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*Some major
questions for
research in
Information-
Communication
today*



BERNARD MIÈGE,

PROFESSOR EMERITUS IN INFORMATION AND COMMUNICATION SCIENCES

GRESEC

GRENOBLE ALPES UNIVERSITY

ABSTRACT

After recalling the conditions under which the communication sciences (also known as communication studies or information and communication sciences) have developed and progressively imposed themselves as a new discipline, the author shows that their scientific productions, although real, would benefit from being less sectorial and fragmented. He also suggests what could be a research methodology and proposes to group them around six major axes that he specifies successively. These six axes seem necessary considering that the first two decades of this century have seen an unprecedented advance of digital techniques, ensuring the oligopolistic domination of the five digital giants and some allies and reinforcing surveillance in societies, practically without adapted regulatory measures.

KEYWORDS: Digital giants and others (the *Big Five* and others), cultural and creative industries, historical media, digital mediations, digitization of societies, cultural and informational platforms, cultural, informational and communicational practices, information and communication research, digital regulation, digital surveillance, digital information and communication technologies, digital media.

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1. PROLEGOMENA

Whether it is presented under the institutional designation of “communication studies”, “communication sciences”, or, as in France, “information and communication sciences”, the university discipline thus designated is of recent emergence, even if its legitimacy and its recognition are not yet everywhere up to the level of the number of training courses offered and the flow of interested students. But to qualify this emergence as recent should not be surprised when it comes to a university discipline: about three-quarters of a century in North America, a half-century in Western Europe, one-third of a century in Latin America, and less in Africa, Eastern Europe, and Asia. Unquestionably, in most regions of the world, the advent of this (or these) discipline(s) and then their quite regular growth has accompanied the incessant media changes during the considered periods as well as the important mutations of the professional fields concerning the media and the information and communication techniques, and this even before the digitization of these. This discipline has succeeded in escaping a purely technological approach, which was not self-evident at the beginning. Therefore, it is linked to the human and social sciences as well as, in part, to the artistic and cultural disciplines.

These indications too briefly recalled here, were necessary, because even though they are now established in many universities on different continents, “communication studies” (whatever other formulations they give rise to) do not yet benefit from an academic recognition similar to that of other disciplines. The observable growth in the number of graduates as well as the multiplication of scientific works does not seem to be enough; and they are still often reproached for not being based on indisputable founding works, comparable to, for example, those of Adam Smith or David Ricardo for the economic sciences, or Auguste Comte or Emile Durkheim for sociology. And this reproach is certainly not without apparent justification. But it should be put in its proper place.

On the one hand, about half a century ago, the "founding fathers" made many attempts to propose general theories likely to play this ambitious role of founding theories; it suffices to mention here, without claiming to be exhaustive: the cybernetic model, the empirical-functionalist approach to mass media, the structural approach and its linguistic and semiotic applications, as well as McLuhannian, thought, Critical Theory or the pragmatics of communication; all these projects, and others that the theoretical literature of the period describes abundantly, failed in their pretensions to organize and inspire the production of knowledge of the whole new discipline. On the other hand, it soon became clear that this path was *de facto* inoperative; a resolutely interdisciplinary and deliberately multi-theoretical approach was

preferred. If the history of this turn, largely taken before the 21st century, remains to be written, we must remember that it was widely accepted while leaving open and under discussion the theoretical options and the support (in other words, the borrowings) from other disciplines; and this is how a discipline was built on an inter- or multidisciplinary basis, according to modalities that varied according to the country and even the university.

This process of construction (one could prefer the term “edification”) was legitimized, not only, as already indicated, by the close relations that it maintained with the professional sphere and the professional know-how, but also thanks to the production by the academics engaged in this movement of scientific works in phase with the continuous development of the techniques of information and communication, and this well before their development in a digital form. Even if it is difficult to justify this proposition by recourse to numerical data, it will be considered as indisputable; in the most diverse fields of the new scientific grouping, one can make the following observation: in international or national congresses, in colloquia or the numerous specialized reviews as well as in the works of scientific publishers, one observes a plural and diversified “offer” of articles and other scientific productions, testifying to the richness of the scientific activity coming first of all in support of the dispensed training but also accessible to the professionals exercising the most often in activities generally requiring the mastery of technical devices in constant renewal. Does this mean that this imposing offer of work, regularly renewed, is satisfactory by itself? As it stands, it has obvious limits that we will simply state:

