

The Information Age

Economy, Society, and Culture

Volume III

End of Millennium

This final volume in Manuel Castells' trilogy studies the key defining processes taking place in the last decade of the twentieth century as an expression of the crises resulting from the transition between the old industrial society and the emerging global network society.

The book studies empirically the collapse of the Soviet Union, tracing it back to the incapacity of industrial statism to manage the transition to the Information Age. Castells documents how inequality, poverty, and social exclusion, nationally and globally, are an inherent feature of the type of network society that emerged under the domination of global capitalism. He proposes that the rise of a global criminal economy is a fundamental development that would alter the way societies, economies, and institutions are to be understood in our time. Highlighting the growth of the Asian Pacific as the most dynamic region of the world economy the author explains why China, rather than Japan, is the economic and political actor revolutionizing the global system. Further, he studies the European Union as the expression of a new form of political institution, the Network State.

After linking the content of *End of the Millennium* to current developments, the new preface to this volume assesses the validity of the theoretical construction presented in the conclusion of the trilogy, proposing some conceptual modifications in light of the observed experience.

Table of Contents for Volumes I and II of Manuel Castells' *The Information Age: Economy, Society, and Culture*

Volume I: The Rise of the Network Society

Prologue: The Net and the Self

- 1 The Information Technology Revolution
 - 2 The New Economy: Informationalism, Globalization, Networking
 - 3 The Network Enterprise: The Culture, Institutions, and Organizations of the Informational Economy
 - 4 The Transformation of Work and Employment: Networkers, Jobless, and Flex-timers
 - 5 The Culture of Real Virtuality: The Integration of Electronic Communication, the End of the Mass Audience, and the Rise of Interactive Networks
 - 6 The Space of Flows
 - 7 The Edge of Forever: Timeless Time
- Conclusion: The Network Society

Volume II: The Power of Identity

Our World, Our Lives

- 1 Communal Heavens: Identity and Meaning in the Network Society
 - 2 The Other Face of the Earth: Social Movements against the New Global Order
 - 3 The Greening of the Self: The Environmental Movement
 - 4 The End of Patriarchalism: Social Movements, Family, and Sexuality in the Information Age
 - 5 Globalization, Identification, and the State: A Powerless State or a Network State?
 - 6 Informational Politics and the Crisis of Democracy
- Conclusion: Social Change in the Network Society

End of Millennium

Second edition
With a new preface

Manuel Castells

 **WILEY-BLACKWELL**

A John Wiley & Sons, Ltd., Publication

This second edition with a new preface first published 2010

© 2010 Manuel Castells

Edition history: Blackwell Publishers (1e, 1998), Blackwell Publishers (2e, 2000)

Blackwell Publishing was acquired by John Wiley & Sons in February 2007. Blackwell's publishing program has been merged with Wiley's global Scientific, Technical, and Medical business to form Wiley-Blackwell.

Registered Office

John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom

Editorial Offices

350 Main Street, Malden, MA 02148-5020, USA

9600 Garsington Road, Oxford, OX4 2DQ, UK

The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

For details of our global editorial offices, for customer services, and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell.

The right of Manuel Castells to be identified as the author of this work has been asserted in accordance with the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book. This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold on the understanding that the publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data is available for this title

ISBN: 978-1-4051-9688-8

A catalogue record for this book is available from the British Library.

Set in 10.5/12 Sabon by SPi Publisher Services Ltd, Pondicherry, India

Contents

List of Tables	xi
List of Figures	xii
List of Charts	xiii
Preface to the 2010 Edition of <i>End of Millennium</i>	xiv
Acknowledgments 1997	xxvii
A Time of Change	1
1 The Crisis of Industrial Statism and the Collapse of the Soviet Union	5
The Extensive Model of Economic Growth and the Limits of Hyperindustrialism	10
The Technology Question	26
The Abduction of Identity and the Crisis of Soviet Federalism	37
The Last <i>Perestroika</i>	46
Nationalism, Democracy, and the Disintegration of the Soviet State	56
The Scars of History, the Lessons for Theory, the Legacy for Society	62

2	The Rise of the Fourth World: Informational Capitalism, Poverty, and Social Exclusion	69
	Toward a Polarized World? A Global Overview	74
	The De-humanization of Africa	85
	<i>Marginalization and selective integration of Sub-Saharan Africa in the informational-global economy</i>	85
	<i>Africa's technological apartheid at the dawn of the Information Age</i>	93
	<i>The predatory state</i>	97
	Zaire: the personal appropriation of the state	100
	Nigeria: oil, ethnicity, and military predation	103
	<i>Ethnic identity, economic globalization, and state formation in Africa</i>	106
	<i>Africa's plight</i>	116
	<i>Africa's hope? The South African connection</i>	123
	<i>Out of Africa or back to Africa? The politics and economics of self-reliance</i>	128
	The New American Dilemma: Inequality, Urban Poverty, and Social Exclusion in the Information Age	130
	<i>Dual America</i>	131
	<i>The inner-city ghetto as a system of social exclusion</i>	142
	<i>When the underclass goes to hell</i>	150
	Globalization, Over-exploitation, and Social Exclusion: the View from the Children	154
	<i>The sexual exploitation of children</i>	159
	<i>The killing of children: war massacres and child soldiers</i>	162
	<i>Why children are wasted</i>	164
	Conclusion: the Black Holes of Informational Capitalism	166
3	The Perverse Connection: the Global Criminal Economy	171
	Organizational Globalization of Crime, Cultural Identification of Criminals	173
	The Pillage of Russia	185
	<i>The structural perspective</i>	189
	<i>Identifying the actors</i>	190
	Mechanisms of Accumulation	193
	<i>Narcotrafico</i> , Development, and Dependency in Latin America	198
	<i>What are the economic consequences of the drugs industry for Latin America?</i>	202
	<i>Why Colombia?</i>	204

The Impact of Global Crime on Economy, Politics, and Culture	209
4 Development and Crisis in the Asian Pacific: Globalization and the State	215
The Changing Fortunes of the Asian Pacific	215
<i>Heisei's Japan: Developmental State versus Information Society</i>	223
<i>A social model of the Japanese developmental process</i>	225
<i>Declining sun: the crisis of the Japanese model of development</i>	236
<i>The end of "Nagatacho politics"</i>	248
<i>Hatten Hokka and Johoka Shakai: a contradictory relationship</i>	251
<i>Japan and the Pacific</i>	258
Beheading the Dragon? Four Asian Tigers with a Dragon Head, and their Civil Societies	259
<i>Understanding Asian development</i>	261
<i>Singapore: state nation-building via multinational corporations</i>	262
<i>South Korea: the state production of oligopolistic capitalism</i>	266
<i>Taiwan: flexible capitalism under the guidance of an inflexible state</i>	270
<i>Hong Kong model versus Hong Kong reality: small business in a world economy, and the colonial version of the welfare state</i>	274
<i>The breeding of the tigers: commonalities and dissimilarities in their process of economic development</i>	279
<i>The developmental state in East Asian industrialization: on the concept of the developmental state</i>	286
<i>The rise of the developmental state: from the politics of survival to the process of nation-building</i>	288
<i>The state and civil society in the restructuring of East Asia: how the developmental state succeeded in the development process</i>	293
<i>Divergent paths: Asian "tigers" in the economic crisis</i>	297
<i>Democracy, identity, and development in East Asia in the 1990s</i>	303
Chinese Developmental Nationalism with Socialist Characteristics	311
<i>The new Chinese revolution</i>	312

