



Editorial

Scientific Community on Digital Society

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Digital Cultures

Our field of research deals with the interaction between CULTURAL ELABORATION AND REAL PROCESSES. We know how to use a continuous idea that is seamlessly in line with both the recent past and the prevailing dynamics that historically characterize our present society (i.e. the European society). On the contrary, we can use an idea of rupture that emphasizes profound changes: a real change of civilizations, an irreversible, general turning point, an unquestionable revolution with new players and new leading forces.

DigitCult aims to define the field of digital cultures by facing the key categories that are widespread today while still maintaining a close link between cultural elaboration and real processes, between specialist research and the spreading of relevant information.

Our purpose: RE-BUILD A MAP and A CONSTELLATION OF MEANINGS AND BELIEFS IN A PROCESS OF SHARING AND CULTURAL AND SCIENTIFIC COOPERATION.

We match: forms of self-representation with the role of a scientific community (that we would like to be).

This means starting an in-depth debate that is able to distinguish and interpret the circulation of information and ideas from real, visible, or latent processes. Distinguishing stands for ensuring that extra-scientific components do not prevail over scientific ones: the market, finances and digital communication can obscure the scientific and cultural origins of existing processes and endanger the modern structures devoted to these tasks (school, university, research, intellectual élites). A crucial transition is the crossroads between digitized information and digitized media (big media and on-hand media).

DigitCult sets out to counter this trend and to re-enable the role of scientific knowledge concerning values such as common and shared intelligence, based on research and cultural elaboration.

The digital field is the research horizon for both the systemic analysis involving society, economy, rights as well as the core analysis of personal behaviours and new *social relationships that are being multiplied in a disorderly manner*.

Science and Scientific Community

Paradigm Shift

Kuhn shows how every scientific revolution has been marked by a new language, a paradigm shift. In *The Structure of Scientific Revolutions* (1962), he explains what he means by the term paradigm:

«Attempting to discover the source of that difference led me to recognize the role in scientific research of what I have since called “paradigms”. These I take to be universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners». (Kuhn 1962)

A paradigm is a composite structure made up by beliefs (ideologies, opinions) as well as scientific models. It is a set of principles, cultural and scientific conceptions, methodological proceedings, and methods of communication which influences and activates the “scientific community” of a given era. A paradigm is closely related to extra-scientific factors, such as social and psychological.

DigitCult sets out to be A SCIENTIFIC COMMUNITY and to be part of a network of recognized scientific communities. We intend to verify if the core of digital culture has the power to create an extraordinary scientific community – an innovative one, according to Kuhn – and thus be the framework of a paradigm shift. We are suggesting not a means to defend digital technology, but rather a cultural elaboration that springs from existing processes and competes with them. We propose a critical and self-governing viewpoint that analyses the origins and the formation of a worldwide field that is dominated by the rapid spreading of digital technologies.

These processes have been defined as globalization, but globalization in itself does not have a true scientific revolution behind it, or if it did, it has betrayed it by letting power and/or market interests prevail over it and it has portrayed a false image of an equal and enriched world with the free circulation of capital ideas and opportunities for mankind. On the contrary, the contradictions of this vision are evident today: the world is not as flat and equal as it may have appeared.

Examples

The number of Internet users worldwide has more than tripled over the past decade (2005-2015), from 1 billion to over 3.2 billion. 4.2 billion people worldwide are still without Internet. According to the latest World Bank report, being connected still remains an asset reserved for the more well-off, but...

Seven out of ten families of the poorest 20 percent of the population on the globe has a mobile phone. "For these families it is easier to have a mobile phone at their disposal than a toilet or clean water" said Jim Yong Kim, President of the World Bank.

A post of Mark Zuckerberg on August 24, 2015 announces: Facebook record, 1 billion people in one day. "1 in 7 people on Earth used Facebook to connect with their friends and family today." [...] "This is just the beginning of connecting the whole world." [...] "A more open and connected world is a better world." – he writes – "It brings a stronger economy with more opportunities, and a stronger society that reflects everyone's values." ¹ And then "one of the greatest challenges of our generation" is to connect the next 5 billion people.

But Bill Gates objects to Mark: "THE INTERNET BY ITSELF IS NOT GOING TO SAVE THE WORLD"²

"What is more important, global connectivity or finding a vaccination for malaria?" Gates ironically asks the journalist Richard Waters (Financial Times) – "If you think connectivity is the key thing, that's great. I don't." – and carries on – "I certainly love the IT thing, but when we want to improve lives, you've got to deal with more basic things like child survival, child nutrition".