- If it is attentive to the uninterrupted succession of technical offers and thus to product innovations, as well as to the successive formation of their social uses, it accumulates more partial and sectoral assessments than it endeavors to follow the mutations of informational and communicational practices, moreover, quite differentiated according to the socio-professional categories or the countries.
- It fails, or rarely succeeds, in making its questions known and in disseminating its results, however provisional, to the populations concerned and even to political or economic decision-makers, to enrich public debates; and these remain largely the occasion for trivial questions and oppositions.
- It suffers from a clear lack of epistemological discussions and controversies as if the multiplication of works and their fragmentation, as well as the fragmentation of their theoretical bases, had somehow dried up or slowed down the search for a common episteme. In a way, it’s paradoxical for this inter-discipline that has progressively become a discipline and regularly finds itself in a situation where it must distinguish itself from

established disciplines.

Since the beginning of this century and the observable boom in the development of digital techniques, especially during the different stages of the current world health crisis, there were many opportunities to observe how representatives of technological disciplines (computer science, health, etc.) or human and social sciences (psychology, sociology, political science, etc.) were quick to intervene on directly info-communication subjects, without mastering the diversity of the stakes or even the complexity of the functioning. It is true that crises, especially of this magnitude if they are occasions for the unveiling, are rarely the moment when relevant analyses can be imposed.

These three limits deserve more than a simple statement, even more so since their overcoming, in a context that is, if not globalized, at least largely internationalized, but accompanied by strong tensions or increasingly marked oppositions, is not self-evident. But they cannot be ignored.

We must also add that the very framework in which digital information and communication techniques are deployed, presented everywhere as disruptive and effectively in constant growth for the last twenty years, is itself imprecise and certainly not very conscious of it by the users-consumers. They are still under the influence of the liberating and emancipating promises that have been constantly addressed to them during the long period marked by the transition from ICT (information and communication technologies) to digital technologies proper (i.e., before and after the turn of the 21st century).

This framework, organized at the initiative of the *Big Five*, the American digital giants, today in a position of monopoly or more exactly of quasi-global oligopoly, is destined to endure and even expand. Facing only one serious competition, the Chinese *BATX*, for the moment essentially confined in their own geographical space (but already TikTok), their dynamics seems limitless, all the more so as they impose their own rules (for example, for content moderation) without encountering significant reactions from the States, even if for the last two years, the latter, individually or collectively (for example in the framework of the European Union) have started to show their support. Even if, everywhere, scandals regularly break out, often at the initiative of whistleblowers or “repentant”. But the framework is now solid and well established, leading us towards societies that are certainly still heterogeneous and dominated more than ever by liberal capitalism and whose main societal mark is surveillance (cf. § 2.4 below).

At the end of this long but essential introductory presentation, and before presenting the main axes that seem to emerge for research in Information-Communication, it is important to emphasize the methodological principles (in the strong and primary sense of methodology) that should be respected

in the course of the work. We will insist on three principles that seem essential, but we will recognize however that they are difficult to implement completely and concomitantly in specific work.