<i>Guanxi capitalism? China in the global economy</i>	317
<i>China's regional developmental states and the bureaucratic (capitalist) entrepreneurs</i>	321
<i>Weathering the storm? China in the Asian economic crisis</i>	325
<i>Democracy, development, and nationalism in the new China</i>	328
Conclusion: Globalization and the State	337
5 The Unification of Europe: Globalization, Identity, and the Network State	342
European Unification as a Sequence of Defensive Reactions: a Half-century Perspective	344
Globalization and European Integration	352
Cultural Identity and European Unification	361
The Institutionalization of Europe: the Network State	365
European Identity or European Project?	368
Conclusion: Making Sense of our World	371
Genesis of a New World	372
A New Society	376
The New Avenues of Social Change	387
Beyond this Millennium	389
What is to be Done?	394
Finale	395
Summary of Contents of Volumes I and II	397
References	399
Index	433

Conclusion: Making Sense of our World

*This means to say that scarcely
have we landed into life
than we come as if new-born;
let us not fill our mouths
with so many faltering names,
with so many sad formalities,
with so many pompous letters,
with so much of yours and mine,
with so much signing of papers.*

*I have in mind to confuse things,
unite them, make them new-born,
mix them up, undress them,
until all light in the world
has the oneness of the ocean,
a generous, vast wholeness,
a crackling, living fragrance.*

Pablo Neruda, fragment of "Too Many Names," *Estravagario*

This is the general conclusion of the three-volume book, *The Information Age: Economy, Society, and Culture*. I have tried to avoid repetition. For definition of theoretical concepts used in this conclusion (for example, informationalism, or relationships of production), please refer to the Prologue of the book in volume I. See also the conclusion of volume I for an elaboration of the concept of network society, and the conclusion of volume II for an analysis of the relationships between cultural identity, social movements, and politics.

Genesis of a New World¹

A new world is taking shape at this turn of the millennium. It originated in the historical coincidence, around the late 1960s and mid-1970s, of three *independent* processes: the information technology revolution; the economic crisis of both capitalism and statism, and their subsequent restructuring; and the blooming of cultural social movements, such as libertarianism, human rights, feminism, and environmentalism. The interaction between these processes, and the reactions they triggered, brought into being a new dominant social structure, the network society; a new economy, the informational /global economy; and a new culture, the culture of real virtuality. The logic embedded in this economy, this society, and this culture underlies social action and institutions throughout an interdependent world.

A few, decisive features of this new world have been identified in the investigation presented in the three volumes of this book. The information technology revolution induced the emergence of informationalism, as the material foundation of a new society. Under informationalism, the generation of wealth, the exercise of power, and the creation of cultural codes came to depend on the technological capacity of societies and individuals, with information technology as the core of this capacity. Information technology became the indispensable tool for the effective implementation of processes of socio-economic restructuring. Particularly important was its role in allowing the development of networking as a dynamic, self-expanding form of

1 In discussions in my seminars in recent years a recurrent question comes up so often that I think it would be useful to take it to the reader. It is the question of newness. What is new about all this? Why is this a new world? I do believe that there is a new world emerging at this turn of millennium. In the three volumes of this book I have tried to provide information and ideas in support of this statement. Chips and computers are new; ubiquitous, mobile telecommunications are new; genetic engineering is new; electronically integrated, global financial markets working in real time are new; an inter-linked capitalist economy embracing the whole planet, and not only some of its segments, is new; a majority of the urban labor force in knowledge and information processing in advanced economies is new; a majority of urban population in the planet is new; the demise of the Soviet Empire, the fading away of communism, and the end of the Cold War are new; the rise of the Asian Pacific as an equal partner in the global economy is new; the widespread challenge to patriarchalism is new; the universal consciousness on ecological preservation is new; and the emergence of a network society, based on a space of flows, and on timeless time, is historically new. *Yet this is not the point I want to make.* My main statement is that it does not really matter if you believe that this world, or any of its features, is new or not. My analysis stands by itself. This is our world, the world of the Information Age. And this is my analysis of this world, which must be understood, used, judged, by itself, by its capacity, or incapacity, to identify and explain the phenomena that we observe and experience, regardless of its newness. After all, if nothing is new under the sun, why bother to try to investigate, think, write, and read about it?

organization of human activity. This prevailing, networking logic transforms all domains of social and economic life.

The crisis of models of economic development for both capitalism and statism prompted their parallel restructuring from the mid-1970s onwards. In capitalist economies, firms and governments proceeded with a number of measures and policies that, together, led to a new form of capitalism. It is characterized by globalization of core economic activities, organizational flexibility, and greater power for management in its relation to labor. Competitive pressures, flexibility of work, and weakening of organized labor led to the retrenchment of the welfare state, the cornerstone of the social contract in the industrial era. New information technologies played a decisive role in facilitating the emergence of this rejuvenated, flexible capitalism, by providing the tools for networking, distant communication, storing/processing of information, coordinated individualization of work, and simultaneous concentration and decentralization of decision-making.

In this global, interdependent economy, new competitors, firms and countries came to claim an increasing share of production, trade, capital, and labor. The emergence of a powerful, competitive Pacific economy, and the new processes of industrialization and market expansion in various areas of the world, regardless of recurrent crises and systemic instability, broadened the scope and scale of the global economy, establishing a multicultural foundation of economic interdependence. Networks of capital, labor, information, and markets linked up, through technology, valuable functions, people, and localities around the world, while switching off from their networks those populations and territories deprived of value and interest for the dynamics of global capitalism. There followed the social exclusion and economic irrelevance of segments of societies, of areas of cities, of regions, and of entire countries, constituting what I call the "Fourth World." The desperate attempt by some of these social groups and territories to link up with the global economy, to escape marginality, led to what I call the "perverse connection," when organized crime around the world took advantage of their plight to foster the development of a global criminal economy. It aims at satisfying forbidden desire and supplying outlawed commodities to endless demand from affluent societies and individuals.

The restructuring of statism proved to be more difficult, particularly for the dominant statist society in the world, the Soviet Union, at the center of a broad network of statist countries and parties. Soviet statism proved incapable of assimilating informationalism, thus stalling economic growth and decisively weakening its military machine,

the ultimate source of power in a statist regime. Their awareness of stagnation and decline led some Soviet leaders, from Andropov to Gorbachev, to attempt a restructuring of the system. In order to overcome inertia and resistance from the party/state, reformist leadership opened up information and called upon civil society for support. The powerful expression of national/cultural identities, and the people's demands for democracy, could not be easily channeled into a prescribed reform program. The pressure of events, tactical errors, political incompetence, and the internal split of statist apparatuses led to the sudden collapse of Soviet Communism, in one of the most extraordinary events in political history. With it, the Soviet Empire crumbled also, while statist regimes in its global area of influence were decisively weakened. So ended, in what amounted to an instant by historical standards, the revolutionary experiment that dominated the twentieth century. This was also the end of the Cold War between capitalism and statism, which had divided the world, determined geopolitics, and haunted our lives for the past half-century.

