

## 4. PIERRE LEVY ARTICLE

### THE 21st CENTURY PUBLIC SPHERE PIERRE LÉVY<sup>45</sup>

#### Digital media

21st Century digital media is characterized by the possibility for public expression, interconnection without borders and access to information without precedent in the history of humanity. This media has come to replace and absorb the old media system structured by on paper editing, cinema, newspapers, radio and television. At the start of 2000s, it seemed to me that the growth of digital media would result in a radical transformation of the public sphere, which would have profound and long lasting political<sup>46</sup> consequences. In 1999, a group of activists organized themselves online in a flexible and decentralized manner to protest against the WTO and the IMF in Seattle. Even better, thanks to the techno-social tool Indymedia<sup>47</sup>, they reported their actions in real time and on a worldwide scale without going through traditional unidirectional media. The victorious Obama campaign in 2008 made full use of digital media in relation to public opinion. Wikileaks and its kind became major players in the political and diplomatic game. The Arab revolts of 2010-2011 were organized online via Facebook and Twitter and their protagonists had smartphones in hand to transmit events in real time. Isolated in my cabin in Canada, everyday I read the titles of dozens of newspapers and blogs from all over the world, and each day, I receive hundreds of tweets informing me on my favorite topics.

Before discussing the consequences of the new public sphere outbreak for political thinking, which is the principal objective of this article, I would like to briefly mention its determinant techniques and demographics. At a technological level, I treat as established the existence of personal computers, Internet, the Web and search engines, which all date back to the last century. In the 21st century, after the “bubble” burst in 2000, digital media became successively enriched with Wikipedia and Wikis (2001), the blogosphere and its fluorescence of personal and topic expressions (from 2002 onwards), Delicious and other social bookmarking instruments (2003), Facebook and Flickr (2004), YouTube (2005), Twitter (in 2006) and a multitude of other social media. During the same period, wireless and portable access to digital media multiplied. Cloud computing became generalized: hardware, application software and data used by websurfers are located remotely in enormous data centers. Finally, the virtual channels of the APIs<sup>48</sup> interlinked the heterogeneous platforms and databases on the web. Meanwhile, in a demographic plane, the connecting rate in rich countries now tends to exceed 80% of the population and the new middle class in emerging countries is embracing the network. In 2011, 65% of websurfers are neither European nor American. The population connected in their homes around the world exceeded two billion, growing by around 500% since the start of the century.<sup>49</sup>

45- Holder of the Canadian Research Chair in the University of Ottawa, member of the Royal Society of Canada.

46- See my book *Cyberdemocracy* (Cyberdémocratie), published by Odile Jacob in 2002. I relate two relevant treatments of this mutation of the public sphere: *Smart Mobs*, by Howard Rheingold, Basic Books, 2002) and *Communication Power* by Manuel Castells (Oxford University Press, 2009).

47- <http://www.indymedia.org>

48- Application programming interfaces. See : <http://pt.wikipedia.org/wiki/API> and in French: <http://www.internetactu.net/2011/06/21/comprendre-facebook-33-linternet-des-api-le-web-des-applications/>

49- Source: <http://www.internetworldstats.com>

## The new freedom of expression, listening and association

Digital media extends or democratizes freedom of expression, in at least three forms: economic, technical and institutional. Economic, because you can publish text, images, software and data in general to a potentially global audience at very little or no cost. Technical, because the use of digital communication tools practically does not require programming skills or HTML formatting. Institutional, finally, since publication no longer goes through editorial revision, proofing, producers and other channel directors who control the older media. The result of this is a gradual loss in the traditional mediators' monopoly of information and culture, which, obviously, does not mean their influence has ended!

No less important than this expansion of freedom is the freedom to hear. The citizen now has the means with a little effort to precisely select his/her sources of information, based on an incredible array of offers, and this, in almost any part of the world, escapes the censorship of dictatorships. This selectivity can be both at the service of an analysis of the diverse points of view, or concentrated exclusively. Apart from this, the online availability of encyclopedias, thematic dossiers, scientific sites and archives allows for the contextualization of news and the addition of an intellectual dimension to instant news. The websurfer now has access to all the news agency services, as well as to the direct expression of news commentators and protagonists, which leaves traditional journalists with few objective privileges.

