

Money, magic, and machines: International Telecommunication Union and liberalisation of telecommunications networks and services (1970s–1990s)

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This paper studies the liberalisation of telecommunication networks and services in the last quarter of the twentieth century, focusing on the role that the International Telecommunication Union played in creating the material, normative and ideological foundations of the pro-market global telecommunications order.

With its emphasis on entrepreneurship and competition, neoliberalism [suggests] you can be anyone you wish to be, but a) you will have to pay for it (possibly over many years through debt repayments) and b) you will be tested against competitors. These two things are guaranteed, by legislation if necessary.¹

Only time will tell, but if we are on the verge of a significant paradigm shift it is clear that it is only the world's elite who will be able to participate in this new networked information economy . . . I fear that governments and the telecommunications industry are in danger of creating a global information-rich elite while condemning the rest of the planet to the information slums.²

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- 1 W Davies, "The Difficulty of "Neoliberalism"" *Political Economy Research Center Blog* (1 January 2016) <https://www.perc.org.uk/project_posts/the-difficulty-of-neoliberalism/>.
 - 2 C Blackman, "To Have and Have Not" (1994) 18 *Telecommunications Policy* 3.

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TELECOMMUNICATION, HEGEMONY, AND CHANGE: AN INTRODUCTION

International organisations are born into various hegemonic orders, and they re-configure the hegemony in different ways: some embody the system and its rules, and some disrupt them. The International Telegraph Union, the predecessor of the International Telecommunication Union (ITU), was one such organisation born into an order shaped by various forms of competition, and the colonial and neo-colonial aspirations of corporations and states.³ Technology firms and equipment manufacturers had a relative advantage thanks to their innovation and revenue-generating capacity, while states controlled the territory where the telecommunications infrastructure needed to be laid and they, of course, possessed the regulatory power. Yet telecommunication had long been conceptualised as a ‘utility’ and provided by public-owned entities, known as Public Telecommunications Operators (PTOs) or Public Telegraph and Telephone (PTT), in many parts of the world until the 1970s, when the rise of digital and satellite technologies enhanced the technological and organisational capability of the multinationals. Soon enough, new pro-market ideas, wrapped in notions of ‘freedom of information’, ‘information highways’, and the ‘global village’, came to undermine the century-old consensus over the utility nature of telegraph and telephone services. In the span of three decades, and despite resistance by the new and developing countries, telecommunication networks and services were re-conceptualised as a ‘commodity’, subject to ‘the cash nexus’.⁴ Gradually, what was known as the ‘international telecommunication order’, underpinned by functional cooperation, was succeeded by an ‘international trade order’ grounded in concessions and market power.⁵

Information processing giants and large business users of telecommunications joined hands with administrative-judicial apparatuses in and beyond the industrialised world to lead a process of change in the rules and structures governing global telecommunications, through international institutions such as the ITU and the World Bank. Starting in the 1980s, the General Agreement on Trade and Tariffs (GATT) Uruguay Round began laying the ideological and material foundation for domino liberalisation of telecommunication networks and services. New relations of property and exchange were defined, and new geographies of high and low profit were generated. Soon, markets were integrated, civil servants

3 On the history of the International Telecommunication Union, see G Balbi and A Fickers (eds), *History of the International Telecommunication Union (ITU): Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020).

4 K Van Der Pijl, *Transnational Classes and International Relations* (Routledge 1998) 11.

5 W J Drake, ‘The Rise and Decline of the International Telecommunications Regime’ in C Marsden (ed), *Regulating the Global Information Society* (Routledge 2000) 125.

were replaced by businesspeople, utility users became consumers, and telecommunications became an ‘item of civilisation’ that the neoliberal individual must pay the full price for. As part of the ‘juridification’ of the new order, the ITU’s International Telecommunication Regulations were revised in 1988. Some years later, state/society complexes in possession of 93 per cent of telecommunication markets committed themselves to liberalisation and deregulation under the 1994 GATS Annex on Telecommunication and the 1997 WTO Agreement on Basic Telecommunications.⁶

Although institutions such as the World Bank and the GATT/WTO played a crucial role in reconfiguring relations of production around telecommunications networks, technical organisations such as the ITU became instrumental not only to the commodification of telecommunications networks and services, but also to what Kees van der Pijl calls ‘Socialisation’ (*Vergesellschaftung*), which refers to the organisation of the social orders around the existing relations of production.⁷ More specifically, the ITU helped create new markets in the new and developing world in the 1960s and 1970s through its technical assistance missions and world telecommunications exhibitions. In the face of the liberalisation of telecommunications sectors in the industrialised world in the 1980s, the Union’s Secretariat played a crucial role in changing the rules governing access and interoperability of networks. With the ascent of competitive and liberal order in the 1990s, the Union helped create social cohesion and ‘manage difference and inequality’ by de-politicising neoliberal politics. It also directed developing countries to restructure their telecommunications sectors and develop investment and property laws for their telecommunications networks and services—or create their own ‘neoliberal legalities’, to use Brabazon’s words.⁸

The story of the neoliberal turn in global telecommunication is part of the histories of infrastructures that remain at the margins of international legal enquiry. In a discipline where knowledge production is driven by ‘crises’—or what is perceived as ‘disruption’ to the liberal world order—the everyday ‘governmentality’ of infrastructures often fails to attract scholarly attention.⁹ Yet questions of democracy, human rights, armed conflicts, or trade wars, amongst others, are all closely tied to infrastructures, and how power is organised in and beyond them. Once we—as lawyers—get our hands dirty analysing global production and production relations, we can see how the “technical”

6 *ibid* 154.

7 Van Der Pijl (n 4) 16.

8 H Brabazon, ‘Introduction’ in H Brabazon (ed), *Neoliberal Legality: Understanding the Role of Law in the Neoliberal Project* (Routledge 2018) 5.

9 H Charlesworth, ‘International Law: A Discipline of Crisis’ (2002) 65 *Modern Law Review* 377.

in technology is not independent of organisational forms, social relations and responses, economic structures and finance, or the networks of enabling or related or consequential technologies in which a particular technical practice is located'.¹⁰ Liberalisation of telecommunication networks and services in the last quarter of the twentieth century, in fact, paved the way for what appears to be an irreversible state of corporate power over people. As Tarnoff has recently noted, '[t]he growth of [telegraph and telephone] networks were guided by a desire for power and profit . . . While the internet is more sophisticated than its predecessors, it continues this tradition . . . *The techlash is nothing if not a belated reckoning with the legacies of privatisation*'.¹¹

The history of the neoliberal turn in global telecommunication is also a history of the division of labour between different institutions in the broader global capitalist expansion, whereby some institutions—both as actors and arenas—finance and lead the reconfiguration of production relations, while others make rules and culture to perpetuate the new order. Indeed, a thorough understanding of commodification and socialisation in the global capitalist expansion necessitates going beyond the familiar cases of financial international institutions and development banks to investigate how technical or commodity organisations engage in the creation of social cohesion under a certain mode of production. This will also help understand the ways in which ideas travel from one world institution to another, some institutions patronise others, worldviews are transformed, new narratives are constructed, and some policy preferences are juridified while others circulate and fade away without affecting relations of production. Along these lines, contestation over and retreat from institutional mandates—a central theme in international institutional law—can be studied beyond questions of technicality and legal interpretation, and more as the 'logic of capital' navigating through different institutions with differing anatomies of influence.¹²

The article starts with a discussion of the balance of power in the post-1945 ITU, regulation of different technologies, and the pre-1970s hegemony of public telecommunication entities in the global telecommunication order. It will then discuss the question of 'development' in the ITU following the decolonisation of Asia and Africa in the 1950s and 1960s, the challenge of the old order by the new and developing world and the failure of the South to reconfigure the relations of

10 B Kingsbury, 'Infrastructure and InfraReg: On Rousing the International Law "Wizards of Is"' (2019) 8 *Cambridge International Law Journal* 171, 173.