In its communist incarnation, statism ended there, for all practical purposes, although China's brand of statism took a more complicated, subtle way toward its historical exit, as I tried to show in chapter 4 of this volume. For the sake of the coherence of the argument presented here, let me remind the reader that the Chinese state at the turn of the millennium, while fully controlled by the Communist party, is organized around China's incorporation into global capitalism, on the basis of a nationalist project represented by the state. This Chinese nationalism with socialist characteristics is quickly moving away from statism into global capitalism, while trying to find a way to adapt to informationalism, without an open society.

After the demise of statism as a system, capitalism thrives throughout the world, and it deepens its penetration of countries, cultures, and domains of life. In spite of a highly diversified social and cultural landscape, for the first time in history the whole planet is organized around a largely common set of economic rules. It is, however, a different kind of capitalism from the one formed during the Industrial Revolution, or the one that emerged from the 1930s Depression and World War II, under the form of economic Keynesianism and social welfarism. It is a hardened form of capitalism in its goals, but is incomparably more flexible than any of its predecessors in its means. It is informational capitalism, relying on innovation-induced productivity and globalization-oriented competitiveness to generate wealth, and to appropriate it selectively. It is, more than ever, embedded in culture and toolled by technology. But, this time, both culture and technology depend on the ability of knowledge and information

to act upon knowledge and information, in a recurrent network of globally connected exchanges.

Societies, however, are not just the result of technological and economic transformation, nor can social change be limited to institutional crises and adaptations. At about the same time that these developments started to take place in the late 1960s, powerful social movements exploded almost simultaneously all over the industrialized world, first in the United States and France, then in Italy, Germany, Spain, Japan, Brazil, Mexico, Czechoslovakia, with echoes and reactions in numerous other countries. As a participant in these social movements (I was an assistant professor of sociology at the Nanterre campus of the University of Paris in 1968), I bear witness to their libertarianism. While they often adopted Marxist ideological expressions in their militant vanguards, they had little to do with Marxism or, for that matter, with the working class. They were essentially cultural movements, wanting to change life rather than seizing power. They intuitively knew that access to the institutions of state co-opts the movement, while the construction of a new, revolutionary state perverts the movement. Their ambitions encompassed a multidimensional reaction to arbitrary authority, a revolt against injustice, and a search for personal experimentation. While often enacted by students, they were not by any means student movements, since they permeated throughout society, particularly among young people, and their values reverberated in all spheres of life. Of course, they were politically defeated because, as most utopian movements in history, they never pretended to political victory. But they faded away with high historical productivity, with many of their ideas, and some of their dreams, germinating in societies and blossoming as cultural innovations, to which politicians and ideologues will have to relate for generations to come. From these movements sprang the ideas that would be the source of environmentalism, of feminism, of the endless defense of human rights, of sexual liberation, of ethnic equality, and of grassroots democracy. The cultural movements of the 1960s and early 1970s, in their affirmation of individual autonomy against both capital and the state, placed a renewed stress on the politics of identity. These ideas paved the way for the building of cultural communes in the 1990s, when the legitimacy crisis of institutions of the industrial era blurred the meaning of democratic politics.

The social movements were not reactions to the economic crisis. Indeed, they surged in the late 1960s, in the heyday of sustained growth and full employment, as a critique of the “consumption society.” While they induced some workers’ strikes, as in France, and helped the political left, as in Italy, they were not a part of the

right/left politics of the industrial era that had been organized around the class cleavages of capitalism. And while they coexisted, broadly speaking, with the information technology revolution, technology was largely absent from either the values or critiques of most movements, if we except some calls against de-humanizing machinism, and their opposition to nuclear power (an old technology in the Information Age). But if these social movements were primarily cultural, and independent of economic and technological transformations, they did have an impact on economy, technology, and ensuing restructuring processes. Their libertarian spirit considerably influenced the movement toward individualized, decentralized uses of technology. Their sharp separation from traditional labor politics contributed to the weakening of organized labor, thus facilitating capitalist restructuring. Their cultural openness stimulated technological experimentation with symbol manipulation, constituting a new world of imaginary representations that would evolve toward the culture of real virtuality. Their cosmopolitanism, and internationalism, set up the intellectual bases for an interdependent world. And their abhorrence of the state undermined the legitimacy of democratic rituals, in spite of the fact that some leaders of the movement went on to renew political institutions. Moreover, by refusing the orderly transmission of eternal codes and established values, such as patriarchalism, religious traditionalism, and nationalism, the 1960s' movements set the stage for a fundamental split in societies all over the world: on the one hand, active, culturally self-defined elites, constructing their own values on the basis of their experience; on the other hand, increasingly uncertain, insecure social groups, deprived of information, resources, and power, digging their trenches of resistance precisely around those eternal values that had been decried by the rebellious 1960s.

The revolution of technology, the restructuring of economy, and the critique of culture converged toward a historical redefinition of the relationships of production, power, and experience, on which societies are based.

A New Society

A new society emerges when and if a structural transformation can be observed in the relationships of production, in the relationships of power, and in the relationships of experience. These transformations lead to an equally substantial modification of social forms of space and time, and to the emergence of a new culture.

Information and analyses presented in the three volumes of this book provide a strong indication of such a multidimensional transformation in the last lapse of the second millennium. I shall synthesize the main features of transformation for each dimension, referring the reader to the respective chapters covering each subject for empirical materials that lend some credibility to the conclusions presented here.

Relationships of production have been transformed, both socially and technically. To be sure, they are capitalist, but of a historically different brand of capitalism, which I call informational capitalism. For the sake of clarity, I shall consider, in sequence, the new characteristics of the production process, of labor, and of capital. Then, the transformation of class relationships can be made visible.

Productivity and competitiveness are the commanding processes of the informational/global economy. Productivity essentially stems from innovation, competitiveness from flexibility. Thus, firms, regions, countries, economic units of all kinds, gear their production relationships to maximize innovation and flexibility. Information technology, and the cultural capacity to use it, are essential in the performance of the new production function. In addition, a new kind of organization and management, aiming at simultaneous adaptability and coordination, becomes the basis for the most effective operating system, exemplified by what I label the network enterprise.

Under this new system of production, labor is redefined in its role as producer, and sharply differentiated according to workers' characteristics. A major difference refers to what I call generic labor versus self-programmable labor. The critical quality in differentiating these two kinds of labor is education, and the capacity of accessing higher levels of education; that is, embodied knowledge and information. The concept of education must be distinguished from skills. Skills can be quickly made obsolete by technological and organizational change. Education (as distinct from the warehousing of children and students) is the process by which people, that is labor, acquire the capability constantly to redefine the necessary skills for a given task, and to access the sources for learning these skills. Whoever is educated, in the proper organizational environment, can reprogram him/herself toward the endlessly changing tasks of the production process. On the other hand, generic labor is assigned a given task, with no reprogramming capability, and it does not presuppose the embodiment of information and knowledge beyond the ability to receive and execute signals. These "human terminals" can, of course, be replaced by machines, or by any other body around the city, the country, or the world, depending on business decisions. While they are collectively indispensable to the production process, they are individually

expendable, as value added by each one of them is a small fraction of what is generated by and for the organization. Machines, and generic labor from various origins and locations, cohabit the same subservient circuits of the production system.

Flexibility, enacted organizationally by the network enterprise, requires networkers, and fleximers, as well as a wide array of working arrangements, including self-employment and reciprocal subcontracting. The variable geometry of these working arrangements leads to the coordinated decentralization of work and to the individualization of labor.