It is not merely the distinctions between press, radio and TV that are fading (due to the “multimedia” nature of digital media). The sites of the classic media are becoming mixed and gradually interconnecting to the blogosphere and to social media in order to participate in the digital ecosystem. The applications (the famous apps) for smartphones and tablets, redistributions through the multiple interpersonal channels of Facebook and Twitter, the metadata (tags, hashtags, etc.) added by websurfers to received information all these phenomena contribute to building a ubiquitous, hyper-complex and fractal media that each one, whether they like it or not, helps to sculpt, guide and use in the way they see fit.

As digital media is an ecosystem, we are now obliged to know how to distinguish between the concepts of source and media. On the unidirectional media scene, the two concepts were almost equivalent: a newspaper or television broadcaster represented a communication channel and an information source at the same time. This is obviously no longer true for digital media in general or for diverse social media. For example, "Twitter is not a reliable source of information" is not an affirmation that makes much sense. In truth, the good part about communicating through Twitter is connecting to reliable and interesting sources (in themselves) and filtering redundant or false sources from your news flow. Neither Twitter (or any other personal social media) or digital media, in general, are sources. These are the channels through which we can connect ourselves to the sources of our choice. The sources, however, are individuals or institutions (political, scientific, news agencies, collectives publishing opinion blogs, etc.) where the users are asked to trust, or not...and they can express themselves through a large number of channels.

Conditioned by digital media, the 21st Century public space is characterized, however, not only by a greater freedom of expression, but also by a new opportunity to choose information sources, as well as by a new freedom of association in the bosom of communities, public relations graphs or creative conversations that flower on the Network.

## Literacy teaching for the collective intelligence

Active and responsible participation in the 21st Century public sphere is more complex and requires more refined skills than participation in the old public sphere molded by unidirectional media. Just as the reading of newspapers and books presupposes literacy in the population, we must now consider literacy for collective intelligence in digital media. Of course, it can seem quite difficult. But what would the scribes of the Egyptian pharaohs have thought if they were informed that "in the future, there will be a state of human civilization and human development where 85% of the population of a country will know how to read and write." They would probably have considered it impossible! However, historical experience proves that the skill of reading and writing is not necessarily restricted to a select group of experts. Therefore, as analogy, we can (and indeed we should) imagine a state of culture in which the capacity to establish priorities, select sources, filter information according to its quality, categorize and classify data, synthesize and put in perspective gross information and interact in a civilized manner will no longer be the privileges of an elite, but the normal, daily practice of creative conversation participants in the new public space. I speak of a collective intelligence literacy because each act of classification or evaluation, each piece of information broadcast, each retransmission of data, each registry in a personal memory (which is now contained in collection "clouds"), each delivery of links from one site to another, all this contributes to informing and transforming the collective memory. The participants of the new public sphere are not merely authors, they are also potential editors, librarians, curators and critics. Through each of their online actions, they contribute to the orientation of other participants. "Stigmergy is a method of indirect communication in a self organized emerging environment, where individual agents communicate with each other thereby changing their environment." (Wikipedia). The 21st Century citizen must learn to engage in multidimensional and responsible stigmergy communication and must ask questions such as: "In what intersections of creative conversations should I be actively involved to understand the world around me, to increase my cognitive power?" Or: "In what direction will my choice of categorization, evaluation, retransmission and recording of information change the reality of the public sphere's meaning?"

## Symmetric transparency

If we wish to think of the specifically political effects of the public sphere conditioned by digital media, we need to address the power relations theme. What parties, what powers will be, (or already being) favored by the new environment? I believe they are the parties and powers that best know how to use the arms inherent to digital media, those being: transparency, collective intelligence and multimedia seduction.