11 B Tarnoff, *Internet for the People: The Fight for Our Digital Future* (Verso 2022) 12, 17 (emphasis added).

12 R W Cox and H K Jacobsen, *The Anatomy of Influence: Decision Making in International Organisation* (Yale University Press 1974).

production. Following this, it explores the multiple forces behind the neoliberal turn in the global telecommunication regime and the change in the ITU's International Telecommunication Regulations between the 1970s and 1980s. The next part then discusses the World Bank's advocacy of liberalisation of telecommunications under its 'new agenda', the GATT/WTO trade negotiation and the restructuring of the ITU in the 1990s. That part ends with a few words on the changing role of the ITU Secretariat in the post-liberalisation period and the importance of the managerial class (or 'cadre stratum') to capitalist expansion. The following part concludes the piece.

ITU, THE REIGN OF PUBLIC TELECOMMUNICATION ENTITIES, AND INTERNATIONAL LAW

The International Telegraph Union (IT), the predecessor of the International Telecommunication Union (ITU), was established by the initiative of the nephew of Napoléon Bonaparte III of France, and as part of the broader European project for 'transition to industrial capitalism' in and beyond the continent in the late nineteenth century.¹³ The founding instrument of the IT, the International Telegraph Convention, was adopted by 20 European countries in 1865.¹⁴ Although the advantages of interconnections between telegraph networks played a role in setting up the Union, it was ultimately the collective European consensus to institutionalise the state monopoly over telecommunications networks and services that justified the creation of an inter-state body. European countries had already developed a complex network of bilateral and multilateral treaties and regulations,¹⁵ and the Union was intended to act as an 'international cartel of national telegraph agencies'.¹⁶ As I will explain further, harmonisation of codes, tariffs and operational procedures for international telegraph traffic was an essential aspect of the monopolistic organisation of the sector.

Telephony remained outside the ambit of the Union until the 1880s, partly due to its limited use and inadequate transboundary infrastructures at the

13 K Lee, *Global Telecommunications Regulation: A Political Economy Perspective* (Pinter 1996) 58.

14 France, Austria, Baden, Denmark, Greece, Hanover, Italy, Saxony, Russia, Prussia, Sweden-Norway, Spain, Denmark, Belgium, Bavaria, Portugal, the Netherlands, Switzerland, Turkey, and Württemberg.

15 K Aznavour, 'The Price of Order: Technology, Diplomacy and the Formation of the International Telegraph Union (ITU)' (PhD thesis, Graduate Institute of International and Development Studies 2014) 2.

16 J Hills, *The Struggle for Control of Global Communication: The Formative Century* (University of Illinois Press 2010) 59.

time, but also because telephony was seen by European post and telegraph administrations as a threat to the telegraph markets they managed themselves.¹⁷ Soon enough, however, the growing interest amongst European governments in international telephone service led to the creation of a separate institution called the International Consultative Committee on Long-Distance Telephony (CCIF) in Paris in 1923. The CCIF was intended to facilitate expansion of telephone networks beyond national borders through voluntary standards, as opposed to the treaties set through the ITU to govern the telegraphy.¹⁸ In 1926, the CCIF was formally brought under the aegis of the ITU but remained an autonomous body with its own telephone laboratory in Paris until 1948, when the committee was integrated into the ITU Secretariat.¹⁹

Following the invention of wireless telegraphy in 1876 and radio transmission of human voice in 1902, a semi-autonomous entity named the International Radiograph Union (IRU) was set up by a 1903 conference and at the initiative of Germany. Radio transmission was by nature borderless, had historically been managed by companies, such as British Marconi, the German Siemens and Telefunken and the American Commercial Cable Company, and was coordinated through a transnational network of agreements and physical stations. The idea that radio communication could be managed by the ITU was not popular, although the IRU was practically housed and staffed by the International Telegraph Union Bureau in Berne and many principles governing international telegraphy had already been applied to radio transmission. The First World War, however, changed the dynamics. With the decline of military use after the end of the war, the commercial use of radio frequencies unleashed new economic opportunities, but also coordination problems.²⁰ In 1932, only a few years before the start of the Second World War, the IRU and the International Telegraph Union held two separate conferences in Madrid while sharing their committees and plenary meetings. The meetings resulted in the adoption of the International Telecommunication Convention, which also

17 Lee (n 13) 61.

18 P Genschel and R Werle, 'From National Hierarchies to International Standardisation: Modal Changes in the Governance of Telecommunication' (1993) 13 *Journal of Public Policy* 203.

19 For a historical account of CCIF, see L Laborie and C Henrich-Franke, 'Technology Taking Over Diplomacy? The "Comité Consultatif International (for) Fernschreiben" (CCIF) and its Relationship to the ITU in the Early History of Telephone Standardisation, 1923–1947' in G Balbi and A Fickers (eds), *History of the International Telecommunication Union (ITU): Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020) 265.

20 See M Rikitiaskaia, 'The International Radiotelegraph Union Over the Course of World War I, 1912–1927' in G Balbi and A Fickers (eds), *History of the International Telecommunication Union (ITU): Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020).

became the founding instrument of the new International Telecommunication Union (ITU).²¹

While the ITU institutionalised public-owned telecommunication in mainland Europe, the organisation of telephony and telegraphy was different in the United States and the United Kingdom. Due to the private ownership of their telegraph networks, neither of the two countries became founding members of the International Telegraph Union. The UK, however, joined the Union in 1868 when it nationalised its domestic telegraph and to represent its interest in India.²² The 1868 Convention adopted by the Vienna Plenipotentiary Conference also made it possible for companies to accede to the convention without being able to take part in standard setting. Following a proposal put forth by Britain, the conference also adopted ‘colonial voting’, enabling European governments to vote on behalf of their colonies.²³ Finally, the 1871–72 Rome Plenipotentiary Conference allowed companies to attend the meetings without voting rights. The US did not join the ITU Convention until 1934, when the new category of ‘Recognised Private Operating Entity’ (RPOA) was created. Even then, it opted out of both the Radio Regulation and the Telephone and Telegraph Regulations until 1949 and 1973 respectively.²⁴ The RPOAs could gain ‘recognition’ only if they provided service to all customers, and on a non-discriminatory basis.²⁵

The US and the UK relied on telephone monopolies at home (AT&T and British Telecom) but maintained different models of international telephone services abroad. The British Empire’s telecommunication was organised by Cable & Wireless Ltd and treated as ‘one end-to-end bloc’.²⁶ The United States combined ‘protectionism of domestic markets with free market rhetoric’ and an end-to-end model abroad.²⁷ In the end-to-end model, the modalities for interconnection were set by companies (and called ‘propriety standards’), as opposed to the ITU model, where rules were set by states.²⁸ Finally, in the

21 While concluding treaties and regulations concerning telegraph and telephony, ITU did not set any technical standards until its restructuring by the 1947 Atlantic Plenipotentiary Conference.

22 Telegraph Act 1870 (33 & 34 Vict c 88).

23 Lee (n 13) 60. On colonies’ voting rights at the ITU, see H Tworek, ‘A Union of Nations or Administrations? Voting Rights, Representation, and Sovereignty at the International Telecommunication Union in the 1930s’ in G Balbi and A Fickers (eds), *History of the International Telecommunication Union (ITU): Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020) 243.

