

Manuel Castells, born in Spain in 1942, is currently Professor of Sociology and of Planning at the University of California, Berkeley. He is an authority on the information society and is associated with the idea of "the informational city" and the concept of the "space of flows."² Castells' work in the early 1970s drew on the structuralist Marxism of Louis Althusser before undergoing a theoretical shift in the 1980s towards what some have termed "post-Marxism."³ However, Castells is still influenced by Marxian concepts such as class struggle and modes of production.

In 1998 Castells published *End of Millennium*, the last book of a three-volume work entitled *The Information Age: Economy, Society and Culture*.⁴ In doing so, he brought to an end a 12-year research effort to elaborate a new empirically grounded, cross-cultural, sociological theory of the Information Age. Castells' research traces the development of a new social structure associated with the emergence of what he calls "the informational mode of development," in which the source of productivity lies in the technology of knowledge generation, information processing, and symbol communication. As Castells notes: "... there is a specially close linkage between culture and productive forces, between spirit and matter, in the informational mode of development. It follows that we should expect the emergence of historically new forms of social interaction, social control, and social change." (1996, 18). In the following interview, Castells talks openly about his understanding and analysis of theory, technology and cultural power in the emerging Network Society.

I theory

Joanne Roberts: Professor Castells, your recent work, The Information Age: Economy, Society and Culture, appears to be influenced by a type of "post-Marxian" theory. Could you say something about the role, if any, of Marxist theory in your analysis of the rise of new social structures in the Information Age?

Manuel Castells: I do not understand theoretical concepts in terms of "post." Post says what it is not – in this case, Marxism – but not what it is (this is why I reject categories such as

joanne roberts

THEORY, TECHNOLOGY AND CULTURAL POWER *an interview with manuel castells*¹

postindustrial, postmodern, etc.). Besides, it indicates a temporal sequence in theories, or cultures, which seems to me a highly questionable approach. As for my relationship to Marxist theory, I was indeed inspired in my early work, 25 years ago, and until 1982, by a predominantly Marxist framework, which I adapted, and twisted from my specific perspective. I changed over time, not because I became anti-Marxist, or because I betrayed my "left" political values (I am still firmly on the left, at least as I see it), but because Marxism is a theory, not a religion, and not an ideology, as Marxism-Leninism is. I am, and I was 25 years ago, against Marxism-Leninism, a totalitarian ideology, and an instrument of political propaganda, and, too often, of terror.

However, I still use some Marxist concepts (e.g. mode of production, social classes, class struggle) when I need them. But theory is a tool, so over the years Marxist theory became less and less useful as a tool for the kind of processes that I wanted to analyse. So I used

theory, technology, cultural power

this tool less and less, to the point that, today, I doubt my theory can be in any way considered Marxist. For instance, I do not think Marxism can incorporate the concept of social movements beyond class struggle. Or the autonomy of culture. Or gender relations as the basis of patriarchy as a fundamental social structure. Or sexuality, and personality, as a founding sphere of social action. Or the state as a field of conflicts rather than as an expression of class interests. Yet, I think that my work is still highly influenced by the kind of questions that Marxism used to ask, by the attempt to link social structure to collective action, by the interplay between culture, politics, technology, and economic processes, and by the ever present realization that exploitation, and oppression, continue to mark the human condition.

*JR: Although you no longer consider yourself a Marxist, you also reject categories such as the postmodern. However, since the late 1970s we have witnessed the rise of postmodern analyses of technological change, like those of Jean-François Lyotard and Jean Baudrillard.⁵ Moreover, in *The Rise of the Network Society* you appear to speak approvingly of the work of Baudrillard. Could you elaborate on your position towards postmodern analyses of technology?*

