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From the digitization of culture to digital culture

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Presentation

From the digitization of culture to digital culture

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Definitions of many kinds have been generated throughout history and by many disciplines for the broad term 'culture'. These definitions fall into two basic groups. First there is the humanistic concept of culture, which views culture as referring to all kinds of cultural productions, including arts such as literature, music and the visual and performing arts. Then there is the anthropological concept of culture, which understands culture to be any human manifestation and the product of a specific way of living, feeling and doing.

Today these two basic concepts, with their many spinoffs and offshoots, are juxtaposed in theoretical and practical discussions of all kinds, causing a certain degree of confusion, debate and conflict in culture strategy plans, state support programmes and subsidies, action plans of culture centres, art institutions, cultural festivals, etc. 'Culture' as a term is difficult to define, contain or confine; it aims to embrace all reality, in a failed attempt to bring it into an all-encompassing and universal culture.

If, rather than a fixed set of practices and interpretations, we understand culture to be a process in which meanings are produced and exchanged—in other words, a process in which meanings are appropriated, negotiated and contrasted—then culture is clearly a dynamic process rather than an immutable essence. Culture, when understood as a dynamic system with flows of people, information and products, adopts different forms in response to dynamic models of the relationships between individuals, societies and territories.

The term 'digital culture' sits uneasily within the inherent dynamism of culture, as it restricts and delimits something as free and open as we understand culture to be. Does digital culture have a set of specific distinguishing characteristics of its own? Should digital culture be treated separately from the rest of culture? And

culture itself: does it really need specific treatment depending on its underlying material substrates? Or does digital culture refer to a *modus operandi* and a specific essence that confers culture with additional properties? If so, what *is* digital culture? And more to the point, given that so many areas of human action have been digitized and that the frontiers between the digitization of culture and digital culture are melting away, does it make any sense to study the part without considering the whole?

Since information and communication technologies (ICTs) came into our lives, they have inspired technophiles and technophobes, utopias and dystopias of all kinds. In the long history of humankind there have been fervent defenders of the inherent benefits of new technologies that offered the potential to change many of the foundations of culture and so develop a new cultural paradigm. As for the ICTs, they have many detractors who are critical of their alleged benefits and who fail to see technological innovation as an agent for structural change or that the ICTs have anything new to contribute to an already consolidated culture and society.

Since the advent of the ICTs, there have been fervently optimistic discourses associated with their impact on culture. They are conceived as essentially democratizing and as devoid of power and control, as the result of their allegedly non-hierarchical horizontality. Recall the unrealistic expectations regarding e-commerce in the early internet years and, more recently, regarding the participatory dynamics of the all-encompassing web 2.0; consider the expectations generated by the potential of computer simulation and calculation in the context of virtual reality substituting for physical presence, the exaggerated claims regarding developments in artificial intelligence, and experiments with artificial life reproducing the properties of what we understand to be life. Today



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we can up- or down-grade many such expectations generated in the early years of the development of digital culture—and likewise with the influence of the ICTs on culture— given how the potential attached to the imaginary of the digital compares with the effectiveness of the real.

Many kinds of technophiles and technophobes, technological utopias and dystopias have arisen in response to the different types of technologies prevailing at particular times in history. Adopting a stance that is neither fatalistically pessimistic nor exacerbatedly optimistic, however, today we can state—in view of the knowledge gained from our experience with ICTs in recent years—that ICTs have undoubtedly brought and are bringing about significant changes in our sociocultural context. We are thus in a position to draw a sufficiently realistic picture of the transformations currently under way in culture and society.

This dossier aims to provide a multifaceted view and a number of perspectives on what has been termed 'digital culture' and on the impact of the digital technologies in the field of culture in its broadest sense. It contains contributions from leading theorists and activists involved in the development and analysis of digital culture. Coming from different parts of the world, they depart from the local yet offer a global vision of digital culture.

Charlie Gere, from Lancaster University in the United Kingdom, discusses some of the implications of the changes brought about by digital technologies in relation to the concepts of subject, consumer and community. Derrick de Kerckhove, director of the McLuhan Program in Culture and Technology at the University of Toronto, reflects on changes in the relationship between passive spectators and active participants in the mass popularization of the three-dimensional technologies and in connection with the imaginary associated with virtual reality.

From Naples, the academic Tiziana Terranova contrasts certain key concepts of the political economy of culture, questioning the alternative nature of new forms of cooperative social production associated with the specific contributions of digital culture, and exploring how this cooperation may offer a real alternative to the logic of the competition-based market as the basis for new forms of production. From São Paulo, Rodrigo Savazoni shares his thoughts and experiences regarding participatory dynamics in the Brazilian Digital Culture Forum, positing the existence of a close tie between democracy, innovation and digital culture. Finally, Aleksandra Uzelak from Zagreb describes the potential of digital technologies for the culture sector and argues for the need to seek ways to properly fulfil that potential.





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From the digitization of culture to digital culture

Some thoughts on Digital Culture*

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Abstract

This essay considers some of the implications of the momentous changes being brought about by new digital technologies, particularly in relation to conceptions of the subject, the consumer and community.

Keywords

web 2.0, digital culture, internet of things

Algunes reflexions sobre la cultura digital

Resum

Aquest article examina algunes de les implicacions dels transcendents canvis que comporten les noves tecnologies digitals, sobretot amb relació a les concepcions del subjecte, el consumidor i la comunitat.

Paraules clau

web 2.0, cultura digital, internet dels objectes

One of the concomitants of our current digital culture is the sense of rapid change. It is the increasingly rapid development and complexity of technology that is making things change so rapidly. Our technologies are always in the process of changing us and our relationship with our environment. The difference is the rate at which this change is taking place. For the first few million years of hominoid and human tool use, change would have been more or less imperceptible. Then, within the last twenty to thirty thousand years, developments started to pick up pace. By the time we arrive at the modern era, technology is developing at an incredible rate (for those of us in the 'developed' world at least). Finally, the last one hundred or so years have seen more and

more rapid technological change and development than in all of previous human history.

One of the results of this accelerating rate of growth is that it is increasingly hard, if not impossible, for us to fully grasp what is going on. Though most of us are aware of other technological developments and issues –for example, questions of nuclear power and nuclear weaponry, industrial production and its effects on the environment, diminishing energy reserves and the search for renewable and sustainable sources of energy– our most vivid encounter with technology and experience of its capacity for change is likely to be through our media, which are changing and developing in extraordinary and unprecedented ways. This

* Extracted from the introduction and conclusion to the second edition of my book *Digital Culture* (Reaktion Books, 2002/2008).



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is particularly true of digital media, such as the internet and the world wide web, mobile telephony and digital video, which either enable us now to do things we did before more often and more easily, or to do things we could previously barely imagine.

More dramatically, they are in the process of transforming not just our world, but our very selves, how we understand who we are. They are changing everything, including the idea of *media* itself (already a problematic and contentious term). And this is the problem: almost by definition any radical transformations brought about by the media are impossible to fully grasp at the time they are taking place. This is because how we understand the world is structured by and accessible through our media (if you use the term in the broadest sense, to include, for example, language). There is not, indeed there cannot be, a point outside of our media from which we can have some kind of privileged un- or premeditated perspective on any aspect of our existence, let alone that of media itself.

Consider how someone in Europe in the late fifteenth century might have understood the development of printing. However educated he or she might have been, it is unlikely that they could have grasped the full implications of this new media technology, or the dramatic effects it would have on Western and, eventually, global culture and society. His or her way of thinking would have evolved within and for a particular 'media ecology' and thus would not be fit for comprehending new emerging media conditions. It is surely far more likely that, in the late fifteenth century at least, printing would still have been regarded as an extension or more efficient scribal practice, a kind of prosthesis or substitute for the production of texts by hand, not as the means for a wholesale transformation of the intellectual environment.

We are perhaps at a similar moment in our understanding of the transformations being wrought by our new technologies. But this is to fall into the trap of thinking of current technological and media change in terms of earlier such transformations. Much as military planners are always said to be making preparations to re-fight the last war, rather than the new one they are going to be confronted with, we can only understand new media in terms of old. It is possible that the ability to fully grasp the implications of the transformations wrought by printing only occurs when print culture itself has begun properly to be superseded by electronic, 'post-print' culture. If we were capable of understanding the changes around us, then they would not truly be changes, but merely developments of the present situation.

All we can do therefore is to map the changes we see in the hope of maintaining our grasp on our rapidly changing situation. Despite all the predictions about the so-called *Y2K bug*, the new millennium did not see the breakdown of banking computer systems, or the collapse of the systems governing the distribution of welfare provision, or even the operational failure of medical equipment, air conditioning systems, elevators, electricity grids, traffic or air-traffic control systems or any other system that uses

digital technology, let alone the accidental launching of nuclear missiles. Yet, the new century had barely begun when another apocalyptic event took place that, though not directly caused by or linked to digital technology, revealed the precariously inter-linked nature of the emerging digital culture.

On 6 September 2001 an exhibition by the artist Wolfgang Staehle called 2001 opened at the Postmasters Gallery in New York. Staehle was already recognized as a pioneer of art involving the Internet. In 1991 he had founded *The Thing*, a bulletin board that became one of the first and most influential forums for the discussion of new media art and theory. By the time of his Postmasters show Staehle had developed a distinctive practice involving the projection of high-resolution digital images onto gallery walls. What made these images unusual was that they were coming from a realtime live feed, refreshed every few seconds. In effect the spectator was seeing the view represented more or less as it actually was at the moment of viewing.

For this exhibition Staehle had projected three such real-time images: one of the Fernsehturm, the distinctive and recognizable television tower in Berlin; one of Comburg, a monastery near Stuttgart; and a view of Lower Manhattan from a camera positioned in Brooklyn. Seen in normal circumstances, Staehle's images convey an experience of stillness, despite being more or less live, and brilliantly bring into question the difference between live and still imagery, and the broader issues of time and representation. In the case of the image of Lower Manhattan, this stillness was shattered five days later in a most extraordinary and unpredictable fashion, when the World Trade Center, which dominated the projected view, was attacked and destroyed by two hijacked aircraft.

Staehle himself was not particularly pleased by the unanticipated and uncalled-for fame and even notoriety that the terrorist event brought to this particular exhibition. Nevertheless it helped delineate an important connection between the real-time technology used by Staehle and the context in which the attacks took place and were received. He was taking advantage of the extraordinary capacity of new digital networks and new technologies to make information and representations immediately available, which in turn is transforming our relation to events as they happen and also transforming the nature of those events themselves.

This is nicely indicated by the title of a book about the attacks written by Middle East expert and academic Fred Halliday, *Two Hours that Shook the World*. Halliday's title clearly refers to journalist John Reed's classic eyewitness account of the Bolshevik revolution of October 1917, *Ten Days that Shook the World* (1919). The difference between the two titles indicates with admirable economy the increasing speed at which world-transforming events take place. This speeding up is directly related to the increasing ubiquity and availability of media, digital and otherwise, through which such events can be witnessed. News of the events during the Russian Revolution was only obtainable afterwards through print media such as newspapers. By the time



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of the September 11 attacks it was possible for people all over the world to watch the assaults more or less as they took place and to witness the aftermath, including the dramatic collapse of the towers themselves.