The informational/global economy is capitalist; in fact, more so than any other economy in history. But capital is as transformed as labor is in this new economy. The rule is still production for the sake of profit, and for the private appropriation of profit, on the basis of property rights – which is the essence of capitalism. But how does this appropriation of profit take place? Who are the capitalists? Three different levels must be considered in answering this fundamental question. Only the third level is specific to informational capitalism.

The first level concerns *the holders of property rights*. These are, basically, of three kinds: (a) shareholders of companies, a group in which institutional, anonymous shareholders are increasingly predominant and whose investment and disinvestment decisions are often governed solely by short-term financial considerations; (b) family owners, still a relevant form of capitalism, particularly in the Asian Pacific; and (c) individual entrepreneurs, owners of their own means of production (their minds being their main asset), risk-takers, and proprietors of their own profit-making. This last category, which was fundamental to the origins of industrial capitalism and then became largely phased out by corporate industrialism, has made a remarkable comeback under informational capitalism, using the pre-eminence of innovation and flexibility as the essential features of the new production system.

The second level of capitalist forms refers to *the managerial class*; that is, the controllers of capital assets on behalf of shareholders. These managers, whose pre-eminence Berle and Means had already shown in the 1930s, still constitute the heart of capitalism under informationalism, particularly in multinational corporations. I see no reason not to include among them managers of state-owned companies who, for all practical purposes, follow the same logic, and share the same culture, minus the risk for losses underwritten by the taxpayer.

The third level in the process of appropriation of profits by capital is both an old story and a fundamental feature of the new

informational capitalism. The reason lies in the nature of *global financial markets*. It is in these markets that profits from all sources ultimately converge in search of higher profits. Indeed, the margins of gain in the stock market, in the bond market, in the currency market, in futures, options, and derivatives, in financial markets at large, are, on average, considerably greater than in most direct investments, excepting a few instances of speculation. This is so not because of the nature of financial capital, the oldest form of capital in history. But because of the technological conditions under which it operates in informationalism. Namely its annihilation of space and time by electronic means. Its technological and informational ability relentlessly to scan the entire planet for investment opportunities, and to move from one option to another in a matter of seconds, brings capital into constant movement, merging in this movement capital from all origins, as in mutual funds investments. The programming and forecasting capabilities of financial management models make it possible to colonize the future, and the interstices of the future (that is, possible alternative scenarios), selling this “unreal estate” as property rights of the immaterial. Played by the rules, there is nothing evil about this global casino. After all, if cautious management and proper technology avoid dramatic crashes of the market, the losses of some fractions of capital are the wins of others, so that, over the long term, the market balances out and keeps a dynamic equilibrium. However, because of the differential between the amount of profits obtained from the production of goods and services, and the amount that can be obtained from financial investments, individual capitals of all kinds are, in fact, dependent on the fate of their investments in global financial markets, since capital can never remain idle. Thus, *global financial markets, and their networks of management, are the actual collective capitalist, the mother of all accumulations*. To say so is not to say that financial capital dominates industrial capital, an old dichotomy that simply does not fit the new economic reality. Indeed, in the past quarter of a century, firms around the world have, by and large, self-financed the majority of their investments with the proceeds of their trade. Banks do not control manufacturing firms, nor do they control themselves. Firms of all kinds, financial producers, manufacturing producers, agricultural producers, service producers, as well as governments and public institutions, use global financial networks as the depositories of their earnings and as their potential source of higher profits. It is in this specific form that *global financial networks are the nerve center of informational capitalism*. Their movements determine the value of stocks, bonds, and currencies, bringing doom or bonanza to savers, investors, firms, and countries.

But these movements do not follow a market logic. The market is twisted, manipulated, and transformed, by a combination of computer-enacted strategic maneuvers, crowd psychology from multicultural sources, and unexpected turbulences, caused by greater and greater degrees of complexity in the interaction between capital flows on a global scale. While cutting-edge economists are trying to model this market behavior on the basis of game theory, their heroic efforts to find rational expectation patterns are immediately downloaded in the computers of financial wizards to obtain new competitive advantage from this knowledge by innovating on already known patterns of investment.

The consequences of these developments on *social class relationships* are as profound as they are complex. But before identifying them I need to distinguish between different meanings of class relationships. One approach focuses on social inequality in income and social status, along the lines of social stratification theory. From this perspective, the new system is characterized by *a tendency to increased social inequality and polarization*, namely the simultaneous growth of both the top and the bottom of the social scale. This results from three features: (a) a fundamental differentiation between self-programmable, highly productive labor, and generic, expendable labor; (b) the individualization of labor, which undermines its collective organization, thus abandoning the weakest sections of the workforce to their fate; and (c) under the impact of individualization of labor, globalization of economy, and delegitimation of the state, the gradual demise of the welfare state, so removing the safety net for people who cannot be individually well off. This tendency toward inequality and polarization is certainly not inexorable: it can be countered and prevented by deliberate public policies. But inequality and polarization are prescribed in the dynamics of informational capitalism, and will prevail unless conscious action is taken to counteract these tendencies.

A second meaning of class relationships refers to *social exclusion*. By this I mean the de-linking between people-as-people and people-as-workers/consumers in the dynamics of informational capitalism on a global scale. In chapter 2 of this volume, I tried to show the causes and consequences of this trend in a variety of situations. Under the new system of production, a considerable number of humans, probably in a growing proportion, are irrelevant, both as producers and consumers, from the perspective of the system's logic. I must emphasize, again, that this is not the same as saying that there is, or will be, mass unemployment. Comparative data show that, by and large, in all urban societies, most people and/or their families work for pay, even

in poor neighborhoods and in poor countries. The question is: what kind of work for what kind of pay under what conditions? What is happening is that the mass of generic labor circulates in a variety of jobs, increasingly occasional jobs, with a great deal of discontinuity. So, millions of people are constantly in and out of paid work, often included in informal activities, and, in sizeable numbers, on the shop floor of the criminal economy. Furthermore, the loss of a stable relationship to employment, and the weak bargaining power of many workers, lead to a higher level of incidence of major crises in the life of their families: temporary job loss, personal crises, illness, drugs/alcohol addictions, loss of employability, loss of assets, loss of credit. Many of these crises connect with each other, inducing the downward spiral of social exclusion, toward what I have called the “black holes of informational capitalism,” from which, statistically speaking, it is difficult to escape.

The borderline between social exclusion and daily survival is increasingly blurred for a growing number of people in all societies. Having lost much of the safety net, particularly for the new generations of the post-welfare state era, people who cannot follow the constant updating of skills, and fall behind in the competitive race, position themselves for the next round of “downsizing” of that shrinking middle that made the strength of advanced capitalist societies during the industrial era. Thus, processes of social exclusion do not only affect the “truly disadvantaged,” but those individuals and social categories who build their lives on a constant struggle to escape falling down to a stigmatized underworld of downgraded labor and socially disabled people.

A third way of understanding new class relationships, this time in the Marxian tradition, is concerned with *who the producers are and who appropriates the products of their labor*. If innovation is the main source of productivity, knowledge and information are the essential materials of the new production process, and education is the key quality of labor, the new producers of informational capitalism are those knowledge generators and information processors whose contribution is most valuable to the firm, the region, and the national economy. But innovation does not happen in isolation. It is part of a system in which management of organizations, processing of knowledge and information, and production of goods and services are intertwined. So defined, this category of informational producers includes a very large group of managers, professionals, and technicians, who form a “collective worker”; that is, a producer unit made up of cooperation between a variety of inseparable individual workers. In OECD countries they may account for about one-third of the

employed population. Most other workers may be in the category of generic labor, potentially replaceable by machines or by other members of the generic labor force. They need the producers to protect their bargaining power. But informational producers do not need them: this is a fundamental cleavage in informational capitalism, leading to the gradual dissolution of the remnants of class solidarity of the industrial society.

