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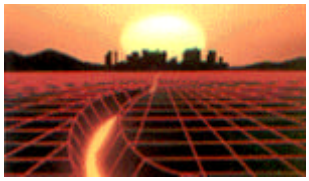

The One-dimensional Network Society of Manuel Castells

a review essay by Jan A.G.M. van Dijk

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1. Introduction

In the reviews and pre-publication comments on the covers of Castells' trilogy on the information age it is welcomed as a superlative achievement. Anthony Giddens claims it is not fanciful to compare the work to Max Weber's Economy and Society. Peter Hall compares it to Marx's Capital. Alain Touraine calls it a 21st century classic in advance. Krishan Kumar has been persuaded now that we do indeed live in an age of information and that there can be an adequate theory of it. According to Fernando Cardoso, once a professor of political science, now the president of Brazil, this is 'a masterpiece, which discloses the logic of the system of contemporary civilisations, bringing to light the meaning of information societies' (cover Vol.I).

So much praise makes a reviewer suspicious, even when it is sung by the most famous social scientists. To call an analysis of current affairs a classic of the next century in advance. To claim that now we have an adequate theory of epochal change, the coming of an Information Age, which has started only a few decades ago and is likely to mature far in the next century, just seems too much.

To classify my position from the start, I do think that Castells' Magnum Opus is a brilliant achievement. I know of no other work that is able to give a better insight into the interrelationships of so many large-scale trends in current affairs world-wide. Rarely, I have read such concise, deep and well-documented analyses of the collapse of the Soviet Union, the advent of a Pacific era and the rise of a global criminal economy and of all kinds of fundamentalism and social exclusion world-wide. The same goes for the crisis of patriarchy and the nation state and more specific current affairs like the crisis in Mexico at the beginning of the nineties. Castells is able to weave the treads between these apparently different trends. He manages to do this with a particular theory of what he calls 'the information age' or 'the network society' in particular. But is this really the long-waited theory of the information society? Is it better than the theory of Daniel Bell and Alain Touraine, acclaimed as precursors by the author himself? Does it uncover the 'logic' of change in contemporary civilisations?

In my (re)view it is precisely the central concepts and causal relations of Castells' theory that contain the main weaknesses. To give insight into the interrelationships of current trends is not the same as to claim a general theory of a whole epoch, though this pretension is more of the commentators just-mentioned than of Castells himself. Both Marx and Weber made careful and completely elaborated conceptual frameworks of a theory of capitalism and

industrial society at the beginning of 'Capital' and 'Economy and Society'. Compared to them Castells' conceptual elaboration's of the characteristics of the information age are much more sketchy and the causal connections he makes do not reach the levels of abstraction and generalisation we know from Marx and Weber. As the information age, in whatever definition one takes it has just begun, it seems wise to pretend to design preliminary concepts, relations and trends of the new conditions of economy, society and culture only. The author's brilliant cases of contemporary analysis might be much more time-sensitive and less long-standing as his admirers think they are. His concepts and 'logic' of the information age are open to criticism and dispute, as will be demonstrated below. First a short overview of his most important claims, concepts and (hypo)theses will be supplied. The author's own words will be chosen as much as possible.

2. The 'logic' of the information age

It is impossible to give an overview of the elaborate cases of contemporary history Castells gives in the 1200 pages plain text (annexes and references excluded). His conclusions can be summarised. In his trilogy the author traces the effects of three independent processes appearing between the end of the 1960s and the middle of the 1970s and coming together to produce a 'new society': the information technology revolution, the economic crisis of capitalism and statism (communism) and the blooming of new social movements like environmentalism and feminism. According to Castells the IT-revolution is partly responsible for the collapse of the Soviet Union together with other statisms, and for the rejuvenation of a more effective, flexible and hardened capitalism. The rise of new social movements is a response to the crisis of the nation, democracy, the traditional institutions of civil society and patriarchy in large parts of the world. Together these three processes are causing a new social structure (a network society), a new economy (a global informational economy) and a new culture (a culture of 'real virtuality'). Let me explain these three effects successively.

