

The Network Metaphor An Assessment of Castells' Network Society Paradigm

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ABSTRACT This article is an assessment of the recent contribution of Manuel Castells to development sociology. His trilogy on the network society comprises an analysis of present-day fundamental social transformations leading towards an informational society. The appraisal focuses on democracy, poverty, and the developing countries.

INTRODUCTION

Castells' work on the network society is without any doubt a masterpiece. It is entitled *The Information Age: Economy, Society and Culture* and consists of three volumes covering *The Rise of the Network Society*, *The Power of Identity*, and *End of Millennium* respectively (published by Blackwell, 1996-1998). Its scientific contribution is a modern "dinosaur" in the development sociology of the end of the twentieth century. The author brilliantly describes and analyses the fundamental social transformation leading towards an informational society, which is taking shape at the moment. The main concept used in order to understand this transformation is "network". This notion is the skeleton of the "dinosaur" which is indubitably covered by a great deal of flesh, but this leaves the question of whether it can support the animal in action.

Castells' fundamental hypothesis is that within industrial society new forms of co-operation have emerged co-eval with the birth of digital technology and communication. They are resulting in a complete transformation of society owing to the ubiquitous penetration of network organization into all its aspects, such as production, consumption, family, state, politics, and even global crime. This indisputably enhances

the intertwining of societies on a worldwide scale, a process covered by the notion of globalization, which is especially predominant in global financial institutions, but is also found in multinational enterprises and many other domains. Conversely, this transformation has engendered strong developments, even social movements, at grass-roots level, propelling people into a search for identity, which is often found in or constructed on the basis of cultural, ethnic, social, or geographic roots and circumstances. The state and the national political processes are torn apart by this bifurcation. As the states have to co-operate in multinational institutions and in dealing with these higher levels to some degree they alienate themselves from their constituencies, losing their legitimacy. Political processes, moreover, have to adapt to mass media to which they find themselves subjected as one of their major vehicles. Inexorably their character changes as they become personalized by the television and digital communication, which makes politicians vulnerable to scandals hyped up by the mass media. One of the fundamental points of Castells' analysis is his concern with democracy, which could be threatened by these informational transformation processes. Another basic point is his concern for the excluded, because many communities in developing countries, particularly in Africa but also those condemned to the slums of the cities of the developed world, will remain outside the networks, consigning them to oblivion. To a certain extent these excluded individuals and communities have found another way to become part of the global informational network, namely by espousing its perverse side, the criminal networks that deal with drugs, prostitution, money-laundering and other illegal activities. This way, in a fairly comprehensive

analysis, Castells has managed to cover a wide range of timely topics. Among these we encounter some to which he had paid ample attention earlier, such as social movements, developing countries and the role of cities. The timely character of the work is also apparent in the extensive treatment of the disintegration of the former USSR and the integration of Europe.

In order to evaluate some of the main ideas of Castells' work, we shall begin by discussing the main postulate that society is organized as a network. Then we shall give an overview how this concept is used in the discussion of different social sectors. Besides this, we shall go deeper into two items that seem crucial to his analysis and its practical implications, i.e. democracy and exclusion. We will end this essay with some evaluative comments.

The Network in Theory

The notion of network is not new to sociology and anthropology. Classic studies have explored forms of networks maintained by people by means of research on interaction, interaction frequencies, paths of indirect interaction, and contents of interaction. This has resulted in models of small group interaction (Barnes, 1972), of chains of relationships between friends of friends (Boissevain, 1974), and of close-knit and loose-knit family structures (Bott, 1957). In urban studies, cities have been perceived as networks of networks with detailed specification of roles and of the domains in which these roles operate (Hannerz, 1980). The way Castells uses the concept of network society is, on the one hand, more primitive and vaguer, as he does not take any such literature into account. He simply defines a network as "a set of interconnected nodes" and a node as "a point where a curve intersects itself" (Castells, 1996, I: 470). According to this notion, the flows in networks have no or equal distance between the nodes, as for example in case of instant messages exchanged between computers. At the intersecting nodes, which connect different networks, power becomes inherent through the possibility of switching on and off, regulating the connection between different networks. Network-based societies are open, dynamic, and innovative structures. The node in these societies may take different

forms varying from stock exchange markets to councils of ministers, from money-laundering financial institutions to research groups or company headquarters. On the other hand, because of its vagueness, the concept of network society assumes a more encompassing character than the traditional meanings of the concept, becoming something of an over statement. The problem is, not only society as a whole is characterized as a network, the parts of society are also seen as networks. Computer and mass media infrastructure, business enterprises, the family, the state, social movements, criminal organizations, upon inclusion in the informational society, all are subjected to the network logic. This explains why we encounter concepts such as Internet, network enterprise, small businesses network, family network, netwar, networks of crime, global network, decentralized network, ethnic network, network state and so on and so forth. Used in these ways the concept of network is not operating basically as a means of analytic determination, differentiation and restriction, but as an inclusive, even sweeping, notion directed towards synthesis by means of the detection and exposure of the growing operation of network logic throughout society.

