THE NETWORK SOCIETY

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The Network Society
KEY CONCEPTS

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Like moths to a flame, ambitious minds seek out the spirit of their age. A spirit is a vital or animating principle: in the enchanted vocabulary of the ancient faiths, spirit comports with the soul and is ageless; in the enlightened vocabulary of modern science, the term spirit names a motive force particular in time and place. Thus, the political economist Max Weber, searching in 1904 for the ‘spirit of capitalism’, employs distinctly modern language in describing spirit as ‘an historical individual, i.e. a complex of elements associated in historical reality which we unite into a conceptual whole from the standpoint of their cultural significance’ (1958: 47). Weber understood both the religious and the secular dimensions of spirit but, as a social scientist, his aim was to gather the particularities of his historical situation and abstract from these a concept that would articulate the principle animating human practices and relationships in that moment. Weber’s great insight was his conceptualization of modernity as an ‘iron cage’ populated by ‘specialists without spirit; sensualists without heart’ (1958: 182). The spirit of industrial capitalism was, in Weber’s estimation, spiritlessness: modernity culminates when ascetic devotion to profit as an end in itself recedes into a rather vulgar and progressive technological materialism. The principle animating the modern world is revealed by an eclipse of faith in the possibility of a transcendent animating principle. Paradoxically, the spirit that
breathes life into modern industrial society also drives the spirit out of the human soul.

Few moths have come as close to the flame, or captured the spirit of their age so precisely, as Weber did his. Nevertheless, there have been attempts. Presently, one of the more ambitious and intriguing efforts to conceptualize the spirit of the contemporary era is gathered under the phrase ‘the network society’. In simple terms, this thesis asserts that the spirit of our age is the spirit of the network: the constitutive principles of networks have become the animating force of individual, social, economic and political life, and this marks the distinction of our period in history. Manuel Castells, the Catalunyan sociologist whose three-volume study of the economy, society and culture of the information age was a singular moment in the articulation of this idea (1996; 1997; 1998), puts the matter as follows: ‘as a historical trend, dominant functions and processes are increasingly organized around networks. Networks constitute the new social morphology of our societies, and the diffusion of networking logic substantially modifies the operation and outcomes in processes of production, experience, power and culture’ (1996: 469).

The word ‘network’ describes a structural condition whereby distinct points (often called ‘nodes’) are related to one another by connections (often called ‘ties’) that are typically multiple, intersecting and often redundant. A network exists when many nodes (people, firms, computers) are linked to many other nodes, usually by many ties which cross the ties connecting other nodes. Numerous metaphors have been used to describe this type and configuration of relationship – indeed, ‘network’ itself is one of these – including ‘lattice’, ‘web’ and ‘matrix’, all of which seek to evoke the logic of decentralized, proliferating connectivity which defines the essence of a network. The matrix metaphor is particularly apt in light of what is conceived by the network society thesis. Matrix derives from the Latin *mater* for ‘mother’ and carries ‘womb’ as its primary meaning: the possibility is that networks are the womb from which a qualitatively new form of society is being born, a society in which identity, politics and economy are structured, and operate, as networks. This is what is at issue in the idea of the network society, and a
critical investigation of this concept, in its various dimensions, is the object of this book.

Later in this chapter, I will return to a closer examination of the nature of the network form, an elaboration of the core elements of the network society thesis, and a brief consideration of how these elements ramify in terms of economics, politics and identity in a holistic account of contemporary society. Before doing this, however, I think it would be helpful to situate the network society thesis in relation to a number of the discourses and theories which have risen to prominence (in some cases, only to fade) in the latter decades of the twentieth century, as theorists have attempted to capture and designate the fluctuating social, political and economic dynamics of this historical juncture.

What is in a name?

The power attached to naming something is considerable. In the Christian account of Creation, God gives to Adam the power to name other creatures, and this constitutes a significant aspect of his dominion over them (Genesis 3:19–20). Thomas Hobbes, in his seventeenth-century masterwork *Leviathan*, asserts that it is names which universalize particulars, and which constitute truth when they are ordered in human affirmations (1968: 102, 105). Thus, to name something is to express dominion over it, to constitute it as true, which are no small powers. Those who attempt to name an age seek to unify or gather its particularities, to establish the truth about it, and to exert some control over its dynamic forces by understanding these to the point of being able to nominate them comprehensively and persuasively. That being said, there is considerable variation amongst these efforts. In some cases, the names assigned to ages are *ideological* insofar as they describe the world as those conferring the name would like it to be in their fondest imaginings. Names such as the Enlightenment, or the Knowledge Society, arguably fall into this category. In other cases, the names seek more objective, disinterested description in the highest tradition of sociology. Sometimes the names result from comprehensive
meditation on historical periods that have long since passed; in some cases, those who would name an age apply themselves to the present or, more perilously, to prospecting the future. Finally, various epochal names emphasize variables that differ in kind – some speak to the organization of economic production and relationships (the Industrial Age), some to political activities (the Age of Revolution), others to social structures (the Mass Society).