Furthermore, this was not just possible through mainstream media such as television but also through news websites. In fact the demand for news was so great that the internet more or less seized up and many people abandoned it and turned to radio and television. Nevertheless the speed at which news of the attacks went around the globe was evidence of a highly interconnected world brought together, in part at least, by new media and new technologies. Soon after, bulletin boards and chat rooms on the web became host to an extraordinary proliferation of eyewitness accounts, images, debates, conspiracy theories and accusations about the attacks.

In place of the hierarchical mass media model of communication flowing from the centre outwards, we glimpse a more distributed flat or bottom-up paradigm. It means that media companies will be increasingly obliged to take notice of the expectations of a new kind of consumer (and perhaps even a new kind of subject); one who does not expect to be treated as an anonymous invisible passive consumer, but an active user of media, who is used to creating their own means of responding to needs and desires. Blogs are often cited as one of the principle phenomena of the so-called *web 2.0*, the name given to the conception of the world wide web as a space for collaboration and reciprocal communication.

Among these developments are social network software such as MySpace, Bebo, Facebook and Second Life (which involves users interacting in a shared virtual three-dimensional space), or YouTube, Flickr and del.icio.us, which respectively allow video clips, photographs and web bookmarks to be uploaded to the web; peer-to-peer software such as Napster and BitTorrent for sharing digital music and video files; powerful search engines, most famously Google; new forms of public debate and self expression, such as blogs and podcasts; and new forms of organizing and distributing knowledge, such as Wikipedia. In particular, the kinds of online communities fostered by MySpace and other similar sites, for example Bebo and Facebook, as well as link and file-sharing software such as Flickr and de.li.co.us, are encouraging a new understanding of how it is possible to make the media responsive to personal needs and niche concerns.

It may be that most people do not take advantage, at first anyway, of these possibilities. Nevertheless, such possibilities will determine how the media will be structured and considered. The transformations in the media brought about by new technologies are transforming how we think about ourselves. In particular we are no longer passive consumers of the media, but, increasingly, also active producers. At the most banal this means that through technologies such as Tivo or the iPod we can programme our media content as we wish, rather than in the way it is presented to us by television or record companies. In one sense this is neither new

nor, strictly speaking, a digital phenomenon. From the moment recordable video cassettes and audio cassettes were first available we no longer had to watch a programme at the moment it was broadcast, or listen to the contents of a record in the sequence it was put together.

Banal as this might seem, it was transformative for how we related to media products, such as television and music. The period in which video and audio recording technologies became widely available also saw the beginnings of sampling and mixing in popular music, in which found material was reused to make new tracks, which can be seen as a prefiguring of our current shift from passive consumption to active production. But there is an important difference between these earlier analogue phenomena and the new digital means of controlling how one consumes media content. The former were subordinate to the mainstream media, such as records, radio and television, which still determined in general how their content was consumed, whereas the new technologies are fundamentally altering our relation to media in a profound and radical way.

The social network spaces MySpace or Facebook reveal something about the way in which web 2.0 is being used. Browsing on either is a fascinating, if rather voyeuristic, experience. Individual users' web pages can be customised and contain personal information, pictures of friends who are also on MySpace, accompanied by a message stating how many friends the user has, and displays of often rather intimate email messages from those friends. (When it first started, one of the people identified as a founder of MySpace, Tom Anderson, would be the first 'friend' each subscriber had online. By clicking on a link on each page it's possible to see pictures of and links to all of a user's friends, with Tom always among them. Thus the satirical/ self-pitying t-shirt slogan 'Tom is my only friend'. By spring 2008 Tom had 221,036,100 friends. Following the purchase of MySpace by Rupert Murdoch's News Corporation, Tom is now a corporate identity rather than a reference to a specific individual.)

The customization of the page by users and presentation of personal information act as a kind of visible self-creation. The messages are also links to the other users' own web pages, which means that it is possible to browse across complex webs of connections. In MySpace there are also links to music or to videos from sites such as YouTube. Both MySpace and FaceBook offer a glimpse of a new kind of community, one no longer bound up with physical location, but created through shared interest in and self-definition by media. The above might suggest that with new digital media and networks we are either glimpsing the emergence of a new 'participatory culture' of greater cooperation or solidarity, or alternatively our digital culture runs the risk of producing a pandemonium of competing media noise, self-promotion and meaningless disembodied interaction, in an increasingly atomized society. But perhaps another response is possible, or even necessary, one that goes beyond such an opposition between greater



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cooperation and increasing atomization. We live in a world in which we are increasingly both bound together and separated by the globalized networks of information communications technologies. It is perhaps unsurprising that the concept of 'friendship' has become more visible and important as traditional forms of community are eroded, and new forms of subjectivity and connection are being developed. Yet in a situation where Tom can claim to have well above 200 million friends, the very term *friendship* needs rethinking. Thus, what our increasingly networked digital culture may need is a new 'politics of friendship', new conceptions of the relation between self and other, and new understandings of community.

It may be that we will have to expand our notion of who or what might be part of any future community, especially given the increasing capacity for participation. Back in the 1950s and '60s it was seriously proposed that computers would be able to achieve some kind of intelligence, or even consciousness. Based on an outmoded modernist conception of cognition as an interior process, artificial intelligence, at least as it was originally understood, has been largely discredited. But more recent developments, many of which came out of AI, are presenting us with objects and technologies that can act, communicate, signify and participate, even

if these capacities do not seem to involve anything like human intelligence or consciousness. Examples include recent research into developing simple forms of intelligent behaviour by combining robotics with neural networks, as undertaken by computer scientist Rodney Brooks at MIT. It is unlikely that, in the foreseeable future, even minimally intelligent robots are going to trouble our everyday lives. By contrast, far smaller and less potentially impressive developments are already provoking questions about the capacity for technology to act and participate. Recently a new buzz phrase has been coined: the *Internet of Things* refers to the new world of networked and interconnected devices, which can communicate with each other and with other systems and entities.

Such developments indicate the more momentous changes taking place in our current digital culture, changes that affect every aspect of our lives and which are increasingly hard to discern, as they become increasingly easy to take for granted. In particular we are arriving at a point where digital technologies are no longer merely tools, but increasingly participants in our increasingly participatory culture, for better or worse. The need to keep questioning our situation remains more pressing than ever, especially as the technology itself is more and more invisible as it becomes an integral part of the very fabric of our existence.

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Avatar = Pinocchio 2.0 or “The end of the Society of the Spectacle”

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Abstract

The article analyses the concept that deems the film *Avatar* part of a shared and objective imaginary, and an allegory for the struggle between good and evil. Alongside this analysis, there is a review of recent films in the history of cinema that have handled these issues, analogising the avatar as a reinvention of Pinocchio for the electronic age. Likewise, there is analysis of the new participatory experience for audiences provided by 3D technology, and of the new virtual reality through platforms such as Second Life.

Keywords

avatar, cinema, 3D, virtual reality, Pinocchio

Avatar = Pinotxo 2.0 o «La fi de la societat de l'espectacle»

Resum

A partir de la pel·lícula *Avatar*, s'analitza el concepte que titula la pel·lícula com a part d'un imaginari objectiu i compartit i com una forma al·legòrica de la lluita del bé contra el mal. A aquesta anàlisi se li suma un repàs de les pel·lícules més recents de la història del cinema que tracten aquesta dimensió i es fa una analogia de l'avatar com el Pinotxo reinventat per a l'era electrònica. Alhora, s'analitza la nova experiència participativa del públic davant de la tecnologia 3D i d'una nova realitat virtual, amb plataformes com *Second Life*.

Paraules clau

avatar, cinema, 3D, realitat virtual, Pinotxo

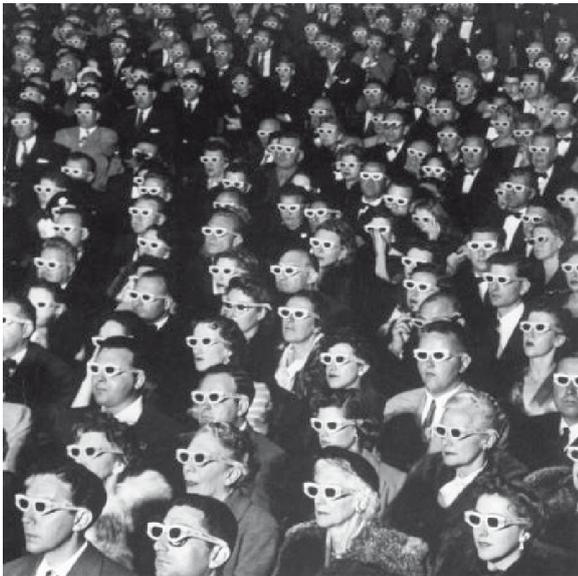


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Avatar = Pinocchio 2.0 or "The end of the Society of the Spectacle"

I can still recall –not without irony– those images of cinemagoers of the 1950s entranced by the first 3D films, with those white glasses, and I also remember that, at the time, it was thought that there was no future for 3D technology as it was considered a mere passing fad. Today, *Avatar* may represent a new generation of films. 3D is no longer just a fad, but rather a cultural necessity for the new "Society of the Spectacle", which is also defined as the society of participation.

Image 1. 1950's 3D broadcasting



In your face cinema

3D in films is no longer just a casual occurrence, just another special effect. It is a new and powerful indicator of a move away from the classical perspective. Virtual reality is one of the clearest –or perhaps most banal– ways of creating sensory experiences in our neo-Baroque epoch. We, too, are carrying out "*le dérèglement de tous les sens*" ['the derangement of all the senses']. The magic lantern of illusions, instead of allowing me to see the show from the outside, pulls me into the scene, or even surrounds me with it. I go there, in the literal sense of going to a place, enter inside of it and, if I cannot go, it is the show that comes to me and penetrates me.

3D and virtual reality turns the viewpoint around, because the user enters into the show. In all virtual worlds, the user is the content and also the target of the entire performance. I am in the sights of the projectile that comes right up to my face, as the 3D object disappears at the point of contact.

Avatar is simply a kind of passageway through the television tunnel. Hans Magnus Enzensberger has noted that a television

show is a kind of collective meditation: television itself is a calming object, a Buddhist experience. It hypnotises you, it consumes your being. If this is the case (and it probably is), the fact that we are increasing interaction with the screen, and have been ever since the invention of the remote control, is changing things –or rather inverting them. Interaction has already become a kind of penetration into the things with which you are interacting. The television screen (and any other screen) offers the viewer's pupils an inverted iris. It is said that the cells of the iris are brain cells removed to the outside world. A connected screen is equivalent to an iris connected to a global data processing system and, therefore, to a brain. In the internet, the inverted iris is faithfully connected to a brain, that of the network, and to that of its users. The screen is nothing more than a passageway. In his prophetic film *The Icicle Thief* (Italy, 1989), Maurizio Nichetti puts his leading character, a television director, inside the television set itself. In *Avatar*, we go as far as submerging ourselves in the other side of the television. We are in tune with the *mantra*, and therefore we are in Paradise.

