

State Intervention and Telecommunications in Mexico

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The liberalization of telecommunications in Mexico has parallels with the development of telecommunications in other countries as well as some characteristics particular to the Mexican situation. Here I explore theoretical relationships between the state and telecommunications through an analysis of the Mexican case. As a sector, telecommunications is crucial to the insertion of the state into the international environment as well as to the exercise of political and economic power domestically and internationally. This article opens with a review of the literature on telecommunications and the state before looking at the history of Mexican telecommunications policy from the perspective of its functions as a tool of state power.

Telecommunications and the State

The concept of the state has rarely been explicitly dealt with in the literature on telecommunications. Conversely, little of the literature on the state looks at the implications of telecommunications for the state. Those communication scholars who have examined this relationship include Braman (1989), who looked at the erosion of the nation-state; Mosco (1989), who discussed the state both as an instrument of capital and as a contested space; and Samarajiva (1990), who explored hegemony in the international arena. For others, however conceptions of the state remain implicit.

Implicit views of the state in telecommunications fall along a spectrum of positions, that range from seeing the state as a monolithic entity that operates on behalf of monopoly capital (e.g., Quibrera, 1984) to seeing the branches of the state as inhibiting economic development through regulation (e.g., Huber, 1989; see Figure 1).

In other analyses, the state is also viewed as fragmented, either intentionally, as in the ecology of games (Dutton, 1992) and Borrego and Mody's (1989) con-

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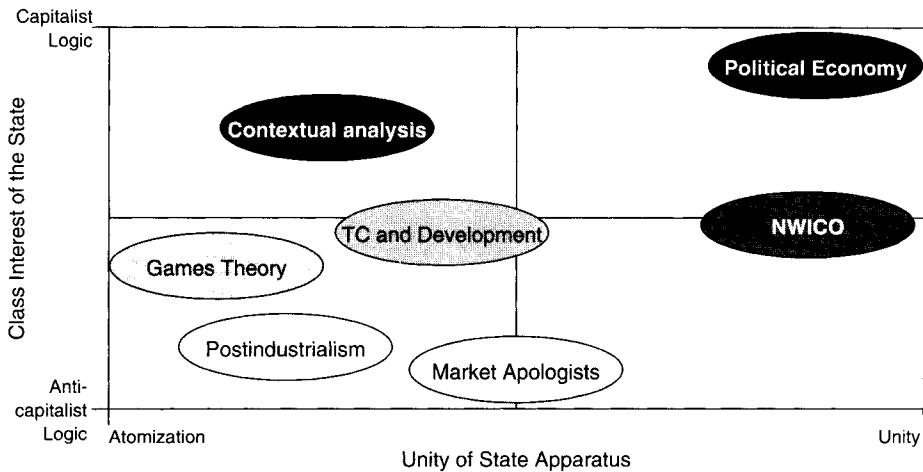


Figure 1. Approaches to telecommunications and conceptions of the state.

textual analysis, or de facto, through the analysis of isolated agencies, as in the telecommunications and development literature of Parker (1976) and Hudson (1984).

The reformulation of the state theory, as undertaken by Jessop (1982) and Hauesler and Hirsch (1989), views the state not as a subject but as an institutionalized class relation, "a complex of apparatuses with divergent class relations [that] therefore provides the ground for inter- and inner-class conflicts" (Hauesler & Hirsch, p. 304). This view of the state falls within the theoretical framework of regulationism, which is based on the Gramscian (1929/1987) notion that changes in the levels of production and consumption require the internalization of new norms. This approach, first put forth by Aggietta (1976) in his analysis of U.S. economic crises,¹ views the history of capitalism not as linear but, instead, as

a sequence of specific social formations that are, on the one hand, characterized by an invariable basic structure (private production, wage labor, appropriation of surplus value mediated by commodity exchange), but also, on the other hand, exhibit distinct differences in the forms of production and exploitation, social and class relationships and finally, the character of the State and political rule. The transitions between these capitalist social formations take on the form of "secular" crises that are defined by long-term variations of the rate of profit. However, the development of the rate of profit as well as the eruption and form of these secular crises do not follow any objective logic

¹ The French regulation school has been criticized by some Marxists for divorcing class struggle from social structure and for being functionalist because of the controlling nature of the state in overcoming economic crises (see Bonefeld, 1987; Clarke, 1988; and Holloway, 1988). For a defense of regulationism, see Jessop (1988).

but are determined by the economic, social and political conditions within any given formation. (Hauesler & Hirsch, 1989, p. 301)

These patterns of development, according to Leborgne and Lipietz (1988), should be analyzed from three angles:

1. Technological Paradigm. The general principles governing the evolution of the organization of labor. Leborgne and Lipietz (1988) make clear that technological and economic development is a process that is open and that "new technologies do not determine which model will succeed . . . [because] they are compatible with a range of new models of development" (p. 263).
2. Regime of Accumulation. The macroeconomic principle or scientific pattern of consumption and production over a prolonged period of time.
3. Mode of Regulation. The configuration of economic, social, and political institutions and norms that lend a certain degree of stability to the reproduction of the system as a whole.