Internet economy and economy of individuals and peoples:

"3.6 billion people – half of the world's population – have had their wealth reduced by a trillion dollars since 2010: a drop of 41%, despite the fact that the global population has increased by around 400 million people during that same period.

The wealth of the richest 62% has instead increased by more than 500 billion dollars, up to a total of 1.760 billion dollars. The report also shows how women are often disproportionately affected by inequality (even among the richest 62%, only nine are women)."³

Oxfam reports that this gap between the richest and the rest "has widened dramatically in the past 12 months", so much so that the prediction that **"the 1% would own more than the remaining 99% by 2016"** came true a year earlier than expected. Even in Italy,

"the data on the national wealth distribution of 2015 show how **the richest 1% of Italians owns 23.4%** of the net national wealth, a share that in absolute value is equal to 39 times the wealth of the poorest 20%."

If the paradigm shift consists in the fact that digital technology is a force that is reshaping the present society, we must consider that "reshaping" is not neutral word. It can mean the destruction of resources or new opportunities, global spreading of information or control over districts without any opposition.

¹ Mark Zuckerberg's post is available at the following URL:

<https://www.facebook.com/zuck/posts/10102329188394581>, Accessed May 10, 2016

² Waters, Richard. "An Exclusive Interview with Bill Gates", Financial Times, November 1, 2013 available at <http://www.ft.com/cms/s/2/dacd1f84-41bf-11e3-b064-00144feabdc0.html>, Accessed May 09, 2016

³ Oxfam Briefing Paper is available at the following URL:

https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp210-economy-one-percent-tax-havens-180116-en_0.pdf. Accessed May 10, 2016.

Scientific Approach and Biases

The scientific approach in the digital society needs circulation; it lives inside the media and the networks of connections (global and personal) but it can and must express an independent point of view.

Biases were widespread consensus, often representing views with a low scientific value; in the twentieth century, the common opinion depended on the character of mass communications governed by advertisements that aimed to create equal opinions so as to ease the purchase of series products. Today a bias is made up by the circulation of a name (*brand*) and by behaviours and habits coming out of the scientific world or experimental laboratories and that increasingly enter in the daily life of a large number of people all over the world. Thus the category (or myth) of the absolute value of CIRCULATION assumes a great relevance.

We can distinguish between spreading (from the centre across the media, towards the recipients, a typical movement of mass communications) and circulation (participated and allusive to a dissemination that does not necessarily have at its centre authority, and therefore control). In this vision, a profound and disruptive value is entrusted to culture and technology, which are at the foundation of Internet. It is a paradigm shift. The technology of the web maintains its original “equal” spirit throughout the various steps. However, the limitation of this approach is the automatic reduction of the future to the only positive attributes of circulation. The dynamics of what is latent remain in the shadows; a flat vision generated by the optimism of the quasi-biological positivity of circulation ends up prevailing. Instead, we are surrounded by telluric landscapes with underground tenacity and then eruptions of unknown worlds (individual and people’s instincts, passions, emotions, expressions). In the following we present some examples.

Example 1. Turing: The Imitation Game

When Turing asks himself the fundamental question: “Can machines think?”, to avoid the risk of having to accept Gallup poll results (!!), and therefore admit the triumph of the bias, he chooses the outflanking strategy.

“I propose to consider the question “Can machines think?” This should begin with definitions of the meaning of the terms “machine” and “think.” The definitions might be framed so as to reflect so far as possible the **normal** use of the words, but this attitude is dangerous. If the meaning of the words “machine” and “think” are to be found by examining **how they are commonly used** it is difficult to escape the conclusion that the meaning and the answer to the question “Can machines think?” is to be sought in a **statistical survey such as a Gallup poll**. But this is **absurd**. Instead of attempting such a definition I **shall replace** the question by another, which is closely related to it and is expressed in relatively unambiguous words. The new form of the problem can be described in terms of a game which we call the “imitation game⁴” (Turing 1950, 433)

Example 2. Bourdieu: Public Opinion Does Not Exist

The public sphere, according to Bourdieu (Bourdieu 1979), cannot be reduced to the visibility (Thompson 1995) determined by polls and percentages, and based on a sample of citizens who accepts it. This creates a field not made of human relationships but one that is increasingly characterized by the dynamics of mass media and the combination of it with communication technologies and networks.