The objective imaginary world

Although *Avatar* is not, in itself, interactive in terms of cinematographic projection, it nevertheless represents a paradoxical role model and the possibility of viewer experience. The first question one should ask is how 3D effects change the viewer's position. Although we ourselves do not move, we are inside a scene rather than just in front of it, and the scene changes around our body. The resulting experience is not, therefore, merely visual but also tactile. We are asked to physically feel the changes in cinematographic space. This tactile aspect is inherent in films but, in general, unappreciated. The impact of the image and, particularly, cinematographic movement causes a slight muscular reaction that helps us understand what we have seen. This impact is greater in violent or horror films, where the body's reaction, although strong, is completely predictable. With *Avatar*, this physical aspect of the show can no longer be denied.

3D is tactile: it boosts proprioception and amplifies all sensorial sensations. To orient yourself in 3D, you have to move. In contrast, in the classical perspective, the viewpoint is blocked. In virtual reality and 3D, space is manipulated like a musical instrument. The entire body is affected. Modulations of the gap between the world and myself or between two or more persons can be of different types. However, like all forms of interactivity, they are variations on touch. Furthermore, at the hands of 3D, this gap makes the relationship with the film itself an intimate one. Our society no longer wishes to merely see a show: it wants to enter into it.



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Avatar = Pinocchio 2.0 or "The end of the Society of the Spectacle"

Image 2. Photo from the film *Avatar*



The viewer wants to participate, and this changes the nature of his role. Projecting ourselves into an imaginary context is something we already do when we read. This choice is made available to the reader's mind. In his mind, the reader can project himself like a homunculus into the scene of a play, or simply contemplate the content of his imagination from an internal viewpoint. His own mind creates his projection, that is, his avatar. In *Second Life*, my avatar is a computer-assisted projection of myself into an external environment, and is therefore an objective projection. The user can choose between looking at the virtual world from his or her own viewpoint or looking at himself as content, as part of the scene. The digital avatar is outside of our body, on a screen. It forms part of an objective, shared imaginary world. *Avatar* offers a hybrid between the experience of virtual reality and that of 2D cinema.

In any other film, the relationship between the viewer and the characters is similar to that between a reader and the characters of a book. In *Avatar*, the relationship is a hybrid one, since it brings together an active role, similar to that of *Second Life*, with one typical of the mental strategies dedicated to fiction. *Avatar* also offers an even more complex identification experience.

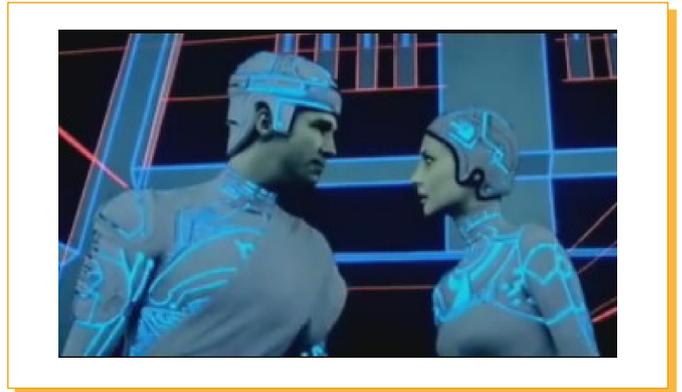
When we read a book or see a film, we can project ourselves into the different characters. But when it comes to interacting with the virtual world, we only project ourselves into our character (into our avatar). The film *Avatar* asks us to identify with Jake's ideology, with his avatar. The character is adorned with symbolic, psychological and social elements and even technological properties. The film offers a drama of identity in our era of electronic reproduction.

Pinocchio 2.0

Avatar is but the latest in many images of our initiation into the digital matrix and of our consequent rebirth. In fact, *Avatar* is itself an avatar of Pinocchio, reinvented by the digital era. Jake becomes an electronic puppet and emerges from a growing series of visions: from *Tron*, *Total Recall*, *The Lawnmower Man*, *Blade*

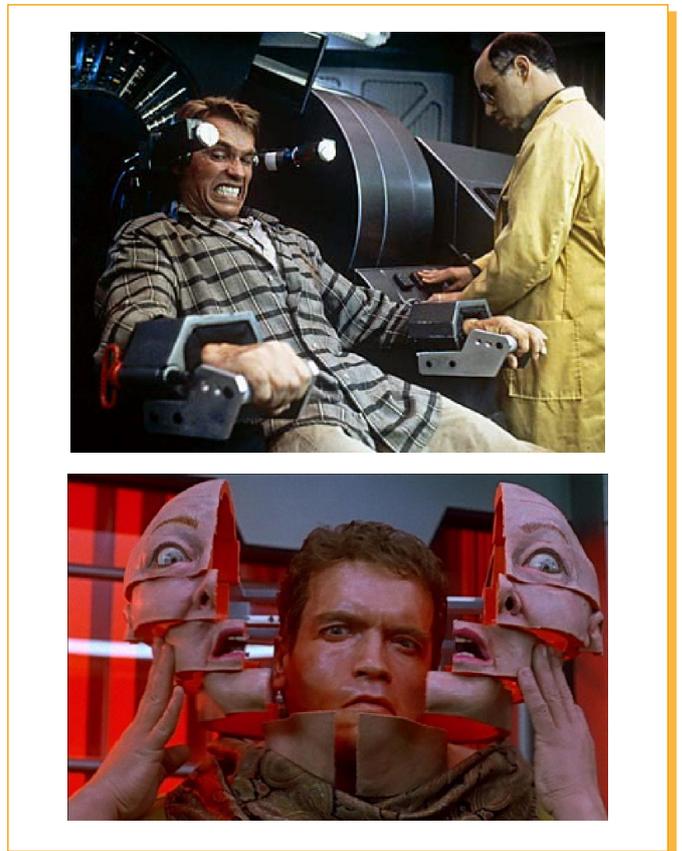
Runner, *The Matrix* (albeit in a slightly different way), *Minority Report* (Steven Spielberg, US, 2002), *I, Robot* (Alex Proyas, US, 2004) and *Being John Malkovich*.

Image 3. Photo from the film *Tron*



Tron (Steven Lisberger, US, 1982) portrays a kind of "pre-avatar" stage: the characters enter into the avatars, or are dressed as them, to put it another way. This was the first kind of hybridisation between man and machine. The fusion is complete because the character's being penetrates the technological extension.

Image 4 and 5. Photos from the film *Total Recall*





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Avatar = Pinocchio 2.0 or "The end of the Society of the Spectacle"

In *Total Recall* (Paul Verhoeven, US, 1990) a machine, combined with a drug, provides a hallucinatory projection into a different universe. Said projection seems to be the *mise en scène* of a device similar to that related to reading: an individual conscience imagines a fiction. However, it is even more like the mechanisms of a dream, because the leading character lives the projection as if it were truly real.

Image 6. Photo from the film *The Lawnmower Man*



In *The Lawnmower Man*, (Brett Leonard, US, 1992) the leading character is transformed, by means of his avatar, from a mentally-handicapped simpleton into a super-intelligent but evil genius; a strangely negative reflection by Brett Leonard on the arrival of the virtual era. It can be said that, in general, films have presented a negative image of technology (cf. *Avatar* itself).

Image 7. Photo from *Blade Runner*



In *Blade Runner* (Ridley Scott, US, 1982), the machine, or replicant, is a robot with a kind of soul, who demands his own freedom and independence from his creator. A replicant is not an avatar of anyone in particular –being more along the lines of HAL, the talking computer of *2001: A space odyssey* (Stanley Kubrick, US/GB, 1968)– but could be regarded as one of the most powerful examples of the technical projection of the human being, in the mythical tradition of the *golem*.

The technological avatar may come from two novels: William Gibson's *Neuromancer* (1982) and Neal Stephenson's *Snow Crash* (1992). In *Snow Crash*, users' avatars are to be found in the Metaverse, a prefiguration of Second Life ten years before its actual appearance (2003). The avatar of Gibson's novel is more complex. It is called a *rider* and is clearly separate from its user, as its purpose is to carry out dangerous operations in uninhabitable places. The new figure emerges from the avatar's ability to convey feelings and even emotions via the Matrix. Thus an avatar is half man and half machine, material and virtual, illusion and reality, without the two aspects becoming confused. The expression "jacking into the Matrix" (as well as the film of 1999) has their origin in Gibson's imaginary world.

Image 8. Photo from the film *The Matrix*



The characters of *The Matrix* (Larry Wachowski, Andy Wachowski, US, 1999), *Total Recall* and *eXistenZ* (David Cronenberg, US/Canada, 1999) all have the same difficulty in distinguishing between what is virtual and what is real. In reality, they are the avatars of Don Quixote. This difficulty also confuses the viewer. *eXistenZ* is particularly frustrating, as you never know what is really happening, even at the end of the film, when all the characters are once again in the place they were at in the beginning. All point of reference is lost: this is truly a case where existence precedes essence! Additionally, *eXistenZ*, like many more Cronenberg films, shows us the complete union between



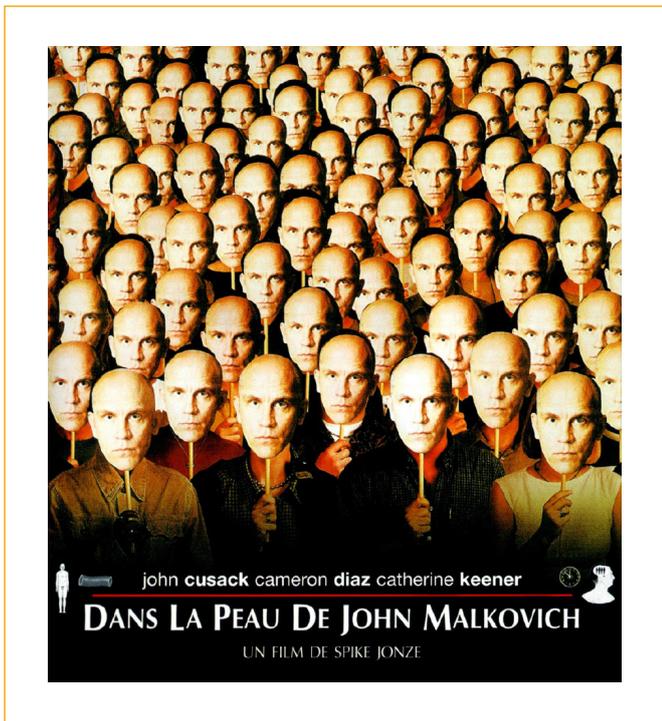
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man and machine. To play the game of *eXistenZ*, players must first connect its interface to their spines. They must mainline the electronic input. Similarly, but in an organic rather than electronic connection, in *Avatar*, your tail must connect with your partner's hair (a discreetly erotic connotation) to transmit energy and information.