- Considering temporalities. Digital tools have taken over from ICT. This is observable if we position ourselves in the long term, which is the only way to highlight discontinuities, substitutions, and continuities (the latter rarely taken into consideration). And in so doing, we can evaluate the mutations that have taken place. For example, the multiplication of direct inter-individual exchanges that are attributed to social-digital networks, and better understanding the "maintenance" under renewed conditions of certain major media or certain cultural or creative industries.
- The theorization at "medium-range", not in the functionalist sense of the sociologist R.K. Merton but in the concern to produce sufficiently formalized elements of understanding, intermediate between observations coming from empirical research and conclusions coming from hypothetical-deductive hypotheses, but without pretending to universal validity for the results obtained. This theorization, which does not come under the micro nor the macro level, intends to allow to avoid as much the multiplication and the addition of partial and narrowly situated research as to avoid the recourse to global visions which are not founded on observations. These theorizations with a medium-range can be qualified as "social logics of the info-communication" (Miège, 2015, 130-141), and this methodological step, if it is conducted regularly, allows an accumulation of knowledge-making sense.
- The multi-dimensionality of approaches. This component of the proposed methodology has already been the subject of work concerning the changes that have occurred in the cultural and creative industries; it intends, for example, to link the strategies of industrial groups to the forms taken by the consumption of products and concerning the uses of tools, following the chain or chains of value formation in the communication, information, and cultural industries. As with the previously defined principles, its interest is to prevent the risks of narrow compartmentalization of the analyses and to incite the articulation between the phases of the cycles (successively from conception to production, then to intermediation, diffusion, distribution, and consumption). This perspective is radically different from that of ontology, which in computer science, and by extension sometimes in information science, allows in a particular domain to represent and model knowledge supposed to give rise to the production of a structured set of terms and even concepts; these descriptions, obtained by data processing and thus defined by analogy with the

philosophical approach of the same name, cannot be confused with what has just been proposed, and which is based on the common methodological fund of most of the human and social sciences, and thus on the research as well as on the techniques of data processing collected to bring to light movements of the "social reality".

2. RESEARCH FOCUS AREAS AND RESEARCH QUESTIONS

2.1 AN ACCELERATED *INFORMATIONALIZATION* AND A PLURALITY OF MEANS OF COMMUNICATION WITH A PROBLEMATIC CONTROL

What has happened in the last two decades that has been described as the process of digitization, and above all, the digital revolution? If we look closely, we can characterize this supposed revolution by the conjunction of two processes: on the one hand, the process of informationalization, and on the other hand, the development of a plurality of means of communication as never before in the history of humanity, or at least in the history of industrial societies, both of which have already been underway or prepared in the previous period.

If the term "informationalization" is little used (and even often confused with the ambiguous and restrictive term "informatization", and especially with "datification", which emphasizes not the process but the modalities it takes on), the social logic that it intends to designate is today easily identifiable and has become of strategic importance, both economically, politically, socially and interpersonally: it consists indeed in the increasing circulation requiring gigantic means of archiving (the *data center*), of flows of information, edited or not, and especially not published and even not public although managed commercially, and relating as well to the public sphere but especially to the private-social sphere and the professional exchanges. Because of the compartmentalization of these information flows, which are globalized and do not take national borders into account, they are still the subject of secondary attention among decision-makers as well as in the fields of expertise and research, except for breakdowns in data transmission or declarations by whistle-blowers.

The causes of this relative lack of interest are diverse: constant devaluation of information (except journalistic information); criticism of cybernetic or macro-statistical approaches; real difficulties to advance in the knowledge of data that are not very transparent, if not secret; acquired confidence, stemming from the liberal philosophy or even from more progressive conceptions, in the emancipating aspects of all information. All these reasons are operative, but other elements are to be considered, leading progressively to a change of views. It is particularly the case of the fast and discreet concentration of data

processing centers, operating without real controls (and however big consumers of energy), as much in the commercial field as in the social-political one. The stakes are rising, potentially very conflictual.

At the same time, the means of communication available to individuals at home and in the workplace (the differences between the two were *de facto* substantially reduced during the pandemic), have expanded steadily, in all regions of the world, but with lasting inequalities. This expansion is not destined to continue, notably because of the growing importance of the operating costs linked to the appropriation of the tools by the consumers themselves, costs that are at once financial, environmental, and human (media education; limits to the generalization of digital practices). In this context, the attention of researchers must be focused on the new practices favored by the new media, and particularly social-digital networks; but it would be a mistake, as they are encouraged by current events, to limit themselves to these practices and *fake news*. An essential axis of work is constituted by the relations that have been tied/are tied between the new media and the "historical media" (press, radio, and television, etc.), without considering that they participate in an ecosystem, as a certain thought of modernity inclines to do.