MC: Postmodernism is a fashion, rather than a theory, so there are many interesting thinkers, and ideas, in this vaguely defined field. Let me say that my main negative reaction to postmodernism in general is of an epistemological, rather than a theoretical nature. Postmodernism often offers a good description of the disintegration of institutions and categories of the industrial era – but it extrapolates, and often celebrates, this process ahistorically, rationalizing our theoretical impotence to research, explain, and make sense of social phenomena. In this sense it is metaphysics. My main difference with postmodern theorists is that I am epistemologically, solidly anchored in the positivist tradition. I certainly consider theory a most important tool in understanding, and not everything can be observed. Data do

not speak by themselves. But, ultimately, there has to be some connection between observable experience and theoretical explanation. Discourses cannot remain enclosed within themselves. Furthermore, I am a sociologist, not a philosopher, so, for me, theoretical categories are just tools, working tools in my research. If I do not find a tool useful, or if it is too undefined to be utilized, regardless of its brilliance, I am not very interested in it.

I certainly consider Lyotard a most insightful philosopher, and a brilliant intellectual. But I do not know what to do with his theory, and I am not sure I fully understand it. Baudrillard is different. I may have a bias, because we were close friends in 1968, and in the 1970s, and I always appreciated his personal and intellectual integrity. When I read Baudrillard, I gain plenty of theoretical material, and empirical intuitions that I can use in my research. He is not truly a sociologist, he is indeed a philosopher, but he is a useful, and usable, philosopher, for social scientists. His hypotheses on the autonomous dynamics of symbolic objects, and their relationship to the consumption society, his studies on the role of absence in the media, his notion of reality as simulation, are all powerful ideas that I can find, and sometimes verify, in my empirical studies and observations.

So, ultimately, I do not care too much about postmodernism. It will disintegrate as a fashion, and has never been a theory. Components of this fashionable current (I am not really sure that Baudrillard belongs to it) have differential knowledge productivity as tools of theorization. I use some, do not know what to do with others, and laugh at some of the incomprehensible, senseless elaborations, that construct the deconstruction of all constructions “*pour épater les bourgeois*” (I refer to Derrida). It is so much easier to deconstruct than to go through the painful, nitty gritty work of actual research...!

JR: Given your obvious dissatisfaction with both Marxism and postmodernism where would you position your own work in the contemporary intellectual landscape?

MC: I think we are over the model of theory as a series of little boxes: neo-Marxist, neoliberal, structuralist, pluralist, institutionalist, and the like. This is another thing I do not like about postmodernism: it tries to create a new megabox to define an us versus them. This is ideological, counterproductive, and does not correspond to the networking structure of information-age social research. In any case, I do not consider myself a theorist. I am an empirical sociologist, anchored in positivism and Popperian epistemology: a sociologist who tries to make sense of observation with whichever theoretical tools are available, and shift into making new ones when I feel the need (e.g. Network Society).

II technology

JR: *Could you say something about your understanding of the "nature" of technology? Marx, for example, viewed technology as an expression of social relations. What is your view?*

MC: I am no innovator here. Like Daniel Bell, I follow Harvey Brooks, defining technology as "the use of scientific knowledge to specify ways of doing things in a REPRODUCIBLE manner," and I add Claude Fischer's analysis of technology as "material culture" – this is outlined in my *The Rise of the Network Society*.⁶

JR: *Technology, specifically Information and Communication Technology, is central to your analysis of the newly emerging Network Society. But what, if anything, sets the information communication technology revolution apart from previous technological revolutions?*

MC: Information and Communication Technologies are central because they affect knowledge generation and information processing, communication transmission, and all the other activities at the heart of human existence, and human social organization. They affect everything at the heart of culture. The industrial revolution transformed energy generation and delivery, thus influencing material

production. The information revolution is transforming symbolic production and distribution, thus linking more closely production, culture, and power.