Like in *Total Recall*, the user directly downloads a virtual world into their memory. This is possibly a prefiguration of the technologies of the future.

Image 9. Poster from the film *Being John Malkovich*



In *Being John Malkovich* (Spike Jonze, GB/US), the user takes over the point of view of another person. The actor John Malkovich allows someone else to occupy his mind and body, albeit for only a limited period of time. Transforming a person into an avatar, a case of possession, is another important variation on the theme of uncertain identity.

In this case, the clear forerunner is Pinocchio, because the puppet is also pulling the strings. In fact, avatars of Pinocchio are found in today's films, or rather some part of him can be found in the different postmodern productions. The idea of the whale is found in the matrix of *The Matrix*, the puppet in *Being John Malkovich*, the lies in *eXistenZ*, the tempting dream world in *Total Recall*, and so on. The power of this old Italian myth is due to the fact that Pinocchio arises from the anguish of an agricultural society invaded by mechanisation and industrialisation. Pinocchio is the true image of a mechanical man who attempts to recover his own humanity beyond the machine, passing through all the

challenges of a maturing child before reaching adulthood, and this is the same challenge faced by electronic man. In *The Matrix*, the digital whale has swallowed everyone, but only some are prepared to fight their way out and once again become real people.

All avatars represent different projections of ideas of future humanity into electronic simulations. All are digital creatures, creatures the product of a technical dream. Many of them feel the desire to escape from the limitations of the organic body. This can be easily understood in the case of the paraplegic Jake. McLuhan spoke of our tendency towards "angelism", a feature of our times, where everything, and often our own material body, can be translated into numerical data. And there are so many "angels" in *Avatar*!

A magical world

We live in a neo-medieval world, yet one which is technologically magical. Avatars are the new interfaces and the iPhone is the magic wand. Oddly, in the Harry Potter stories, good and evil alike live in a world of magic. Or, put another way, the unreal world contains within it a dark and sinister magical world. In *Avatar*, good lives in the world of magic, whilst evil is to be found in the "real" one. This gives rise to implications for the current public perception of life in general. The man on the street has an extremely poor opinion of society in general, something that *Avatar* expresses with crystal clarity.

Finally, I think that it is important to consider the extraordinary worldwide success of *Avatar* in today's world. It is true that it benefits from 3D technology, but it is none the less true that this technology would not, by itself, affect half the viewers of this film. Rather, there is an odd neo-romanticism in the confluence between technology, dematerialisation and nature. All the world's cultures can identify with the story's different tribes. All can suffer from military violence at the service of private, criminal interests. All can doubt the value of hard technology. But the soft virtual world seems to be a proper, balanced way out, far removed from the current socio-political miasma. In fact, the ancient biblical exegesis is perfectly applicable to this film. *Avatar* is a kind of anagogic parable of the struggle between good and evil. Avatars (in all their forms, not only those of the film's characters) are allegories: they possess attributes and powers like in the mediaeval allegories. They can be transformed by the power of magic, can fly and teleport. As in mediaeval allegories, they have missions to comply with to obtain an anagogic order of eternal life. And pure hearts can secure the final victory and win back Paradise Lost.



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He has been decorated by the Government of France with the order of "Les Palmes académiques". Member of the Club of Rome since 1995. He's the author of: *Understanding* 1984 (UNESCO, 1984), *McLuhan e la metamorfosi dell'uomo* (Bulzoni, 1984), *The Skin of Culture* (Somerville Press, 1995), *Connected Intelligence* (Somerville, 1997), *The Architecture of Intelligence* (Denmark, 2000).

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From the digitization of culture to digital culture

Another Life: social cooperation and a-organic life*

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Abstract

In this paper the author draws attention to some key concepts of the political economy of digital culture asking whether new theories of social production and sympathetic cooperation, in the work of authors such as Yochai Benkler and Maurizio Lazzarato, can offer an alternative to the neoliberal logic of market-based competition as the basis for the production of new forms of life.

Keywords

biopolitics, cooperation, markets, neoliberalism, networks, political economy, social production

Una altra vida: cooperació social i vida anorgànica

Resum

En aquest article, l'autora crida l'atenció sobre alguns conceptes clau de l'economia política de la cultura digital i es pregunta si les noves teories de producció social i la cooperació solidària, en el treball d'autors com Yochai Benkler i Maurizio Lazzarato, poden oferir una alternativa a la lògica neoliberal de la competència basada en el mercat com a base per a la producció de noves formes de vida.

Paraules clau

biopolítica, cooperació, mercats, neoliberalisme, xarxes, economia política, producció social

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So, since there has to be an imperative, I would like the one underpinning the theoretical analysis we are attempting to be quite simply a conditional imperative of the kind: if you want to struggle, here are some key points, here are some lines of force, here are some constrictions and blockages. [...] Of course, it's up to me, and those working in the same direction, to know on what fields of real forces we need to get our bearings in order to make a tactically effective analysis. But this is, after all, the circle of struggle and truth, that is to say, precisely, of philosophical practice.

Foucault (2007, p. 3)

The notion that markets are endowed with a kind of 'life' was an admittedly controversial but persistent motif in the 1990s debate on the 'new economy' of the internet. In no other economic field have notions of self-organization inspired by biological and physical models been so crucial. Scientific theories such as neo-evolutionism and chaos theory have been mobilized to account for the peculiar character of the internet as an informational milieu able to support and accelerate the emergence of new economic, but also cultural and social forms—a perspective spread by a successful new genre of popular science literature that never ceases to account for the continuity of the natural, the economic and the biological (Axelrod *et al.*, 2001; Kelly, 1999).

Most of this literature has served to popularize the notion of the internet as a kind of 'bio-medium', a new synthesis of the natural and the artificial that reinforces neoliberal understandings of the free market. However, some authors writing from within the liberal tradition have also posed the possibility that the internet is enabling the rise of a 'non-market' mode of production. Such a 'non-market' mode of production would thus constitute a new economic reality—in the sense that Foucault would give to the term, that is, something that could constitute an intrinsic limit to neoliberal governmentality. Non-market production, in fact, is defined as driven by mechanisms of social cooperation rather than economic competition, and as intrinsically more 'effective' than market-based production—at least within some domains. The question that is asked here is whether such new theories can be seen to support the formulation of an alternative political rationality or whether they would only allow for a further refinement of neoliberalism as Foucault understood it.

For example, in his widely read *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, Yale Law professor Yochai Benkler produces an explanation of nonmarket production from a liberal perspective which is "centered on social relations, but operating in the domain of economics, rather than sociology" (2006, p. 16). According to Benkler, the *networked information economy* has allowed the concrete emergence of a new economic reality, social production, which represents a

genuine innovation when compared to the other two dominant forms of economic organization: the firm and the market. Social or non-market production emerges from "the very core of our economic engine", affecting first of all the key economic sector of "the production and exchange of information, and through it information-based goods, tools, services and capabilities". Such a shift would suggest "a genuine limit on the extent of the market [...] growing from within the very market that it limits in its most advanced loci" (2006, p. 19). Benkler sets out to describe "sustained productive enterprises that take the form of decentralized and non-market-based production, and explain why productivity and growth are consistent with a shift towards such modes of production" (2006, p. 34). Social production mobilizes the "life of the social", that is, the productive power of social relations between free individuals who act "as human beings and as social beings rather than as market actors through the price system" (2006, p. 7). Thanks to the networked information economy, social production would have become directly "effective" (hence productive) as demonstrated by the success of "free software, distributed computing, and other forms of peer production [that] offer clear examples of large-scale, measurably effective sharing practices" (2006, p. 121).

The most innovative element of Benkler's analysis, within the framework of liberal theory, is the notion that the distance between the nature of political economy and the nature of civil society can be bridged by social production: "a good deal more that human beings value can now be done by individuals who interact with each other socially, as human beings and social beings, rather than as market actors through the price system" (2006, p. 7). This would produce a new quality of economic life that would no longer be based on a split within the subjectivity of *homo oeconomicus* between economic interest (based on a calculation of utilities) and the disinterested, but partial interests that, according to Foucault, liberal political theory confined to the transactional reality of civil society (see Lazzarato, 2009). Social life and economic life would thus find a point of convergence where the former would no longer find its expression exclusively within the reproductive sphere of civil society, but would become directly productive in the economic domain. We would thus be confronted with the historical emergence not only of a new mode of production, but also a new mechanism—cooperation—that would relieve "the enormous social pressure" that the logic of the market exerts on existing social structures (2006, p. 19). As Benkler emphasizes, this would not necessarily spell the end of standard economic analysis, and more specifically economic understanding of human economic behaviour or economic theory's belief in the emerging patterns produced by the abstract nature of economic life.

We need to assume no fundamental change in the nature of humanity; we need not declare the end of economics as we



know it. [...] Behaviors and motivation patterns familiar to us from social relations generally continue to cohere in their own patterns. What has changed is that now these patterns of behavior have become effective beyond the domains of building social relations of mutual interest and fulfilling our emotional and psychological needs of companionship and mutual recognition. They have come to play a substantial role as modes of motivating, informing, and organizing productive behavior at the very core of the information economy. (Benkler, 2006, p. 91–2)

Benkler's account of the new economic reality of social production thus saves "the nature of humanity", that is neoliberal postulates around the nature of social and economic life, within a new economic integrated life whose engine would be the "social relation of mutuality" springing from within the emotional and psychological needs of autonomous individuals. The nature of political economy will also be safeguarded and re-actualized within social production, which would however have the merit of compensating for the pressure of market mechanisms on society while at least partially recomposing the division between social and economic life.

It could be argued that theories of social production such as the one outlined by Benkler offer liberal and neoliberal economics a refinement of its logic that does not significantly break with its overall political rationality. Non-market production, in fact, is based on social cooperation, but it becomes economically effective, that is it achieves the status of an economic phenomenon, because "it increases the overall productivity in the sectors where it is effective [...] and presents new sources of competition to incumbents that produce information goods for which there are now socially produced substitutes" (Benkler, 2006, p. 122). The mechanisms of social cooperation would thus simply correct some inefficiencies inherent in the mechanisms of economic competition, satisfy those needs that are not catered for by markets and even feed directly into them—improving the productivity of economic life as a whole, now reconfigured as an ecology of different institutional and organizational forms. However, social production becomes measurably effective, that is, it acquires the abstract value that makes it an economic phenomenon, only as long as it manages to spur innovation and hence competition in the market economy. Although nothing in principle prevents social production from

outperforming competitive markets as a more efficient economic form, it still seems destined to remain subaltern to the logic of the neoliberal market as a whole.¹

In a way it seems as if, once passed through the 'reflective prism' of political economy, social production loses all potential to actually produce and sustain radically different forms of life—which would neither coexist nor compete with neoliberal governmentality, but which could question its very logic. As Foucault taught, the encounter between a form of knowledge and a social phenomenon does not have the same implications as its encounter with a physical phenomenon. A change of scientific paradigm, such as the Copernican revolution, did not affect the movement of the planets, but what political economy says about social production will affect what social production will become. And yet nothing prevents social production—that is, the capacity of free social cooperation to produce new forms of life—from entering a different reflective prism—connecting to other kinds of knowledge, that are less accommodating towards the neoliberal way of life and that potentially relay back to more radical practices.