Castells' long journey through so many sphere's, regions and countries describing their current affairs leads to one overarching conclusion: 'dominant functions and processes in the information age are increasingly organised around networks. Networks constitute the new social morphology of our societies and the diffusion of networking logic substantially modifies the operation and outcomes in the processes of production, experience, power and culture. While the networking form of social organization has existed in other times and spaces, the new information technology paradigm provides the basis for its pervasive expansion throughout the entire social structure.' (Vol.I: 469). This network logic or form of organization induces a social determination at a higher level, one that was unknown before. The causal power of network flows gets more important than the specific interests they represent, the flows of power. It becomes vital to be present in a network and not to be excluded from it. One network might dominate another less dynamic and powerful network. Castells calls this precedence 'the pre-eminence of social morphology over social action'(I: 469).

A self-expanding network logic pervades and transforms all domains of social and economic life. Gradually it absorbs and subdues pre-existing forms, without discarding them altogether, just like industrial societies did not exclude many pre-industrial forms for a long time to come. This pervasion goes for networks of production, distribution, financial circulation, power, information, communication, images and experience, both considered apart and taken together. The first domain for Castells as a (former?) neo-marxist is the domain of the economy and the enterprise, both adopting a network structure in the process of globalization.

Here a new technical-economic paradigm develops: the information-technology paradigm. It has five features: 1. information as the raw material to act on; 2. the pervasiveness of information technologies used; 3. the networking logic of any system using them; 4. flexibility and 5. convergence of technologies. It leads to a new mode of development called informationalism. This is 'the attribute of a specific form of social organization in which information generation, processing and transmission become the fundamental resources of productivity and power' (I: 21). In a large part of Volume I Castells demonstrates with lots of empirical data that this mode of development in general and networks within and between firms in particular come to dominate the world economy.

In Volume II the author moves to the conclusion that power 'is no longer concentrated in institutions (the state), organizations (capitalist firms), or symbolic controllers (corporate media, churches). It is diffused in global networks of wealth, power, information and images, which circulate and transmute in a system of variable geometry and dematerialized geography. Yet it does not disappear.'(II: 359). The new power lies in codes of information and in images of representation produced by people's minds and constructed in identities. These minds and identities tend to contradict the dominant logic of the network society engaging in defensive and offensive struggles around the fundamentals of space, time and technology (see II: 358). Here three of the most important and strongly interrelated theses of

Castells' trilogy appear.

The first one is the opposition between 'the Net' and 'the Self'. He notices a split between the abstract universal instrumentalism of the new network logic of society and concrete historically rooted particularistic identities, between function and meaning (see I: 3). This is not a new theme in modernization theory. Many theorists have noted the opposition between processes of scale-extension, e.g. glabalization, and scale-reduction, e.g. strengthening identities, in high- or postmodern society (Harvey, 1989, Featherstone, 1990, Giddens, 1991, van Dijk, 1991/, 1993, Lash & Urry, 1994, Barber, 1996). Special to Castells' analysis is the split between function and meaning. In Volume II he describes all kinds of defensive and offensive movements of resistance to the functional logic of network society: religious fundamentalism, nationalism, ethnicity, localism, environmentalism, feminism and sexual identity movements. According to the author they are the subjects of the information age forging into crisis traditional organizations of civil society like the labour movement and political parties. Adding to the functional effects of global networks they merge the national state and national democracy into crisis as well.

The second thesis is about the discrepancy or dichotomy produced by this split. The new media characteristics of transcending time and place, to be called 'timeless time' and a 'space of flows' by Castells (see below), lead to social classes and movements which are living in different times and places. Capital and labour, global institutions and particular social movements live in different temporalities. The first ones in the instant time of computer networks and the second ones in the clock time of everyday life. Increasingly they live in different spaces as well: the first ones in cyberspace and in the highly mobile cosmopolitan jet set spots of the information elite; the second ones in the old place-bound localities of cities and countrysides.