But who appropriates a share of informational producers' work? In one sense, nothing has changed *vis-à-vis* classic capitalism: their employers do; this is why they employ them in the first place. But, on the other hand, the mechanism of appropriation of surplus is far more complicated. First, employment relationships are tendentially individualized, meaning that each producer will receive a different deal. Secondly, an increasing proportion of producers control their own work process, and enter into specific, horizontal working relationships, so that, to a large extent, they become independent producers, submitted to market forces, but playing market strategies. Thirdly, their earnings often go into the whirlwind of global financial markets, fed precisely by the affluent section of the global population, so that they are also collective owners of collective capital, thus becoming dependent on the performance of capital markets. Under these conditions, we can hardly consider that there is a class contradiction between these networks of highly individualized producers and the collective capitalist of global financial networks. To be sure, there is frequent abuse and exploitation of individual producers, as well as of large masses of generic labor, by whoever is in charge of production processes. Yet, segmentation of labor, individualization of work, and diffusion of capital in the circuits of global finance have jointly induced the gradual fading away of the class structure of the industrial society. There are, and will be, powerful social conflicts, some of them enacted by workers and organized labor, from Korea to Spain. Yet, they are not the expression of class struggle but of interest groups' demands and/or of revolt against injustice.

The *truly fundamental social cleavages of the Information Age* are: first, the internal fragmentation of labor between informational producers and replaceable generic labor. Secondly, the social exclusion of a significant segment of society made up of discarded individuals whose value as workers/consumers is used up, and whose relevance as people is ignored. And, thirdly, the separation between the market logic of global networks of capital flows and the human experience of workers' lives.

Power relations are being transformed as well by the social processes that I have identified and analyzed in this book. The main

transformation concerns the *crisis of the nation-state as a sovereign entity, and the related crisis of political democracy*, as constructed in the past two centuries. Since commands from the state cannot be fully enforced, and since some of its fundamental promises, embodied in the welfare state, cannot be kept, both its authority and its legitimacy are called into question. Because representative democracy is predicated on the notion of a sovereign body, the blurring of boundaries of sovereignty leads to uncertainty in the process of delegation of people's will. Globalization of capital, multilateralization of power institutions, and decentralization of authority to regional and local governments induce a new geometry of power, perhaps inducing a new form of state, the network state. Social actors, and citizens at large, maximize the chances of representation of their interests and values by playing out strategies in the networks of relationships between various institutions, at various levels of competence. Citizens of a given European region will have a better chance of defending their interests if they support their regional authorities against their national government, in alliance with the European Union. Or the other way around. Or else, none of the above; that is, by affirming local/regional autonomy against both the nation-state and supranational institutions. American malcontents may revile the federal government on behalf of the American nation. Or new Chinese business elites may push their interests by linking up with their provincial government, or with the still powerful national government, or with overseas Chinese networks. In other words, the new structure of power is dominated by a network geometry, in which power relationships are always specific to a given configuration of actors and institutions.

Under such conditions, informational politics, enacted primarily by symbol manipulation in the space of the media, fits well with this constantly changing world of power relationships. Strategic games, customized representation, and personalized leadership substitute for class constituencies, ideological mobilization, and party control, which were characteristic of politics in the industrial era.

As politics becomes a theater, and political institutions are bargaining agencies rather than sites of power, citizens around the world react defensively, voting to prevent harm from the state in place of entrusting it with their will. In a certain sense, *the political system is voided of power*, albeit not of influence.

Power, however, does not disappear. In an informational society, *it becomes inscribed, at a fundamental level, in the cultural codes through which people and institutions represent life and make decisions, including political decisions.* In a sense, power, while real,

becomes immaterial. It is real because wherever and whenever it consolidates, it provides, for a time, individuals and organizations with the capacity to enforce their decisions regardless of consensus. But it is immaterial because such a capacity derives from the ability to frame life experience under categories that predispose to a given behavior and can then be presented as to favor a given leadership. For instance, if a population feels threatened by unidentifiable, multi-dimensional fear, the framing of such fears under the codes of immigration = race = poverty = welfare = crime = job loss = taxes = threat, provides an identifiable target, defines an US versus THEM, and favors those leaders who are most credible in supporting what is perceived to be a reasonable dose of racism and xenophobia. Or, in a very different example, if people equate quality of life with conservation of nature, and with their spiritual serenity, new political actors could emerge and new public policies could be implemented.

Cultural battles are the power battles of the Information Age. They are primarily fought in and by the media, but the media are not the power-holders. Power, as the capacity to impose behavior, lies in the networks of information exchange and symbol manipulation, which relate social actors, institutions, and cultural movements, through icons, spokespersons, and intellectual amplifiers. In the long run, it does not really matter who is in power because the distribution of political roles becomes widespread and rotating. There are no more stable power elites. There are however, *elites from power*; that is, elites formed during their usually brief power tenure, in which they take advantage of their privileged political position to gain a more permanent access to material resources and social connections. Culture as the source of power, and power as the source of capital, underlie the new social hierarchy of the Information Age.

The transformation of *relationships of experience* revolves primarily around *the crisis of patriarchalism*, at the root of a profound redefinition of family, gender relationships, sexuality, and, thus, personality. Both for structural reasons (linked to the informational economy), and because of the impact of social movements (feminism, women's struggles, and sexual liberation), patriarchal authority is challenged in most of the world, albeit under various forms and intensity depending upon cultural/institutional contexts. The future of the family is uncertain, but the future of patriarchalism is not: it can only survive under the protection of authoritarian states and religious fundamentalism. As the studies presented in volume II, chapter 4 show, in open societies the patriarchal family is in deep crisis, while new embryos of egalitarian families are still struggling against the old world of interests, prejudices, and fears. Networks of

people (particularly for women) increasingly substitute for nuclear families as primary forms of emotional and material support. Individuals and their children follow a pattern of sequential family, and non-family, personal arrangements throughout their lives. And while there is a rapidly growing trend of fathers' involvement with their children, women – whether single or living with each other – and their children, are an increasingly prevalent form of reproduction of society, thus fundamentally modifying patterns of socialization. Admittedly, I am taking as my main point of reference the experience of the United States, and of most of Western Europe (with southern Europe being, to some extent, an exception in the European context). Yet, as I argued in volume II, it can be shown that women's struggles, whether or not avowedly feminist, are spreading throughout the world, thus undermining patriarchy in the family, in the economy, and in the institutions of society. I consider it very likely that, with the spread of women's struggles, and with women's increasing awareness of their oppression, their collective challenge to the patriarchal order will generalize, inducing processes of crisis in traditional family structures. I do see signs of a recomposition of the family, as millions of men appear to be ready to give up their privileges and work together with women to find new forms of loving, sharing, and having children. Indeed, I believe that rebuilding families under egalitarian forms is the necessary foundation for rebuilding society from the bottom up. Families are more than ever the providers of psychological security and material well-being to people, in a world characterized by individualization of work, destructuring of civil society, and delegitimation of the state. Yet the transition to new forms of family implies a fundamental redefinition of gender relationships in society at large, and thus of sexuality. Because personality systems are shaped by family and sexuality, they are also in a state of flux. I characterized such a state as flexible personalities, able to engage endlessly in the reconstruction of the self, rather than to define the self through adaptation to what were once conventional social roles, which are no longer viable and which have thus ceased to make sense. *The most fundamental transformation of relationships of experience in the Information Age is their transition to a pattern of social interaction constructed, primarily, by the actual experience of the relationship.* Nowadays, people produce forms of sociability, rather than follow models of behavior.