However, the network society, according to Castells constitutes only part of what he calls the informational society, which is increasingly taking shape. This new society also includes other phenomena such as social movements and the state. The informational society, moreover, is not the only form of society characterized by the use of knowledge and information, because these instruments have also played a role, for example, in the industrial and agrarian societies. The informational society, in contrast, is based on the convergence of new informational technologies and organizational network logic leading to a new source of productivity on the basis of the generation, processing and transmission of information (Castells, 1996, I: 21). The transition towards the network and informational society, of which we see the symptoms around us, is fundamentally reshaping all sectors in society. Castells does not fall into the trap of explaining this transformation purely by technological change. He describes the origin of computer technology, particularly the Internet system, in the framework of

its social context. Internet became a decentralized system because of the fear of destruction by nuclear warfare, which could destroy all centralized information channels in one strike. These social conditions generated by the Cold War led to the need and invention of a decentralized Internet system which could continue to function even when parts were destabilized or destroyed.

So, the problem of Castells' conceptualization is not technological determinism. The nub lies in the umbrella concept of network itself. Networks were not a phenomenon called into existence by the new era. They have always existed and it is clear that in industrial societies enterprises constituted large interrelated chains of supply. Family relations, particularly in cases when extended families were predominant, may also be considered to possess network traits. And, to add just a third example, criminal groups also operated as networks as is known from the Mafia in Italy and the USA, as well as the Chinese in Asia, the latter with their so-called bamboo network. So, the problem of Castells' notion of network is, that, upon further consideration, it does not really lead to a distinction between the past "network society" and the coming one. It is interesting that Castells is obviously aware of this point when he writes: "While the networking form of social organization has existed in other times and spaces, the new information technology paradigm provides the material basis for its pervasive expansion throughout the entire social structure" (Castells, 1996, I: 469). This means that the crucial difference is not the network logic itself, but its wide penetration into all corners of society. And this explains the ambivalent feelings one develops when unravelling the three volumes. Indubitably, the social landscapes that are explored incite great enthusiasm because of the far-flung vision that is developed which encompasses all sorts of phenomena encountered in present-day daily life. Opposed to this, the reader gets the feeling that societal changes are not terribly fundamental. It is difficult to deny that the reader feels seduced by the broad generalizations, but basically the terminology of electronic circuits and digital communication is being applied to social phenomena. We have seen the application of other such metaphors in soci-

ology before, examples being the mechanical metaphor used during the industrial revolution portraying society as a machine, the ecological metaphor used by the Chicago School in the 1920s, the seasonal metaphor of cyclical societal transformation employed by Spengler (1918-1923) between the two world wars, and the organic metaphor of structural functionalism that became dominant in the 1950s and 1960s. Now in the work of Castells, a new metaphor is skillfully elaborated: the metaphor of the computer era, namely the electronic network.

The Network in Practice

Having described networks in theory, we will have a look at how this theoretical concept is used to analyse the different aspects of contemporary social life.

Technology

Since the 1970s the world has been in the grip of a technological revolution. In terms of the size of its impact on society, it is at least as important as the Industrial Revolution in the eighteenth century. The new technological revolution consists of the development and use of micro-chip technology as a carrier of information, of computers and networking between computers to store and transmit information. The application of these technologies to human relations in production, retail and consumption has triggered off an explosion of new possibilities. It is also bringing its own order. As a process parallel to the restructuring of capitalism, this technological revolution is also destroying the social world created by Fordist mass production.

Castells has set himself the task of analysing the social implications of this new technological revolution and the restructuring of capitalism in a comprehensive way. He does not begin with the assumption that technology and economy determine society. Technology is a part of society, and develops in dialectical interaction with society. Therefore, the outcomes of the above-mentioned transformation process are the result of this complex interaction.