The third related thesis follows: these dichotomies lead to the social inclusion and exclusion of people, communities, economies and countries, appearing as rising social and informational inequalities in the whole world. This is a systematic feature of networks: they both connect and disconnect. In Volume III Castells analyses both the collapse of the Soviet Union as a mode of production which was not able to enter the information and network society, and the rise of the Pacific region which clearly was. He describes the exclusion of the 'Fourth World', that is large parts of the Third World in Africa, Asia and South America who's development stagnates and the poorest parts of the developed world forming underclasses. These parts have become completely irrelevant to the global world economy. Instead they contribute more than average to a global criminal economy of drug traffic, smuggling, illegal arms deals, money laundering and prostitution. The criminal economy is a heavy user of information technology building a 'perverse connection'.

Finally a new culture is formed by networks: a culture of 'real virtuality'. Here the author brings on concepts he developed in his earlier work on cities and social geography (Castells, 1985,1988,1989). The most important one is the concept of a space of flows transcending a space of places. Flows of capital, information, technology, organizational interaction, images, sounds and symbols go from one disjoint position to another and gradually replace a space of locales 'whose form, function and meaning are self-contained within the boundaries of physical contiguity' (I: 423).

Space is inseparable from time; it is 'cristallized time" (I: 411). Therefore, a space of flows produces timeless time. Here Castells refers to breaks in the sequential order of phenomena in networks: time is compressed; things are happening instantaneously and linearity is broken in the discontinuity of hyperlinks, menu's etcetera.

Together, the space of flows and timeless time produce a culture of 'real virtuality'. This is defined as 'a system in which reality itself is entirely captured, fully immersed in a virtual image setting, in the world of make belief, in which appearances are not just on the screen through which experience is communicated, but they become the experience' (I: 373). Therefore the author stresses the features of immersion to be observed in multimedia. They integrate all kinds of messages and signs (news, education, shows) in a common cognitive pattern blurring their contents. Moreover, they capture most cultural expressions, in all their diversity, simultaneously increasing the social stratification of producers and consumers (see I: 371-372).

From this overview one can gather that large parts of this analysis are not new. Castells' concepts of the information society and informationalism are not diverging from most other ones (see Dordick & Wang, 1993) or even from Bell's concept of post-industrialism. He follows the mainstream of modernization theory. The network paradigm is very common to a host of concurrent writing on new corporate models. His views on the power and identity of social movements are close to Touraine's. The observation that the national state and democracy

loose sovereignty and power under the influence of internationally networking organizations is not new either. His view of 'real virtuality' strongly resembles Baudrillard's. What is new in this trilogy is the threads Castells stretches between so many apparently different of diverging trends. The connections are made by the 'networking logic' he observes in the information age. However, it is precisely this 'logic' which is open to debate. In this review a first start is made.

3. Networks equal society?

The network approach is an accepted and widely supported current of theory and method in social and communication science. Clearly, it has everything going for it with the growth of large-scale social networks and the extension of the number and kinds of media networks. It is tenable to say that it is indispensable for the explanation of modern society. However, its most commonly underlined weaknesses are the formalism of its method (sociometry, network analysis) and the substantiation of its formal object (morphology). Castells is treating networks on a higher level of abstraction (the structure per se) and social reality (mainly the macro-sphere) than the classical empirical network approach which deals with single individuals linked in dyads and cliques and being stars or isolates.. Nevertheless, he demonstrates and defends the same kind of approach. He stresses 'the pre-eminence of social morphology over social action' (I: 469). This is somewhat amazing as his approach is not to start with the elaboration of the morphology of networks, dressing the formal skeleton with action and history afterwards, which is the classical approach. Instead he takes a historical approach in extensive analyses of current trends and affairs. He demonstrates how formal network structures float to the surface. That is his great achievement. However, in his theory he takes a further step: these structures become vital causal powers and they substantiate somewhere 'above the surface'. There is a number of expressions in this work containing equations of network structure and what is usually called the material object of social reality: groups, organizations, communities. I mention three examples: 'for the first time in history, the basic unit of economic organization is not a subject, be it individual or collective ( ) the unit is the network' (I: 198;boldface by the author), 'space is society' (I: 410) and 'technology is society' (I: 5).