JR: *How do you respond to the suggestion that your theoretical analysis of socio-cultural change is technologically determinist?*

MC: My whole analysis, both in my explicit statements and in the actual analyses put forward in my work, rejects the notion of technological determinism; that is, the idea that technology exists independently from society, and that technology determines unilaterally social effects. However, I think technology is an important dimension of society (it only exists in society, as a social form), and that technological characteristics do have relative autonomy *vis-à-vis* their social environment. For instance, if we have computer networks instead of a world of mainframes, it follows that there is a much greater emphasis on flexibility and decentralized interaction, or at least social trends towards networking and decentralized decision-making are enhanced, and made possible by the technology. On the other hand, it is only when there is a strong demand, and a cultural emphasis on networking that computer technology develops in the form of networks.

III cultural power

JR: *In The Informational City, and elsewhere, you identify "the space of flows" as a new spatial form characteristic of social practices that dominate and shape the technological dimensions of the Network Society. How does the space of flows relate to actual geographical locations?*

MC: As I have analysed empirically since 1989, the space of flows is not made up just of electronic flows. It is a space made up of discontinuous locales whose function and meaning depend on their positioning, and repositioning in a network of instrumental flows (e.g. financial centres built in the electronic linkages between business centres around the world, and their ancillary territories).

theory, technology, cultural power

JR: In the Network Society, then, power lies in the hands of an elite that controls the flows connecting the various nodes and hubs of the global network. But how does the elite exercise power?

MC: Elites exercise power, fundamentally, by controlling the switches in the strategic networks; that is, by deciding who/what/when is on/off the network. For instance, rating agencies on global financial markets *vis-à-vis* countries, cities, or corporations. Or media conglomerates deciding the programming and distribution of TV programmes. Or Internet servers when they try (with relative success) to control access to the World Wide Web. But more important than the power to control access to the networks is the autonomous power of flows in these networks, once the flows are generated: for instance, Internet global communication, public opinion movements around media events reporting political scandals, or financial flows overwhelming central banks.

JR: If I could move on now to consider the fate of the nation-state. The sovereignty of the nation-state is being eroded firstly by the globalization of economic activity, technology, and communications, and secondly by the rise of identity based social and cultural movements. You put forward the concept of the "network state" as a response to these challenges. How would you characterize the network state? Isn't it merely a further step towards the ultimate demise of the nation-state?

MC: The network state is the system of political institutions resulting from the links between nation-states, between these states and the international institutions they establish, and between these co-national, supra-national institutions, and the political institutions resulting from the decentralization of the state: regional government, sub-nation-state national governments, local governments, NGOs (Non-Governmental Organizations). The state does not disappear, by any means, in the age of globalization and the Internet. But the sovereign nation-state does: it is being replaced by

the network state (e.g. the adoption of a single currency in the European Union as of January 1st, 1999). Thus, the apparatuses of the nation-state do not disappear, but the nation states of the modern age, in their political meaning, are being phased out, in Europe, and around the world. For example, Indonesia and South Korea are under the control of the IMF, and General Pinochet is being prosecuted in spite of the opposition of the Chilean state. Furthermore, entire political systems are under the partial control of global criminal networks, and even China will be unable to control the use of the Internet if it wants to be in the global communication network.

JR: Is the phasing out of the modern nation-state the reason why in your conclusion to the End of Millennium you argue that, today, power is becoming inscribed "... in the cultural codes through which people and institutions represent life and make decisions, including political decisions." (347)? How can, what you call, "primary identity based movements" resist the power of global informational capitalism and its cultural codes?

MC: Autonomously defined cultural identities are the only possible source of resistance to the power of global instrumental networks. Because only when you change the value system can you be independent from the network – thus building an alternative, non-communicable network. To the overwhelming logic of money making (most of it virtual money making), only the presence of God, nation, or of myself as an absolute, can be opposed as an independent source of meaning, and thus of experience. Primary identity movements resist by just saying no. If enough people keep saying no, the domination of capitalist flows will become an empty shell in most places on the planet. But if capitalist domination sharpens, withdrawal may be followed by the active destruction of the material supports of the networks (telecommunications, communications, and media, as symbols of domination). Cultural wars are not clean, bloodless wars – remember the wars of religion.