Changes in relationships of production, power, and experience converge toward *the transformation of material foundations of social life, space, and time.* The space of flows of the Information Age dominates the space of places of people's cultures. Timeless time as

the social tendency toward the annihilation of time by technology supersedes the clock time logic of the industrial era. Capital circulates, power rules, and electronic communication swirls through flows of exchanges between selected, distant locales, while fragmented experience remains confined to places. Technology compresses time to a few, random instants, thus de-sequencing society, and de-historicizing history. By secluding power in the space of flows, allowing capital to escape from time, and dissolving history in the culture of the ephemeral, the network society disembodies social relationships, introducing the culture of real virtuality. Let me explain.

Throughout history, cultures have been generated by people sharing space and time, under conditions determined by relationships of production, power, and experience, and modified by their projects, fighting each other to impose over society their values and goals. Thus, spatio-temporal configurations were critical for the meaning of each culture, and for their differential evolution. Under the informational paradigm, a new culture has emerged from the superseding of places and the annihilation of time by the space of flows and by timeless time: *the culture of real virtuality*. As presented in volume I, chapter 5, by real virtuality I mean a system in which reality itself (that is, people's material/symbolic existence) is fully immersed in a virtual image setting, in the world of make believe, in which symbols are not just metaphors, but comprise the actual experience. This is not the consequence of electronic media, although they are the indispensable instruments of expression in the new culture. The material basis that explains why real virtuality is able to take over people's imagination and systems of representation is their livelihood in the space of flows and in timeless time. On the one hand, dominant functions and values in society are organized in simultaneity without contiguity; that is, in flows of information that escape from the experience embodies in any locale. On the other hand, dominant values and interests are constructed without reference to either past or future, in the timeless landscape of computer networks and electronic media, where all expressions are either instantaneous, or without predictable sequencing. All expressions from all times and from all spaces are mixed in the same hypertext, constantly rearranged, and communicated at any time, anywhere, depending on the interests of senders and the moods of receivers. This virtuality is our reality because it is within the framework of these timeless, placeless, symbolic systems that we construct the categories, and evoke the images, that shape behavior, induce politics, nurture dreams, and trigger nightmares.

This is the new social structure of the Information Age, which I call *the network society* because it is made up of networks of production,

power, and experience, which construct a culture of virtuality in the global flows that transcend time and space. 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 of human existence. But all societies in the Information Age are indeed penetrated, with different intensity, by the pervasive logic of the network society, whose dynamic expansion gradually absorbs and subdues pre-existing social forms.

The network society, as any other social structure, is not absent of contradictions, social conflicts, and challenges from alternative forms of social organization. But these challenges are induced by the characteristics of the network society, and, thus, they are sharply distinct from those of the industrial era. Accordingly, they are incarnated by different subjects, even though these subjects often work with historical materials provided by the values and organizations inherited from industrial capitalism and statism.

The understanding of our world requires the simultaneous analysis of the network society, and of its conflictive challenges. The historical law that where there is domination there is resistance continues to apply. But it requires an analytical effort to identify who the challengers are of the processes of domination enacted by the immaterial, yet powerful, flows of the network society.

The New Avenues of Social Change

According to observation, and as recorded in volume II, social challenges against patterns of domination in the network society generally take the form of constructing autonomous identities. These identities are external to the organizing principles of the network society. Against the worshipping of technology, the power of flows, and the logic of markets, they oppose their being, their beliefs, and their bequest. What is characteristic of social movements and cultural projects built around identities in the Information Age is that they do not originate within the institutions of civil society. They introduce, from the outset, an alternative social logic, distinct from the principles of performance around which dominant institutions of society are built. In the industrial era, the labor movement fought fiercely against capital. Capital and labor had, however, shared the goals and values of industrialization – productivity and material progress – each seeking to control its development and for a larger share of its harvest. In the end they reached a social pact. 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. This is the case for communes of resistance identity I have identified. Religious fundamentalism does not reject technology, but puts it at the service of God's Law, to which all institutions and purposes must submit, without possible bargaining. Nationalism, localism, ethnic separatism, and cultural communes break up with society at large, and rebuild its institutions not from the bottom up, but from the inside out, the "who we are" versus those who do not belong.

Even proactive movements, which aim at transforming the overall pattern of social relationships among people, such as feminism, or among people and nature, such as environmentalism, start from the rejection of basic principles on which our societies are constructed: patriarchy, productivism. Naturally, there are all kind of nuances in the practice of social movements, as I tried to make clear in volume II, but, quite fundamentally, their principles of self-definition, at the source of their existence, represent a break with institutionalized social logic. Should institutions of society, economy, and culture truly accept feminism and environmentalism, they would be essentially transformed. Using an old word, it would be a revolution.

The strength of identity-based social movements is their autonomy *vis-à-vis* the institutions of the state, the logic of capital, and the seduction of technology. It is hard to co-opt them, although certainly some of their participants may be co-opted. Even in defeat, their resistance and projects impact and change society, as I have been able to show in a number of selected cases, presented in volume II. Societies of the Information Age cannot be reduced to the structure and dynamics of the network society. Following my scanning of our world, it appears that our societies are constituted by the interaction between the "net" and the "self," between the network society and the power of identity.

Yet, the fundamental problem raised by processes of social change that are primarily external to the institutions and values of society, as it is, is that they may fragment rather than reconstitute society. Instead of transformed institutions, we would have communes of all sorts. Instead of social classes, we would witness the rise of tribes. And instead of conflictive interaction between the functions of the space of flows and the meaning of the space of places, we may observe the retrenchment of dominant global elites in immaterial palaces made out of communication networks and information flows. Meanwhile, people's experience would remain confined to multiple, segregated locales, subdued in their existence and fragmented in their consciousness. With no Winter Palace to be seized, outbursts of revolt may implode, transformed into everyday senseless violence.

The reconstruction of society's institutions by cultural social movements, bringing technology under the control of people's needs and desires, seems to require a long march from the communes built around resistance identity to the heights of new project identities, sprouting from the values nurtured in these communes.

Examples of such processes, as observed in contemporary social movements and politics, are the construction of new, egalitarian families; the widespread acceptance of the concept of sustainable development, building intergenerational solidarity into the new model of economic growth; and the universal mobilization in defense of human rights wherever the defense has to be taken up. For this transition to be undertaken, from resistance identity to project identity, a new politics will have to emerge. This will be a cultural politics that starts from the premise that informational politics is predominantly enacted in the space of media, and fights with symbols, yet connects to values and issues that spring from people's life experience in the Information Age.

Beyond this Millennium

Throughout the pages of this book I have adamantly refused to indulge in futurology, staying as close as possible to observation of what we know the Information Age brings to us, as constituted in the last lapse of the twentieth century. In concluding this book, however, with the reader's benevolence, I would like to elaborate, for the span of just a few paragraphs, on some trends that may configure society in the early twenty-first century. This is simply an attempt to bring a dynamic, prospective dimension to this synthesis of findings and hypotheses.