2.2 A TENDENCY TO QUESTION THE SPECIFICITIES OF CULTURAL INDUSTRIES BY CULTURAL AND INFORMATION PLATFORMS

Before even addressing the fundamental question posed by the rapid expansion of cultural and informational platforms (we will limit ourselves here to this single component of this vast ensemble constituted by digital platforms), we recall that, already with the advance of the first digital techniques, notably the collaborative web 2.0, the project of a replacement/overtaking of the cultural industries in place by creative industries escaping, as for them, the specificities of the first ones (*id is*, the not very predictable or even random character of the generated values of use; the artisanal modalities of the activity of the artistic and intellectual workers; the existence of several models of exploitation specific to this type of industries; the necessity for the strategies of internationalization to also consider the national cultural expectations) had been formulated. This approach can be found, among other authors, in the American essayist Henry Jenkins and is widely shared by many non-professional or semi-professional creators, regular depositors on *YouTube*, or sharers of videos or music tracks. Nevertheless, this project is far from having met the hopes placed in it by its promoters, as the creative industries remain, quantitatively and symbolically, well below the cultural industries (Miège, 2020), despite observable progress in certain African countries or in India.

Platforms now play a significant role in the functioning of the cultural

and information industries, even if their current rapid development does not yet allow us to envisage all the effects to be expected. Information and Communication researchers have not failed to address the issue, and the available or expected publications are numerous, in the United States and especially in Europe, and for a good reason in the European space, because the expected and feared domination is indeed observable. But how to characterize this domination and where to locate it? It is a precise oligopolistic domination which originates in the intermediation phase (especially because of their positioning in this key and the new phase of the product cycle). This domination also originates in the platforms' almost unlimited powers of product recommendation and their quasi-global dimension. *Google*, *Amazon*, *Facebook*, and *Apple* participate in the heart of this oligopoly of an unprecedented financial power, but also *Netflix*, *Disney*, and *Spotify*. What is striking about the former is that they have built their power with little or no reliance on their market power in the information and cultural sectors themselves; barely present in the product markets themselves, they have built their financial power on advertising for recommendations and exchanges between consumers (= the other sides of these markets described by liberal economists as multifaceted). This is not the case for the second group, which has experienced and is even still experiencing some difficulties in imposing themselves on either content producers or even broadcasters (still dependent on telecommunication operators or private or public television channels.)

Thus, the disproportion of the sales figures or financial results of some compared to others is striking, and therefore, according to some specialists, the platformization of content (a debatable terminology) would be completed; this would be a given. But we cannot leave it at this brutal and simplifying observation if we consider the following elements drawn from observations made in France:

- The key players in the oligopoly come to take over part of the production activity (e.g., *Netflix* with "mainstream" films, documentaries or series) or broadcasting (e.g., *Amazon* with sports shows); or they must "naturalize" their production according to local demands (e.g., *Netflix* with its film production in India, and elsewhere). And the results are not always up to their expectations when they are not below the professional standards of other films produced: this would be the case of the films recently produced by *Netflix* in France.
- Creators and musicians, to name a few, are starting to react to the insufficient remuneration granted by the platforms and are looking for new ways of valorization: this is the case with *Spotify*.
- The automated management of theatrical and musical ticket offices

has been subject to setbacks and questioning. As for cinema admissions, if they reached during the first year of the pandemic a level of about one-third of the admissions previously recorded, it is to be expected that they will recover later; but at what level? As for book sales in bookstores, and not only at a distance, on the other hand, they have increased significantly during the same health crisis. What is at stake here is the question of the socio-economic models of exploitation of cultural goods.

And what these indications suggest by the methodological principle of interdimensionality stated previously, is that, for more than a century, cultural and informational products have resulted from the "meeting", often extremely competitive and therefore conflicting but finally more or less negotiated, between strategies of actors whose interests are far from always converging: namely,

(1) the strategies of the main industrialists of the communication, as much those of the hardware industries as those of the networks industries, still active but in a few years overtaken by the promoters of the big digital platforms;

(2) the strategies of the broadcasters and producers or publishers of contents, and following them the contributions of artists, intellectuals, and information specialists, to the conception of these same contents (= the conception or creation phase);

(3) the structuring trends of cultural and informational practices, and particularly the expansion of commercial consumption;

(4) what is produced by technical changes and innovations, and in particular the uses that are formed from the technical tools;

and (5) the activities of reception, appropriation, and reinterpretation of the contents by the recipients, i.e., the consumers.