This transformation process, as projected by Castells, has two main characteristics, i.e. the network becoming the dominant morphology of all aspects of social life, and the uneven

diffusion of this network morphology throughout the world. Despite the rapid diffusion of the new technologies, Castells warns his readers right from the beginning that a large, mainly uneducated, part of the world population is either excluded from these technologies, or is adversely affected by them. This is his "Fourth World", which is to be found in both rich and poor countries alike. This divergence has to do with the differential ability of societies, groups of people, or individuals to master the new technologies. This differential ability is an important source of international and intranational inequality. Lessons from the United States, France and countries in Asia tell us that the state plays an important role as initiator of technological development.

Below, we shall discuss the paramount characteristic of the new society as projected by Castells, i.e. the network as the dominant morphology, in more detail. We shall describe the diffusion of the network form of social activity as part of the transformation process and its expression in the economy and in culture. With respect to the economy, three levels are discussed: the macro economy, the management of enterprises and the organization of work within the enterprise. We shall elaborate on culture as expressed in the media and in the use of space and time.

Economy

Since the 1970s industrial capitalism has been restructured. Fordist mass production experienced a crisis of profitability in that decade. The vertically integrated giant enterprise was no longer the most advanced way of organizing production. Deregulation, privatization and globalization of production and distribution, as well as the demise of the welfare state, in combination with the use of new information technologies, led to a new economic structure in the form of a network. In this network the economically dominant regions, social groups, and functions are interconnected in real time - through these new information technologies - and are interdependent. Flows of capital and information circulate between these regions and social groups. Not all territories and people are included in this network. A network has a flexible structure, which implies that those who are connected and those

who are not, can change over time. We see this for example in the rapid inclusion of some parts of China, like the Pearl River Delta. The main economic differences are no longer found between "the North" and "the South" but within these regions. Some countries in the so-called Third World are developing very fast, while others are being left behind. South Korea, for example, has increased its Gross Domestic Product per capita more than tenfold, from the average level of Africa in 1950 to the level of Greece, Ireland and Portugal in 1992 (Castells, 1998, III: 76, 78). Also within countries some social groups or territories are developing while others stagnate, even in "the North". We can concur with Castells that the Third World no longer exists. Castells uses the concept "Fourth World" to denote all those excluded regions and peoples in the world.

The question remains whether this structure is really as new as Castells would have us believe. As he himself says in his conclusion to the first volume, networks have existed in other times and places. In the seventeenth and eighteenth centuries, for example, the VOC (Verenigde Oostindische Compagnie, Dutch East India Company) had an extensive trading network, connecting regions throughout Asia. Maybe it would be better to see the structure emerging at present as evolving from earlier structures rather than as being a discontinuity as Castells suggests. Having said this, we do agree with Castells that at present the economic structure is in transition and characterized by the largest interconnection, interdependence and flexibility ever known. This does not preclude a more stable system in the future, created by new legislation.

Enterprises

As already mentioned above, the network logic, applied in the use of chip-technology, computers and networking between computers, is reshaping the world economy. Not only at the level of the world economy is this networking between interacting units becoming the dominant organizational form. This is also true for enterprises. As a response to the need of an enterprise to react quickly to the constantly changing operational environment, and to tailor the product to the ever-changing taste of the customers, the organization of production has had

to become flexible. The result of this effort is the demise of large, vertically structured enterprises in which mass production and distribution are both co-ordinated in a rigid top-down manner. This form of organization is being replaced by the corporation which is no longer self-contained but part of a network of enterprises and has itself become organized as a network. This new organizational logic has found expression in diverse forms. The enterprise, for example, can be part of different kinds of networks like multinational networks, licensing or subcontracting networks and networks of corporate strategic alliances. These constructions allow enterprises to share costs and risks, and to keep up with the continually renewed technology and information (Castells, 1996, I). It is increasingly hard for enterprises, which are not part of a network to survive. Besides being part of a network, corporations' are increasingly organized as a network themselves. Adaptability is needed if a corporation is to be competitive. Constantly changing consumer demands and production possibilities make it necessary for a corporation to have access to direct, on the spot information. In order to being able to incorporate this information in the production process, the enterprise has to be organized in a flexible way. A decentralized organization, with a degree of autonomy given to the decentralized units, is well suited to this purpose. At the same time, with the introduction of the use of the new information technologies, it has become possible to co-ordinate the different tasks of the information retrieved by these decentralized units. This has made it feasible to centralize and decentralize at the same time, small enterprises being incorporated into large ones, but still keeping a great deal of autonomy. In our opinion, the attention Castells pays to decentralization and centralization is unequal, focusing mainly on the former tendency. For example, we believe he underestimates the centralization tendencies in multinational corporations expressed by co-operation, merging and purchasing of companies.