Social production, and especially cooperation, are also key concepts developed by another author, Maurizio Lazzarato, who writes from a very different perspective than Benkler, that is, within a framework that mobilizes and extends Marxism through the 'philosophy of difference' to be found in the writings of authors such as Bergson, Tarde, Deleuze and Guattari and also Foucault. In particular, in his book on Gabriel Tarde's economic psychology, Lazzarato endorses Tarde's argument, formulated at the end of the 19th century, that "sympathetic cooperation", that is, autonomous, independent and creative cooperation, is the "ontological and historical premise of the production of economic value and of the division of labour" (Lazzarato, 2002, p. 8).² For Tarde, in fact, unlike the political economists or Marxists, the source of wealth lies "neither in land, nor labour, nor capital, nor utility, but within invention and association" (2002, p. 8). Sympathetic cooperation is the ontological basis of economic value once the latter is understood in terms of the production and diffusion of the new—that is, in terms of "the emergence of new economic, social and aesthetic relations" (2002, p. 8).

Furthermore, according to Lazzarato, sympathetic cooperation also implies a vitalism, but "a temporal vitalism, that is no longer organic, a vitalism that relays back to the virtual and no

1. One could argue against it using the Marxist critique of early economic theories of self-organizing markets: that it continues to mystify the antagonism and asymmetry that lies within the interior of economic life, such as the relation between capital and labour, which would coexist somehow with the new capacity of subjects to cooperate within an economic process that capital does not directly organize. If such asymmetry / antagonism continues to persist at the interior of economic relations of production, such as in the relation between employers and employees, then in what way can a subject who participates in both—that is, in social and market production— achieve such reconciliation? In most cases, the reintegration of social and economic life would remain fatally flawed and tense. Subjective economic life would remain split: between a labour force that is subject to the command of the capitalist enterprise; an exchange-based, competition-driven economic rational subject competitively operating by means of a calculation of utilities in the marketplace; and finally a new socially productive being, unfolding within the new collaborative milieus of the networked information economy.

2. All translations from Lazzarato are mine.



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longer exclusively to biological processes" (1997, p. 116).³ Such "a-organic life" would be significantly different from the life of biopolitics, inasmuch as it would not refer back to the homeostatic optimization of the vital processes of the population, but would imply essentially the "life of the spirit" – that is, the life of subjectivity as memory (including sensory-motor memory), understood as implicating the ontological powers of time (see also Grosz, 2004).

In *Puissances de l'invention: la psychologie économique de Gabriel Tarde contre l'économie politique* (2002), Lazzarato returns to a key biological image on which to ground another theory of social production as the primary condition for the production of economic value: the brain. The brain is obviously not to be understood as a biological organ, but as an image of thought that draws on some of the peculiar characteristics of the brain as organ: the structural undifferentiation of brain cells and their relative homogeneity in spite of the more or less specific distribution of functions within each lobe. Such relative homogeneity of brain cells would fit much better the description of a social life where the segmentation operated by the division of labour (such as class) or by biological ruptures in the continuum of life (sex, gender and race) would coexist with the capacity of each individual cell to participate in multiple associations that are relatively deterritorialized from their specific function.

The equality and uniformity of the elements that constitute the brain, their relative functional indifference, provide the conditions for a richer and more varied singularization of the events that affect it and of the thoughts that it produces. By emancipating itself from the organ, the function produces a new plasticity and a new mobility that is the condition for a freer invention. Non-organic cooperation opens the possibility of a superior harmonization and explicates the tendency to the equality that opposes organic differentiation. [...] The general intellect is not the fruit of the natural history of capitalism, but is already ontologically contained within the emancipation from the organic division of traditional aristocratic societies. (Lazzarato, 2002, p. 35)

The image of the brain then performs two functions. In the first place, it allows us to imagine a socius where each individual element is bound at the same time to a specific function, but

also to a more fluid, less segmented dynamic engendering what cultural theory used to call *multiple identities*. Thus, one can be caught within the division of labour in the workplace, while also simultaneously being part of different networks or associations. Second, the image of the brain makes it possible to account for a subjective life that is woven out of the specific powers and forces that are attributed to such a brain: the effort of paying attention, that is, of retaining and reactualizing impressions, the forces of believing, desiring, feeling, and the 'social quantities' hence produced (beliefs, desires, feelings).⁴ Clearly, then, the brain that Lazzarato–Tarde mobilize as an image for thinking 'non-organic' cooperation is not literally the biological brain, but neither is it the individual brain. Beliefs, desires and feelings, in fact, are forces in the sense that:

[...] they circulate like flows or currents between brains. The latter, hence, function as relays within a network of cerebral or psychic forces, by allowing them to pass through (imitation) or to bifurcate (invention) [...] On the other hand, however, flows of desires and beliefs exceed brains from all sides. Brains are not the origins of flows, but on the contrary, they are contained within them. The ontology of the 'Net' is to be found within such currents, within these networks of cerebral forces, within these powers of differentiation and imitation. (Lazzarato, 2002, p. 27)

The engine of social production would hence not lie within the interior of the autonomous individual but within the in-between of the social relation. It would be constituted through that which Lazzarato–Tarde define as the *primitive social fact*, "as action-at-a-distance by a spirit (or memory-brain) on another spirit (on another memory-brain)" (Lazzarato, 2002, p. 31). This action-at-a-distance is defined by Tarde through the metaphor of photography: it is a matter of "impression", a "quasi-photographic reproduction of a cerebral cliché on a photographic plate" (2002, p. 31). It is also assimilated to an "act of possession", where the individual spirit or monad allows itself to be possessed by another one in a quasi-erotic relation that holds varying degrees of reciprocity and which can have different durations.⁵

Hence, for Lazzarato–Tarde, the process of subjectivation cannot originate in the individual brain, but must unfold within these cerebral networks and can be assimilated to "a fold, a retention, a

3. It is important to underline how this notion of *a-organic life* does not replace the notion of biological life, but, in Lazzarato's view, constitutes the site of a double individuation. What is invented at the level of a-organic life, that is, at the level of time and its virtualities, and within the network of intercerebral, sub-representative molecular forces, needs to be actualized in the concrete composition of bodies and in the expression of new forms of life. The two levels are thus autonomous but inextricably interrelated as in the two attributes of the Spinozist substance or the two floors of the Leibnizist monads (see Lazzarato, 2004).

4. For another perspective on the value of thinking culturally and politically by means of the image of the brain, see Connolly (2002)..

5. As Michael Taussig (1993) has also argued in a different context, action-at-a-distance would thus be a mimetic act, a matter of "copy and contact" that would express the tendency of subjectivity to "becoming other".



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turning of the flows upon themselves". Tarde's metaphors for such a process of subjectivation are, once again, natural, but resolutely a-organic: the wave and the sea.

The wave, the individual brain, is the result of a process of individuation of the movements of the sea, the smooth space of associated brains. The wave is produced at the level of the surface through an in-rolling of the currents that traverse the sea in its depths in all directions. (Lazzarato, 2002, p. 27–8)

Like a wave, hence, subjectivation would not be the product of an original individualization, but it would be a question of "rhythms, speeds, of contractions and dilations, within a milieu that is never static, but which is itself a Brownian, molecular movement" (2002, p. 28). It is constituted out of the very seriality of events that defined the nature of political economy, but with a completely different inflection where the production of economic value does not presuppose the optimization of bioeconomic processes, but the invention and diffusion of new values and new forms of life.

The notion of *sympathetic cooperation* proposed by Lazzarato appears of particular value, inasmuch as it makes it possible to think of social cooperation as the *a priori* of all economic processes, rather than one particular form among others, or an *posteriori* reconciliation of economic and social life. It argues, in fact, that economic life cannot be considered as a distinct domain from the social life that underlies it. It grounds the productivity of social life in the relational action of psychological or spiritual forces, that is, within the life of the 'soul or spirit'. It makes it possible to think of the current production of economic value as that of a measure that only partially captures the immanent process of production of value that unfolds in the in-between of social relations. It counters the "exclusion of sympathy and love, strongly present within utopian socialism" and makes it possible to rethink the foundation of political communities that are not based on interests but on common beliefs, desires and affects; finally, it opens the possibility of thinking of a political rationality that allows for "a polytheism of beliefs and desires that are composed through a demultiplication and a differentiation of the associative principle [rather than] within a single large organization (state or party)" (Lazzarato, 2002, p. 27).

Can such theories provide viable alternatives to the neoliberal paradigm of market production as the concrete instantiation of an abstract eidos of competition? Can relations of cooperation displace the mechanisms of competition as the basis on which to find a new political rationality? Two examples of theories of social production or cooperation have been discussed in this article. Liberal accounts of social production, as exemplified by Yochai Benkler's work, seem to open up a different economic model for post-neoliberal governmentality. However, inasmuch as such accounts remain faithful to some key assumptions of neoliberal

economics, they tend to make social production subaltern to market-based production and hence do not appear to question neoliberal governmentality as a whole —but only to refine it. As valuable as such refinement is, especially when compared with the other contemporary evolution of neoliberal governmentality, that is, neoconservatism, it seems ultimately of limited use to those who reject the overall thrust of market-based life. The second example, Lazzarato's theory of sympathetic cooperation, elaborated by means of a philosophy of difference, seems to challenge neoliberal governmentality in more substantial ways. It questions both the human nature of liberal theory and the neoliberal formal nature of markets as competition. It makes the mechanism of competition just one possible means of organizing economic life and one that, anyway, is always dependent on the cooperative powers of the associative, a-organic life of the socius. It argues for social cooperation as the key mechanism in the production of a value that can no longer be abstractly economic —but is inseparable from subjective, social values such as truth-values, aesthetic-values, utility-values, existential-values. It thus introduces an immanent ethics into a social-economic life where value emerges out of the "powers of conjunctions and disjunctions [and] forces of composition and decomposition of affective relations" (Lazzarato, 2004, p. 24).

Such theories have been taken here as examples of the different ways in which a new economic reality, such as social production, can be thought of as a means to challenge and rethink the nature of markets and political economy. They have been taken as reflective relays that can be fruitfully connected to a number of practices. If an alternative to neoliberal governmentality can be invented, in fact, it will certainly not be by virtue of the application of a theory or by grounding "a political practice in truth [...]" but by drawing on thinking "as a multiplier of the forms and domains for the intervention of political action" (Foucault, 1984, p. xiv).