Many hoped that with digital techniques, this pattern would be over (which, it should be added, is based juridically on copyright and neighboring rights, as well as on certain foundations that are still active in cultural and information policies, at least in democratic countries); this evolution towards direct relations between creators and users did indeed occur, but much more decisive was the interposition of the digital giants in the intermediation phase. This interposition was rapid and even brutal, favored by the fascination attached to the digital world as well as by the virtual absence of regulatory measures (cf. § 2.6 below). It now seems in place, but in the long term, it will have to be joined by a whole series of medium-sized or small platforms, initiated by smaller players, in a wide variety of fields (from museum products to creative documentaries), whether related to the previous activities of these players and proposing a newly mediatized organizing logic. In this sense, platforms are likely to multiply and diversify.

2.3 SUSTAINED ATTENTION TO PERSISTENT INEQUALITIES IN THE USE OF DIGITAL CULTURE AND INFORMATION TOOLS AND PRACTICES

It is paradoxical that digital practices give rise to a multiplication of *data* of all kinds and that these data do not lead to precise and in-depth knowledge, first of what users do with the tools at their disposal or even in their possession, and secondly, and above all, of the informational or cultural practices that result from them. But as we know, this paradox is easily explained because these *data* are not intended for the improvement of knowledge; indeed, not only are most of them not accessible because they belong to the entrepreneurial domain and are intended for the development of recommendation software in support of commercial strategies, but above all they gather collections of information whose relevance is far from being guaranteed for argued research. There is a great distance between what the *data centers* contain (opinions on facts or opinions; perceptions and aspirations; attitudes or expressions, even emotional statements; behaviors or behaviors recorded at irregular intervals, or even in a unique way; etc.) and aggregate economic accounts. It is not only the statistics that are needed (e.g., aggregate economic accounts and indices of all kinds), but also what should be available regularly to establish series that can be used to draw reliable conclusions. It is still the public statistics, although decried and whose means are increasingly limited, that provide the most complete data.

What kind of data should be available? Those that intend to follow the evolution of social-symbolic practices, such as the practices of access to daily or instantaneous information:

- the consumption practices of recorded music (via a subscription to a music streaming service, for example);
- recurrent communication practices via a network: Facebook, Twitter, etc.
- the practices of general mass television/cable or satellite television (showing an ongoing fragmentation of audiences);
- the "consumption" practices of feature films (in theaters, in V.O.D., via generalist or thematic channels), cinephile practices, etc.
- information-seeking practices in a professional setting or by non-specialists (e.g., the practices of hospital doctors, bank executives, etc.); etc.

All these types of practices are in some way multi-supports or rather they became it. Not that the meanings are to be put on the same level (the vision of a film in a room is not equivalent to the vision with the V.O.D., from a social-symbolic point of view) but the practices are not limited to the use of a technical tool or, moreover, to the frequentation of such or such spectacle or activity (they must renew themselves to the use of a technical tool or the frequentation of such or such activity, from a social-symbolic point of view).

They must be renewed more or less regularly because they are registered in the duration; they imply a sense, in that they are undergirded by norms of action or values (thus the practices of general public information are, historically, connected to the political public space, then to the societal public space); they cannot be reduced to information-service; they are indissociable from the (still) socially recognized legitimacy of journalistic information, despite the criticisms addressed to the information media; finally, they integrate a whole series of social-symbolic representations, including schemas of the imaginary, which do not make it possible to identify clearly and immediately the meanings of which they are bearers. These are the main constitutive features of the practices. Their characterization, as well as the processes by which they are formed, and then transformed, remains to be deepened, but their comprehension is certainly made opaque by the current and trivial use of the term itself.

This perspective seems essential for research, as it is currently neglected. It would allow us to regularly make an informed observation of the strong disparities and even structural social inequalities in the use of digital tools; there is much to be done in this respect. We will give a single quantified representation, but one that is significant and far removed from the dominant representations. In a publication dated 2020 and recounting the results of a survey conducted in 2018, the authors Lombardo and Loup (2020) have elaborated, thanks to a calculation of correspondences, what they designate as "universes of practice", within the French population of 15 years and older. There is no need to repeat all their results to emphasize the importance of the issues at stake: one of the universes described as the universe of the "small screen", includes 30% of the population (among the oldest, the least qualified, and the most modest socio-professional categories); the universe of the "all-digital" (15%) includes mainly young people from 15 to 25 years old, of the male gender, who attend few cultural types of equipment including the cinema; we can add to them the universe said to be of the "increased eclecticism" (9%), made up of people of intermediate age, accumulating the whole of the practices, including the audio-visual and numerical practices.