Labour

When we look at the level of labour, the processes of restructuring of capitalism and the use of new information technologies have implied

the demise of full-time, life-time employment, organized around clear-cut assignments. Labour has been made flexible and individualized, making it more difficult for workers to organize themselves into unions and to put forward collective demands. Life-time job guarantee is becoming more the exception than the rule. People are being retrained to perform multi-skilled, multi-functional jobs with great decision-making power. It makes them more versatile than people with specific tasks and skills, ensuring they are better able to respond to the changes in the needs of the industry and in the demands of the market. There is a growing division between the people who are able to acquire the skills needed for this kind of employment and those who are not able to do so. The later group is being increasingly easily disposed of in this global economy when no longer needed. This division is essentially one between people with a high educational standard and people with little or no education. Besides being increasingly flexibilized and polarized, the world's labour force is becoming increasingly interdependent. Inexorably, for example, Dutch farmers are finding it a growing uphill battle to compete in price with beef from Argentina where land is not as expensive. And the cacao producers in Africa will suffer economically when a substitute for cacao butter is allowed on the European market.

It seems to us that though the concept of the network as a whole is applicable here, what would be more appropriate are some characteristic aspects of networks, namely flexibility, interdependency and duality (polarization).

Media and Culture

The development and diffusion of new information technologies create new possibilities for communication. Through these new communication possibilities culture is - according to Castells - being transformed into what he calls the culture of real virtuality.

In the 1980s the mass media were being transformed into more customized, individualized, decentralized and globally interconnected systems. Major newspapers have different editions tailored to specific geographical areas, radio stations are increasingly (thematically and regionally) specialized, the number of television

channels has increased tremendously, providing a plethora of programs broadcast over the whole world. With the use of the video recorder and walkman, it is possible to indulge your private taste of music and film; with the camcorder it is possible to produce your own images.

Another important development in the field of communication is the emergence of computer-mediated communication, back-boned by Internet. The whole realm of social activities is integrated in this network of networks, from politics to sex, from banking and shopping to personal communication. However, in spite of the global reach of Internet, only a minority of, usually well educated, people have access to this network.

The fusion of mass media and computer-mediated communication in the second half of the 1990s has created a new interactive, global, electronic communication system, called multimedia, in which text, sound and image are integrated. Virtual universities and the performance of surgery from a distance have become a possibility. All aspects of human experience, all cultural expressions can be encompassed by multimedia. This is possible because this new medium is comprehensive, diversified and malleable. The whole reality can be captured in this virtual image setting and even new realities are created.

However, not all messages do enter this communication system. As already stated, not everybody has the knowledge and technology to interact through this new medium. One of the consequences of these new communication technologies is that the ideas which are not expressed in the global arena of sound, image and text are being localized and marginalized. Yet there is, Castells says, no trend towards the homogenization of cultural expressions in this medium exactly because of the diversity and versatility of the system. Another social consequence of the new communication possibilities is that they weaken the bases of traditional power, such as religion, political ideology and traditional values, should these not be incorporated into the new system. One of the possible reasons why Islamic fundamentalism is not declining might be its successful use of technologies like tape recorders and television to spread Islamic prayers (e.g. the broadcasting of prayers from Mecca during the

fasting month) (Appadurai, 1996).

In his account Castells gives the impression that real virtuality is the dominant culture of the network society. We would prefer to disagree and to suggest that contemporary culture cannot be equated with the culture of real virtuality, but that real virtuality is a "total social phenomenon", expressing contemporary culture, but not completely encompassing it. Castells' analysis fails to clarify how far the influence of this culture of real virtuality reaches. Maybe at present it is not yet possible to determine this, but it remains hard for us to imagine that the whole of human life takes place behind the computer in a virtual space. When that moment comes, it might not be a privilege at all to be "connected".

Space

Because of the use of new information technologies, spatial contiguity is no longer a prerequisite for time-sharing social and economic interaction. This means that activities are no longer bounded to a specific locale, because they can be performed and co-ordinated from a distance.

In this context, dominant activities assume the form of a flow (e.g. flows of capital, information, images), circulating around the world in split-seconds. But these flows do not just come from and go anywhere. Castells distinguishes between dominant places where a lot of flows converge (the space of flows) and places which are bypassed (the space of places). The spaces of flows are connected with each other in a network. It should be mentioned, however, that this network is not completely horizontal in form as some places in this network are more important than others; there are global, national and regional centres. The network itself has an open, flexible structure in which the composition and hierarchy of the different places can, and does change.

Time

In the network society not just space is flexibilized, time is subject to the same process; these two processes being linked to each other. Time has become a resource, which can be manipulated. This is expressed in different aspects of life.