Regarding transparency I should point out that any information that is in digital media belongs, potentially, to the public sphere. On the Net it is difficult to keep things hidden. Our online life will be more and more accessible to the political and economic powers. Rather than hardening ourselves against this trend, I think we need to climb on and demand transparency from the major political or economic players in exchange. It is this demand for reciprocal transparency between public communication participants that is more susceptible to lead to a long lasting transformation of the balance of forces between the major and minor players: a transformation favorable to a trans-growth of democracy.

Everything leads to transparency: the new technical possibilities of communication; public opinion that tolerates opacity and censorship less and less; technical evolution in the direction of free source software or scientific evolution towards open publications and data. All this announces a civilization trend. As a result, the political powers that maintain themselves through censorship, whether to limit freedom of expression or the freedom to hear and the freedom of association, are condemned, sooner or later. To avoid any misunderstanding, I am not talking about computer security (theft and protection of web users credit card details, for example) nor of military type cyberwar strategy (attack or defense of information operational systems), but of a political strategy to win over and keep public opinion loyal.

Riding on the vehicle of transparency involves two sub-strategies one offensive and one defensive. On the side of the defensive, it entails taking the initiative and making public and accessible the largest amount of information about your own objectives and internal workings. This strategy has as first consequence to avoid a situation where you suffer any “revelation” by the adverse power. The second, and more important consequence, is the creation of a relation of trust between the political power and its components. On the attack side, the multifaceted strategy is: (1) make the adversary transparent, exactly where they want to remain in opacity, that is, reveal sensitive information about them; (2) wriggle away from the censorship of opaque powers, (3) distribute the means to dodge censorship and make the opponent transparent.

This strategy of transparency is also valid for the mini battles where the trustworthiness of opinion is at stake, in relation to posts and online articles. The reader or listener wants to know who pays the writer and what their political affiliations are. What are their sources and connections? Fewer and fewer believe in the supposed “objectivity” or “neutrality” of texts, images or points of view. We know that all discourse is constructed, that it results from the selection and specific formatting of data, which obeys a certain agenda, operates in a singular point of view and which adapts more or less subtly to certain standards. Therefore, how can we demand that an author of a piece of news or opinion display an ideal and always debatable objectivity? It is because of this that the trust and, consequently, the strength of the new public sphere is no longer based on a pretension of objectivity, but in a demonstration of transparency.

## **From public opinion to collective intelligence**

Once public confidence is created and maintained by a strategy of transparency, it involves transforming public communication into a collective intelligence project and, therefore, opinion into knowledge. The difference between opinion and knowledge is not due to their content (more or less “true or “objective”), but the construction process. Knowledge crisscrosses different or contradictory sources, works the historical, geographical and cultural contextualization of events, explains its assumptions, criticizes its own data collection or interpretation process and is involved in a long term learning undertaking. The blogs, wikis, social media and search tools of today should be seen as the infancy of the collective intelligence equipment of future creative conversations.

The political powers are more and more dependent on the complex dynamics of collaboration and collective thinking that emerge from the public sphere. The battles for public opinion will be disputed, therefore, in areas that until now seemed to depend on specialized academic or technical disciplines, instead of political communication in a wide sense. On a technical plane, political communication will be led to perfect its methods of categorization, filtering, aggregation and exchange of data online, using among others, automated methods that explore the collective intelligence of interpersonal networks and communities. On a scientific plane, political communication will employ the methods and results of the digital humanities and the distributed management of knowledge. On the plane of subjective identity construction, political communication should open its path between the various creative conversation styles that emerge and compete in the digital media.

Whether military, economic, political or cultural, the strength is hereinafter based on the quality of the collective intelligence processes that sustain it. Hereof, the primordial condition is obviously human: it involves literacy for the collective intelligence (see above) and skills in stimerigical management of public spheres participants' knowledge. But such human qualities should be thought of in conjunction with the development of intellectual technology and unprecedented modes of communication that know how to better exploit the availability of data and the power of calculation that is now ubiquitous in digital media. The Hyper-Cortex project based on the metalanguage IEML is placed exactly in this perspective.<sup>50</sup>

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50- See my recent book: In English: The Semantic Sphere volume 1, ISTE-Wiley, 2011