The information technology revolution will accentuate its transformative potential. The twenty-first century will be marked by the completion of a global information superhighway, and by mobile telecommunication and computing power, thus decentralizing and diffusing the power of information, delivering the promise of multimedia, and enhancing the joy of interactive communication. Electronic communication networks will constitute the backbone of our lives. In addition, it will be the century of the full flowering of the genetic revolution. For the first time, our species will penetrate the secrets of life, and will be able to perform substantial manipulations of living matter. While this will trigger a dramatic debate on the social and environmental consequences of this capacity, the possibilities open to us are truly extraordinary. Prudently used, the genetic revolution may

heal, fight pollution, improve life, and save time and effort from survival, so as to give us the chance to explore the largely unknown frontier of spirituality. Yet, if we make the same mistakes as we made in the twentieth century, using technology and industrialization to massacre each other in atrocious wars, with our new technological power we may well end life on the planet. It turned out to be relatively easy to stop short of nuclear holocaust because of the centralized control of nuclear energy and weaponry. But new genetic technologies are pervasive, their mutating impacts not fully controllable, and their institutional control much more decentralized. To prevent the evil effects of biological revolution we need not only responsible governments, but a responsible, educated society. Which way we go will depend on society's institutions, on people's values, and on the consciousness and determination of new social actors to shape and control their own destiny. Let me briefly review these prospects by pinpointing some major developments in the economy, polity, and culture.

The maturing of the informational economy, and the diffusion and proper use of information technology as a system, will likely unleash the productivity potential of this technological revolution. This will be made visible by changes in statistical accounting, when twentieth-century categories and procedures, already manifestly inadequate, will be replaced by new concepts able to measure the new economy. There is no question that the twenty-first century will witness the rise of an extraordinarily productive system by historical standards. Human labor will produce more and better with considerably less effort. Mental work will replace physical effort in the most productive sectors of the economy. However, the sharing of this wealth will depend for individuals on their access to education and, for society as a whole, on social organization, politics, and policies.

The global economy will expand in the twenty-first century, using substantial increases in the power of telecommunications and information processing. It will penetrate all countries, all territories, all cultures, all communication flows, and all financial networks, relentlessly scanning the planet for new opportunities for profit-making. But it will do so selectively, linking valuable segments and discarding used up, or irrelevant, locales and people. The territorial unevenness of production will result in an extraordinary geography of differential value-making that will sharply contrast countries, regions, and metropolitan areas. Valuable locales and people will be found everywhere, even in Sub-Saharan Africa, as I have argued in this volume. But switched-off territories and people will also be found everywhere, albeit in different proportions. The planet is being segmented into clearly distinct spaces, defined by different time regimes.

From the excluded segments of humankind, two different reactions can be expected. On the one hand, there will be a sharp increase in the operation of what I call the “perverse connection,” that is, playing the game of global capitalism with different rules. The global criminal economy, whose profile and dynamics I tried to identify in chapter 3 of this volume, will be a fundamental feature of the twenty-first century, and its economic, political, and cultural influence will penetrate all spheres of life. The question is not whether our societies will be able to eliminate the criminal networks, but, rather, whether criminal networks will not end up controlling a substantial share of our economy, of our institutions, and of our everyday life.

There is another reaction against social exclusion and economic irrelevance that I am convinced will play an essential role in the twenty-first century: the exclusion of the excluders by the excluded. Because the whole world is, and will increasingly be, intertwined in the basic structures of life, under the logic of the network society, opting out by people and countries will not be a peaceful withdrawal. It takes, and it will take, the form of fundamentalist affirmation of an alternative set of values and principles of existence, under which no coexistence is possible with the evil system that so deeply damages people’s lives. As I write, in the streets of Kabul women are beaten for improper dress by the courageous warriors of the Taliban. This is not in accordance with the humanistic teachings of Islam. There is however, as analyzed in volume II, an explosion of fundamentalist movements that take up the Qū’ran, the Bible, or any holy text, to interpret it and use it, as a banner of their despair and a weapon of their rage. Fundamentalisms of different kinds and from different sources will represent the most daring, uncompromising challenge to one-sided domination of informational, global capitalism. Their potential access to weapons of mass extermination casts a giant shadow on the optimistic prospects of the Information Age.

Nation-states will survive, but not so their sovereignty. They will band together in multilateral networks, with a variable geometry of commitments, responsibilities, alliances, and subordinations. The most notable multilateral construction will be the European Union, bringing together the technological and economic resources of most, but not all, European countries: Russia is likely to be left out, out of the West’s historical fears, and Switzerland needs to be off limits to keep its job as the world’s banker. But the European Union, for the time being, does not embody a historical project of building a European society. It is, essentially, a defensive construction on behalf of European civilization to avoid becoming an economic colony of Asians and Americans. European nation-states will remain and will

bargain endlessly for their individual interests within the framework of European institutions, which they will need but, in spite of their federalist rhetoric, neither Europeans nor their governments will cherish. Europe's unofficial anthem (Beethoven's "Hymn of Joy") is universal, but its German accent may become more marked.

The global economy will be governed by a set of multilateral institutions, networked among themselves. At the core of this network is the G7 countries club, perhaps with a few additional members, and its executive arms, the International Monetary Fund, and the World Bank, charged with regulation and intervention on behalf of the ground rules of global capitalism. Technocrats and bureaucrats of these, and similar, international economic institutions will add their own dose of neoliberal ideology and professional expertise in the implementation of their broad mandate. Informal gatherings, such as the Davos meetings, or their equivalents, will help to create the cultural/personal glue of the global elite.

Global geopolitics will also be managed by multilateralism, with the United Nations, and regional international institutions ASEAN, OEA, or OAU, playing an increasing role in the management of international or even national conflicts. They will increasingly use security alliances, such as NATO, in the enforcement of their decisions. When necessary, *ad hoc* international police forces will be created to intervene in trouble spots.

Global security matters will be likely to be dominated by three main issues, if the analyses contained in this book are proved correct. The first is the rising tension in the Pacific, as China asserts its global power, Japan goes into another round of national paranoia, and Korea, Indonesia, and India react to both. The second is the resurgence of Russian power, not only as a nuclear superpower, but as a stronger nation, no longer tolerating humiliation. The conditions under which post-Communist Russia will be or will not be brought into the multilateral system of global co-management will determine the future geometry of security alignments. The third security issue is probably the most decisive of all, and will be likely to condition safety for the world at large for a long period of time. It refers to the new forms of warfare that will be used by individuals, organizations, and states, strong in their convictions, weak in their military means, but able to access new technologies of destruction, as well as find the vulnerable spots of our societies. Criminal gangs may also resort to high-intensity confrontation when they see no other option, as Colombia experienced in the 1990s. Global or local terrorism is already considered a major threat worldwide at the turn of the millennium. But, I believe this is only a modest beginning. Increasing

technological sophistication leads to two trends converging toward outright terror: on the one hand, a small determined group, well financed, and well informed, can devastate entire cities, or strike at nerve centers of our livelihood; on the other hand, the infrastructure of our everyday life, from energy to transportation to water supply, has become so complex, and so intertwined, that its vulnerability has increased exponentially. While new technologies help security systems, they also make our daily life more exposed. The price for increased protection will be to live within a system of electronic locks, alarms systems, and on-line police patrols. It will also mean to grow up in fear. It is probably not different from the experience of most children in history. It is also a measure of the relativity of human progress.