24 J Hills, *Telecommunications and Empire* (University of Illinois Press 2007) 51.

25 Drake, ‘Rise and Decline’ (n 5) 132.

26 Hills, *Telecommunications and Empire* (n 24) 22.

27 *ibid* 11.

28 *ibid* 9.

realm of inter-continental telegraph services, submarine cables across the world oceans were controlled by a cartel of British private firms.²⁹ Yet even telegraph was subject to state control when penetrating national borders.

The key to understanding the ITU and how it organised cable telecommunications (telephone and telegraph) and wireless technologies (radio and satellite frequencies) in and beyond borders in the twentieth century is the three sets of norms produced by different bodies of the Union during the century: International Telecommunication Convention, International Telecommunication Regulations (Radio Regulations or International Telephone and Telegraph Regulations), and Recommendations. The ITU's plenipotentiary conferences, held at regular intervals,³⁰ adopted broad principles governing telecommunication services such as the right of the public to use telecommunications services, the right of the governments to stop or suspend services and protection of physical networks, all codified in the International Telecommunication Convention.³¹ Consensus—as opposed to voting—was the rule in plenipotentiary conference. Reaching 'consensus by exhaustion'³² had indeed turned plenary assemblies into a 'forum for trading votes and symbolic politics'.³³ In the intervals between the conferences, the Council handled the affairs of the organisation.³⁴ In parallel with the plenipotentiary conferences, the World Administrative Telegraph and Telegraph Conference (WATTC) and the World Administrative Radio Conference (WARC) set 'regulations' governing radio, telephone, and telegraph. Telephone and telegraph regulations, for example, contained rules on interconnection of networks, qualification of services and tariffs.³⁵ Radio regulations contained technical rules on assigning and nomenclature of frequencies and preventing interference.³⁶

Eventually, the International Radio Consultative Committee (CCIR) and the Consultative Committee for International Telephony and Telegraphy

29 See Hills, *Struggle for Control* (n 16) chapter 2.

30 The 1947 Atlantic City Plenipotentiary set the five-year intervals. Previously, plenipotentiary conferences were held every seven years.

31 The 1875 St. Petersburg Conference simplified the convention by reducing detailed provisions to some general regulations.

32 D J MacLean, 'A New Departure for the ITU: An Inside View of the Kyoto Plenipotentiary Conference' (1995) 19 *Telecommunications Policy* 177, 178.

33 J Hills, 'The Telecommunications Rich and Poor' (1990) 12 *Third World Quarterly* 71, 87.

34 Previously, the Administrative Council.

35 The telephone and telegraph regulations were developed separately until 1988. From 1988 forward, they were merged into the International Telecommunication Regulations. See ITU, 'Administrative Regulations Collection' <<https://www.itu.int/en/history/Pages/RegulationsCollection.aspx>>.

36 See, eg, Radio Regulations Annexed to the International Telecommunication Convention (adopted 2 October 1947, entered into force 1 January 1949) 193 UNTS 188.

(CCITT) developed standards in the form of ‘recommendations’ which, although not binding, were applied widely by ITU members and non-members.³⁷ For example, CCITT adopted recommendations on dialling procedures in international services or power level of signalling pulses (published in large volumes and available to telecommunication administrations for a fee), while CCIR recommendations dealt with spectrum utilisation, terrestrial and satellite radio communication.³⁸ Described as ‘miniature international organisations’, each committee had its own director and functioned as a club of industrialised countries’ engineers and experts.³⁹ Standards and regulations were negotiated in the committees and state delegates merely put their seal of approval on them. Apart from standard setting, the CCITT was also the guardian of the bilateral agreements between states on ‘accounting rates’ for international telephone and telegraph services. The rates were agreed upon in the ITU’s monetary unit (gold Francs) up until 1971, when the US president Richard Nixon delinked the US Dollar from gold, creating floating currency exchange rates.⁴⁰

Finally, in the post-1945 era, the ITU was also responsible for recording the specifications of satellite frequencies. Following the United States’ strategy to secure frequency spectrums for its industrial and military use in the post-war order, an expert body called the International Frequency Registration Board (IFRB) was set up in 1947 and within the General Secretariat.⁴¹ The board’s mandate was simply to receive the notices of new frequency occupancies and review their compliance with already-established frequency assignments. This system of spectrum management is a good example of how, despite the ‘federal’ structure of the ITU (different technologies being managed by independent organs), the social conflicts around one technology significantly affected others.⁴² In the 1970s, the developing world’s antagonism around the use of satellite spectrum triggered demands for fair transfer of land-based technologies from the industrialised to the poorer nations.

37 The CCIF (telephony) and CCIT (telegraph) were merged in 1956 and renamed the CCITT.

38 For a full collection of ITU’s Telegraph, Telephone and Radio Regulations since 1965 (merged into International Telecommunication Regulation in 1988) see <<https://www.itu.int/en/history/Pages/RegulationsCollection.aspx>>.

39 See G Codding Jr and D Gallegos, ‘The ITU’s “Federal Structure” (1991) 15 *Telecommunications Policy* 351.

40 Hills, *Telecommunications and Empire* (n 24) 13–15.

41 S A Hook, ‘Allocation of the Radio Spectrum: Is the Sky the Limit?’ (1993) 3 *Indiana International and Comparative Law Review* 319.

42 On this, see, Codding and Gallegos (n 39) 351.

International law was key to both the pre-1970s hegemony of public telecommunication and the neoliberal turn thereafter. At stake were rules governing the interconnection and lease of networks, service delivery, the obligation to provide universal access, and the resale of excess capacity, amongst others.⁴³ Under the ITU's operational rules, members would be protected against competition by each other's PTOs or companies in their territories, while leaving a space for 'special arrangements' between the consenting states.⁴⁴ The 1937 Madrid Constitution stipulated that '[t]he High Contracting Parties respectively reserve the right of making separately, between them, special arrangements of all kinds, on service points that are not of interest to the generality of States . . .'.⁴⁵ As I will explain in Part IV, it was in fact the insertion of the 'special arrangements' clause from the ITU's Constitution into the ITU Convention in 1982 and the cascading effects it had on International Telecommunication Regulations and the CCITT recommendations concerning the interconnection between private networks that enabled the neoliberal turn in global telecommunication.⁴⁶

The ITU's Secretariat itself has an unexplored history. The Union was administered by the Swiss Postal Telegraph and Telephone in Bern until 1948, although from 1932, the secretary general was elected by plenipotentiary conferences. Following the incorporation of the Union in the UN System by the 1947 Atlantic City Plenipotentiary Conference, an independent secretariat was set up in Geneva. The decision to move the Union's headquarters was a compromise between the US' insistence on replacing the ITU with a new organisation or moving the headquarters to New York—where American telecommunication companies could exert direct control—and lobbying by the UK and mainland Europe to keep the Union outside the US-led UN and in Europe.⁴⁷ The new secretariat staffed by independent international civil servants managed to build a new image and identity around apolitical expertise, 'a passion for creativity, a compulsion to tinker, and a zest for change'.⁴⁸

43 Successive conventions contained provisions on stoppage and suspension of services: see International Telecommunication Convention (adopted 2 October 1947, entered into force 1 January 1949) 193 UNTS 188, arts 29 and 30 (Atlantic City Convention).