It is this approach of the French regulation school that provides the basis for the analysis offered here, using Jessop's (1982) five categories for forms of state intervention and representation systems:

1. Formal facilitation to maintain the general external conditions of capitalist production. This implies a self-expanding and self-equilibrating capitalist production, which would be the case in *laissez-faire* economies, in which the intervention of the state is kept to a minimum.
2. Substantive facilitation to reproduce certain general conditions, such as labor and infrastructure. The ownership and operation of telecommunications infrastructure is an example of this form of intervention.
3. Formal support to alter external conditions of production, leaving it to market forces to determine whether or not these changes are exploited by free and autonomous agents. Changes in the legal framework of telecommunications to benefit service providers and large users constitute formal support.
4. Substantive support in the direct allocation of particular conditions of production to particular economic agents, rather than leaving it to the market; these can take the form of licenses, monopolies, state credit, state sponsorship, and so forth.
5. Direction to override the

formal freedom of economic agents and [direct] that they either act or refrain from acting in particular ways . . . [the state] intervenes to support, counter-act, or modify them through restrictions on the formal autonomy or freedom . . . [it] may promote the substantive rationality of capitalism through recognition of the substantive interdependence among economic agents and promotion of their collective interest at the cost of their particular interests. (Jessop, 1982, p. 234)

The systems of representation are forms of mediation of demands of and support to the state by civil society. They include *raison d'état* (dictatorship with no formal channels of representation), parliamentarianism (indirect participa-

tion of individual citizens through elections, associated with formal equality), corporatism (political representation of social actors according to the social division of labor), clientelism (political support is exchanged for politically mediated resources), and pluralism (political forces represent interests in civil society, outside the division of labor). Specifically however, this analysis emphasizes the last two modes of state intervention because of the consolidation of the capitalist mode of production and the significant increase in the development and overall importance of telecommunications.

I must acknowledge that theories of the capitalist state, including the reformulation of the state theory, have been developed primarily to explain states with developed market economies, whereas little attention has been paid to states in the periphery. Exceptions to this include the works of the Latin American Council of the Social Sciences (Calderon, 1987), Faletto (1990), and the group coordinated by Gonzalez Casanova (1990). Calderon and the others emphasize the political and symbolic areas in predominantly descriptive studies, following the theories of new social movements that tend to privilege areas of political struggle other than that of class. Faletto still works within the theoretical framework of dependency but works with a version that is much more sophisticated than that used in earlier efforts, which obscured conflicts within the center and the periphery by focusing on the sphere of circulation and on the nation-state as the unit of analysis. Faletto argues that states in the periphery are different because they generally lack an internal driving force towards the development of capitalism, and that the state, therefore, has to carry out most of the development effort. According to Faletto, the "social disarticulation problems linked to the relations of production are different from those that stem from the maintenance and change of the social order" (p. 38). He adds that there is a constant need to adapt to the changing situation of central economies, which many times must act as a substitute for a dominant class. Gonzalez Casanova's group views the current Latin American state as one of class domination, complemented with political mediations in which subordinate groups are still represented formally but have little impact. I find on one side the "organic elites" of a transnational-associated state—the primary identity of which is shaped in relation to the international, rather than the domestic, environment—and, on the other, blocks or coalitions of emerging popular power in the working people, who seek to build revolutionary democracies.

Telecommunications and the Mexican State

This discussion of telecommunications and the Mexican state identifies and analyzes the models of development that have driven Mexican policy since the introduction of telecommunications, the organization of labor and the system of representation in each period, as well as the development of telecommunications and the forms of state intervention in the sector at each juncture. As Table 1 shows, the periodization differs from the eras traditionally noted by historians, delineating a sequence of regimes of capital accumulation: primitive accu-

mulation (1882–1911), competitive capitalism (1911–1934), peripheral Fordism (1934–1982), and peripheral post-Fordism (1982–1995).

Primitive Accumulation and Articulation: The Porfiriato (1882–1911)

Although the origins of capitalism in Mexico can be traced to the Spanish conquest in 1521 (Semo, 1973),² most scholars agree that the capitalist state was created in Mexico by the Civil War of 1856. The capitalist relations of production were anchored in Mexico City Valley, failing to extend geographically as they did in Europe because in Mexico capitalism was weakly articulated with feudal and peasant modes of production still in place. The federalist state structure perpetuated the excessive centralist tendencies of the monarchists, who neglected the interior, contributing to the loss of half of the national territory to the United States between 1836 and 1848. The result was the maintenance of precapitalist power relations of the hacendados and a struggle for hegemony among nationalist liberals.