The period leading to the millennial turn has not suffered from a lack of attempts to name it as an age. James Beniger, in his book *The Control Revolution* (1986), lists no fewer than seventy-five distinct appellations in scholarly and popular circulation between 1950 and 1985, each of which attempted to characterize what were perceived to be definitive and transformative aspects of the period – a flurry of naming which leads one to wonder whether history, in its cunning, will perhaps look back and finally designate ours as the Age of Nomination. The network society thesis is part of this galaxy of recent attempts to capture decisively that of which we are in the midst, and our understanding of it as a discrete concept will benefit from considering the constellation of discourses to which it is related most closely, both conceptually and historically. In this section I would like to focus particular attention on the following discourses of nomination: post-industrialism; information society; post-Fordism; postmodernism; and globalization.

It should be stressed at the outset that each of these phrases, including the ‘network society’, gathers an array of efforts to articulate the definitive spirit of whatever it is that follows either the realization or the exhaustion of the modern project in the West. In the Western world, modernity has been, among other things, the age of technological industrialism, class divisions, mass societies and markets, conflicting ideologies, and political authority organized at the level of territorial, sovereign nation-states. Whether this period has waned, is in its twilight or has been eclipsed is the subject of profound, but unresolved, intellectual debate and speculation. What is certain is that fluctuations and deviations have been detected in various aspects of this trajectory, and each of these detections has been graced with a name of its own.
Post-industrialism

Industrialism was spawned in the eighteenth century, matured in the nineteenth and culminated in the twentieth. At its core was a set of productive practices which brought with them, and relied upon, a particular range of social arrangements: industrialism was characterized by the mine and factory, the urban city, class divisions and mass consumer markets. Motivated by the appetites of a bourgeois class liberated from the constraints of feudal property relations (in the capitalist model) or the rational egalitarianism of a vanguard elite uncorrupted by self-interest (in the socialist model), and animated by the labour of a working class transformed from a rural peasantry into an urban proletariat, ‘industrialism’ named the economic face of modernity. The principle of industrialism as an economic model was quite simple: apply human labour (either directly or technologically) to the transformation of basic matter into products which could be circulated and consumed – profitably as marketable commodities in the capitalist model; equitably as centrally distributed collective wealth in the socialist model. Industrialism sought perfection along a number of axes, including the mechanization, rationalization and standardization of production; increased power generation; efficient exploitation of an increasing array of natural resources; and the organization of national mass markets for the consumption of its output (Landes 1969). Industrial production was the engine that generated the enormous economic wealth – inequitably distributed though it may have been in both capitalist and communist societies – which has adorned the modern West.

Theories of post-industrialism attempted to express the transition of industrial economies and societies into what was, at the time, an unknown future. As the 1960s gave way to the 1970s, and the welfare state accelerated its development in many capitalist countries, writers such as Alain Touraine (1971) and Daniel Bell (1973) strove to articulate what they saw as a definitive shift in the industrial paradigm. For these theorists, several crucial dynamics combined to signal a transformation. These included a diversion of the
energies of post-industrializing societies away from material manufacturing and towards service provision as their primary economic activity and source of wealth, and a corresponding focus of attention on the exploitation of information and knowledge, as opposed to labour and capital, as crucial economic resources. As Bell wrote, ‘A post-industrial society is based on services . . . what counts is not raw muscle power or energy, but information’ (1973: 127). This reorientation towards service industries (trade, finance, transport, retailing, health, recreation, research, education, government) was accompanied by the growth of white-collar service occupations relative to blue-collar jobs in industrial manufacturing. Thus, in the post-industrial society, the basis of social and economic stratification would no longer be a property relation turning on ownership of the means of production, but rather control over systemic information and knowledge: a new class of technocrats, managers, professional engineers and scientists would replace the owners of factories and mines at the top of the social and political hierarchy, and those executing the more menial tasks of service delivery would replace the industrial proletariat at its bottom. As we will see, an updated version of this part of the post-industrial thesis is central to accounts of the network society.