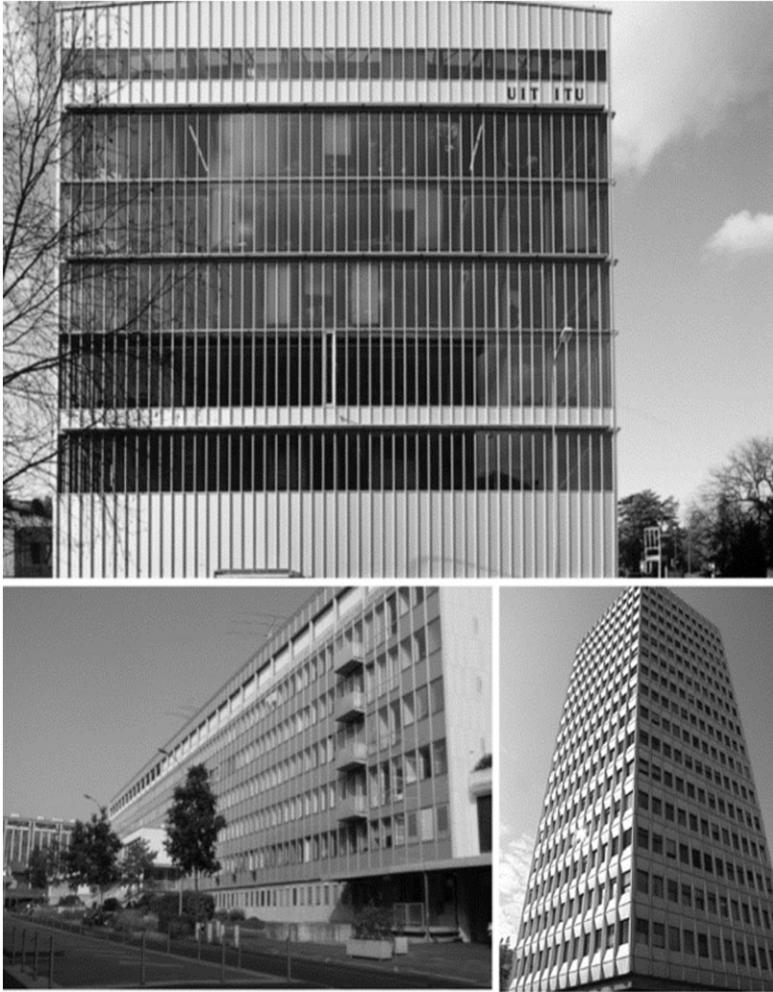
44 Drake, 'Rise and Decline' (n 5) 134.

45 *ibid.*

46 International Telegraph and Telephone Regulations (adopted 9 December 1988, entered into force 1 July 1990) art 9.

47 C Berth, 'ITU, the Development Debate, and Technical Cooperation in the Global South, 1950–1992' in G Balbi and A Fickers (eds), *History of the International Telecommunication Union: Innovation and Diplomacy in Modern Europe* (De Gruyter 2020) 77, 79

48 A B Masters, *Cultural Influences on Public-Private Partnerships in Global Governance* (Palgrave Macmillan 2018) 38.



Figures 1, 2 and 3. The ITU headquarters in Geneva, Switzerland is composed of three separate but interconnected buildings. The buildings seen in the lower left and lower right were built under the direction of the Genevan architect André Bordigoni in 1962 and 1970 respectively. The latter was admired for having brought the ‘vertical element’ to the international organisations landscape in Geneva. The building at the top was built by Genevan architects Maurice Currat and Jean-Jacques Oberson in 1999 and was intended to accommodate the growing number of ITU staff.⁴⁹ Source: Fondation des immeubles pour les organisations internationales (FIPOI).

Yet, like many technical IOs, the ITU Secretariat was kept at bay by powerful states for a long time. As late as 1973, Jacobson wrote, ‘[c]ommunications are

49 ‘The ITU, Since 1865: The Emergence of a “Vertical Element”’ (*International Geneva*) <<https://www.geneve-int.ch/architectural-history-international-organizations-geneva>>. The series is based

vital to the civil and military function of government. To lose control of them is to surrender essential instrument of sovereignty . . . After more than a century people still have a reluctance to create an organ affecting telecommunication that would be beyond and possibly above states.⁵⁰ The ITU staff, nevertheless, used various media, from the ITU telecommunication exhibitions to keynote speeches and the organisation's monthly newsletter, to convey their changing politics from a statist to a liberal telecommunication order.



Figures 4, 5 and 6. ITU Telecommunication Journal, from left to right: January 1947, January 1967, and December 1970. Source: ITU.

As I will discuss in parts IV and V, the shift of regulatory power from states to firms towards the end of the twentieth century and the need for mediation between firms and developing countries by the ITU's staff led to a transformation in the Union's institutional culture from a bureaucratic one (shaped by the century-long interactions with public telecommunications administrations) to a corporate one. Three successive ITU director generals in the last quarter of the twentieth century, Mohamed Ezzedine Mili, Richard Butler and Pekka Tarjanne, played an instrumental role in managing social conflicts in the Union while channelling hegemonic preferences. A reading of the keynote speeches, editorials, and communications of the ITU director generals from the 1960s through to the 1990s in the Union's archives in Geneva offers a consistent portrayal of technological development as inherently apolitical and universally beneficial. In inaugural speeches of various conferences or world

on the book by Joëlle Kuntz, *International Geneva: 100 Years of Architecture* (Viviane Lowe trans, Slatkine, 2017).

50 H K Jacobson, 'ITU: A Potpourri of Bureaucrats and Industrialists' in H K Jacobson and R W Cox (eds), *The Anatomy of Influence: Decision Making in International Organisation* (Yale University Press 1974) 59.

telecommunications exhibitions, the director generals consistently invited delegates to address their disagreements around different technologies through diplomacy and urged telecommunication giants and financiers to contribute to the transboundary expansion of networks and services, so that all nations could benefit from the wonders of telecommunications.

THE 'OLD BOYS CLUB': THE DEVELOPING WORLD AND THE ITU IN THE NEOCOLONIAL AGE

Telecommunication and broadcasting have been among the most important means of exercising power in the modern world. They have enabled states to solidify their claims to and actual exercise of sovereignty. Mansell explains that '[t]he terms and conditions of access to telecommunications services are instrumental in determining who can participate fully in the social, cultural, political and economic life of the society.'⁵¹ Telegraph, telephone, data transmission, radio and satellites have been essential to capitalism's 'spatial fix', the integration of markets, and the making of the present global economy as we know it.⁵² Submarine cables enabled colonial powers not only to establish and maintain control over overseas territories but also to gather strategic intelligence.⁵³ Similarly, radio broadcasting has been essential to the Western propaganda targeted at the Eastern bloc.⁵⁴

Who owns and manages telecommunications networks and services has extensive implications for the organisation of the social world. In capital-intensive/high-technology infrastructures such as telecommunications, economies of scale and the size of business operations play the primary role in wealth production. The laying of telephone networks on land or launching a satellite into geostationary orbit will be a good economic decision only if there is guaranteed, vast and continuous demand for services offered through costly networks.⁵⁵ For a century, however, the opportunities for primitive accumulation did not stop most states from taking charge of laying networks and

51 R Mansell, *The New Telecommunications: A Political Economy of Network Evolution* (SAGE Publications 1994) x.

52 D Harvey, 'Globalization and the "Spatial Fix"' (2001) 3(2) *geographische revue* 23.

53 See B J Hunt, *Imperial Science: Cable Telegraphy and Electrical Physics in the Victorian British Empire* (Cambridge University Press 2021). See also P M Kennedy, 'Imperial Cable Communications and Strategy, 1870–1914' (1971) 86 *English Historical Review* 728.