This struggle was not just between projects of modernity but was also between two historical traditions concerning the modern. These were the Franco-Continental Enlightenment of Voltaire and Rousseau that equated modernity to rationality and tried to “free society from all inequality, arbitrariness, despotism, and obscurantism” (Quijano, 1988, p. 109) and the Anglo-Scottish Enlightenment of Locke, Hume, and Smith, that, by focusing on the individual, vindicated the “privileged position of some groups in respect of others within society” (ibid.). The latter was the view codified in the 1857 Mexican Constitution, but even then there were intellectuals like Ponciano Arriaga who, in the debate over the draft constitution, warned that

working citizens are condemned to be mere passive instruments of production for the exclusive profit of capitalists . . . by decreeing freedom of trade industry and other franchises enormous concessions are being made to foreigners, without thinking the impossibility for our industry to compete with them by virtue of the three centuries of backwardness, monopoly, and serfdom. (Cockroft, 1979, pp. 51–52)

However, these prophetic works underestimated the capacity of the labor struggle, present even then in the anarchist organizations in central and southern Mexico. These groups were launched in the 1860s through the proselytizing work of Greek immigrant Plotino Rhodakanaty and his students, who organized workers and peasants for strikes and demands for land reform (Hart, 1987).

The authoritarian regime of Porfirio Díaz extended for more than 3 decades and provided the legal framework and a repressive army to help in the process of appropriation of land by powerful market farmers. This was the first step of an industrialization program based on American capital, which came to control

² Semo (1973) argues that capitalist relations constituted an embryonic capitalism that articulated with other modes of production but was subordinated to a feudal system, the dominant mode.

Table 1. Models of Development and Mexican State Intervention in Telecommunication

Regime of accumulation	Administration	Economic strategy	System of representation	State intervention	Telecom policy and development
Primitive accumulation	Porfiriato (1882–1911)	Foreign investment	Raison d'état	Formal facilitation	Foreign investment
Competitive capitalism	Postrevolution & Maximato (1911–1934)	Primary sector	Parliamentarism	Formal support redirection	National infrastructure
Peripheral Fordism	Populism to Lopez Portillo (1934–1962)	Import substitution	Corporativism & clientelism	Formal support redirection	Nationalism infrastructure
Peripheral post-Fordism	De la Madrid & Salinas (1982–1990)	Export & production sharing	Selective pluralism	Subtractive facilitation & support redirection	Privatization liberalization

half of the country's assets by the end of the regime (Cockroft, 1979). Although 83% of this investment was in mining and railroads, the transportation infrastructure was complemented by the telegraph and telephone industry. The telegraph was an industry ancillary to the 13,000 miles of railroads constructed in that period, an infrastructure that has not suffered substantial modifications since. The telegraph started operations in 1851 through the efforts of Spanish-born congressman Juan de la Granja, who had the clandestine financial support of New York investors (Mendez Moreno, 1967). The telephone was introduced in 1882 by the *Compania Telefonica y Telegrafica Mexicana*, a subsidiary of the International Telephone and Telegraph Corporation (ITT). Fifteen years later, Telefonos Ericsson, a subsidiary of L. M. Ericsson, began competitive operations.

According to Jessop's categorization, the Porfiriato represents a perfect example of *raison d'état*. Not only were there no formal channels of representation, because the cabinet of positivist intellectuals known as the scientists wanted to eliminate any obstacle in pursuit of a modern Mexico, but the project of industrial modernization was undertaken with a ruling elite that made decisions without the political participation of other sectors of the social formation.

Although the telegraph and telephone industries were relatively small in themselves, they were, however, extremely significant when seen as intermediate goods, information flows that provide inputs into the processes of production of final goods—perhaps the most important function of information and its flows in any economy. Telecommunications linked the capital, Mexico City, with both of the country's coasts as well as with mines and agricultural centers, providing for the first time a national dimension for capitalism and breaking, as in the United States, the pattern of city-state capitalism.

Along with its economic role, the telegraph filled a strategic function used in the 19th century by liberals, who proposed a capitalist economic model coupled with a parliamentary system of representation rather than the monarchy

with feudal variants proposed by conservatives, as well as against French colonial attempts during the Reform period of the 1850s.

In sum, during this period the conservative state created the conditions for foreign investment in telecommunications, developing an infrastructure that was used both as a capital good and as the component that glued together a national market. The ultimate effect on the state's power was to force primitive capitalists and foreign investors to require the protection of Diaz's monopoly in armed violence in order to grow, creating an interdependence.

Competitive Capitalism: Post-Revolution and Maximato (1917–1934)

The fall of Diaz came about through the efforts of an amalgam of revolutionary forces aligned against him that included nationalist liberal bourgeois groups lead by Madero and Carranza, an agrarian movement in the south lead by Zapata, an army of rural wage workers in the North lead by Villa, and anarcho-syndicalist worker organizations allied with an army lead by Obregon. Once these forces overthrew the dictator, they struggled against one another with the result of "a defeated peasantry, a dependent and mutilated labor movement, a hurt but victorious bourgeoisie, and for a divided populace, a triumph on paper: the 1917 Constitution" (Cockroft, 1979, p. 67).