Some theorists of post-industrialism, such as Bell, saw in this shift the potential to overcome the more degrading and unjust aspects of the industrial era. Images of the post-industrial future were characteristically infused with heady optimism: post-industrial society, it was imagined, would bring with it a more educated, leisured and engaged citizenry, a levelling of economic inequality, a thriving global economy, scientific advance immune to ideology, and rational management of public affairs. There were, however, others – including Touraine (1971), Herbert Marcuse (1964) and Jacques Ellul (1964) – who saw in post-industrialism the harbinger of a ‘programmed’ or ‘one-dimensional’ society which would deepen the alienation of capitalism, in which human life would increasingly be subjected to domination and irrational exploitation masquerading as objectively rational technique. Thus, the differences between industrial and post-industrial society were differences in degree – of the sophistication of domination and the depth of alienation – rather than kind.
Yet another body of opinion challenged the theory of post-industrialism on a more empirical level. In their influential book *Manufacturing Matters*, Stephen Cohen and John Zysman (1987: 261) contended that ‘There is no such thing as a post-industrial economy.’ In the view of these authors and others (see Woodward 1980), post-industrialism named an ideology, not an economic reality. While it was undeniable that micro-electronics technologies were having considerable effects on production practices, the shift away from manufacturing towards service was, in this view, wildly exaggerated, as were claims regarding a ‘revolution’ in the basic practices and relationships of industrial capitalism. In short, according to these critics, to the extent a socio-economic shift was occurring, it was not a shift from industry to service or knowledge, but rather simply a transition ‘from one kind of industrial society to another’ (Cohen and Zysman 1987: 260).

Information society

The fortunes of post-industrialism were dashed upon the energy crisis and ensuing recessions in the Atlantic economies during the 1970s. Around the same time, Japanese scholars and policy-makers were beginning to sketch the contours of a model for society and economy which revolved specifically around the increasingly flexible functionality of microcomputers. The name chosen for this model was *joho shakai*, which translates roughly as ‘information society’. In many ways, the information society model represents an echo of the theory of post-industrialism, albeit one with a sharper articulation of the role of computing technology and knowledge in the abstract form of information. As imagined by Japanese futurist Yoneji Masuda (1981) *joho shakai* would replace the production of ‘material values’ with the mass production and circulation of ‘information values’. At the core of the information society would be the computer, the fundamental economic function of which would be to augment and replace mental labour, yielding increased leisure and new information-based industries. In social and political terms, information societies would feature voluntary com-
munities, participatory democracy, generalized affluence, equality and psychic well-being; the information society would be, in Masuda’s vision, a ‘Computopia’ in which a person could ‘paint one’s own design on the invisible canvas of one’s future, and then set out to create it’ (Masuda 1981). As we will see in chapter 5, these themes remain significant in discussions of identity in the network society.

By the late 1970s, as the decade’s economic downturn continued, intellectuals in Europe and North America were beginning to consider seriously the new Japanese approach to maintaining productivity and growth. In the United States, Marc Porat published a study entitled *The Information Economy* (1977) in which he attempted to define and measure the contours of the information sector – including the nature of its workforce and occupational structure – and its ancillary activities. Porat’s findings indicated that, by as early as 1967, ‘information activities’ accounted for 46 per cent of the United States’s gross national product, and ‘information workers’ comprised 40 per cent of the country’s labour pool (Porat 1977: 8). There was certainly debate over the integrity and definition of Porat’s categories, but here was persuasive empirical evidence that 1970s America was already an Information Society. Notable theorists of post-industrialism such as Daniel Bell (1979) began to rearticulate their analyses in the language of computerization and information. In 1978, Simon Nora and Alain Minc published *L'Informatisation de la Société*, translated as *The Computerization of Society* (1981), a report on computerization for the French government. In it they surmised that the ‘increasing interconnections between computers and telecommunications’ would ‘alter the entire nervous system of social organization... open radically new horizons... [transform] the pattern of our culture... affect the economic balance, modify power relationships, and increase the stakes of sovereignty’ (Nora and Minc 1981: 3–4). The report went on to recommend both vigorous state action in this field – ‘standardizing the networks, launching communications satellites, and creating data banks’ – and a willingness to decentralize ‘when the needed changes require other groups to take the initiative’ (Nora and Minc 1981: 6, 9).
Ideas surrounding the ‘information society’ quickly transcended their roots in utopian idealism and disinterested social science, and by the 1980s took the form of a distinct revolutionary doctrine. As Nick Dyer-Witheford (1999: 22–6) has characterized it, this doctrine has seven elemental beliefs: that the world is in a state of fundamental transition/upheaval, similar in kind and intensity to that experienced in the shift from agrarian to industrial society in the nineteenth century; that the crucial resource of the new society is knowledge/information; that the primary dynamic force in this revolution/society is technology development and diffusion; that the generation of wealth in the information economy has eclipsed that of the material/manufacturing economy; that the social transformation accompanying these technical and economic changes is essentially positive; that the information revolution – technical, economic and social – is planetary in scale; that the information revolution is not only a new phase in human civilization but also an evolutionary step forward for life itself. We could add to this list a firm conviction that the information revolution is irresistible and irreversible. Of course, the primary technological driver of the information society (and its rhetoric) was/is the personal computer, which, in the 1980s, shed its rarity and began its maturation into an everyday mass appliance.