54 A R Johnson and R E Parta, *Cold War Broadcasting: Impact on the Soviet Union and Eastern Europe* (Central European University Press 2010).

55 See G Varrall, *Making Telecoms Work: From Technical Innovation to Commercial Success* (Wiley 2012) 91.

characterising telecommunication as a public service similar to roads and hospitals. Telecommunication networks were historically built with tax money and were seen as public infrastructure. Of course, services were provided in exchange for fees and over time became ‘cash cows’ for associated services such as postal services.⁵⁶ Yet, with revenue-generation not being the primary consideration, distant and rural areas had the chance to benefit from services to which their taxes and labour had contributed. Equally important was cross-subsidisation in the network, with long-distance and international services subsidising local services, urban customers subsidising rural customers, and businesses subsidising residential services—a fundamental redistribution mechanism in the welfare state, and crucial to the aspirations of the working class in emerging countries in Asia and Africa. In the post-1945 era, a consensus existed amongst international development agencies and the nations that a strong state was key to egalitarian politics.⁵⁷ The material capability of public-owned telecommunication, the dominant conceptualisation of telecommunication as a ‘utility’ and the institutionalisation of this production model through the ITU had created a ‘hegemonic fit’, to borrow from Cox.⁵⁸

In privately-owned telecommunication networks, on the other hand, companies can choose where to lay their networks, what to charge and when to modernise those networks. As business and urban users provide the beloved economies of scale, rural and residential users, islands and territories with scattered population or low network penetration risk being abandoned as burdens on the networks.⁵⁹ In principle, governments can set terms and conditions for the private management of telecommunication as part of their national development plans. Yet, in a world of competitive investment, poor nations must make their offer attractive to foreign investors, sometimes by affording monopoly rights and, at other times, by minimising regulations. While taking different forms, privatisation eventually removes the management of telecommunication infrastructure from public scrutiny.

For decolonised Asia and Africa, telecommunication and broadcasting were key to nation-building, anti-colonial politics, and participation in the

56 J Straubhaar, ‘From PTT to Private: Liberalisation and Privatisation in Eastern Europe and Third World’ in B Mody and J M Bauer (eds), *Telecommunications Politics: Ownership and Control of the Information Highway in Developing Countries* (Lawrence Erlbaum Associates Publishers 1995) 3, 7.

57 B Mody and L-S Tsui, ‘The Changing Role of the State’ in J M Bauer et al (eds), *Telecommunications Politics: Ownership and Control of the Information Highway in Developing Countries* (Lawrence Erlbaum Associates Publishers 1995) 179.

58 R W Cox, ‘Social Forces, States and World Orders: Beyond International Relations Theory’ (1981) 10 *Millennium* 126.

59 Hills, ‘Telecommunications Rich and Poor’ (n 33) 71.

global economy. Like other infrastructure, the development and density of telecommunication networks in colonial territories followed the colonial powers' business and strategic interests. Writing on the history of telecommunication networks in India, Thomas explains that '[d]uring the colonial period, the technologies of telegraph, cable, and wireless were stand-alone, and quite crucially these technologies were not oriented towards its uses by ordinary Indian citizens living in British India'.⁶⁰ Giuntini has also studied Africa's telecommunication between 1850s and 1900s. He wrote: 'war played a central role in respect to the laying of the cables . . . In fact, much of the cables laid out were the result of a conflict, which demanded a better communication for war purposes. African submarine cables therefore did not result from a rational industrial strategy or from a necessity to construct a coherent network'.⁶¹ As a result, one of the first steps taken by post-colonial governments was 'the expulsion, censorship and nationalisation of existing Western news agencies and the establishment of new state or semi-state equivalents'.⁶² Establishing telecommunication networks in rural areas, where most of the population of developing and least developed nations lived, could not only stimulate economic growth but also buy loyalty for the central government. Ultimately, a sustainable self-determination, and social mobility for that purpose, was not seen as possible without public control over communication infrastructures.

Joining the UN system in 1947 and admitting an exponential number of new and developing states in 1950s and 1960s, the ITU had to take a position on technical assistance. The idea of development assistance as an overarching policy governing the Union's activities and funded by its budget was unthinkable. Industrialised countries dominant in the ITU systematically opposed any departure from the standard-setting functions of the Union. Seeing the Union as 'the old boys club',⁶³ many industrialised countries (including the Soviet Union) opposed the allocation of any fraction of the budget to

60 P N Thomas, *Empire and Post-Empire Telecommunications in India: A History* (Oxford University Press 2019) 304.

61 A Giuntini, 'ITU, Submarine Cables and African Colonies, 1850s–1900s' in G Balbi and A Fickers (eds), *History of the International Telecommunication Union: Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020) 37, 42.

62 J Dinkel, *The Non-Aligned Movement: Genesis, Organisation and Politics (1927–1992)* (A Skinner trans Brill 2019) 58. This was not the case with Latin American countries that following their independence in the early nineteenth century gave monopoly concessions to foreign providers such as International Telegraph and Telephone (ITT). However, these private monopolies were mostly nationalised in the twentieth century.

63 G O Robinson, 'Regulating International Airwaves: The 1979 WARC' (1981) 21 *Virginia Journal of International Law* 1, 34. The term referred to the dominance of industrialised nations in the ITU.

telecommunications development in the South.⁶⁴ Plenipotentiary conferences over the two decades witnessed the consistent failure of proposals for a technical assistance fund, a department within the Union to respond to the developing countries' needs, or regional offices in those countries.⁶⁵ The post-war period also coincided with a growing interest in the industrialised world for 'upgrading domestic networks . . . introduction of electronic switching and the complex standardisation that went with it'.⁶⁶ The preference was to export outdated equipment to the South as opposed to offering aid. What is more, the 'federal' structure of the Union, with Consultative Committees having their own machineries, left little space to the new and developing countries to turn processes of standardisation in their favour, despite such activities accounting for 68 per cent of the Union's budget.⁶⁷ The technocratic/engineering culture shaped by the telecommunication engineers and experts from the industrialised world was, in fact, a strong force against any effective contestation of the status quo.⁶⁸ The Union eventually saw its role limited to modest technical assistance—more in terms of technology transfer and management of telecommunication networks funded through UN programmes, as opposed to the establishment of telecommunication infrastructure and equipment in the developing world.⁶⁹

With the birth of the United Nations Development Programme (UNDP) in 1965, the UN budget for technical assistance in telecommunications grew 800 per cent by 1973, yet still remained at the negligible amount of USD 9 million.⁷⁰ The ITU was commissioned to direct 1825 expert missions and hosted 1399 telecommunication experts from new and developing countries.⁷¹ However, piecemeal technical assistance activities, conducted along the lines of the modernisation theory of the 1950s and 1960s,⁷² neither enhanced the

64 See J-L Renaud, 'The Changing Dynamics of the International Telecommunications Union: An Historical Analysis of Development Assistance' (PhD Thesis, Michigan State University 1986) (copy held at ITU Library and Archives, call number: 654(06) R395).

65 *ibid* 85.

66 Hills, *Telecommunications and Empire* (n 24) 145.

67 Renaud, 'Changing Dynamics' (n 64) 196.

68 See J-L Renaud, 'The ITU and Development Assistance: North, South and the Dynamics of the CCLs' (1987) 11 *Telecommunications Policy* 179.