A top-down form of parliamentarism produced a document that was nationalist, identifying laborers by nationality rather than by class. At the same time, the postrevolutionary administrations were stabilized, with wages set independently for each production sector. The stronger and more militant workers of three sectors (railroads, mining, and oil), followed by telegraphy and education, were also the ones with higher wages, especially when compared to those in the manufacturing sector. These unions were not only independent of but in opposition to the corporatist state and were amalgamated at the national level in two central organizations: the General Confederation of Workers (CGT) and the Mexican General Confederation of Workers (COGM).

Telecommunications did not play a major role in the technological paradigm of this model of development. While the railroads were nationalized along with mining, the central sector of the economy, telephony remained in the hands of International Telephone and Telegraph (ITT) and Ericsson as competitors. In sum, while the change in administrations meant changing the direction of the economy in many sectors, telecommunications remained unchanged except for a decline in its strategic position.

Peripheral Fordism, Corporatism, and Nationalism: From Populism to Petrolization (1934–1982)

The mass production and consumption that characterize the model of Fordism are characteristics primarily of developed countries. Mexico, at this time however, was an example of what is characterized as peripheral Fordism. That is to say, it was characterized by

an authentic Fordism, based on the coupling of intensive accumulation and the growth of markets. But it remains peripheral in the sense that in the glo-

bal circuits of productive sectors, qualified employment positions (above all engineering) remain largely external to these countries. Further, its markets correspond to a specific combination of local middle-class consumption, along with increasing workers' consumption of domestic durables, and cheap exports toward the center. (Lipietz, 1986, p. 32)

The debate over whether Mexico's populism during the administration of Cardenas was capitalist, with its contribution to the construction of the institutions necessary for the growth of capitalism (Olson, 1985), or anticapitalist, with its policies of destruction of monopolies, income distribution, and land reform (Cordera & Tello, 1983) is irrelevant because, as Jessop (1982) points out, "state power is capitalist to the extent that it creates, maintains or restores the conditions required for capital accumulation . . . and noncapitalist to the extent that the conditions are not realized" (p. 221).

According to Martin Barbero (1987), populism was not just a stratagem from above; its success as a third way in Latin America derived from its view of and relation to the masses:

The mass is seen with suspicion. The right, on the defensive, views the masses as endangering its old privileges, while the mass culture dissolves sacred cultural boundaries. The left sees in the masses a dead mass, a proletariat without class consciousness and without the will to struggle, and in the mass culture a phenomenon that challenges and does not fit its enlightenment rationality. Only the populists took advantage of the eruptive tendencies of the masses within the norms that guaranteed the maintenance of the fundamentals of the structure. (p. 174)

At this juncture, the system of representation changed to what became the most stable corporatist state in Latin America. Economically, the policy from 1940 to the 1950s was one of import substitution, which resulted in measures aimed at changing the Mexican primary sector from export to industry. These policies reduced imports of manufactured goods, expanded the import of capital goods, and provided easy credits for domestic capitalists. This was part of a wider phenomenon general to Third World countries that depended largely on the export of raw materials with unstable prices. In Mexico, it was parallel to a change in the demographic composition of the country from rural to urban. This policy benefited from demands for nonoil goods by the United States during World War II. It was consolidated through the postwar strategy of stabilizing development, which helped to create an economic period (1958–1969) that was labeled the "Mexican miracle." And this policy institutionalized state-capital-labor relations through mechanisms such as redistributive policies.

The process of accumulation of industrial capitalism needed a new arrangement of actors that was possible only through the reorganization of labor. The new mode required a set of production relations in which the rate of exploitation could be increased by changing the value of labor, achieved by lowering all wages to those of the manufacturing sector. Concrete actions included

repression of autonomous forms of labor organization and development of a legal framework that supported the new mode. Repression was simultaneously direct (use of violence), legal (nonrecognition of strikes, unions, or both), and political (the corporate state gave political offices and positions only to the leadership of the official Confederation of Workers of Mexico [CTM]). This union became the only channel for the negotiation of labor demands after the socialist leadership was replaced by a nationalist one. Economic success was consolidated with modifications to the Federal Law of Labor in 1962, which codified the homogenization of wages at the lower, industrial norm.

There was a shift in direction in the telecommunications sector as its strategic importance to the industrial sector increased. Telecommunications came to be viewed as a public good and a key component of the nationalist project. The main events included the 1939 Federal Law of General Communication Channels, which, for the first time, acknowledged the strategic importance of the telecommunications infrastructure. According to this law, all telephones within 62 miles of the international border, as well as those connected to international networks, were considered General Communication Channels, controlled exclusively by the federal government.⁵ Additional examples included the Mexicanization of the telephone industry in 1958, when a group of Mexican businessmen acquired ITT's and Ericsson's interests in Telmex, and direct state control of Telmex since 1972, when the Echeverría administration acquired 51% of the company.

