally, if we proceed to the "re-invention" of the problem by "Stating the problem in terms of time rather than space", we can read the media and mediation from the perspective of *indivisibility*. There is no clear boundary that can be distinguished; it can be viewed as an abstract ongoing hybrid process, but gaining "access" or making "contact", as Bergson would put it, is not easily achievable. It's not a single object that can be reduced to one single aspect, as claimed by the Frankfurt school which regards this process as "interaction". That is to say that the media are not a set of entities existing somewhere outside the cosmos: i.e., a third (or middle) party "object" that sits on top of the social hierarchy as a static phenomenon which might also be seen to be "performative" and responsible for certain events. This is an utterly false interpretation of what we are witnessing today. We should recognise this to be the (re)mediation of a perpetual cycle: the "mediation of mediation". All in all, according to Bergson's logic, we should not dismiss *time* at the expense of *space*.

Why "New Media"?

It is clear that we cannot articulate a definite distinction between old and new media. We cannot separate them. But paradoxically, we still identify them as "new media" without acknowledging their newness which foregrounds an overarching concept and promotes the false notion of "subsuming" the old to imply a sense of "progress". On the contrary: commentators seem to be employing historical tools, which had seemed to have vanished in the context of "old media" and appear to be looking for any opportunity to revive them in the context of digital media. According to Lister *et al.*, there are three main reasons why we continue to be fascinated with new media despite the fact they are not genuinely new:

- 1) New media are thought of as epochal; whether as cause or effect, they are part of a larger, even global, historic revolution;
- 2) There is a powerful utopian and positive ideological connotation attached to the concept of something being "new";
- 3) It is a useful and inclusive "portmanteau" term which avoids reducing "new media" to technical or more specialist (and controversial) terms (Lister *et al.*, 2009, p. 10).

If we briefly review these reasons in sequence, the first suggests a transitional shift, rather than a quantum leap from one era to another: e.g., the evolution from modernism to post-modernism, from apes to *Homo sapiens*, etc. It's a discourse that presumes "everything will be different from now on". So these are again questionable changes that are not entirely useful or totally teleological. Secondly, new media have ideological connotations alongside false promises. They seem to "promise more than they can deliver". Ultimately "they sound utopian" adumbrating false hopes and promises attached

which are commercially attractive because for consumers, “new is always better than old”. Finally and most interestingly, new media are defined as such because they are arguably a “less false” option available in contrast with digital media or interactive media which might sound “narrow” and “reductionist”.

Using the example of the 1980s ghetto blaster and also the 1940s radiogram in their book, Lister *et al.* (2009) ask us to compare them to the new arrivals, such as iPods, in terms of their use. When we think about those people in the 1980s who were carrying their ghetto blasters on their shoulders, would it be possible to expect the same behaviour from commuters these days? However, what about those commuters who have their iPods plugged into their ears? In this case, aren't new media and new technologies “enabling” or “constraining” analogue media? But does that constitute a complete change? “No” say Lister *et al.* In fact, they are not even different technologically; we cannot even determine a mutually exclusive difference between “new” and “old” media.

The proliferation of mobile devices obviously leads to ubiquitous computing but towards a way in which it creates an “extreme form of hypermediacy” rather than singularity. However, the notions of ubiquitous computing and convergence are not new and remain “utopian and futuristic” as in films such as Apple's *Knowledge Navigator* and Sun's *Starfire* (Bolter & Grusin, 2000, pp. 218-219). In fact, just as the radio has survived television, the web has survived applications or push technologies as opposed to the notion posited in Chris Anderson and Michael Wolff's article “The Web is Dead, Long Live the Internet” which arguably articulates little more than what they suggest in the title (Anderson & Wolff, 2010):

It seemed just a matter of time before the Web replaced PC application software and reduced operating systems to a “poorly debugged set of device drivers,” as Netscape cofounder Marc Andreessen famously said. First Java, then Flash, then Ajax, then HTML5 — increasingly interactive online code — promised to put all apps in the cloud and replace the desktop with the webtop. Open, free, and out of control.

It is clear that nothing is vanishing in favour of convergence as much as they may have imagined; on the contrary, it's not a revolution but a remediation of technologies as well as their content on a larger scale. These more technologically advanced devices as well as their software increase the intensification of mediation and always offer faster, better, more advanced and eventually “more immediate” versions of themselves to be in touch with reality. These may be globally distributed via friends, colleagues, news, journals, books, etc. ceaselessly promoting more and more consumption. Consequently, this “upgrade culture” always expresses the rhetoric of immediacy, i.e., “what is being published right now?” “What's happening now?”, and inevitably leads to obsolescence. Unsurprisingly, your mobile device rapidly becomes obsolete; your tablet computer becomes outdated.