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From the digitalisation of culture to digital culture

Democracy, innovation and digital culture*

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Abstract

The impact of digitalisation and of the internet affects not only society and the economy. Politics, too, is beginning to be transformed. Alongside many other initiatives, the Brazilian Digital Culture Forum, held in Brazil in 2009, provides an example of how democracy can benefit from innovation. By means of a digital social network, the public continually interacts, proposing and reviewing public policies. This is not the only example: Brazil is experiencing a proliferation of the use of the net for social and cultural ends. The changes are profound, but the intellectual and macro-political worlds have not yet realised their potential.

Keywords

digital culture, democracy, politics, digitalisation

Democràcia, innovació i cultura digital

Resum

L'impacte de la digitalització i d'internet no afecta només la societat i l'economia, sinó que la política comença a patir una transformació. Al costat de moltes altres iniciatives, el Fòrum de la Cultura Digital Brasileira, celebrat al Brasil durant l'any 2009, és un exemple de com la democràcia es pot beneficiar de la innovació. Per mitjà d'una xarxa social digital, els ciutadans interactuen contínuament proposant i fiscalitzant les polítiques públiques. I aquest no n'és l'únic exemple. Al Brasil proliferen les iniciatives d'ús de la xarxa per a finalitats socials i culturals. Els canvis són profunds, però la intel·lectualitat i la macropolítica encara no han percebut el potencial d'aquests canvis.

Paraules clau

cultura digital, democràcia, política, digitalització

It is a political truism that the first one hundred days of president are decisive. Over the course of this period, a leader marks out his or her positions and announces to society his or her priorities which, given the advanced and complex nature of contemporary

democracy, are usually based on a manifesto presented during the preceding election campaign.

This was the case with Barack Obama. As a defender of the freedom of communication and distribution during the race that took him to the White House, one of his first measures was to redesign the President's web site, adopting Creative Commons

* The original version of this article in Portuguese was published in *Le Monde Diplomatique*, Brazil, in January 2010. Original title: *Democracia, inovação e cultura digital*.



Licences for all the content produced for it. Creative Commons is a flexible form of copyright management developed by the University of Stanford that allows creators to define the use of their creations on the internet. Obama thus showed that he was an innovative President, backing open and transparent government, leaving behind the dark days of the George W. Bush administration

Nevertheless, innovation is everywhere in the world of horizontal networks. Someone who really created something interesting for the first one hundred days of the Obama administration was Jim Gilliam, multimedia activist and producer of Brave New Films "protest documentaries" such as *Wal-Mart: The High Cost of Low Price*, directed by Robert Greenwald. It occurred to Gilliam that the internet could be of help in identifying the main problems of the United States. Taking advantage of the opening proposed by Obama, he created the White House 2 web site.¹ In principle, the purpose of the site was that anyone in the United States could make a list of the country's issues and give their opinion on what its main priorities should be. Gilliam's aim was to constitute a form of e-governance to offer President Obama a valuable public consultation tool. The web site was launched but was not incorporated into the president's programme of communications strategies. The initiative continues today, providing a forum where some ten thousand US citizens discuss what the priorities of their current government should be.

I mention the example of White House 2 because it is an example of a form of politics driven by the internet. Two of its features make it especially representative of the current political context: 1) White House 2 is an individual, non-party-aligned project collectivised through online interaction and debate; 2) its primary goal is to create open, transparent information that contributes to public involvement without directly interacting with the power structures of conventional representative democracy.

II

Having reached this point, we should take a short break.

At the beginning of the 1990s, it was thought that the internet would surpass the current means of electronic mass communication, seen as inefficient in that they did not facilitate dialogue, and become the perfect environment for practising democracy. Authors of differing ideological hues covered the subject of digital democracy. It was a period of great theoretical output on the matter. It was believed, for example, that the public would be able to vote on any draft bill, thereby progressing beyond the modern representative model. Added to this initial excitement was the fact that political science was also paying more attention to deliberative democracy.

In his article "*Promessas e desafios da deliberação online: traçando o panorama de um debate*" ["The promises and challenges

of online deliberation: sketching the outline of a debate'], Sivaldo Pereira states that, in addition to "temporal proximity, deliberative democracy and digital democracy also have some common underlying concerns that can be summed up in two wishes shared by both:

- 1) to reduce as far as possible the crisis of representation affecting the modern democratic system and
- 2) to use communication processes mediated to this end".

Until then, for the Left, issues such as social participation in the decision-making process and collaboration between different social players in drawing up public policy were not universally considered as positive. It is for this reason that understanding the importance of these two keys to the construction of democratic systems is a recent phenomenon and one that has become the subject of dispute between different schools of progressive thought, some of which are still stuck in a centralist planning model.

With the appearance of the internet, and thanks particularly to the possibilities for democratisation that it offers, the words *participation* and *collaboration* began to be included in the dominant vocabulary of social organisations and movements. Another word that has gained in power in this context is *transparency*. This is a concept based on the idea that every democratic system has the duty to supply the public with the greatest amount of information possible, so that they may make decisions. Without transparency, channels for participation and collaboration may be reduced to a mere artifice for neutralising disputes. However, over the last fifteen years, debate has focused more on theories and hopes than on practical action, with the exception of some pilot projects. However, everything points to this trend reversing and innovation beginning to gain ground.

Here, our short break has come to an end.

III

Understanding the digital democracy initiatives currently in progress is a good way of finding out what is at stake and how this changing environment takes shape.

Recently, Google Brazil, the Overmundo Institute and the Getúlio Vargas Foundation invited me to take part in a discussion on Digital Citizenship that gave rise to hitherto unseen understanding between activists in the field. We may not know where this confluence is taking us, but the dialogue has already been extremely enriching. The document produced by the Overmundo Institute and the Getúlio Vargas Foundation's Technology and Society Centre includes a very comprehensive guide to the most important initiatives underway in Brazil and the United States. By way of example, I will now mention

1. See: <www.whitehouse2.org>.



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some of those that appear most interesting to me. I prefer to focus on Brazilian examples as a way of highlighting our inventiveness.

The *WikiCrimes* project² is a worldwide phenomenon. It is a mashup (web application hybrid) of data and maps, in this case of crimes, which is updated on a collaborative basis with contributions both from by the user public and from public databases. The information is shown on a map, so that visitors can see where there is a greater occurrence of a particular crime. It has many uses: from helping the police and authorities to recommending the avoidance of certain types of behaviour in recognised danger zones. The project is headed by Professor Vasco Furtado, coordinator of the Fortaleza Federal University's Knowledge Engineering group. The project is entirely run from the university by the research group's students. Under Furtado's supervision, some of them have recently created the company WikiMaps, whose goal is to offer this information integration platform to those interested in creating 'social maps'.

Another outstanding project, begun only recently, is *the Transparência HackDay* ['Transparency HackDay'], which consists of meetings involving public leaders, journalists and hackers (producers of developer information). Three such meetings have been held over the last three months, two in São Paulo and one in Brasília. These exchanges of knowledge have given rise to debates, albeit ones with an eminently practical focus, whose goal is to improve democracy and public actions (be these reports of crimes, complaints or procedures). *Transparência HackDay* is organised by the company Esfera, one of the undertakings forming part of the Casa de la Cultura Digital grouping.³

Of the applications arising from this project, the most interesting and successful to date has been SACSP,⁴ which adds a map providing information on the São Paulo Citizens' Advice Service. SACSP uses data from São Paulo City Council's official web site to produce instant analyses. Initially, its success was received negatively by the municipal data processing company. Later, however, the platform's developer attended a meeting with the company which resulted in it providing funding so that the service could continue to be offered. Amongst other advantages, the service allows people to see that they are not alone in reporting crimes.

IV

Here, we should take another break for a digression.

When people speak of digital democracy, they always give the example of Barack Obama. Has the current President of the United States really been an innovator? Yes he is, without doubt. In addition to the aforementioned improvements to the White

House web site, he has launched two other important internet projects. One is Data.gov.⁵ On this site, the US government publishes information in free formats that allows the public to cross data and produce new information of interest to them.

It seems strange that Brazil's intellectuals have not seen the leading role played by the country in the digital era or understood it. Foreigners have, however. Proof of this is to be found in Clay Shirky's recent interview with Alexandre Mathias of *O Estado de S. Paulo*. Shirky, author of *Here comes everybody*, is one of the US's most famous authors. In his conversation with Mathias, he highlights Brazil's key role in the incorporation of the emerging values of digital culture. Here, he is not speaking about technology, but rather politics:

Brazil has been the first country to completely adopt a co-participation model as a tool for economic, cultural and social progress. This occurs at different levels, from the lowest –such as the *favela* funk culture, whose essence is based on co-participation– to the highest, such as the fact that President Lula says that he prefers open source solutions to the country's problems. Other countries are moving in the same direction, but none is as advanced as Brazil.

Today, Brazil has one of the world's most active and successful freeware communities. Since the very start of the Lula administration, this community has had a great influence on policy, consolidating hacker values in the heart of Brasília.

The other side of the same coin is provided by Brazilian society. Figures show that Brazil is a pioneer in the adoption of online social networks such as Orkut, Facebook and Twitter, where the second-most used language is Portuguese. Digital culture is developing through these platforms, and this has led John Perry Barlow, one of the net's first freedom activists and cofounder of the Electronic Frontier Foundation, to say that Brazil is the "ideal networked society".

Obama came to power 2008, but by 2005 the Brazilian Ministry of Culture's web site was already adopting Creative Commons licences for its content, and in 2006 all the content produced by Radiobrás, Brazil's public broadcaster, started to be distributed under this licence.

In the book *CulturaDigital.BR*, which I wrote together with Sérgio Cohn, we analysed this pioneering facet of Brazil with thinkers drawn from different ideological backgrounds and areas of expertise. Amongst them was sociologist Laymert Garcia dos Santos, author of *Politizar as Novas Tecnologias* ['Politicizing the new technologies'], who said:

2. See: <<http://wikicrimes.org>>

3. See: <www.casadaculturadigital.com.br>.

4. See: <<http://sacsp.mamulti.com>>.

5. See: <<http://www.data.gov>>.



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The greatest problem I have with Brazil is that there is great wealth and, at the same time, a lack of thinking on the potential of this culture in the reality people are living and, above all, in the new role the country is assuming in the geopolitical redistribution that is taking place after the weakening of the markets. The so-called Brazilian intelligentsia has not yet, with precious few exceptions, become aware of the clear change that is taking place, nor of the opportunities that are opening up. I believe that this is really serious from a political point of view. The difference with respect to the First World will be the possibility of winning hearts and minds with our culture, using this technology to create something different from that which the centre –i.e. the Euro-US world– has done.