By considering the general communication channels a patrimony of the nation, the state treated them as natural resources and therefore as a capital sector for the state. This was especially true during the administrations of Cardenas (1934–1940) and Echeverría (1970–1976), during which state capitalism was practiced—in the case of the former by exploitation of the basic infrastructure and its protection from foreign interests, and during the latter by converting Telmex to a state-owned and -operated enterprise in 1972. According to Cowhey and Aronson (1989), Mexico put in practice a cash cow model in which the telephone industry was milked by the national treasury, and the tariff structure was based on cross-subsidies in which national and transnational large users paid for a uniform extension of the public network through all sectors and regions.

Privatization, Internationalization, and Selective Pluralism (1982–1995)

In 1987, then-presidential candidate Salinas de Gortari stated that “telecommunications would be the cornerstone of the program to modernize Mexico's economy” (Sanchez, 1987, p. 1). It was precisely this strategic sector, ranked 11th worldwide in terms of telecommunications investments, that Salinas handed over to the national and transnational private sector. This was a change in direction from a peripheral Fordist model in crisis to a post-Fordist model and meant an end to the class alliances and redistributive policies of the corporatist

⁵ From the U.S. perspective, communications with Mexico has historically been considered domestic.

state. Moreover, this phase of accumulation is characterized by the open insertion of Mexico into the global economy.

During the late 1960s, the stabilizing development model started to break down due to several reasons: the crisis of the agricultural sector, which was originally the economic support of the import substitution model; the lack of a capital goods sector; the low rate of profitability, due to increases in wages; and inefficient industry, due to protectionist policies and subsidies. This crisis was confronted first with stronger Keynesian policies of the Echeverría administration that were followed by what seemed to be a miraculous recovery based on the "petrolization" of the economy when López Portillo (1976–1982) used oil to subsidize all economic sectors, especially industry. The oil price crash and other contingencies pulled back the Mexican economy from its course, resulting in two administrations that both downsized the state apparatuses and completely opened the country to foreign investment during a period when transnational firms, seeking investment havens, were attracted by the 2,000-mile U.S.-Mexican border.

The new institutional arrangements are seen more clearly in the *maquiladora* industry, which is the cornerstone of the new strategy of industrial sector orientation.⁴ It would be expected that there would be a repetition of the old shift in labor regulation from competitive to monopolistic: The 1950s and 1960s saw the devaluation of workers as a factor of production; the 1980s and 1990s have been experiencing an increase of both relative and absolute exploitation based on the international competition of labor markets. Although competition in the sphere of capital does not result in lower market prices due to the concentration of ownership and vertical and horizontal integration, labor markets are pitted against each other at the national and international levels. The new workforce has been the first since the demise of Porfirism to accept a decrease in wages.

The demise of the old corporatist system of representation was also sought by moving away from the division of labor as the basis of the rebalancing of power structures that came with the restructuring of the official ruling party. The result is a selective pluralist state. The old agreements with labor and peasant organizations have been revised, resulting in a weaker presence in terms of influence as well as public offices. Those political positions were transferred to entrepreneurs and sectors that do not correspond to the division of labor.

As large companies with maquiladora operations have entered the picture, telecommunications has increased in importance. The new generation of maquiladoras are different from the early labor-intensive generation, being engaged in activities such as just-in-time supply, small batch manufacturing, and the generation or exchange of strategic information with regard to research and devel-

Traditionally, the word *maquiladora* has referred to the sharing of crops between the landowner and an itinerant harvester, or to the division of offspring in cattle breeding. In the same production-sharing sense it refers to a partnership or division of activity in manufacturing as applied to the U.S. and Mexican sides of the border. *Maquila* operations are those in which components are shipped in bond from the United States into Mexico for assembly by low-cost Mexican labor, then returned to the United States with tax paid only on the value added in Mexico.

opment—all of which make firms heavily dependent on telecommunications (Barrera & Chanove, 1995). The evolving spatial distribution of large corporations is part of a new international division of labor (Scott, 1986; Storper & Walker, 1983) in which labor-intensive phases of the manufacturing process are carried out in peripheral countries and strategic decisions are generally made in those developed countries in which the economy is shifting from an industrial to an information base (Castells, 1985; Sassen, 1988). Thus, telecommunications is indispensable for the spatial and technological flexibility transnational firms now require during a period of intensification of relative surplus value parallel only to the period during which the steam engine was introduced. That is, the new technological paradigm increases production by increasing productivity, while at the same time intensifying the absolute surplus value of capital by making possible the relocation of activities (allowing firms to save between \$15,000 and \$35,000 per employee per year), and by having the capability of conducting production speedups and massive layoffs by remote control (Barrera & Chanove, 1995).