JR: Is this why your theoretical position identifies the cultural social movements of the late 1960s and mid-1970s, such as libertarianism, human rights, feminism, and environmentalism, as important factors accounting for the emergence of the Network Society? Could you explain the significance of such movements?

MC: The 1960s social movements, and their related aftermath, made a lasting impact on societies around the world, even if they rarely achieved political success. They were libertarian and cultural, and they induced fundamental transformations of values everywhere: the me culture, environmentalism, feminism, civil rights, human rights solidarity, individualism, distrust of bureaucracies, both corporate and governmental, personal experimentation, spirituality, freedom as a supreme value (neo-anarchism). Most of the movements were mixed with old values from the labour movement, and from the political left. But this was a very superficial layer. What really mattered, and what lasted, was the challenge to established cultural codes and political institutions. The 1960s were precursors of the cultural battles of the information age, and they helped to shape the technological form of the information technology revolution.

JR: You have studied many social movements currently involved in the cultural battles of the Information Age, including Mexico's Zapatistas, the USA's Militia and Patriot movements, Japan's Aum Shinrikyo and the environmental movement. Are there any other social movements that you believe represent a real challenge to the logic of the Net and globalization?

MC: The most promising proactive movements are the movements that are penetrating and subverting the Net: social movements networking in the Net (environmentalists, feminists), grassroots electronic democracy activists, human rights campaigns, and the politically oriented segment of the hackers movement. The globalization of human rights, including the right to survive out of poverty, and illness, and the mobilization around these

goals through the Internet, connecting to social and political institutions throughout the planet, is probably the best example of reversing the trend of domination, through the grass-rooting of the space of flows.

JR: I would like to move on now to discuss the "culture of real virtuality," an idea that is central to your analysis of the Network Society. Could you explain what you mean by this concept?

MC: Electronic-based Virtuality, as cultural expression through electronic means, has created the fundamental symbolic fabric of our lives, including television in all its forms, video, music, radio, and Internet, in an increasingly integrated and interactive hypertext. Thus, this electronic virtuality is an essential dimension of our experience, of our lives, although it does not embrace all our cultural expressions. The culture of real virtuality is a culture in which the cultural codes, and systems of symbolic representation are organized around the electronic hypertext. It is virtual, because it is made up of electronic circuits; it is real, because it frames and shapes our experience; we live in virtuality, so it is real virtuality, not virtual reality, because much of our reality is made up of virtual expressions.

JR: But isn't the culture of real virtuality relevant only to the elite connected to the network? For example, you claim that culture has superseded Nature to the point that Nature is artificially revived as a cultural form. However, surely for those marginalized sections of the world's population the domination of Nature over culture characterizes their existence, and not the culture of real virtuality?

MC: For millennia we fought against a hostile Nature, to survive. In so doing, we certainly generated culture, but it was a culture marked by the themes of Nature. In the Industrial Age, we defined our culture around winning the battle to subdue Nature by work, embodied in the machines, and in the labour to operate these machines. Industrial culture was a culture of production, a culture of material

theory, technology, cultural power

making. Having succeeded in subduing Nature, we do not need to refer to the sagas of our destructive triumph any more: our culture refers to culture, not to an experience external to culture. This is a purely autonomous dynamic in value generation, independent from the material conditions of generating this culture in the battle between work and Nature, and still being human, in opposition to the historical experience of spirituality as supernatural culture, and materiality as natural/anti-natural culture. However, most people in the world are still engaged in a daily struggle for survival, which is largely dependent upon nature – famine, catastrophes, and epidemics. Yet, we know (and people know) that these are man-made catastrophes, linked to socially induced poverty and underdevelopment, and to destructive, senseless wars. So, rather than the nature/anti-nature inducement of culture, we have the culture of despair and dereliction, and the fundamentalist reactions to build cultural values in opposition to this pattern of development. So, the dominant world lives in a culture built around symbolic experimentation, and most of the world lives in a culture built around symbolic resistance. Both are defined as cultural realms autonomous *vis-à-vis* the realm of production, and consumption. They are symbolically generated systems of symbolic representation.