Bourdieu, on the contrary, endorses the role of «interested minorities»: the more interest people may have about a certain issue (i.e., the closer the issue hits to home), the more opinions there will be about that issue.

Bourdieu chooses the argumentative strategy of presenting three hypotheses (in order to negate them and prove their groundlessness).

Can a scientific community be considered an interested minority?

⁴ In this way Turing introduces *Game theory* to the scientific field.

Example 3. If It Doesn't Spread, It's Dead

This is a slogan that intends to mark the transition from the SOCIETY OF MASS COMMUNICATIONS to the DIGITAL SOCIETY, but it instead represents the shifting towards the myth of circulation and spreadability.

"If it doesn't spread, it's dead"!!! is a hard statement because it puts the entire value of something onto an immaterial entrustment that, however, is still not efficient within a material economy. Spreadability is the quality that Jenkins attributes to the contents that are predominantly circulating on the web (Jenkins, Ford, Green 2013). Public and private are mixed together, as well as private and common interests and values on a unique surface.

Mythology of the Algorithm

Polls present ideas as data: opinions are data, so they can be treated as data. The mechanism of polls uses models of information data processing and depends on the build-up of large databases of information data. Data are the database cells – according to the database logic of Manovich (2001) – but ideas are **products** of human beings that are connected to each other and belong to one of the crucial fields for democracy and the rights of citizenship.

The fortune and the spreading of algorithm logic is an example of permeability between scientific processing and dissemination of biases: algorithm practice is also related to the manufacturing of widespread stereotypes. Digital **information** is crucial in molding the opinions that are spread by media that in turn can manipulate and submerge the real nature of the information datum and the distinct conditions used in its production: the information datum is itself a product as well. FLAT DATA generate a flat representation of reality because it can be spread easily, without resistance, and can be global.

NETWORKS OF NUMBERS AND NETWORKS OF PEOPLE are created, but PEOPLE CAN BE TRANSFORMED IN NUMBERS, NUMBERS CANNOT BE TRANSFORMED IN PEOPLE.

The algorithm is directly entailed (often in an opaque way) to constitute a form of digital intellect founded on sharing and collaboration.

Today, we can ask ourselves what holds a scientific community together and – for us at DigitCult – what role collaborative networks, public and private connection systems, can take on. Our idea of scientific community and community of culture is founded on data sharing and mutual collaboration, determined by connections, networks and their underlying technologies, but we consider equally important the direct interaction among the participants of the project and with the audience to which DigitCult is addressed.

Examples

Wikipedia arises as a cultural community based on digital technologies, symbol of a new digital culture founded on the spreading of "equal" and "transparent" information and contacts that refer to the entire digital population. Wikipedia, according to Federico Cairo, is founded on a "semantic deal":

"The Wikipedia system is the result of a "semantic agreement" of Internet users that give a unique concept to each entry." (Cairo 2013)

The community of Wikipedia carefully takes into account the issues concerning the disambiguation of entries, because they are one of the main prerequisites for its operation.

The proper features of Wikipedia, its origins and its current configuration draw a line of separation between the development of communities at the time of mass media and the communities founded on networks, on connections and digital technologies. The collaboration in Wikipedia recalls an idea of the Nineties of the last century. This idea is based on the positive value of collective intelligence and collaborative intelligence. According to Cairo, it is even more important that the semantics of the entries of Wikipedia is not an order carried out from above, but it rather springs from the spontaneous desire of non-professionals or experts. The Internet users themselves **agree** with each other on the meanings of the concepts they use on the Internet. The compliance of Wikipedia with the real world is of secondary importance; the web

universe could be completely self-referential, but Wikipedia is in any case the most eligible tool for the systematization of the knowledge contained in it, which culturally establishes a self-sufficient and independent digital republic. The semantic deal is a model for building forms of high value consensus scientific knowledge based on some ideological assumptions determined by technology and the digital culture. And this area is definitely innovative for collaborators and users.

In 2002, Yochai Benkler in *Coase's Penguin, or Linux and The Nature of the Firm* indicates Wikipedia as a collaborative culture model and defines it as a “common-based peer production.” (Benkler 2002)

James Surowiecki considers the Google search engine as a case of collective intelligence (Surowiecki 2004). Google is based on an algorithm called PageRank and, according to Surowiecki, the results of this algorithm come from the collective intelligence of the web, which operates in the background to make certain pages emerge while hiding others. The algorithm has the power to reveal a form of intelligence that would otherwise remain unexpressed. The objective of Surowiecki is the negation of the interactional and communicative component of collective intelligence.