Although Brazil's intelligentsia has not seen the changes, its ruling class appears to be beginning to make progress, albeit slowly. There are currently three processes underway that will determine our future:

- 1) the public policy of providing universal broadband access which President Luiz Inácio Lula da Silva has promised will be government's final measure;
- 2) changes to intellectual property legislation to incorporate the rights of users, which are today the main source of conflict between the culture emerging from the internet and the old intermediary industries of the 20th century;
- 3) the building of a civil framework, one of a rights, of internet users, proposed by the Ministry of Justice.

The combination of these three elements gives rise to a set of circumstances that could allow Brazil to respond to the social changes occurring the world over immeasurably faster than other countries.

With this, our second break has drawn to a close.

V

Many digital democracy projects, including those mentioned above, are based on still-primitive levels of interaction, using simple deliberation mechanisms where members of the public can choose between options. In other words, vote. This is the case of the digital public budget of Belo Horizonte (Minas Gerais). A pioneering initiative, this allowed the citizens of the mining capital to choose a works project to be carried out by the city council and was the first virtual plebiscite of its type in the world.

The Brazilian Digital Culture Forum's proposal, begun in June 2009 and still under development, is of another kind. Its aim is to

create a deeper interactive experience and create a collaborative tool for the drawing up of public policies.

The Brazilian state, redemocratised, has made use of a range of mechanisms to ensure that the voice of society is directly heard in the process of drawing up policies to transform the country. These mechanisms include the National Conferences, carried out in line with the Federal Pact (with municipal, state and federal stages) and serving as a structuring element for sector-wide policies. The majority of these conferences are supervised by a council responsible for ensure the implementation of the guidelines defined by society and of the reviews of proposed and developed policies.

In addition to these conferences, other participation mechanisms include public referenda (both attendance-based and virtual) public enquiries, seminars and forums.

The forums are places for collective debate, coordination, collaboration and planning, generally used for consultative purposes by the authorities, whose mission it is to bring together different players from one or more sectors of society, and can be permanent or temporary.

The Brazilian Digital Culture Forum is another social participation initiative, but one that stands out from all the rest due to its radical use of the internet as part of its methodology. In fact, this forum is completely structured around the CulturaDigital.BR platform,⁶ a social networking site that by 2009 already boasted more than 3200 users, 160 discussion groups and around 300 active blogs. In this forum, members of the public debate the issues of the digital era, openly amongst each other.

In November, during the Forum's international seminar, which made attendance-based encounters that had already been taking place virtually, documents with guidelines for the definition of digital culture policies were drawn up and handed over to the Brazilian Minister for Culture, Juca Ferreira. These documents were subsequently returned to the forum and continue to be the subject of debate.

This year, a raft of new initiatives are being drawn up, including the proposal to create a collaborative form of e-governance for digital culture by founding a council based on the CulturaDigital.BR social network, which would also be represented on the National Council for Cultural Policies.

In light of the experience of the first few months, it can be said that the main characteristic of the Brazilian Digital Culture Forum is that it is a place for expansion and not for synthesis, something that was already contemplated from its beginnings.

The repercussions of digital technology are enormous and little understood. There is thus a need to find the right interlocutors who are prepared to design policies for this time of transition, in the knowledge that they will not form part of a movement with a beginning, middle or end.

6. See: <www.culturadigital.br>.



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From the digitalization of culture to digital culture

Digital culture as a converging paradigm for technology and culture: Challenges for the culture sector

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Abstract

Digital culture is a new and complex concept. Digital advances are increasingly interacting with the world of culture and the arts, leading to a convergence of technologies, media and information and shaping communication modes. The new possibilities offered by the digital technologies—namely, global connectivity and the emergence of new networks—challenge our traditional understanding of culture and make it necessary for us to take on the board the concept of a digital culture. This article views digital culture as a new social system that determines experiences and opportunities for the citizens of today. Digital technologies and the networked environment have introduced new practices, opportunities and threats, and the culture sector needs to find appropriate ways for operating in this new reality.

Keywords

digital culture, information and communication technologies (ICTs), digital networks, convergence, cultural practices

La cultura digital, un paradigma convergent on s'uneixen la tecnologia i la cultura: reptes per al sector cultural

Resum

La cultura digital és una noció nova i complexa. Les tendències digitals d'avui s'han entremesclat cada cop més amb el món de la cultura i les arts, implicant diferents aspectes de convergència de les tecnologies culturals, de mitjans i de la informació, i influint noves formes de comunicació. Les noves possibilitats creades per les tecnologies digitals –la connectivitat global i l'aparició de noves xarxes– desafien la nostra manera tradicional d'entendre la cultura i l'estenen també a la cultura digital. Aquest article observa la cultura digital com una nova ecologia social que condiona les experiències i les oportunitats dels ciutadans d'avui, on les tecnologies digitals i l'entorn de les xarxes digitals han portat noves pràctiques, possibilitats i amenaces, en les quals el sector cultural ha de trobar els mitjans adequats per treballar.

Paraules clau

cultura digital, tecnologies de la informació i de la comunicació (TIC), xarxes digitals, convergència, pràctiques culturals



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Digital culture as a converging paradigm for technology...

Culture and communication in the information age

Today's society, often referred to as the information age, is marked by the rapid development of communication and information resources. The extent of the change is reflected in how we refer to 'revolution' rather than to 'evolution'. Buttressed by the information and communications technologies (ICTs) and the digital network infrastructure, globalization—the integration of trade, investment and financial markets in modern, increasingly interdependent societies—is based on a model of development that is based on the industrial economy. This economic model of the nineteenth and twentieth centuries focused on information and cultural production, and it relied on communications systems (telephone and telegraph, mass-circulation press, radio and TV, internet, etc), which enabled large-scale communications and information distribution that transcended the immediate local community.¹ To date, economic globalization processes have not had an impact in terms of a fairer and more equitable development of countries and regions, and rapid technological development has not yet led to any reduction in social inequalities or in the gap between rich and poor.² Hence, the discussion about the kind of society we are creating remains. Is it a democratic, pluralistic and inclusive 'knowledge society'? Or is it a commercialized 'information society' where information is a commodity? The main difference between the two is marked by the position occupied by information, knowledge and culture. Does information and knowledge consist of a common web of cultural resources created jointly and therefore to be shared? Or is it a primary commodity to be privately owned and controlled? (Uzelac, 2008).

Culture, communication and information are relatively related concepts. Don Foresta emphasizes two definitions of culture offered by Webster's dictionary (Foresta *et al.*, 1995, p.10). The first defines culture as "the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations". And the second defines culture as "the customary beliefs, social forms and material traits of a racial, religious, or social group". According to Foresta, the conceptual difference between the two definitions is that the former deals with knowledge and how it is transmitted, whereas the second refers to community-agreed values and norms that govern people's behaviour and relationships. New knowledge can influence traditional beliefs, and the extent of this influence depends on the communication systems available and in use and

on the content of these forms of communication (Foresta *et al.*, 1995, p.10).

We often think of information and communication in a technical and instrumental manner—as data and data transmission. However, information and communication are also social phenomena. Several authors describe information content as a set of information and cultural products, understanding the concept of communication in a sense broader than that of the mere transfer of messages and often emphasizing that communication refers to "a process of sharing, making common, or creating a community" (Hamelink, 2003, p.155) or to the maintenance of society over time through the representation of shared beliefs (Carey, 1992). According to Pasquali (2003, p. 198), the words *communication* and *information* always refer to the essence of community and human relationships. For Hamelink (2003, p. 124) information content is a set of cultural products, with information forming part of the cultural fabric of a society. An important aspect of this dimension is that of sharing knowledge and protecting cultural identity. The centrality of information to culture is evident in the characteristics of information, which Benkler (2006, p.36.) described as a 'non-rival good', meaning that its "consumption by one person does not diminish its availability for use by any other person". In other words, in its own production process, information is both input and output. Information is not used up but preserved in communications with others. These characteristics lead us to understand culture and information as goods that are inherently public. Like language, the expression of culture is a sign system for communication, in which people, through common cultural codes, build their own understanding of their environment and create shared meanings. Thus, when we refer to culture, we implicitly refer to communication. As Foresta says, "culture is a memory, collective memory, dependent on communication for its creation, extension, evolution and preservation" (Foresta *et al.*, 1995, p. 19).

Digital culture: between culture and technology

Cultural knowledge has always been communicated and therefore preserved by our cultural communication structures. The technologies available have always been an important element in enabling and facilitating the processes of creating, sharing and preserving our cultural memory. "Without recording technologies of some kind (tablets, paper, wax, movable print, analogue and digital electronics and so forth), the cultures we all inhabit would not exist"

1. This industrial information economy is based on science, software, financial services, accountancy and the media, film and music sectors (Benkler, 2006).
2. Income differences worldwide are growing and this affects the opportunities available to people in different societies. According to Boyd-Barret (2004), in 1997, the richest 20% of the world population accounted for 86% of world GDP, 82% of exports, 68% of foreign direct investment, 74% of telephone lines and 91% of internet users; in contrast, the poorest 20% of the world population represented 1% of world GDP, 1% of exports, 1% of foreign direct investment, 1.5% of telephone lines and less than 1% of internet users. A decade on, no major changes have been detected in these trends.



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(Lister *et al.*, 2009). The impact of the communication technologies on culture is significant because the way we use them can effect changes in the very essence of our cultural and communication models. For this reason, technologies associated with information and communication tools cannot be considered as passive instruments, but as interactive systems that radically change our cognitive abilities (Dasca, 2006). We distinguish cultural epochs according to the communication technology used. In *oral culture*, knowledge transfer could only occur in direct communication. In *written culture* certain types of knowledge or the memory of a particular person could be preserved and written messages could be sent through space and be recorded (and preserved) for the future. The *press and broadcasting culture* enabled the mass distribution of messages from centralized sources. Nowadays we can refer to concepts such as *digital culture*, internet and its participatory nature, convergence, ambient intelligence, etc.

Although the idea that technology has an impact on different aspects of our culture may seem oversimplified and highly deterministic, the premise is not entirely incorrect. Technology does not affect society in a linear way; rather, in combination with many other elements, it creates conditions of possibility that suggest rather than determine possible futures (Hawk *et al.*, 2008). It could be said that all technologies intervene in the human environment and modify it to some extent, thereby changing, more or less radically, the conditions of existence of different cultures and permitting certain practices to be rendered obsolete while placing other previously impossible practices within our reach. The changes that have occurred in modern societies are partly related to the introduction of ICTs in our lives. We live entirely in a digital environment and digital technologies are present in all aspects of our lives. We use digital technologies, in fact, almost unconsciously. They are present in all areas of business and underlie financial transactions. They are also present in the media and cultural production, often distributed digitally. Charlie Gere suggests that the sheer extent of the presence of digital technology in our lives indicates the existence of a digital culture. Gere states that digitization can be considered a marker of culture because it includes artifacts and systems of meaning and communication which clearly demarcate contemporary lifestyles (Gere, 2002, p.12). This would indicate that technology is not on the margins of an analysis of culture but is, in fact, central. Increasingly complex technological environments are beginning to shape a dialogue with all cultural production actors. The complex technologies that we use today cannot be considered as mere

tools that assist us in overcoming certain limitations, but must be understood as all-encompassing environments.