Castells admits that not all dimensions and institutions of society follow the logic of the network society, in the same way that industrial societies included for a long time many pre-industrial forms (III: 350). So, the equation is a historical tendency as well. Still, it will produce a lot of dispute among people who think that structures are (re)produced in communicative action. I doubt whether Anthony Giddens, presented as a fan at the covers, will be happy with 'the pre-eminence of social morphology over social action'. This breaks with his structuration theory starting from the duality of structure and action. In fact, it is a remnant of the Althusserian structuralism which inspired the author in the seventies and eighties. This current in French neo-marxist philosophy was known as well for its formalism and substantiation of structures.

It is possible to interpret the articulation of network structures in high- or postmodernity in a different way. For the author of this review networks are becoming the prime mode of organization and among the most important structures of modern society. However, they are not (increasingly) the content of this society, as they are for Castells (see van Dijk, 1991/, 1993, forthc.). Society still consists of individuals, groups/pairs and organizations. Of course they form external and internal relations, but these relations do not equal society. Their organic and material properties and their rules and resources should not be cut out of society to bring it back to its supposed bare essence of relationship. Even a totally mediated society where all relations are fully realised by and substantiated in media networks, where social and media networks equal each other, would still be based on bodies, minds, rules and resources of all kinds.

4. Embedded or disembodied networks?

The issue just described is not merely a methodological dispute. It enters the level of theory as soon as causal relationships are implicated. According to Castells 'the network society disembodies social relationships, introducing the culture of real virtuality' (III: 349). I would say that this has a limit. Social and media networks are contextually embedded, and they will remain that way. With his concepts of a space of flows and timeless time the author supports, perhaps unwillingly, the simple popular view that in the new media the traditional categories of place and time (proximity and clock-time) have no relevance anymore. Instead, they get more important (Harvey, 1989, Ferguson, 1990, van Dijk, 1991/, forthc.). The relevance of time and place radicalizes as the new media offer the opportunity to be much more selective in choosing their co-ordinates. Nobody will deny the extreme relevance of (clock)time in the most advanced nerve-centres of ICT, the stock markets. Many observe the growing carefulness of transnational corporations in strategically choosing the places for their departments and computer network nodes world-wide. Castells mentions comparable radicalizations in the global economy, but interprets them differently in catchy and hollow expressions like 'the edge of forever' and 'the annihilation of time'.

Social and media networks will not only remain embedded in and (trans)formative of categories of time and place, they will also keep connected to their material, social, physical and biological substructure or context. Another popular idea is the growing autonomy of virtual reality or community. All too easy the organic, that is not networked social, mental, biological and physical reality of networking people and their technical tools is taken for granted in many views of virtual reality, community and organization In fact, the virtual and the organic can not exist without each other in a modern society which has become dependant upon media networks. Virtual reality, community and organization are able to acquire a relative autonomy of structure. That is what produces Castells' idea of disembodiment and the popular idealist notion of a freely floating cyberspace. Still, media networks can not exist without their resources in technology, economy, society and human minds including neural networks. For example, observations of virtual communities reveal that members of electronic groups take with them, as a kind of baggage, all rules, identities and mental states they have learned and shaped in organic groups (Spears & Lea, 1992; Mantovani, 1996, van Dijk, 1997). A realist and hopeful perspective of virtuality is that it adds to organic social life, instead of replacing it, and that it is able to launch all kinds of fruitful interplay between them.

Castells rightly claims that the categories of space and time produced in network structures tend to contradict the life and times of biological creatures. They break down the rhythm of these creatures in their social lifecycle and biorhythms (see I: 446). Only, he thinks they are able to break them down completely in a total determination, while it would be better to say that biological, social and mental rhythms are there to stay and to oppose the abstract categories they can not bare, turning down impossible perspectives of virtuality (see Mantovani, 1996)

5. One-dimensional network society

Now we are approaching the core of Castells' argument, where we can see that it is not just a matter of choice in methodological positions (a morphological network approach) but that it may be simply wrong. According to the author the 'logic' of the network society is pervading all spheres of social, economic and cultural life. It is self-expanding, all-embracing and tends to marginalize the remnants of the old society. 'In the Information Age, the prevailing logic of dominant, global networks is so pervasive and so penetrating that the only way out of their domination appears to be out of these networks and to reconstruct meaning on the basis of an entirely distinct system of values and beliefs' (III: 351). This is an affair of communities and resistance movements, both retrograde and progressive: 'resistance and projects contradict the dominant logic of the network society by engaging defensive and offensive struggles around three foundational realms of this new social structure: space, time and technology' (II: 358, italics added). This proposition is related to Touraine's view of social movements. Touraine himself rightly interprets it at the cover of Volume II expressing that contemporary social and political movements are 'actors in a central conflict between networks and collective identities'.