Theories of the information society thus extended theories of post-industrialism, modifying them to reflect the rapidly expanding role played by computing and digitized information in the mediation of an increasing array of social, political and economic activities. As with post-industrialism, theories heralding the arrival of the information society were not without critics (Traber 1986). Much of this criticism questioned the accuracy of labelling as ‘revolutionary’ a series of technologically driven dynamics which not only left intact the foundational logic, practices and relationships of liberal-democratic capitalism, but also entrenched them. Some critics argued that the distinction between the information and industrial economies was a false one, and preferred instead to regard computerization as simply part of, or at best a phase-shift within, well-established industrial production regimes. Others pointed to the failure of this revolution to
redistribute political power and knowledge, or to reconfigure
the possibilities of participation in a substantial way, either
within or between societies (Leiss 1989). Most fundamen-
tally, it was clear to many observers that the development of
new information technologies and practices occurred under
the logic of the market, and were simply instrumental to the
reproduction of capitalist relations of production more
generally, empowering existing elites and perpetuating the
disempowerment of the working class (Lyon 1988; Robins
and Webster 1988; H. Schiller 1986). The combined effect of
these critiques was a growing sensitivity to the ideological
and mythological character of the discourse surrounding the
information society.

Post-Fordism

The network society thesis is closely connected to the con-
stellation of theories and analyses which arose in the 1980s
under the banner of ‘post-Fordism’ (Amin 1994). The roots
of this discourse lie in the Regulation School of political
economy, specifically the work of Michel Aglietta (1979)
and Alain Lipietz (1987), who sought to provide a model
for understanding the historical resilience of the capitalist
mode of production. These thinkers rejected the orthodoxies
which stipulated that capitalism was a static phenomenon,
historically destined to collapse under the weight of its
own contradictions. Instead, the Regulation School conceived
of capitalism as a succession of ‘regimes of accumulation’
comprised of complementary production, consumption
and regulatory configurations: a regime of accumulation
combines a particular way of producing goods, a particular
construction of the consumer market for these goods, and a
particular role for state regulation of the market economy.

Fordism, the accumulation regime which prevailed from
the late nineteenth to the mid-twentieth century, bears the
name of Henry Ford, the archetypical American capitalist
industrialist, in whose mass production automobile factories
– and in the societies which surrounded them – this regime
was made manifest. In terms of production processes, the
attributes of the Fordist model are well known: mass, often
mechanized, production of highly standardized goods in a very rigid and highly segmented process; human labour reduced to the repetitive execution of highly circumscribed, specialized, routinized tasks which admitted little variation or discretion on the part of the labourer; the replacement of individual judgement and craft by standardized operational principles oriented to maximum efficiency (i.e. the application of Taylorist principles of ‘scientific management’). Fordist relations of production featured large numbers of relatively interchangeable wage-labourers gathered into urban masses proximate to sites of production, disciplined variously by the punitive wrath of middle-class managers, the persistent prospect of unemployment, and collective agreements negotiated between capitalists and trade unions. Interestingly, while trade unionism and collective bargaining were institutionalized through this period, in many cases the very qualities which enabled unions to achieve some modicum of security for working people also complemented the organizational logic of the Fordist accumulation regime: strict hierarchy and bureaucratization; rigid, specialized job classifications; separation of the interests of the employed and the unemployed; and a repudiation of radicalism (Harvey 1989: 133–4).