One example is the world of global capital markets in which time management is a crucial aspect of money-making. Financial flows circulate around the world, being transferred from one economy to another in seconds. Time can be a source of value, if one knows how to play the game in the stock and currency market. Fast adaptation to changing market-circumstances is also important to enterprises. Unlike that in the assembly line of mass production industries, the production in the network enterprise can and should be tailored to the market requirements of that moment. Effective time-management is crucial for the compatibility of an enterprise.

The manipulation of time as a resource is not confined to the economic sphere, it even impinges on the personal sphere of reproduction. We are increasingly able to regulate our own fertility and to increase our lifetime. *In vitro* fertilization and the freezing in of embryos makes it possible to deliver a baby years after its conception or to have a grandmother deliver her grandchild. So, the restriction of reproductivity as a very old practice is amplified by new methods, which provide the possibility for the rearrangement of reproductivity.

In the dominant spheres of society, time is being transformed into two new forms, i.e. simultaneity and timelessness. New technologies make instant information transmission and receiving and live-reporting possible, allowing us to watch minute by minute the performance of the American soldiers in the Gulf War, albeit these images showed only one side of reality. Castells defines timelessness as a temporality in which the sequential order of things is systematically perturbed (Castells, 1996, I). In multimedia and on television, for example, a collage of temporalities is presented, permitting us to roam from the Middle Ages, to the Stone Age and to the future in a matter of seconds. Castells' idea is that this new form of time is an important element of our contemporary culture, internalized by children educated in this new context. Not everywhere though, is this new form of time dominant. "Timeless time belongs to the space of flows", just as clock time and biological time still belong to the space of places (Castells, 1996, I: 465).

This temporal difference between the space of flows and the space of places is expressed in

warmaking. Both the Gulf War and the violent conflict in the snowy mountains of the Saltoro Range between India and Pakistan have been fought in this decade. But it seems that here the similarity ends there. They are examples of the two present types of wars Castells distinguishes. The first one being - from the side of the allied forces - a high-tech, fast, "clean" and intense war, referred to by Castells as *netwar* (Castells, 1996, I), the second a forgotten, endless, slow-motion and human-intensive war.

The Gulf War was followed by the television-watching masses as if it were a video game, the human suffering was eliminated. This sanitation succeeded then but we doubt whether this cleanliness will be able to be upheld in a next massive war, as reporters now are on-line, being able to show the whole world directly the consequences of the fighting.

Besides simultaneity and timeless time, Castells also distinguishes glacial time as being characteristic of the present. The notion of glacial time captures the idea, advocated by the environmental movement, that the relationship between humans and the natural environment should be seen in a long-term perspective. The conflictive notions of timeless time, clock time and glacial time can be understood as "the impact of opposed social interests on the sequencing of phenomena" (Castells, 1996, I: 468). This is expressed, for example, in the contradictory interests of the environmental movement and businessmen with regard to economic growth.

From this review we conclude that the different aspects of contemporary social life have three predominant characteristics in common: flexibility, global interconnectedness and a dual structure. In our opinion these concepts - which are also mentioned by Castells - are more useful for analysis than Castells' concept of network as such. Network as defined by Castells remains rather amorphous, making it possible to put everything under this umbrella, rendering empirical falsification impossible. It would have been better had he clearly defined what he meant by network structure. The three above-mentioned characteristics might be useful in this respect. As the great advantage of these concepts we believe that they can be used to test the hypothesis that the network structure has become the new,

predominant organizational form of contemporary social life.

Democracy Threatened?

Reading through the three volumes of Castells' work, it becomes clear that one of his main concerns is democracy. He argues that a crisis in democracy will probably emerge as a result of the centrifugal powers of on the one hand globalization, and on the other hand the rise of social movements. On top of this, people will lose their trust in the political system as politics becomes increasingly a media show in which the blackmailing of politicians plays an important role. Here we will elaborate on Castells' argument, followed by some critical remarks of our own.

In the globalization and transformation processes described above, the nation state loses its grip on important flows of capital, information and images, which are assuming an increasingly transnational form. The state tries therefore to regain some of its ebbing power in the arena of international institutions. The price is that, in doing so, it, again, loses part of its sovereignty, having to agree on issues which might not always serve the interests of its own population.

The loss of state power in the wake of the transnationalization of important aspects of society is plainly illustrated in the following examples. Through globalization and informationization processes, for instance, financial markets have become interdependent and connected in real time. States can no longer decide on their monetary policies without taking international economic factors outside their control into consideration. This has been illustrated in the 1997-1998 economic crisis in East Asia.