Substantive facilitation and support were the main forms of state intervention in the telecommunications sector during this period of flexible accumulation. Substantive facilitation included permits allowing transnational firms to bend the legal framework, such as by using transborder microwave links and satellites for transborder data flow. Substantive support comprised three steps:

1. Heavy investment in infrastructure, justified as public goods. Social goals in areas such as education, health, agriculture, and rural telephony were used to justify telecommunications investments; in one example, the \$220 million Morelos Satellite System, put up in 1985, was justified with such rhetoric though in the end it was used mainly for the transmission of television signals and to provide services to domestic and international corporate networks.
2. Modifications of the infrastructure and tariff structures based on the needs of large transnational users. In 1981, a data transmission service, Telepac, was begun by the government. In 1985, Electronic Digital Systems (EDS), a subsidiary of General Motors purchased from Ross Perot, warned the Secretariat of Communications and Transportation that if needs for international high-speed lines were not met, it would not only not build future plants, but it would relocate those already in operation in Mexico. In response, Telmex polarized its services, serving the large corporate users while neglecting individual users and the geographic expansion of the network. Tariffs were put in place that supported this policy, slashing the rates of international long distance telephony while domestic long distance and local service became more expensive.
3. Direct exploitation of the infrastructure by capital through privatization. This third and final step consists in handing over to the private sector highly profitable and centrally important firms. The De la Madrid administration (1982–1988) sought to transfer all companies owned by the government to the private sector that were both nonstrategic and operating with losses. Neither of these was true of Telex, the third largest company with government participation, which generated a profit margin of 40% in 1989 (“Tel-Mex”, 1989)—not bad for a company called inefficient by the Salinas administration (1988–1994). The

monopoly by Telmex of the long distance market will end in 1996, when it will have to provide interconnections to competitors that will include a number of alliances involving foreign firms, particularly U.S. companies. Telmex itself has formed an alliance with Sprint for the Mexican market.⁵

American firms were also using the Morelos Satellite System to handle trans-border data flow. The commercial orientation became more transparent with the Solidarity Satellite System launched in 1994, a move for which rhetoric about social services was no longer even offered. This redirection was completed in early 1995 by the Zedillo administration with the amendment of Article 28 of the Mexican Constitution to no longer include satellite communication among the sectors reserved for the state.

The new directions of the telecommunications sector also reflect a change in the internal structure of the state. Jessop (1982) points out that the "long term shift in hegemony requires not only a new 'hegemonic project,' but also the reorganization of the state system as a whole," and that the "relative dominance of particular departments or ministries can underwrite the hegemony of a given class fraction" (pp. 232-233). The ascendancy of the Ivy League economic cabinet over the political and technical cabinets of earlier administrations was reflected in the loss of importance of the Secretariat of Communications and Transportation vis-à-vis the Secretariat of the Public Revenue in domestic telecommunications issues, and vis-à-vis the Secretariats of Trade and Industry and of Foreign Relations in international fora like the International Telecommunications Union (ITU) and the General Agreement on Tariffs and Trade (GATT).

Within the Secretariat of Communications and Telmex, the organizational restructuring resulted in vertical growth of the organizational pyramid because of the creation of new hierarchical middle-management levels and uncontrolled growth of the managerial sector at the cost of human and financial resources. Tensions between the government and Telmex also resulted in the indiscriminate authorization of microwave and satellite bypasses and the corporatization of the satellite operator, Telecom, moves that hurt the telecommunications company financially as well as technologically. The organizational restructuring, combined with the introduction of digital technology and the general labor policy, also resulted in the imposition of a new collective contract for the 50,000 unionized workers who are now vulnerable to arbitrary decision-making regarding relocation, wages, and adoption of technology.

Official reasons offered for the sale of Telmex at one point or another included the streamlining of the public sector, the generation of millions of dollars required to upgrade the infrastructure and grow at the preestablished rate, and the generation of funds with which to pay the public debt and finance solidarity projects aimed at fighting extreme poverty. These reasons do not resist

⁵ Other alliances include that between AT&T and the Alfa Group; another between MCI and Banamex; a joint venture formed by GTE Corporation, Bancomer, VISA, and Marcotel, which is constituted by Radio Beep, IXC Communications, Westel, and Teleglobe; IUSACELL; and the alliance between Motorola and Protexa.

analysis, as Telmex was extremely profitable, had no problem obtaining international loans, and extreme poverty was fought only cosmetically.

Official explanations offered for the sale of Telmex do not account for important exogenous and endogenous factors behind the decisions. Perhaps the most important endogenous factor was the need for a docile workforce. Exogenous factors included the replacement of the ITU by the GATT and the World Trade Organization (WTO) as the primary international fora for the discussion of national telecommunications policies; pressure by the International Monetary Fund (IMF) and the World Bank; pressure from the United States through the Baker Plan, aimed at solving the Latin American debt crisis; the Brady Plan, which was a more successful version of the Baker Plan; and the North American Free Trade Agreement (NAFTA); and the increasing importance of advanced telecommunications for transnational firms.

Impact of Privatization

The impact of the privatization of telecommunications in Mexico was differentiated by sector. Here I look at the impact on labor, international organizations, transnational and national corporations, and Mexican law and policy.