On the contrary, many researchers argue that collaboration, and especially cooperation, can only be expressed through an explicit contact, a public dialogue and by sharing resources and results expressed in a community form by citizens. Collective intelligence and collaborative intelligence are closely related. According to Pierre Lévy, collective intelligence

“is a form of universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills. I'll add the following indispensable characteristic to this definition: The basis and goal of collective intelligence is mutual recognition and enrichment of individuals rather than the cult of fetishized or hypostatized communities.” (Lévy 1997, 13)

Thus, collaborative culture means a set of assumptions, values, meanings and actions that pertain to working together in a community. Communities based on a principle of collaboration have low entry barriers and a weak hierarchical structure: therefore, they favour horizontal relationships among individual members, peer exchanges and sharing of meanings, experiences and skills. The collaborative culture is a crucial element for the establishment of scientific communities in the digital society.

Technological Revolution

Different categories and expressions have been used for representing THE DIGITAL AS A FRONTIER OR A NEW FRONTIER. One of the most common ones is that of the technological revolution or digital revolution, but **to what extent can the current idea of technological revolution be considered scientific?** It is simply a bias if the decisive forces, players, and individuals characterizing it are not identified!

Our Point of View

The centrality of digital technologies is a paradigm shift that removes the material and intellectual foundations of the old paradigm. Ordinary science and the scientific community have proved to be powerless or one-sided in its mission and, above all, have not been able to develop visions that included “revolutions” beyond the traditional way of thinking, and therefore extract forces of renewal and destruction – both globally and locally – by this “otherness”.

The Consequences

A common and scientifically founded vision is missing. The current driving forces are external to élites and scientific communities and impose aggressive policies which aim to disintermediate roles and recognized social functions, including the marginalization of the scientific and cultural élites themselves (the end of the European “model” created during the Enlightenment; the end of the primacy of the best or of the scholars).

New and inconceivable scenarios that elude all known paradigms are in front of us. The technological revolution is an earthquake wiping out cultures and societies without making room for the emergence of new cultural paradigms. This technological revolution has no cultural elaboration; it is dominated by conflict: technology versus culture. A radical problem of identity and cultural and social cohesion is therefore opening up.

The search of a new paradigm (cultural elaboration in comparison with real processes) that includes the role of digital technologies at the foundation of the establishment of the twenty-first century society: this is our ambitious task.

Examples

The Technological Revolution as a Revolution of Civilizations: The Birth of a New Era.

Manuel Castells, *The Information Age trilogy*, 1996-1998 – The technological revolution reshapes the material basis of society through information technologies.

Jeremy Rifkin, *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-Market Era*, 1995.

Jeremy Rifkin, *The Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-For Experience*, 2000 – L'era dell'accesso, La rivoluzione della new economy is the title of the Italian edition published by Oscar Mondadori (2000). The intellectual capital is the driving force. In the era of new economy, ideas, concepts, and images – not things – are the fundamental elements of value. In the new network economy, it is more likely that access to physical and intellectual property will be negotiated rather than exchanged.

Jeremy Rifkin, *How the Third Industrial Revolution Will Create a Green Economy*, The Huffington Post 10/20/2015 | Updated Nov 10, 2015

Digital Rights, the Right to Information

Cognitive Revolution

Sebastiano Bagnara, *Centralità dell'interfaccia: la rivoluzione cognitiva*, 2005 - A revolution that sees the strong "overtaking" of computing over mechanics (Bagnara 2005).

The Technological Revolution as a Revolution of Civilizations

Eric Alfred Havelock, *The Literate Revolution in Greece and its Cultural Consequences*, 1981.

Eric Alfred Havelock, *The Muse Learns to Write: Reflections on Orality and Literacy from Antiquity to the Present*, 1986.

Walter Ong, *Orality and Literacy: The Technologizing of the Word*, 1982.

Jack Goody, *The Domestication of the savage mind*, 1977.

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Among the historians: Elizabeth Eisenstein, *The Printing Press as an Agent of Change*, 1979 – Eisenstein's book lays out her thoughts on the "Unacknowledged Revolution," her name for the revolution that occurred after the invention of print. Print media allowed the general public to have access to books and knowledge that had not been available to them before; this led to the growth of public knowledge and individual thought.

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And before everyone else... Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man*, 1962 - "Technological environments are not merely passive containers of people but are active processes that reshape people and other technologies alike."

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