IV moving on

JR: Finally, could I ask you about the direction of your future work? In The Information Age you give much attention to culture. Is this indicative of the nature of your future research?

MC: I organize my work and life from six months to six months, following the pace of my medical exams, so I do not know my work plans “for the future.”⁸ However, I can tell you what I am doing currently. Firstly, as always, I teach full time. Secondly, I am debating my book around the world, mainly by media interviews, email, and video conference – I hate to travel, and because I teach in California I cannot travel

much anyway. Thirdly, I am helping to build a network of faculty and graduate students to relate seriously to the socio-cultural dimensions of information and communication technology, in cooperation with computer scientists, biologists, linguists and so on. Fourthly, I am working empirically on globalization, technology and culture in Russia, and in Latin America. Fifthly, the empirical focus of my current work is on the social, cultural, and political uses of the Internet. Lastly, culture? Yes, but mainly around the issue of electronic culture. If I have time, I would like to explore the issues raised by the emergence of electronic art. My broader intellectual project at this point is to help induce, for the young generation of social scientists, a new enthusiasm for exploring the society emerging around us, to help them to find the taste of meaningful empirical research, conveniently linked to theoretical elaboration, to go beyond the artificial paradises of empty rhetoric and obsolete ideologies, to dare to invent, and to enjoy the pleasure of discovery. I hope my book on the Information Age will not be taken as a final word (right or wrong), but as a platform for debate, as an exploratory work to be fruitfully superseded by the dynamics of this debate.



notes

1 This interview was conducted by electronic mail between September and December 1998. I would like to thank Manuel Castells for giving his valuable time to this project. I am also grateful to Kevin Robins for comments on an earlier draft. Finally, I am indebted to John Armitage for his encouragement and excellent editorial support.

2 See, for example, *The Informational City: Information Technology, Economic Restructuring, and the Urban-Regional Process* (Oxford: Blackwell, 1989).

3 Castells wrote his first major book, *The Urban Question: A Marxist Approach* (1972), trans. Alan Sheridan (Cambridge, MA: MIT, 1977), whilst teaching and researching at the University of Paris. Frank Webster uses the term “post-Marxism” in

relation to Castells in his book *Theories of the Information Society* (London: Routledge, 1995) 193.

4 See *The Information Age: Economy, Society and Culture: Volume I: The Rise of the Network Society; Volume II: The Power of Identity; Volume III: End of Millennium* (Oxford and Massachusetts: Blackwell, 1996, 1997, 1998).

5 See, for example, Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge* (1979), trans. Geoff Bennington and Brian Massumi (Manchester: Manchester UP, 1984); Jean Baudrillard, *Simulotions*, trans. Paul Foss, Paul Patton and Philip Beitchman (New York: Semiotext(e), 1983).

6 Here Castells refers to Harvey Brooks' "Technology and the ecological crisis," a lecture given at Amherst, May 9, 1971; Daniel Bell, *The Coming of the Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1976); Claude Fischer, *Americo Colling* (Berkeley: UC, 1979).

7 For example, in a review of Castells' *The Rise of the Network Society* (*Times Higher Education Supplement*, December 13, 1996) the renowned sociologist Anthony Giddens notes that although Castells "tries to side-step technological determinism, [he] does allocate too much influence to information technology in the scenarios he sketches out."

8 Manuel Castells is in remission from a serious illness.

Manuel Castells
228 Wurster Hall
University of California
Berkeley
CA 94720
USA

Joanne Roberts
Division of Economics
Northumberland Building
University of Northumbria at Newcastle
Newcastle upon Tyne NE1 8ST
UK
E-mail: joanne.roberts@un.n.ac.uk