The welfare state, providing the legitimacy and stability of nation-states, is threatened in this process of globalization and informationization. Physical contiguity is no longer a prerequisite for production. Consequently, production can be moved to places with the lowest social benefit costs. Since countries have to compete for investment, the welfare state crumbles to the lowest common denominator. Pertinently, the control over information, according to Castells the traditional tool by which to secure state power, is increasingly being withdrawn from

the power of the state. The media business is being privatized and globalized, and it has become virtually impossible for governments to control satellite transmissions and computer-mediated communication. Besides this, the state's sources of legitimacy and power are under attack, the globalization of organized crime, and the inability of the state to combat it, is also undermining the nation-state. Castells sees global crime as being on an increasing scale and powered by a growing dynamism, often penetrating the entire state structure.

In this era of international interdependence, the sovereignty of the nation-state is further subverted by the necessity to co-operate internationally in, for example, matters of foreign policy and war making. States have to co-operate to secure global security, succeeding with only varying success in the Gulf, Somalia and former Yugoslavia. Moreover, modern weaponry has become so complicated, and is being innovated at such a high speed, that, with the exception of the US, no country can still be self-sufficient in that respect. States have become dependent on global supplier networks. Nor in the area of politics are states any longer able to act on their own. The same goes for environmental issues. One difference is, however, that in that field co-operation often takes the form of international talking instead of international action.

New information technologies have greatly transformed the role of the media in politics. The media, especially television in the US but the same is increasingly so in other countries, have become the main political arena. Without access to these media, political actors are relegated to political marginality. In the process of using the media, politics is being transformed. It is becoming increasingly personalized, political parties or ideologies becoming less important. What counts is image making and the reliability of the politician in question, which opens the way for scandal politics. Political performance is constantly monitored by opinion polling. Political messages become increasingly simplified as couching the messages in readily understandable language seems to be the most effective way of getting them across, but also leaves room for different interpretations. Another Achilles heel is that media advertising costs an enormous amount of

money, sometimes so much that politicians have to rely on less clean sources of sponsorship. Because of all these factors, the public loses confidence in the political system.

The state, according to Castells, is not only eroded from above in the globalization process and the media, this process can also be initiated from below, by social movements and what he calls "the power of identity". Today, he claims, identity is constructed mainly in reaction to the globalization and informationalization processes. This "resistance identity" is diverse and rooted in different cultural and institutional contexts. Despite differences, it originates everywhere from the feeling that people have lost control over their own lives. People revolt against the new global order, identifying this as the source of this feeling. This resistance often leads to the formation of cultural communes or reactive social movements, constructed around primary identities like religious, cultural or territorial identity. Castells mentions the Aum Shinrikyo in Japan, the American Militia in the US and the Zapatistas in Mexico. Not all social movements are formed in defense of traditional values, however. One example of a proactive social movement is environmentalism. It revolts against the environmental degradation caused by economic development and globalization, and is "aiming at transforming human relationships at their most fundamental level" (Castells, 1997, II: 2).

These social movements exert heavy claims on the government. The government, though, cannot always concede to their demands. Were it to do so, it would identify itself too much with these singular identities, which would imply the exclusion of other identities, and with it the end of democracy and the beginning of a fundamentalist state. Politics have also been evolving more towards intervention than towards representation. Supranational institutions are rapidly gaining ground economically and politically. The state is no longer sovereign, but has transferred part of its power to these institutions. In international institutions governments have to agree on issues which might be against the interest of their own populations. States are torn apart by this bifurcation finding themselves on the horns of a dilemma between the need to co-operate and intervene on international scale and the rise of so-

cial movements which resist globalization. When states emphasize their relationship with these institutions too much, they run the risk of losing their empathy for the local population with its local problems, posing a threat to democracy.

So far we have discussed Castells' arguments. His analysis is a fairly pessimistic one, paying too little attention to the possibly positive sides of new technologies and globalization for democracy and nation-states. This negative view is surprising, considering the role he attaches in the first volume to the state in the informationalization process. In this volume Castells writes that the state plays a decisive role in the information technology revolution, and that the state is a critical element in economic development, precisely because of the interdependence and openness of the international economy. He also writes that "countries that are left exclusively to the impulses of market forces become extremely vulnerable to volatile financial flows and technological dependency" (Castells, 1996, I: 89). In our opinion this is correct. Considering that global forces are increasingly penetrating peoples' lives, the state may become more important in defending the well being of its citizens than it ever was during the industrial era. It is not a law of the Medes and Persians that the globalization of crime necessarily undermines the nation-state. In combating crime, the state may even grow in importance. Cogently, Castells' hypothesis concerning an imminent crisis in democracy seems to be contradicted by the attention paid to developing programmes for good governance. It is generally accepted wisdom now-a-days that it is virtually impossible to develop a country without there being a good functioning state structure. We would like to extrapolate on this by saying that without good functioning states, economic performance at a transnational level will also be unlikely. A healthy state is the necessary basis for both globalization and for localization. Moreover, Castells' analysis seems to be contradicted by the fact that a growing number of states have become democratically organized since the 1980s.