This claim of external conflict and contradiction is one-sided, to say the least. The internal conflict or contradiction in network structure or 'logic' is absent. Castells neglects the design dimension of networks (see Mansell & Silverstone, 1996 a.o.) and the social struggle over networks. Social actors take positions inside networks communicating at centres, nodes and terminals, and they are engaged in daily struggles over the construction and use of these networks. The author uses the word design in passing only and rarely he mentions issues of conflict about design. One exception is the observation of 'the development of a multinodal, horizontal network of communication, of Internet type, instead of a centrally dispatched multimedia system, as in the video-on-demand configuration' (I:374). Here the author pays for the sparse knowledge of media and technology he brings into the analysis. Only one chapter out of a total of twenty is dedicated to the media networks themselves (Volume I, Chapter 5).

Perhaps the conflict between networks and identities goes for the parts of populations which are excluded from them. The growing parts already participating immediately create, interact and struggle for collective identities inside networks. This goes for personal identities as well (see Turkle, 1995, 1996). Castells does not really deal with personal identities as his view of them is thoroughly sociological and hardly psychological. Psychology is excluded, with the rest of social and biological reality not matching his essentialist, if not to say Leibnizian view of a self-expanding network 'logic'.

The political implications of his analysis are serious. Actually it permits the inevitable marginalization of social movements, regressive and progressive, in relationship to the rising network 'logic' of society. Just like Marcuse (1964) did put his hope on marginal social actors against the pervasive reality and majority of one-dimensional man, Castells has invented his type of one-dimensional network society.

6. 'A machine out of control'

In an interview with a Dutch newspaper Castells expressed his view that with networks 'we have created a machine which is dynamic, full of opportunities but is controlled by no one' (Oosterbaan, 1997: 33, reviewer's translation). This pessimism fits to the reasoning described above. The 'logic' is a machine and in the expression it sounds like a monster. This can be explained by another theme running through the author's whole work: the technological determinism in it (see Webster, 1995: 193-199). Technological determinism is explicitly denied by Castells himself (see I:5-7). He claims to have a dialectical view of the interaction between technology and society. 'Technology does not determine society: it embraces it. But neither does society determine technological innovation; it uses it'(I: 5). Yet, if society does not determine technology, it can, mainly through the state, suffocate its development' (I: 7). All too often the little word IT appears in these quotes. In fact, Castells does have an instrumental view of technology producing an autonomous development which can be used and supported, or not. 'Technology is neither good, nor bad, nor is it neutral. It is a force' (I: 65). This instrumental view of autonomous technology is not as dialectical as the views of Lewis Mumford and Fernand Braudel. For them technology has definite technical properties, but these are deeply molded and shaped by culture or society. Castells views are even further removed from views of technology as social (re)construction and design (MacKenzie & Wajcman, 1985; Bijker et al 1987, Bijker, 1995).

One of the author's most important causal claims is the effect of informationalism (a mode of development) on capitalism (a mode of production) it rejuvenates and statism it brings to an end. As he defines a mode of development as a technical relationship of production, and a mode of production as a social relationship (see I: 16), this clearly is a technological determinist claim. In some new kind of base-superstructure distinction he states that 'modes of development shape the entire realm of social behaviour, of course including symbolic communication' (I: 18).

Now we know why Castells refrains from answering the question of 'What to be Done' in his last Volume (see III: 358). It is not a matter of excuse after having written 1200 pages of analysis, or the bromide he gives that his analysis should speak for itself. It is not indifference either, as social engagement and outrage drop from every page of his analysis of social exclusion and the rise of the 'perverse connection'. It is the core of his theory and method which is responsible in this otherwise brilliant trilogy about the information age..

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