69 Berth (n 47).

70 E Mili, 'From Assistance to Cooperation' (1973) 40 *Telecommunication Journal* 390.

71 Berth (n 47) 83.

72 J C Alexander, 'Modern, Anti, Post and Neo' (1995) 210 *New Left Review* 63, 67 ('the social organisation and culture of specifically Western societies, which were typified as individualistic, democratic, capitalist, scientific, secular, and stable').

material capability of the South drastically nor disrupted the structural power of the industrialised countries' telecommunications giants over the South.⁷³ The majority of the projects were conducted by experts from Siemens, Ericsson, or Thomson-CSF, amongst others, and a large proportion of the funds returned to the industrialised world through the purchase of the equipment recommended by the ITU's experts. Frowned upon by the Soviet Union, the ITU had become a 'marketplace' for Europeans PTOs where they offered 'favourable financing, technical assistance, and on-site experts'.⁷⁴ The missions also created a new generation of telecommunication experts loyal to free-market ideology in the developing countries: what some saw as the ITU leading a 'transformismo' which made challenge by peripheral elites less likely.⁷⁵

With market saturation in the industrialised world and the decline in profits and investment by the end of the 1960s, the narrative of 'entrepreneurial government'—whereby a modern civilised state develops national infrastructures by forging relations with multinationals—shaped the Secretariat's approach towards its large developing membership. In 1971 and under the direction of the French-educated Tunisian telecommunication engineer Ebrahim Mili, the secretariat started organising world telecommunication exhibitions (Telecom) to bring together, on the one hand, the industrialised world's multinationals, PTOs, and financiers and, on the other hand, the developing world's telecommunication administrations. Organised in four-year intervals, TELECOMs allowed the Union to transform its image from what Mili called a 'small organisation representing the PTTs curled up on itself' to one that was 'proud of what it had achieved through this *army of anonymous experts of the industrial telecommunications companies*'.⁷⁶ For the first time, the Secretariat was allowed to direct a regular and important initiative in any way that it saw fit and successive director generals managed to build a whole institutional identity around the TELECOMs. Combining the demonstration of state-of-art technologies with 'the usual array of celebratory and effusive accounts',⁷⁷ exhibitions became a forum for telecommunications administrations from developing world to search for foreign capital and companies from the industrialised world to identify new markets.

73 See J Hills, 'Dependency Theory and Its Relevance Today: International Institutions in Telecommunications and Structural Power' (1994) 20 *Review of International Studies* 169.

74 Renaud, 'Changing Dynamics' (n 65) 64–65.

75 Lee (n 13) 143.

76 M Masmoudi, *Mohamed Ezzedin Mili: Contribution to the Development of World Telecommunications* (Hibiscus Editions 2013) 88 (emphasis added).

77 A C T Geppert, *Fleeting Cities: Imperial Expositions in Fin-de-Siècle Europe* (Palgrave Macmillan 2010).



Figure 7. The main hall of the 1971 World Telecommunication Exhibition, ITU Telecommunications Journal (October 1971). Source: ITU.

They provided telecommunications companies of both traditional and emerging technological powers with abundant market opportunities. As early as the first exhibition, some companies reported that they were contacted by 80 per cent of the delegations that visited the fair.⁷⁸ Weber et al explain:

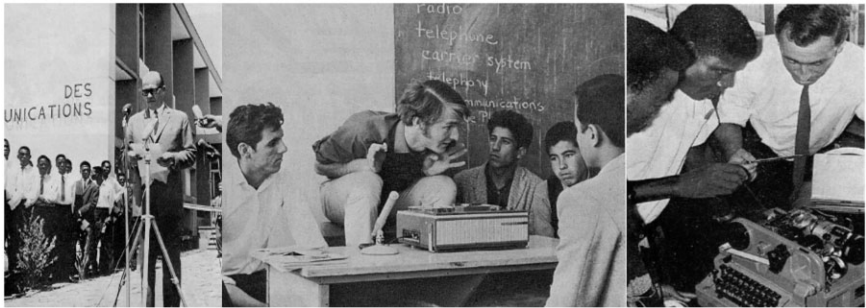
the majority of the purchasing power of the telecommunication branch was present at these events, (potentially) resulting in an “alignment of interests” between sellers and buyers . . . Coordinating supply and demand on a global scale indeed required a comparison and evaluation of the market, and some of the stands were expressly designed to draw the attention of potential investors and interested professionals.⁷⁹

Beyond enhancing the material capability of the North’s multinationals, world telecom exhibitions reinforced a shared image of pro-market telecommunications and laid the ground for institutionalisation of a new order in the years that followed.

78 ‘Message to XX1st Century: Telecom 71, 17–27 June 1971’ (1971) 38 *Telecommunication Journal* 683.

79 A-K Weber et al, ‘ITU Exhibitions in Switzerland: Displaying the “Big Family of Telecommunications”, 1960s–1970s’ in G Balbi and A Fickers (eds) *History of the International Telecommunication Union: Transnational Techno-Diplomacy from the Telegraph to the Internet* (De Gruyter 2020) 265, 274.

The secretariat's insistence on 'foreign capital and expertise' as the cure to the South's telecommunications poverty also manifested itself in its monthly newsletters, most vividly the August 1973 issue dedicated to technical cooperation.⁸⁰ Prepared for the 1973 Malaga-Torremolinos Plenipotentiary Conference amidst the rise of the New International Economic Order (NIEO) movement, the dossier started with Mili's editorial where he spoke of a transition from 'technical assistance to technical cooperation', to be undertaken 'on an equal footing', and funded from 'individual contributions'.⁸¹ Yet the dossier offered an apolitical account of corporations' contribution to the South's social development, accompanied with anecdotes and images of darker-skinned men and women learning about the magical world of telecommunication machines from the experts of 'more advanced countries'.⁸² Nevertheless, the 'old boys club' was no longer immune from contestation by the developing world. It was eventually the relations of production around the 'waves' that triggered antagonism around land-based technologies in the ITU.



Figures 8, 9, and 10. ITU Telecommunication Journal (August 1973). Source: ITU.

The late 60s and early 70s witnessed the emergence of a new policy issue in the ITU: the commercial use of satellite for telecommunications, made possible by the positioning of satellite systems in the geostationary orbit (GEO). The geostationary orbit (located 35,786 km above Earth's surface) is a specifically important orbit for telecommunications, as it moves at the same speed as the Earth itself, allowing the satellite to remain in a fixed position relative to a corresponding point of transmission on the Earth (antenna) for 24 hours and without the need for the antenna to continuously track the satellite.

80 The 1973 issue can be found here: <<https://historicjournals.itu.int/issues>>.

81 Mili (n 70).

82 Berth (n 47) 89.

Famously, the USSR and USA were the pioneers. The USSR's Sputnik and USA's Explorer 1 were launched into the space, respectively, in 1957 and 1958. The first satellite to transmit voice signals was launched by the US's Signal Communication by Orbiting Relay Equipment in December 1958. With the establishment of National Aeronautics and Space Administration (NASA) the same year, a series of projects to develop satellite technology started.⁸³ The potential for mass commercial use created a strong incentive for the US administrations to shape the path. In 1962, the US Congress set up the Communication Satellite Corporation (COMSAT) as a private corporation and with a monopoly over the conduct of commercial public telecommunication within the US. Subsequently, Kennedy took the steps to globalise the commercial communication by satellite as a way to 'subordinate business considerations to promoting certain political objectives'.⁸⁴ He instigated the establishment of an international agency to install and operate a global communication satellite system. The first commercial satellite, known as Early Bird or Intelsat I, was launched in April 1965 and delivered telecommunications and broadcasting services in North America and Europe. Intelsat II was a series of four communications satellite which were launched in July 1964 and covered the whole globe. The International Telecommunications Satellite Organisation (ITSO) was established in 1971. The institution was set up by seven countries,⁸⁵ as an intergovernmental organisation in Washington DC,⁸⁶ and by 1973, 74 nations joined the treaty, and the name of the organisation was changed to INTELSAT.⁸⁷

Circumventing the one-nation-one-vote ITU, Kennedy's INTELSAT soon became an exclusive club of existing and rising satellite powers, where investment shares determined the voting power.⁸⁸ The organisation of the space regime around private capital had implications beyond space; it introduced a new generation of conflicts over the shape of the global economic order. In Murphy's words, INTELSAT became 'the vanguard of the globalised, co-operative world order that

83 'Development of Satellite Communication', *Britannica* (online, last revised 2020).