Geopolitics will also be increasingly dominated by a fundamental contradiction between the multilateralism of decision-making and the unilateralism of military implementation of these decisions. This is because, after the demise of the Soviet Union, and the technological backwardness of the new Russia, the United States is, and will be for the foreseeable future, the only military superpower. Thus, most security decisions will have to be either implemented or supported by the United States to be truly effective or credible. The European Union, for all its arrogant talk, gave a clear demonstration of its operational inability to act alone in the Balkans. Japan has forbidden itself to build an army, and the pacifist feeling in the country runs deeper than the support for ultra-nationalist provocations. Outside the OECD, only China and India may have enough technological and military might to access global power in the foreseeable future, but certainly not to match the United States or even Russia. So, excepting the unlikely hypothesis of an extraordinary Chinese military build up, for which China simply does not yet have the technological capacity, the world is left with one superpower, the United States. Under such conditions, various security alliances will have to rely on American forces. But the US is confronted with such deep domestic social problems that it will certainly not have the means, nor the political support, to exercise such a power if the security of its citizens is not under direct threat, as American presidents discovered several times in the 1990s. With the Cold War forgotten, and no credible equivalent “new Cold War” looming on the horizon, the only way America may keep its military status is to lend its forces to the global security system. And have other countries pay for it. This is the ultimate twist of multilateralism, and the most striking illustration of the lost sovereignty of the nation-state.

The state does not disappear, though. It is simply downsized in the Information Age. It proliferates under the form of local and regional

governments, which dot the world with their projects, build up constituencies, and negotiate with national governments, multinational corporations, and international agencies. The era of globalization of the economy is also the era of localization of polity. What local and regional governments lack in power and resources, they make up in flexibility and networking. They are the only match, if any, to the dynamism of global networks of wealth and information.

As for people, they are, and will be, increasingly distant from the halls of power, and disaffected from the crumbling institutions of civil society. They will be individualized in their work and lives, constructing their own meaning on the basis of their own experience, and, if they are lucky, reconstructing their family, their rock in this swirling ocean of unknown flows and uncontrolled networks. When subjected to collective threats, they will build communal havens, whence prophets may proclaim the coming of new gods.

The twenty-first century will not be a dark age. Nor will it deliver to most people the bounties promised by the most extraordinary technological revolution in history. Rather, it may well be characterized by informed bewilderment.

What is to be Done?

Each time an intellectual has tried to answer this question, and seriously implement the answer, catastrophe has ensued. This was particularly the case with a certain Ulianov in 1902. Thus, while certainly not pretending to qualify for this comparison, I shall abstain from suggesting any cure for the ills of our world. But since I do feel concerned by what I have seen on my journey across this early landscape of the Information Age, I would like to explain my abstention, writing in the first person, but thinking of my generation and of my political culture.

I come from a time and a tradition, the political left of the industrial era, obsessed by the inscription on Marx's tomb at Highgate, his (and Engel's) eleventh thesis on Feuerbach. Transformative political action was the ultimate goal of a truly meaningful intellectual endeavor. I still believe that there is considerable generosity in this attitude, certainly less selfish than the orderly pursuit of bureaucratic academic careers, undisturbed by the labors of people around the world. And, on the whole, I do not think that a classification between right-wing and left-wing intellectuals and social scientists would yield significant differences in scholarly quality between the two groups. After all, conservative intellectuals also went into political action, as much as

the left did, often with little tolerance for their foes. So, the issue is not that political commitment prevents, or distorts, intellectual creativity. Many of us have learned, over the years, to live with the tension, and the contradiction, between what we find and what we would like to happen. I consider social action and political projects to be essential in the betterment of a society that clearly needs change and hope. And I do hope that this book, by raising some questions and providing empirical and theoretical elements to treat them, may contribute to informed social action in the pursuit of social change. In this sense, I am not, and I do not want to be, a neutral, detached observer of the human drama.

However, I have seen so much misled sacrifice, so many dead ends induced by ideology, and such horrors provoked by artificial paradises of dogmatic politics that I want to convey a salutary reaction against trying to frame political practice in accordance with social theory, or, for that matter, with ideology. Theory and research, in general as well as in this book, should be considered as a means for understanding our world, and should be judged exclusively on their accuracy, rigor, and relevance. How these tools are used, and for what purpose, should be the exclusive prerogative of social actors themselves, in specific social contexts, and on behalf of their values and interests. No more meta-politics, no more “*mâîtres à penser*,” and no more intellectuals pretending to be so. The most fundamental political liberation is for people to free themselves from uncritical adherence to theoretical or ideological schemes, to construct their practice on the basis of their experience, while using whatever information or analysis is available to them, from a variety of sources. In the twentieth century, philosophers tried to change the world. In the twenty-first century, it is time for them to interpret it differently. Hence my circumspection, which is not indifference, about a world troubled by its own promise.

Finale

The promise of the Information Age is the unleashing of unprecedented productive capacity by the power of the mind. I think, therefore I produce. In so doing, we will have the leisure to experiment with spirituality, and the opportunity of reconciliation with nature, without sacrificing the material well-being of our children. The dream of the Enlightenment, that reason and science would solve the problems of humankind, is within reach. Yet there is an extraordinary gap between our technological overdevelopment and our social underdevelopment.

Our economy, society, and culture are built on interests, values, institutions, and systems of representation that, by and large, limit collective creativity, confiscate the harvest of information technology, and deviate our energy into self-destructive confrontation. This state of affairs must not be. There is no eternal evil in human nature. There is nothing that cannot be changed by conscious, purposive social action, provided with information, and supported by legitimacy. If people are informed, active, and communicate throughout the world; if business assumes its social responsibility; if the media become the messengers, rather than the message; if political actors react against cynicism, and restore belief in democracy; if culture is reconstructed from experience; if humankind feels the solidarity of the species throughout the globe; if we assert intergenerational solidarity by living in harmony with nature; if we depart for the exploration of our inner self, having made peace among ourselves. If all this is made possible by our informed, conscious, shared decision, while there is still time, maybe then, we may, at last, be able to live and let live, love and be loved.

I have exhausted my words. Thus, I will borrow, for the last time, from Pablo Neruda:

<i>Por mi parte y tu parte, cumplimos, compartimos esperanzas e inviernos;</i>	<i>For my part and yours, we comply, we shared our hopes and winters;</i>
<i>y fuimos heridos no solo por los enemigos mortales</i>	<i>and we have been wounded not only by mortal enemies</i>
<i>sino por mortales amigos (y esto pareció más amargo),</i>	<i>but by mortal friends (that seemed all the more bitter),</i>
<i>pero no me parece más dulce mi pan o mi libro entretanto;</i>	<i>but bread does not seem to taste sweeter, nor my book, in the meantime;</i>
<i>agregamos viviendo la cifra que falta al dolor,</i>	<i>living, we supply the statistics that pain still lacks,</i>
<i>y seguimos amando el amor y con nuestra directa conducta</i>	<i>we go on loving love and in our blunt way</i>
<i>enterramos a los mentirosos y vivimos con los verdaderos.</i>	<i>we bury the liars and live among the truth-tellers.</i>