2.4 QUESTIONING THE EFFECTS OF THE OBSERVABLE ACCENTUATION OF THE MODALITIES OF SOCIAL CONTROL AND SURVEILLANCE

If it does not seem relevant to qualify contemporary societies by a single striking feature, supposed to translate the very major changes to which they are giving rise (network society, information capitalism, and many others, etc.), it is because these societies cannot be qualified in such a univocal way and that they remain under the influence of many other dynamics. But we must

recognize that in a little more than a decade they have undergone changes that were not foreseen, to this extent and in these ways, not so much with the impulsive development, as announced, of digital techniques called to be generalized, but because of the forms taken by this rather disruptive advance of digital technology: that the five giants and the few others that accompany them, conquer to such an extent the markets that they currently dominate, and have today such market powers was not announced; who, at the time of the World Summit on the Information Society in Tunis in 2005, had envisaged such rapid evolutions, and foreseen the changes that occurred on the infrastructures of the communication? And besides, how can we predict the effects of the competition of the Chinese BATX, including in the medium-term? Such changes, and the mutations they entail are not frequent in the history of societies, even if we must be careful not to apply too quickly the qualifier "revolution" (which concerns a broader process and goes beyond the framework of research programs).

One of the striking features accompanying this phase of the rise in the power of digital techniques seems to be the increase in social controls (the concept itself has little credence in the social sciences today, so much so that it has been used previously by authors in different senses to characterize theories that are not very reconcilable) and particularly the accentuation of surveillance. Surveillance is a perspective that had already been suggested with the first techniques of information and communication; it has undoubtedly grown, and not only because of the multiplication of video surveillance devices and potentially of facial recognition. The forms taken by surveillance are multiple, even plural, and are initiated by States (in the framework of their regalian activities: military, police, and judicial), public institutions, local authorities, and private companies (to follow the activity of their competitors or to collect information on work relationships); far from it, not all of them are publicized, and citizens have only a very remote or approximate knowledge of them. This effervescence is not surprising in authoritarian societies, where these applications are an extension of methods that have been in force for a long time, but it does not escape democratic societies, where, in the past, more attention was paid to the respect of public liberties, and where it would be necessary to adapt the regulations to the new possibilities, left to the sole initiative of private companies, acting in total confidentiality. The devices used do not/will not cease to be perfected, especially with the possibilities offered by artificial intelligence.

Certainly, surveillance is a neglected aspect of research in Information-Communication, and this one would undoubtedly help to operate in the long run a necessary distinction for the life in society, between its *a priori* beneficial

contributions (against terrorism, against the attacks on the persons and the goods), and those which deserve a preliminary agreement, and thus discussions between citizens (since the follow-up of the parking in the cities, the controls of the speed of the cars or even the follow-up of the vaccinations).

2.5 THE INCREASING COMPLEXITY OF CORPORATE AND OTHER ORGANIZATIONAL COMMUNICATION, AS WELL AS A PUBLIC SPHERE THAT HAS BECOME LESS INTELLIGIBLE

These movements were already underway, but they have only increased with the development of digital techniques, without gaining visibility and understanding. Not only have the actions carried out within this framework multiplied as expected, but their conduct, facilitated by using social-digital networks and new production techniques (less costly and quickly mobilized without the need to call on recognized professional know-how), are at the origin of actions that consumers on the one hand, and citizens on the other, have a hard time detecting and even understanding. Indeed, to the classic media operations (known as much for commercial promotion as for political and public communication), various actions are now added and mixed, which are part of what must be considered as finely targeted strategies of influence; not that commercial advertising campaigns in the television media or political posters were not previously part of strategies of influence, but their codes had ended up being known and the influences had become easily discernible. In the last few years, what has intensified is above all an individualization, almost a personalization of the communicational actions; and we observe it as much for the promotion of commercial products as for social and civic actions, from mobilizations for demonstrations, solicitations for campaigns of general interest or concerning targeted actions, up to the research of opinion-forming (it would indeed be a mistake to consider the *bad news* only as means of interpersonal influence).