## Multimedia seduction

New types of multimedia rhetoric appear on the horizon of the new public sphere. We know that a viral video on YouTube, or even a simple online photo, can have more effect than many elaborate discourses. The emotional and aesthetic dimensions of messages (inextricably linked), as well as the identity projections that accompany it, often contribute more to molding the political subjectivities than the rational arguments, such is the requirement that we have in terms of training for the collective intelligence. Before the Second World War, the press, radio and cinema molded the relatively compartmentalized national aesthetic-affective environments. The “society of the spectacle” of the second part of the 20th Century, dominated mainly by television, magazines, cinema and the music industry, began to trans-nationalize the public sphere and multiply the channels. The public sphere of the 21st Century, dominated by digital media, is decidedly pluralist and trans-national. Besides video, its powers of aesthetic and affective seduction still depend on little studied factors: the hardware and software interfaces of communication objects (see the commercial successes of Apple), navigation and communication interfaces in digital media (search engines, navigators, social media environments, “apps”, etc.) and, finally, massive online games for multiple players. To have an idea, let me remind you that the game “World of Warcraft” has 12 million active players. It would seem that one of the main public sphere evolution trends is in the hands of visualization artists, designers and specialists. Even today, the “journalism of data” works to visually represent the internal complexity of large quantities of raw information in a simple and marked manner. The power of transparency and collective intelligence cannot be had without image, music, or text, nor without an abstract architecture of the information in order to make complex cognitive interactions possible, where the citizens of the future will have to learn to navigate.

## The new theological-political dilemma

I want to finish evoking a problem related to the “virtual” character of the new public sphere. We know that a powerful movement of opinion tends to consider the set of online information available as a “common good”, like the oceans and the atmosphere. We should distinguish this type of common good from state property: it involves more a collective asset of humanity, which neither individual, private companies nor governments (even if they are trans-national) can appropriate exclusively. At first glance, the growth of the collective intelligence and, therefore, human development, can only benefit from the status of common good being extended to the greatest amount of digital data possible. Even if a part of its sources is in the virtual realm, the growth of the collective intelligence reflects on the current prosperity and power of the political communities and economic institutions registered in the territorial, material and time-space reality. Symmetrically, the supply of the online informational common good clearly depends on the prosperity of communities and on the current, concrete exchange and production networks. However, there appears to be a tension that is creative and conflicting at the same time between two poles: on the virtual side, a regime of common good, a kind of cognitive or informational communism and, on the real side, a regime of personal, corporate and governmental appropriation; a corporal or material capitalism. How to conciliate the Hypercortex of humanity that announces itself on the horizon with the particularization and privatization (whatever the level that we may consider this privatization) of rights and powers that will no doubt characterize, for a long time and certainly with justification the greater part of material existence? These are, in my opinion, the fundamentals of the new theological-political problem, a problem that may be capable of polarizing the political conflicts of future centuries in a lasting manner. I do not address the question here in any depth, but merely point out and indicate some of the answers that could be given.

I believe that we should be suspicious of absolute purity, both under the form of an immaculate communism of minds and of a perfect capitalism of bodies. A pan-communism (prohibition of property) or a pan-capitalism (exclusive property even in the spiritual sphere) does not seem sustainable.

A pan-communism (prohibition of property) or a pan-capitalism (exclusive property even in the spiritual sphere) does not seem sustainable. And I do not even dare to imagine the absolute negative utopia that a communism of bodies combined with a spiritual capitalism would represent!

Finally, I indicate a solution that seems more favorable to harmonious human development. Corporal capitalism and the legitimate game of material appropriation should be humanized by a little support or real solidarity “free of charge”, as well as by the recognition of a reserved zone or of a common heritage of the physical biosphere. Symmetrically, I believe that it would in the interest of all to embrace the perspective of a knowledge communism, even if we have to temper it with a portion of cognitive capitalism that allows us to trace and recognize the genealogy of the contributions, thus giving credit to the creators. The Hypercortex would therefore become the cradle of a general economy of symbolic value from which all communities could sustain themselves.