84 S A Levy, 'INTELSAT: Technology, Politics and the Transformation of a Regime' (1975) 29 *International Organisation* 655, 659.

85 Canada, Japan, Netherlands, Spain, the UK, and the US.

86 Agreement establishing Interim Arrangements for a Global Commercial Communications Satellite System (adopted and entered into force 20 August 1954) 514 UNTS 25; Special Agreement (with annex) (adopted and entered into force 20 August 1954) 514 UNTS 25.

87 On INTELSAT, see G Reynolds and R Merges, *Outer Space: Problems of Law And Policy* (Routledge 2019)

88 Hills, 'Telecommunications Rich and Poor' (n 33) 71.

actually took shape in the 1990s'.⁸⁹ The terms of exploitation of space was decided by INTELSAT, while ITU's IFRB simply recorded the occupancies in its Master Registrar.⁹⁰ This was unacceptable to the new and developing world, as the technologically advanced North could already congest and deplete the 'scarce natural resource' of GEO based on the liberal principle of 'first come, first served', before the South could develop the infrastructure required for a comparable use.⁹¹ The arguments in favour of squatter rights revolved around neoclassical economics and the principle of efficiency and comparative advantage. While satellite telecommunication could provide an important alternative to the costly fixed telephone networks in the South's rural and distant areas, Europe and the US allocated between 30 and 50 per cent, respectively, of the spectrum for their military use.⁹² Within the UN, a group of equatorial state fought the laissez faire principles reinforced by the 1967 Outer Space Treaty in the UN, while the larger Group of 77 in the ITU called for a *priori* planning of frequency spectrums.⁹³

The ITU's 1973 Plenipotentiary Conference, in Málaga Torremolinos, Spain, authorised the IFRB for the first time to consider 'equity' (alongside 'effective and economical use') when furnishing advice on new frequency allocations.⁹⁴ Six years later, the 1979 World Administrative Radio Conference (WARC) in Geneva institutionalised the 'first-come, first served' principle. However, it adopted a resolution that called for the convocation of a world conference to 'guarantee in practice for all countries equitable access to the geostationary satellite orbit and the frequency bands allocated to space services'.⁹⁵ Taking issue with the ITU's possible authority on spectrum management, the head of the US delegations to WARC-79 Glen Robinson wrote: '[t]he ITU is

89 C N Murphy, 'Foreword: Communication and International Political Economy' in E A Comor (ed), *The Global Political Economy of Communication: Hegemony, Telecommunication and the Information Economy* (Palgrave MacMillan Press 1996) vii.

90 See G A Coddling, *The Future Of Satellite Communications* (Routledge 2019).

91 The principle was rooted in the broader concept of *res nullius* used by European colonisers to appropriate what they characterised as 'non-sovereign territories': Lee (n 13) 60.

92 P Cowhey and J D Aronson, 'The ITU in Transition' (1991) 15 *Telecommunications Journal* 298, 308.

93 'Declaration of the First Meeting of Equatorial Countries' (3 December 1976) (Bogotá Declaration).

94 International Telecommunication Convention (adopted 25 October 1973, entered into force 1 January 1975) 1209 UNTS 32, art 10(3)(c) (Málaga-Torremolinos Plenipotentiary).

95 Final Acts of the World Administrative Radio Conference (WARC-79) (signed 6 December 1979), Resolution No 1, Relating to Notification of Frequency Assignments, and Resolution No 3, Relating to the Use of the Geostationary-Satellite Orbit and to the Planning of Space Services Utilizing It. On WARC-79, see T A Hart, 'World Administrative Radio Conference: A Review of WARC-79 and Its Implications for the Development of Satellite Communications Services' (1980) 12 *Lawyer of the Americas* 442.

not an international FCC [the US Federal Communications Commission] ... In a capitalist society where most resources, public as well as private, are distributed through the market, it seems strange to single out the radio spectrum for such an objection'.⁹⁶ Six years later, the 1985 World Administrative Radio Conference on the use of the geostationary-satellite orbit and the planning of the space services utilising it (WARC-ORB85) adopted a dual planning method. Certain bands were subjected to an allotment plan to allow each national administration to satisfy the requirements for their national services from at least one orbital position within predetermined band(s).⁹⁷ Although the new allotment principles disrupted the reign of squatter rights in fixed satellite system bands, the new principles did not have any effect on the other seventeen space services and already-occupied orbital bands that could provide low-cost/good-quality carrier orbits for the South's telecommunication.

Famously, in the period between the mid-1970s and the 1980s, international institutions became arenas for expert debates over the organisation of the global economy in the 'dialectic between capitalism and the alternative ways of organising economic and political life'.⁹⁸ With the growing material capability of the new and developing world around raw materials and the solidification of anti-systemic ideologies,⁹⁹ they also took steps to reconfigure the relations of production around telecommunication technologies. Unlike the ITU, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) was seen by the developing world as an open platform for challenging the rules of global communication and against the domination of multinationals such as Associated Press, Reuters, Agence France-Presse, Voice of America, British Broadcasting Corporation, and Radio Free Europe, amongst others. The organisation had long framed communication as essential to the South's development and its culture was in favor of the South's demands for a New World Information Order (NWIO).¹⁰⁰

In early 1974, the UNESCO Director-General René Maheu proposed a declaration on the role of mass media in the world order: an overarching

96 Robinson, 'Regulating International Airwaves' (n 63) 49.

97 Documents of the World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of the Space Services Utilizing it (WARC ORB-85, first session, 1985), Working Group 4C, 'The Characteristics of Typical In-Service Satellite Networks' (13 August 1985) Doc No ORB-85/DL/6-E, 2.

98 C Murphy, *Global Institutions, Marginalisation, and Development* (Routledge 2005) 34–35.

99 See C Murphy, *The Emergence of the NIEO Ideology* (Routledge 1984); L Eslava et al (eds), *Bandung, Global History, and International Law: Critical Pasts and Pending Futures* (Cambridge University Press 2017).

100 See M Shamsuddin, 'The New World Information Order' (1987) 40 *Pakistan Horizon* 80, 85.

policy under which future policy options could be laid. However, the clash between the US' preference for the 'free flow of information' and the Soviet and Non-Aligned Movement's insistence on state-controlled media debilitated the process. Instead, the 1974 General Conference adopted a resolution put forth by Sweden for the 'right to communicate',¹⁰¹ which would in principle recognise the right of the South to make its voice heard in the world communication and take the steps in that direction. Nevertheless, the 'rights' language in the resolution could be interpreted in a way that would shift the power from governments to individuals. Two years later, the 1976 General Conference of UNESCO, held in Nairobi, Kenya, established an international commission to study the problems of communication. The UNESCO's famous MacBride report, published in 1980, questioned the industrialised world's abuse of the 'free information flow' narrative to force an anti-democratic one-sided flow of information on the new and developing countries.¹⁰² The report also took issue with the high transmission tariffs putting small and peripheral states and users at a great disadvantage in global politics.¹⁰³ Despite these efforts, UNESCO could not do the job of the ITU; its advocacy for an alternative communication order could not go far without infrastructure and technology.