It is thus that the hypothesis of the advent of a specific model of communicational action (for more details on this point, cf. Miège, 2010, pp. 116 et seq.) centered on the setting in an action of norms, individualistic or individualizing, and differentiating itself from those previously activated by the then-dominant media is seriously supported: as much the changes at work in the public sphere (cf. below), as the evolutions of the cultural and informational practices or the emergence of these new norms of the communicational action in the most diverse social fields seem to enter in correspondence. Thus, among other examples, the norms of communicational action which emerge in the work collectives or the educational institutions, are also those which begin to mark some of the audiovisual media to which however a long

tradition of the directive and unilateral communication was attached (is it not astonishing to see the general mass television multiplying the "interactions", mediatised or not, with its public?). In this movement which marks contemporary societies in-depth, we must moreover make a specific place to the social-digital networks and recall that they are appropriated primarily by social classes and categories which take advantage of it for the promotion of their social, personal, and professional positions. Because of all these transformations, widely engaged, are questioning the evolutions foreseen only one decade ago, towards a public sphere called societal, this one then envisaged under the influence of less "vertical" actions, more socialized and even organized in the duration than those today observable. Could it be that in societies still considered democratic, we are now moving towards a post-public sphere (Schlesinger, 2020), clearly differentiating ourselves from those envisaged after Habermas during the last half-century?

2.6 THE NEED TO UPDATE CULTURAL (AND INFORMATION) POLICIES AND THE PROSPECTS OF REGULATORY MEASURES

It is undeniable, in Europe at least, but also in other continents in other ways, that the *Big Five*, and other allied firms, have established themselves and conquered important markets in a few years, for a long period, encountering no competition or real opposition, and even more so, strong resistance. Their current domination was even more easily accepted and even encouraged because it was done in the name of technological progress that was not to be hindered. Later, this inconsistency, or irresponsibility, could be reproached to the political or economic elites, but it is only around the 2020s that in official spheres, in Europe at least, some dissatisfaction with the practices of the digital giants was expressed, initially moderately. It was true for the moderation practices that were not well controlled and were far below what was practised in other media, for the recognition of a *de facto* editorial function that was exercised but not assumed, and even for the takeover of content by the same companies, with little or no remuneration, and also with the payment of taxes on the activity or, above all, on the financial results, at a level that was more than just symbolic, such as the one granted by a few complaisant States. Regarding all these aspects, concomitant but not related to the management of the health crisis, it is possible that they remain at the level of vague ideas or that they are translated into effective regulation measures. Indeed, visions linked either to competition or overlap or even contradict each other, law of neo-liberal economic essence, or other approaches of public action more related to public liberties in information, to the public sector of the audiovisual, and the orientations of the cultural policy, including

the promotion of cultural and creative industries, are clearly opposed here. The stakes have remained hidden but will be increasingly difficult to avoid.

Either to make the growing and intolerable effects of social and cultural inequalities in digital practices more bearable, or to moderate the shortcomings and manipulations arising from the exchanges taking place in social-digital networks, or even because the processing of individual data collected from a clearly individualistic and commercial perspective will end up meeting with collective challenges because demands for public Internet service will assert themselves, or because the globalization of the products offered will clash with societal and cultural (as well as religious) expectations and interests, especially in the emerging countries, or to allow the emergence of new markets related to the Internet of Things or the metaverse, the dominant States, if not multilaterally, will be led to take regulatory measures. The already long history of telecommunications, and in particular that of the FCC (*Federal Communications Commission*), is made up of decisions that have redistributed the cards; the digital industries, which are now globalized, have reached a level of power never attained by the telecommunications industries, but this cannot leave states and regulatory bodies indifferent. And so, for research in Information-Communication, the question of regulation, in its different dimensions, is bound to become a central axis, whereas until now it was entirely neglected.

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¹ The present bibliography, which is necessarily very selective, includes only a few of the works or articles at the heart of the argument.

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