Labor

Telmex's union had been accused of corruption, inefficiency, and an irrational opposition to technological change. The Telephonists Union of the Mexican Republic (STRM) grew out of the fusion of the two unions associated with Ericsson and the ITT. In 1976, it became an atypical Mexican labor union when its current leader, Francisco Hernandez Juarez, won the General Secretariat through extraordinary elections and retired the organization from the official Confederation of Workers of Mexico (CTM). A couple of years later, the union organized the first of five general strikes to take place within a decade. Over time, however, the combativeness and unusual autonomy of the union changed as it became the pet union of the Salinas administration.

Until 1985, the organization opposed the introduction of any technology that would mean a replacement of workers. However, the destruction of a large part of the infrastructure of Mexico City with the earthquakes and the replacement of the wired infrastructure by digital telephony forced an end to that position. Complete digitization could translate into a 75% reduction of the number of operators, as well as loss of jobs among those doing maintenance and installation tasks. In 1988, the union successfully gained a right to a voice in the process of converting to new technologies; this right was lost in 1989 and regained in the 1990 collective contract, though the voice at this point only serves to keep workers informed about the conversion process. Telmex's goal was to reduce the number of workers for each 1,000 lines to 9 (Vazquez Rubio, 1990). It should be noted that Mexican telecommunications workers, at 11.2 per 1,000 lines, were the most productive in Latin America.

International Organizations

The privatization of Telmex was, of course, not a unique case. In fact, at the time that its sale was announced, there were 14 other national telephone companies in the same situation worldwide (Valencia, 1990). This was not a coincidence, but was partially a result of and partially contributed to changes in international fora in which the orientations of national policies are discussed. Over the course of the 1980s, organizations like the World Bank and the ITU placed structural change on the agenda. Traditionally, the ITU recommended restrictions on market competition and the liberalization of specialized services, but in 1988 it announced a shift by formally recommending monopoly modernization while simultaneously opening the door for voluntary agreements to move towards competition (Cowhey & Aronson, 1989). This coincided with the multilateral negotiations on trade in services in the GATT, which has created a more competitive environment in the sector. What this change has meant is that fewer and fewer of the funds to national governments for development of their information infrastructures will come from international organizations; rather, more and more of it is to come from the private sector.

With privatization, Telmex handed part of its stock to France Telecom and part to Southwestern Bell to share in the Mexican market. Foreign capital now has 55.7% of the total stock of Telmex (Tandon, 1992), not unlike what is found in other Latin American countries that have privatized their telecommunications industries. Mexico, Argentina, and Venezuela, for example, have followed the same pattern of establishing debt-equity swaps,⁶ dismantling labor organizations, and privatizing state-owned and -operated enterprises—including telecommunications (Barrera, in press). This pattern was established in the 1985 Baker and 1989 Brady plans, which aimed at making the payment of Latin America's foreign debt possible.

National and Transnational Corporations

The digital highway in Mexico was created in response to the demands of domestic and foreign large users. The digital overlay network started in 1985 after Electronic Data Systems (EDS) developed a synchronous manufacturing system for General Motors, which had 30 plants in Mexico. The automotive and electronic sectors of the maquiladora industry have become information intensive. Telecommunications are a key component of the new production paradigm, which is characterized by technological and organizational flexibility. This infrastructure provides transnational firms with geographic flexibility through permitting the centralization of decision-making along with the ability to decentralize and move production to different labor markets (Barrera & Chanove, 1995).

⁶ A *debt-equity swap* is the selling of debt papers for cash at a discount. The investors, generally transnational firms, negotiate the redemption of the document with the debtor's central bank for an equity investment in the country at a value equal to or lower than the debt redeemed.

De Jure and De Facto Mexican Policies

There is, of course, a deep gap between policies as written and as implemented, as well as between general and specific policies, gaps that are deep and generalized in Third World countries. They come from ambiguity in the legal framework, the lag in the ability of the legal framework to deal with technological change and its effects, widespread corruption, the difficulty of replacing rhetoric rooted in populism, and the influence of international agents.

Mexican communications law is very vague about telecommunications, leaving its regulation to the bylaws (Congresso, 1976). The 15 articles of the Telecommunications Bylaw in turn leave questions like design of the licensing mechanisms for satellites up to the courts (Congresso, 1990). This ambiguity gives secretariat officials the space to make arbitrary decisions that may not be congruent with general policies.

The legal framework in Mexico—as everywhere else—is years behind technological development. In one example, the Mexican Constitution was amended by adding satellite communications as one of the sectors reserved to the state only after Televisa was getting ready to launch its own satellite system. Another example was the monopolization of cellular telephony that almost took place only when an old concession for radio telephony was going to include the new technology.

Corruption tends to be seen as something unavoidable because it is constructed as a trait ingrained in the Mexican character, yet it is something for which the individual is supposed to assume responsibility. It is more useful to think of corruption as a “mediation to save a gap between the legal order and the practical order, socially in place,” produced historically (Escalante Gonzalbo, 1989, p. 333). The gap created by corruption was often that between a nationalist and egalitarian legal framework and the needs of capital accumulation. The anticorruption campaigns of each Mexican president are best understood as purges to eliminate particular individuals or to make structural changes in the alignment of political forces.