Intermediation

Since the focus of this essay is *dynamic phenomena*, it would seem that Katherine Hayles' interpretation of the term *intermediation* deserves to be reviewed. While thanking Bolter and Grusin for suggesting the term *remediation*, in her book *My Mother Was a Computer* she doesn't seem to be satisfied with this signifier as it is insufficient to describe the presence of “feedback loops” and “multiple causality. . .among media”. Hayles prefers to use these terms in order to explore complex modal relations: “particularly analogue and digital”. She proposes that intermediation is a more suitable word, because it emphasises cycles rather than a “starting point” in contrast to remediation (Hayles, 2005, p. 33). As for its definition, it is basically, in her words, an “endless novelty of combinations” in which digital media recycles print media via constant “connectivity” that is always dynamic and multi-layered. In other words, Hayles is not necessarily only interested in new or old media but also human beings, machines, languages and codes that she thinks also affect this process of intermediation. At this stage, if anything, Hayles remediates or intermediates along the same lines as aforementioned commentators, in her view of the media as dynamic phenomena:

As the technology becomes more sophisticated, this dream is not fulfilled; instead, embodied subjects are interpolated ever more tightly into a circuit controlled by capitalistic dynamics. As bodies enter more completely into the circuit, subjects cease to be *circumscribed* by the dynamics and are *constructed* through them (Hayles, 2005, p. 9).

Keeping in mind Hayles' entanglement, this new way of looking at the technologies, we can say that technology doesn't necessarily provide a means to an end anymore, as we tended to assume in the past, as for instance Heidegger (1954) thought in his essay *The question concerning technology*. Rather, there is now a new relationship emerging through this co-existence. We live with technology, in fact; we cannot live without technology. We are so engaged and entangled with mobile technologies in particular, we are now talking about post-humans and cyborgs and cyberspaces. Within this milieu we have become part of technology.

The Question Concerning University and Academic Publishing

Drawing on university and open access research, Gary Hall writes in his book *Digitize This Book!* (which has indeed been digitized) that Google's Book Search project aims to scan digitally large numbers of books produced by some Western academic institutions and then make their contents available online for full text searches. The aim is to eventually produce a "universal virtual library" of available knowledge to rival the library constructed at Alexandria around 300 B.C., which was then estimated to contain between 30% and 70% of all known books (Hall, 2008, p. 7). He goes on to say:

But even if Google were intending to make all of the texts they are digitizing available for free in their entirety, a book still has to be published first in ink-on-paper form for Google to digitize it. This in turn means that, more often than not these days, a book still has to be capable of generating a financial profit for its initial publisher before it can appear as part of the Google Book Search Project (Hall, 2008, pp. 6-7).

All these discussed issues invite us to re-consider our perceptions to date:

First, convergence does not seem to be evident in this era of constant technological development. What that means is that we are less likely to see these mobile technologies converging into one "black box" that looks like a mobile phone. Conversely, they will be more dispersed and fragmented. The consequences of this process can be predicted to be *decentralisation* and *detritorialisation* of commercial commodities – including of course academic works/research – through the digitization and eventual intensification of new technology consumption. They will always try to perpetuate the rhetoric of innovation, to sell more mobile devices claiming faster, more powerful and more immediate results. However, achieving immediacy in this era still seems to be an impossible aspiration.

Second, as a consequence of this fragmentation, however, technology permeates us: we act with technology. Hence it's intra-activity. It's not a tool standing outside society; on the contrary, it constitutes us. I believe it's critical for academics, students, librarians, executives, entrepreneurs, etc. to re-think our different mechanisms for retrieving information and knowledge through these technologies. It seems that there is no escape from what Castells calls our "network society" as we become more connected to each other (Castells, 1996).

Finally, by endeavouring to analyse what lies behind these technological transformations, I should ask: Are they really changing our lives fundamentally? Are these changes actually significant or superficial? Are they really capable of delivering what they are promising? Remediating Bergson here again, we should ask better questions and eliminate the false problems to distinguish these discrepancies to define not only what new media and technologies are, but also what we are.

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