Today, virtual space forms part of our experience and also of our 'geography'. It has introduced a number of new concepts and has displaced what were previously stable boundaries—and we have had no choice but to learn to deal with the new reality. We have learned what the new media are (Manovich, 2001) and what it means to be virtual (Lévy, 2001). *Digital culture*, *virtual culture*, *electronic culture*, etc are relatively new terms, yet they are now widely used in the scientific and popular literature. Researchers from different disciplines have examined the impact of these new media on different social aspects of the virtual and real spheres. Although the real and virtual spheres are interrelated, because both frame our experience, they tend to be clearly defined. However, as digital technologies continue to move towards miniaturization and to incorporate ICT-based elements in our environment,³ the boundaries are becoming less clear. Another change is also taking place: our experience with digital technologies is shifting from the virtual foreground to a material background, leading virtuality to take on the meaning of a tacit aspect of material reality (Hawk *et al.*, 2008). What this means is that reality too has been transformed into an information space and, in this space, material objects have become media objects, given that they can potentially be information that flows through global networks. Terms such as *ambient intelligence*, *ubiquitous computing* and the *internet of things* have recently entered discussions on digital culture, indicating that culture and digital culture evolve and increasingly interact as they frame our experiences, which are increasingly close to one other. In these new conditions imposed by convergence processes, the culture sector is seeking a new *modus operandi* which, like digital literacy culture, will enable changes to be foregrounded.

Convergence, connectedness and user status: challenges for the culture sector

Digital technologies, in combination with the internet-distributed network infrastructure, have led to extensive changes in all aspects of our lives and work.⁴ The moderate price of computers and network connections has led to a reduction in production and distribution costs and to the availability of new communication and delivery channels. Virtual space is defined by different charac-

3. Global positioning systems, radio frequency identification technologies and mobile telephones are just some examples of this change, whereby a layer of information is inserted in our material world.

4. The rapid growth of the internet in terms of users and the availability of information and services indicates the importance of the activities that unfold in the virtual domain. According to www.internetworldstats.com (data accessed: 30 June 2009), there are around 1,670 million internet users in the world, equivalent to around 25% of the world population and user growth for the period 2000-2009 was 362.3%. Such rapid growth implies very rapid changes and it is no easy matter to evaluate past trends or predict future ones.



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teristics from real space and has fewer limitations. Digitization has facilitated the process of media convergence. Once the (previously separate) media, telecommunications and information technology industries could, through a single digital technology, do things that previously needed different analogue tools, the constraints they faced in their activities in the real world changed. What this means is that convergence is more than just a change in technology, given that it affects the changes that shape relationships in society. Jenkins (2006, p. 17) points to the fact that “convergence alters relationships between existing technologies, industries, markets, genres and audiences”. It alters the logic by which media industries operate and also the logic by which media consumers process news and entertainment.

Convergence has facilitated a number of different economic and social processes. Having removed the physical boundaries between different media in the digital environment, cultural and media industries have ensured a steady flow of content between different platforms and in such a way that the fusion makes sense economically. There is a growing trend towards concentration of media ownership in today’s society. Cultural and media industries exert a powerful influence in many public spheres and this tends to shape popular reality —although with a “deliberate focus to sell audiences as target demographics to advertisers” according to Deuze (2007). The digital environment, moreover, enables or facilitates user participation in the digital sphere. According to Deuze (2007, p. 247), “the same communication technologies that enable interactivity and participation are wielded to foster the entrenchment and growth of a global corporate media system that can be said to be anything but transparent, interactive or participatory”. This situation can also be interpreted in the reverse sense: digital networks provide alternative platforms for communication and this changes the position of the traditional mass media and moderates their power. With the vast amount of information available nowadays on the internet, the interested user can locate information in Google on any number of perspectives on any subject. Such information comes from many sources, including traditional media, the commercial sector, NGOs, the research community, cultural and educational sectors, etc.

This diversity of information and perspectives is a product of what Benkler (2006) calls the *networked information economy*, in which production and exchange by groups play an important role. Benkler suggests that one of the most important implications for the networked information economy is the change experienced in going from a public sphere with mass communication to a networked public sphere where many more people can communicate their views and their comments with others. This implies an improvement in the practical skills of people operating in the digital networked environment. Anyone can participate and express criticisms and concerns in active discussions, develop and publish information in their own blogs and websites and contribute to large-scale group production projects like Wikipedia. This situation

also changes the position of the culture sector. In the explosion of information available in the digital networked environment and the communications that take place there, culture information can be obtained from many different sources (amateur or expert) and cultural organizations have found themselves in the situation of having to compete for the attention of users and having to take into account changes in their habits and expectations.

Users have begun to use the ready-to-use tools available to them in different ways and this has led to new practices. The digital culture is a participatory culture in which users not only consume information but also contribute information in different ways. This change has recently become especially visible in web 2.0 and social applications. Blogs, wikis, social networking sites, photo- and video-sharing websites and peer-to-peer networking services are very popular examples of this trend. These platforms offer powerful participatory networking spaces for (re)constructing social life, with social, political and cultural motivations taking precedence over others based on the market. According to Benkler, in the networked information economy, community-based rather than market-based group production plays a greater role than in the industrial information economy; the conditions for producing information are vast and enable a new way of organizing production that is “radically decentralized, collaborative, and nonproprietary”, based as it is on “sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands” (Benkler, 2006, p.60).

This social production represents a new source of competition for cultural industries in terms of the creation of information goods. It is important for the culture sector to understand the new context in which users are both competitors and co-creators of cultural information. Full understanding of the opportunities presented by social production would contribute to the establishment of mutually reinforcing relationships in the culture sector, given that social production is creating new sources of inputs, new expectations, habits and tastes and new production opportunities. As Benkler argues, consumers are users and, as such, they are more active and productive than consumers in the industrial information economy (Benkler, 2006, p.126). In this context, culture professionals are in a situation in which they more or less share control with users, but must find appropriate ways to adapt their working practices and redefine their activities.

Digital networks: communication and cooperation tools for culture professionals

We all work in networked conditions nowadays, we all use the internet and we are all members of cultural networks. The current



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internet culture is a dominant culture and social mobilization is easily achieved using network tools. Artists, researchers and culture professionals are drawn to the paradigm of networks, but we need to ask what happens when networks become the driving force behind our daily activities. What collaboration tools are appropriate for use by the culture sector? Can networks provide a space for sustainable knowledge exchange and production?

The impact of the digital technologies has been such that it has had a transforming effect on all aspects of culture, both online and offline. The landscape is constantly changing and it has to be clear what we want to do and for whom. In many respects, the culture sector is still at the outset of a journey in which it will learn to exploit and use these technologies. Meanwhile, it cannot afford to be left on the margins if it wants to keep in touch with its users. Paul Graham, in his article on post-medium publishing,⁵ comments on the changes that have led to the development of a digital culture, stating: "When you see something that's taking advantage of new technology to give people something they want that they couldn't have before, you're probably looking at a winner. And when you see something that's merely reacting to new technology in an attempt to preserve some existing source of revenue, you're probably looking at a loser". For this reason, it is important for the culture sector to understand both the potential of networks and user motivations and interests.

The culture sector safeguards and transmits our cultural memory recorded in different forms (as literature, art, music, etc). To keep this memory alive and ensure that it is not forgotten, it must be communicated to the public and the public should be able to take this content and use the associated references in communication and creation processes. A fundamental aspect of our cultural memory is access to culture. We need to be aware that access routes and participation modes are constantly changing and that the culture sector needs to be able to take advantage of the new opportunities offered by the digital networks. While traditional cultural institutions are important in providing access to cultural services, we need to recognize and support new ways of approaching the public participating in cultural experiences in an online environment (and mainly outside the virtual resources offered by the culture sector). It is clear that new practices are emerging from among the possibilities offered by digital networks. The culture sector cannot ignore the changes that are taking place. Users have changed their habits, expectations and practices; so too must cultural institutions adapt to networked operations.

Exploiting the digital network environment to reach the public does not mean merely announcing cultural events online, but improving cultural experiences outside the network and disseminating cultural content through the various formats used in the

internet. An innovative example of how cultural heritage institutions have placed their photographic collections in the virtual domain is The Commons,⁶ launched on the Flickr photo-sharing site in 2008. By allowing people to interact with and add value to collections, people and experiences are being linked up through cultural content available online. Enabling individuals to cross the threshold of a library or institution gives them the right to access to The Commons on Flickr as they see fit: they can browse content, add tags and comments, restore photos and share and discuss favourite content over other networks. Wealth, provided it is not locked away in the archives of cultural institutions, is generated by enhancing the visibility of original collections.

It may not seem such a big deal for a cultural institution to make its photographic collections available in a photo-sharing site and to allow users to add tags or comments and to share content. Nonetheless, many cultural institutions still face difficulties in allowing users to interact with their collections and share their experiences with others. Sharism has emerged as a new phenomenon that responds to the new opportunities offered by the networked environment. Social networking combined with mobile technologies has had a major impact on how information is exchanged and how knowledge is constructed. Cultural content needs to be part of this process if it is to adapt to the reality described by Foresta (cited above): "Culture is a memory, collective memory, dependent on communication for its creation, extension, evolution and preservation". The culture sector needs to transfer content to where people are online—whether in social networking sites, photo- and video-sharing sites, etc—and to seize the opportunities arising in the context of digital networks. This does not imply abandoning the institutional website, but extending reach by using networks and recognizing that the impact potential of an online network is greater than the impact of any single node in a network (Barabási, 2003). Cultural institutions should not wait for users to visit institutional websites but should attract the user's attention in the sites they already visit.

Conclusion

Digital networks are posing new challenges, by enabling easy information exchange and cooperation and by obliging compliance with more compressed control systems for accessing information and cultural goods. New practices are emerging in the digital context and today's digital culture not only frames our experience of the world around us but also gives us a complex set of tools with which to organize new ways for inter-relating information and local and global culture; in other words, technol-

5. See P. Graham (2009).

6. See: <www.flickr.com/commons/>.



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ogy not only provides tools but also defines the environment in which we live. Ignoring this context switch is likely to distance the culture sector from users who continue to break new ground in terms of practices, expectations and habits. Digital networks have created conditions of possibility which suggests possible futures. The future of cultural development will be determined by the purpose for which digital culture is used: either to facilitate intercultural communication and create knowledge resources to which everyone can contribute and exchange, or to implement market-based and for-profit activities that tighten control over knowledge and information. The new context offers new opportunities for culture while providing users with the opportunity to become active citizens rather than consumers.

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