Policy discourse in Mexico is still dominated by the rhetoric of the Mexican Revolution of 1910. Concepts such as social justice, national sovereignty, and freedom of expression and association are used invariably as sacred themes by all the presidents. With the exception of the Cardenas administration, however, there has been a distance between discourse and action, a distance that reached a limit with the De la Madrid administration. The Salinas administration started a rhetorical conversion by going through a process of revisionism of the Diaz regime and the leaders of the 1910 Revolution. The mass media and conservative historians simultaneously produced texts that reconstructed Mexican history, creating a space for a discourse more congruent with the new economic model.

The history of Mexico over the past 100 years resembles a waltz in which the prerevolutionary country had congruent *de facto* and *de jure* policies low in attention to the national interest and high in attention to the needs of capital, as represented by the birth of tax-free telephone industries in the hands of

Americans and Europeans. These policies reversed completely after the revolution, culminating with Cardenas' Law of Communication and the gradual nationalization and expropriation of the telephone industry by the state. The debt crisis, seen as a sign of the exhaustion of the Fordist model, generated *de facto* policies similar to those of the Diaz regime, while the *de jure* regulatory framework remained unchanged, creating the widest gap in history. The Salinas and the Zedillo administrations made the necessary changes in the legal framework, making it congruent with *de facto* policies already in place. This framework, compatible with the goals of the Baker and Brady plans, NAFTA, the concept of the Global Information Infrastructure, the goals and approach of the new World Trade Organization, and the desires of Mexican billionaires, lead by communication moguls Slim and Azcarraga, is not that new if one takes into account its fundamental similarity with the framework that was in place at the turn of the century.

Life After "Big Labor"

The telecommunications sector in Mexico seems to have gone full circle, from the creation of the telephone industry by foreign capital during the Porfiriato to liberalization during the Salinas administration. In both cases, the state was trying to attract foreign investment, making itself dependent and vulnerable in relation to international capital; and in both cases, there was recognition of the strategic importance of telecommunications—in the first period, in the abolition of the isolation of manufacturing and extractive centers with maritime ports, and in the second period, with the evolution of industrial sites with headquarters and research and development (R and D) in developed market economies.

According to Gordon (1988), the best predictors for the relocation of the operations of transnational firms are economic advantages combined with a stable institutional climate that includes willingness of a state to create an infrastructure with an amortization time much longer than that of the plant and equipment of the firm. While the private sector is usurping and exploiting the infrastructure, the state is the one that finances it.

The implication for labor is that capital now has a means to decompose the labor movement at a global scale with strategies like parallel plants and synchronous manufacturing. The question of whether there is life after big labor seems to have two answers: Either it recomposes in informal networks at the shop floor of flexible *maquiladoras* or it recomposes at a global scale by adopting the same tools and strategies of capital despite limitations due to the bias of the technology itself. The development of capitalism has been and still is an open process. However, never before has labor been so handicapped in relation to capital. Mexican labor, under the emerging regime of accumulation, has taken wage cuts and accepted a deterioration of living and working conditions without precedent in postrevolutionary Mexico.

For the first time, there is a situation of integral exploitation; that is, the simultaneous intensification of absolute, relative, technical, and existential extraction

of surplus value.⁷ Capital can flow and organize globally based on a technological paradigm resting on advanced telecommunications. This flow goes back and forth, playing with the labor market in a Darwinian competition of transnational-associated states.

The problem of the vulnerability of the state in the current regime of accumulation must be addressed in a complex manner. There is a tendency to examine this by comparing it to the previous regime of accumulation; doing so will always show the current state as weaker because of the increasing permeability of national boundaries to capital, commodities, and data. However, the state is stronger in other respects because it is responsible for maintaining the conditions of production and reproduction of labor. At the same time, it maintains the formal impermeability of national boundaries. The state produces competitive labor markets and must maintain a productive climate. Another tendency is to view the state as monolithic, when there are multiple sectors that become visible during shifts in regime as some strengthen and others weaken. A third problem with comparing the state during its last two regimes is the blurring of the separation between the public and private sectors. The Mexican state is no longer the only active economic agent, but its interdependence with domestic and foreign capital makes it as indispensable as always.

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⁷ *Absolute surplus value* is generally an increase of profits through a decrease in wages. *Relative surplus value* is generally an increase of profits relative to the cost of labor. *Technical surplus value* refers to innovations or reinventions introduced by labor that are not remunerated. *Existential surplus value* is the appropriation of the subjective life of manual labor by intellectual labor (e.g., researchers) that capitalizes it. The first two value types are discussed in multiple texts by Marx (e.g., 1867), while the last two have been developed in oral form by Guillermina Valdes-Villalva (Peña, 1983).

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