The mass production paradigm of the Fordist regime was paralleled by the creation and maintenance of mass markets able to absorb the surfeit of consumer goods yielded by increasingly productive and efficient manufacturing techniques. Fordist enterprises were very good at converting resources into massive quantities of standardized goods efficiently at a relatively low cost, and commuting this efficiency into profits required the consistent generation of demand for those goods. Goods were thus not the only thing manufactured under the regime of Fordism – it also featured close attention to the manufacture of appetite for these goods; the scientific management of labour and the mass production process was complemented by a parallel effort to manage desire in a culture of mass consumption. New communications technologies and industries (i.e. broadcast radio and television) provided media through which a mass culture of consumption could be manufactured, and the quasi-scientific practices of opinion polling, market research and advertising
provided means for the management of the mass audience and market (Leiss et al. 1990).

Massive numbers of otherwise discrete individuals could be persuaded by advertisers and Hollywood that they all needed the same cigarettes and automobiles, but profitability under the Fordist regime also required that these masses actually be able to purchase the goods they had been induced to desire. Ensuring this entailed balancing the gains to be made by keeping labour costs low (via automation and low wages) with the need to maintain acceptable levels of purchasing power amongst the consuming class. The crucial role of demand management under the Fordist regime also required that the capitalist state be prepared to intervene to offset cyclical market failures and restore equilibrium. The activist Keynesian welfare state – the definitive state form of the Fordist accumulation regime – accomplished this in a number of ways, including income redistribution, unemployment insurance, labour and market regulation, collectivization of mass education and healthcare costs, and counter-cyclical public spending to prop up demand in times of recession. The centralized, regulatory state completed the Fordist regime by providing stable conditions for mass production and mass consumption within territorially defined national units.

Looking backwards, it could be argued that the first signs of instability in the Fordist regime were the countercultural social movements of the late 1960s, many of which rejected – either explicitly or implicitly – the spirit of mass society. By the mid-1970s, the economic and political foundations of Fordism were coming under similar strain: domestic markets in the advanced economies were reaching saturation, which led to sometimes forcible and politically contentious penetration into foreign markets in search of untapped demand for consumer items; downward pressure on employment and wage levels led to increasing labour unrest and strikes, which in turn led many manufacturers to relocate production operations to jurisdictions where labour was less organized, undercompensated and more easily managed; rising unemployment and inflation outpaced the ability of most welfare states to compensate and stabilize demand. Crucially, during this period it was also becoming more difficult for states to redistribute the diminishing fruits of Fordist prosperity, or to
provide the levels of general welfare (i.e., housing, health care, education) upon which the legitimacy of the Keynesian social contract rested.

The response of capitalist elites and the capitalist state to this crisis can be captured in a single word: *flexibility* – the word most closely associated with the post-Fordist regime of accumulation, and a word that continues to occupy a place of privilege in the economic discourse of the network society (Harvey 1989: 140–72; Piore and Sabel 1984). Drawing direction from the success of east Asian (particularly Japanese) economies in weathering the economic storm of the 1970s, European and North American economies began to restructure with an eye to building flexibility into each of the three elements of the accumulation regime.

Thus, in the realm of production, the flexibilities of so-called ‘Toyotism’ gradually replaced the rigidity of Fordist mass manufacturing: economies of scale were replaced by economies of scope (i.e., elimination of large inventories in favour of ‘just-in-time’ delivery of specialized orders); small batch production of variable product types replaced mass production of standardized goods; integration of production from initiation to finishing and individual multitasking replaced task segmentation; limited individual judgement, craft and skill were reintroduced; Taylorist hierarchical management structures and standardization of operational processes were modified by the flattening of hierarchies and limited decentralization of decision-making by ‘teams’ with increased discretion, better knowledge of the scope of the enterprise, and enhanced responsibility for the ‘quality’ of productive output. This reconfiguration of the productive process necessitated a parallel restructuring of the relations of production and the Fordist industrial workforce: the fully employed mass proletariat was reconfigured into a small and shrinking core group of highly skilled workers and a larger, growing group of non-traditional employment categories (self-employed subcontractors, short-term contract employees, temporary workers, freelancers, part-timers, job sharers, teleworkers). In concert with these shifts has been a dismantling of established, well-defined job classifications and working conditions/compensation arrangements, and a high degree of volatility, insecurity and liquidity in the labour