In the last pages of the second volume Castells briefly mentions that his analysis of the crisis in democracy does not necessarily have to be right. He sketches a few possibilities for a

revival of democracy, for example, by means of enforced local governmental structures or by means of increased grass-roots participation through new communication technology. These possibilities for the strengthening of democracy are completely out of line with his overall analysis and seriously weaken his own thesis and his concomitant concern for democracy. Whatever happens in the future, Castells will always be right.

Exclusion

The analysis of democracy still leaves the question of why is there so much resistance towards globalization? Castells believes the answer must be sought in the exclusion of a great part of the world population from the benefits of globalization and informationalization. The question which may then be posed is: How do the developing countries figure in the work of Castells? This question requires an answer at two levels, namely the explicit considerations with regard to the developing countries and the implicit imagery presented of them.

Castells does not use the concept of Third World, but the term exclusion as the starting-point for his analysis of the poor in the developing and also in the Western countries. After the fall of the Iron Curtain, the idea of a Third World has become obsolete. In the informational society, the old Cold War political division of the world is no longer valid, because of all sorts of variable processes of inclusion and exclusion. In this context he states that the global informational society is characterized by interdependence, asymmetry, regionalization, increasing diversification within each region, selective inclusiveness and exclusionary segmentation (Castells, 1996, I: 106). These characteristics result in a highly variable geometry, which tends to dissolve past geographical configurations. This means that the excluded are not found only in the developing countries, but also in the Western rural and urban areas. And further, that it is not lack of economic means as such but disconnectedness from the informational society and its networks that determines a new type of "poverty", namely exclusion from the dominant social and economic processes in society. The diversification of global society leads to a

great variety of development trajectories, in which "the South" no longer figures as a unity. The excluded are found in the ghettos of American and European cities, too, while in contrast the included are also encountered in the capitals of African, Asian and Latin American countries. Interconnectedness is determined to a large degree by the economic integration of a group of people, a region or a city district within the global network, but some groups, regions, or city districts, depending on their transition trajectory and adjustment policy with regard to the global economy, are bound to become "structurally irrelevant" for the global network system (Castells, 1996, I: 135).

Examples of excluded areas and groups figure prominently in Castells' books. In his third volume he includes one chapter on the polarization of the world. He uses the concept of Fourth World and in so doing does not break completely with the old idea of a numerically segmented world. But the Fourth World is encountered on all continents. It is founded on processes of social differentiation, namely in the field of consumption by inequality, poverty, and even misery, and in the domain of work by individualization, over-exploitation, social exclusion (mainly by unemployment) and perverse integration, with the latter concept referring to employment generated in the sector of crime. The informational society is characterized by simultaneous economic development and underdevelopment, as well as by social inclusion and social exclusion. Examples of excluded areas or people are "dehumanized Africa" dominated by "vampire states" completely patrimonialized by elites for their own profit, urban poor in the United States and especially in the inner-city - often black and Latino - ghettos as systems of exclusion, and the wretched or over-exploited children of the world such as street children, child workers, sexually abused children and child soldiers. Castells describes these areas and groups that have no value at all for the informational society and calls them the black holes of informational capitalism. His network approach leaves ample room for compassion with these socially excluded groups and clearly has firm critical implications.

However, notwithstanding these positive features of the network approach, we consider

the overall image of the developing countries as portrayed in the book to be negatively biased. The drugs networks and Zapatista social movement dominate the picture of the Latin American countries; social exclusion, failing structural adjustment policies and the corrupt vampire states that of the African countries. The description of the Asian countries is slightly more positive because of the role of Japan and the NICs or Asian "tigers". But here, too, alongside commercial and industrial networks, we find the Chinese bamboo networks, as well as the reactive social movement of the Aum in Japan, which became famous because of the gas attack in the underground of Tokyo, 20 March 1995. This means that a less fundamentally new perspective of the developing countries is provided in the network paradigm than we expected. The developing countries were poor and dependent during the industrial period and they remain poor and excluded in the context of the informational society! Fortunately, Castells' analyses of the decline and falling apart of the former USSR, the reactive social movements in the USA, and the vicissitudes of the European integration partly restore the balance of his implicitly negative image of the developing world by an equally negatively coloured picture of the developed world. In fact, basically his whole analysis has a negative focus stressing the dark sides of the informational society and underestimating its productive power and potentials for social inclusion and democracy.

The concept of exclusion in the network approach remains rather vague and all inclusive. It is - as is the case with the term network society - a synthetic concept which may hold many meanings, such as no connection with Internet, poverty, dependency, lack of power, loss of identity and so on. But with hindsight it appears that social movements of the excluded also use Internet, that exclusion may mean autarky, and that the dispersion of the new means of electronic mass communication is taking place in such a high speed and with such a spectacularly high rate of invention that within a reasonably short time span the greatest part of the world will be included. Then it will appear that not exclusion from the means of mass communication, but the distribution of power is what remains the crucial factor for understanding inequalities in the world.

CONCLUSION

During the past decade grand theories have lost ground in development sociology, which has become fragmented and dominated by an accumulation of themes such as participation, gender, sustainable development, urban poverty alleviation, good governance and so forth. That is why it is quite a relief to experience the synthetic capacity of the work of Castells in his perhaps not fully fledged grand, but undeniably comprehensive theory, which offers a more or less integrated perspective on a broad spectrum of such relevant themes. This perspective, moreover, has the quality of dealing with contemporary societies and the actual transformations leading to new social formations on a worldwide scale, so that a certain feeling for future developments is created without the pretension of delivering futurology. Although the approach is grounded in practice by the use of analysis of case studies of concrete social processes and institutions such as reactive and proactive social movements and all sorts of organizational processes, the main contribution of Castells' theory is situated in the field of enlightenment: an enlightenment with respect to the historical, global and local context of current societal transformations.

The main problem is that the use of the network metaphor basically leads to a unilineal perspective of societal development, albeit with local variations which are not denied and even spelled out broadly. Notwithstanding all sorts of deviations, the general development process is leading to globalization and localization, with the state crushed between the two. Thus, local variation is not denied, but Castells presents no fundamental alternative for unilineal social evolution.

Two other points of criticism expressed above are the vagueness of the concept of network society, which covers too many phenomena in a wide range of domains, and the mainly negative bias of his theory, which leads to implicit pessimism clouding the undeniably sparkling promises offered by the new communication technologies as well as their neutral effects. Both points, however, also represent a strong analytical force, as the vagueness of the concept offers the possibility of synthesis and

inclusiveness often lacking in more restricted approaches. The strongly negative bias of Castells' theory draws attention to possible dangers in current social transformation processes and may function as a support for all those concerned with democracy and the excluded.

The last major point of comment on the theory of Castells is related to the implicit homogenous and more or less Western-biased picture presented of world society. Although examples from all over the world are offered when the different topics are discussed, generalization nevertheless sometimes leads to a Western bias and implicit ethnocentrism. One example is the discussion of family and gender which has a strong American bias and clearly does not cover the great variety of family systems existing in the world. Another example is the presentation of the so-called instant war in the Gulf in 1991, which is described from the allied forces' point of view as a "clean" war, neglecting the suffering of the troops on the Iraqi side with an estimated 230,000 casualties (Siccama and Oostindiër, 1995). Probably this neglect of local variety is the toll levied by the middle range character of Castells' theory,

which - notwithstanding the exciting analysis - is not able to cope with the great diversity of cultural expressions and presents a basically Western view on societal development.

REFERENCES

- Appadurai, A. (1996) *Modernity at Large: Cultural Dimensions of Globalisation*. Minneapolis: University of Minnesota Press.
- Barnes, J.A. (1972) *Social Networks*. Reading: Addison-Wesley.
- Boissevain, J. (1974) *Friends of Friends*. Oxford: Blackwell.
- Bott, E. (1957) *Family and Social Network*. London: Tavistock.
- Castells, M. (1996-1998) *The Information Age: Economy, Society and Culture*, vol. I: *The Rise of the Network Society*, vol. II: *The Power of Identity*, vol. III: *End of Millennium*. Oxford: Blackwell.
- Hannerz, U. (1980) *Exploring the City: Inquiries Toward an Urban Anthropology*. New York: Columbia University Press.
- Siccama J.G. and A. Oostindiër (1995) *Veranderingen in het Conflict en Patroon na de Koude Oorlog: Misverstanden en Feiten*. Den Haag: Instituut Clingendael.
- Spengler, O. (1918-1923) *Der Untergang des Abendlandes*. München: Beck.