UNESCO's report was followed by the famous ITU 'Maitland Report' or the 'Missing Link Report', which attributed the South's telecommunications poverty to both the industrialised and developing countries.¹⁰⁴ The report explained, '[t]here are some 600 million telephones in the world. Of these, three-quarters are concentrated in nine advanced industrialised countries . . . In a majority of developing countries the telecommunications system is inadequate to sustain essential services. In large tracts of territory there is no system at all. Neither in the name of common humanity nor on grounds of common interest is such a disparity acceptable'.¹⁰⁵ The report recommended that developing countries give higher priority to investment in telecommunication in their national development plans, and that industrial countries would benefit from the improvement and expansion of telecommunication networks in the South, since 'new or more extensive markets would be opened

101 UNESCO, Records of the General Conference, Eighteenth Session, Paris, 17 October to 23 November 1974, Volume 1: Resolutions, res 4.121(c)(iv).

102 International Commission for the Study of Communication Problems, 'Many Voices, One World: Towards a New, More Just and More Efficient World Information and Communication Order' (UNESCO 1980).

103 *ibid* 257.

104 *The Missing Link: Report of the Independent Commission for Worldwide Telecommunications Development* (International Telecommunication Union 1984).

105 *ibid* 3.

up for both high technology and traditional telecommunications manufacturing industries'.¹⁰⁶



Figure 11. The 1985 Report of the Independent Commission for Worldwide Telecommunications Development (Maitland Report). Source: ITU.

The report proposed ‘separate, self-sustainable enterprise operated on business lines’, laying the ideological grounds for telecommunication restructuring.¹⁰⁷ While some expected the alarming data on the telecommunication divide in the Maitland Report to become the ‘political hot potato’ of the decade, the South’s vision of an alternative order failed to materialise and was soon rendered obsolete by a new wave of neoliberal globalisation and the World Bank’s new agenda.¹⁰⁸

The World Bank started giving small loans to telecommunication projects in the 1950s. The Bank initially saw telecommunication as a luxury and its faith in ‘getting the prices right’ prevented it from including telecommunications in its development agenda. However, the number of the Bank’s telecommunications loans increased from a dozen in the 1950s to 93 by 1983 and to 125 by the end of the 1990s, with the share of such loans remaining between 1

106 *ibid* 58 and 21. The Maitland Report also set up the Centre for Telecommunications Development without allocating any funding to it. The Centre started its operation in 1987, with a small staff and budget. As Cowhey and Aronson explain, the Centre became a sort of ‘consulting firm’ with a small amount of funding from private sector and the World Bank: (n 92) 309.

107 G Urey, ‘Infrastructure for Global Financial Integration: The Role of the World Bank’ in B Mody et al (eds), *Telecommunications Politics: Ownership and Control of the Information Highway in Developing Countries* (Lawrence Erlbaum Associates Publishers 1995) 113.

108 J Solomon, ‘The Missing Link: A Political Hot Potato’ (1985) 9 *Telecommunication Policy* 90.

and 2 per cent of the Bank's total lending throughout the decades.¹⁰⁹ During Robert McNamara's tenure, poverty alleviation was an important aspect of the Bank's strategy and, therefore, the telecommunications loans were given without any specific policy instructions. However, McNamara's successor Alden Clausen was a full-fledged advocate of foreign direct investment and speedy return on private investment in the developing world.¹¹⁰ With the rising debt of developing countries and the shrinking lending on the part of the Bank and its investors, structural adjustment loans became the new lending strategy in the 1980s. By the end of 1980s, many of the telecommunication loans were given as part of a broader structural adjustment plan, bringing Western investment banks, consultancy firms and advertising agencies into the game.¹¹¹ As I will discuss in the next part, by the early 1990s, the Bank had begun to wage a war against public telecommunication entities.

CHANGING PRODUCTION, CHANGING RULES: THE 1988 WORLD ADMINISTRATIVE TELEGRAPH AND TELEPHONE CONFERENCE (WARC-88)

The 1970s were not only an era of growing material capability of transnational business networks (in terms of access to capital, technological and organisational capability) in and beyond telecommunications technologies, but also a harbinger of changing ideologies and institutions. The marriage of digital technologies—which themselves had emerged in the early years following the Second World War—with telecommunications become the single most important source of change.¹¹² The move from analogue to digital transformed both switching and transmission in telecommunication networks. The possibility of transmitting data, image, and video—the so-called 'enhanced services'—alongside basic voice services generated new paths of wealth accumulation. A product of the globalisation of the 1950s and 1960s, multinational corporations and large telecommunication users became a strong force for liberalisation of networks and services. Global productive and finance capital sought to expand the market for new telecommunication services and equipment, while large users, airlines, private banks and other financial institutions, and data processing giants such as International Business Machines (IBM) and General Electric (GE) wanted a liberal

109 A Barbu, 'The Bank's Experience in the Telecommunications Sector: An OED Review' (Report no 12445, Operations Evaluation Department, World Bank 1993) 11

110 H Rowen, 'Clausen Asks More Private Sector Aid' *Washington Post* (27 February 1985) G5.

111 Urey, 'Infrastructure for Global Financial Integration' (n 107) 115.

112 See Mansell, *The New Telecommunications* (n 51).

telecommunications order, beyond the ‘patchwork of disparate networks’ that they had already leased from public networks.¹¹³ Seeking more control over their communications and diverse services at lower fees than what they had been paying in a cross-subsidised national system, they launched a campaign for the liberalisation of both international and domestic networks.¹¹⁴

By the mid-1970s, some European PTOs sought to contain the pressure for liberalisation by collective upgrading of their networks through a standardisation process called Integrated Services Digital Network (ISDN) within the CCITT.¹¹⁵ However, by the time the CCITT project concluded, ISDN could at best become only ‘one of many networks—public, private, intelligent or mobile—in a multi-service environment’.¹¹⁶ Business users preferred end-to-end horizontal networks and diverse services. They called the ISDN ‘Innovations Subscribers Don’t Need!’¹¹⁷ In 1980, the United States requested the Organisation for Economic Cooperation and Development (OECD) Trade Committee to study trade barriers in services. The OECD report, as well as another study carried out by GATT, demonstrated good prospects for negotiation on trade in services.¹¹⁸ The US Coalition of Service Industries, represented by Citibank, played a substantial role in the process.¹¹⁹ International financial companies such as Citicorp (Citibank’s holding company) and American Express, and value-added service providers such as IBM or General Electric Information Services Company were calling for a legally enforceable right to invest in national telecommunications and were lobbying with governments to include services in the Uruguay Round.¹²⁰ Developing countries with some voice, such as India, Egypt, Yugoslavia and Brazil, sought unsuccessfully to shift the negotiations on investment issues to ‘the poor nations’ pressure group’, the UN Conference on Trade and Development (UNCTAD).¹²¹

113 D Schiller and R L Fregoso, ‘A Private View of the Digital World’ (1991) 15 *Telecommunication Policy* 195, 197.

114 Hills, *Telecommunications and Empire* (n 24) 9.

115 ISDN was an integrated national network with high-speed transmission capability that could handle the traffic from different network models regardless of their standards. CCITT Study Group for ISDN (XVIII) started in 1974 and completed in 1978.

116 Schiller and Fregoso (n 113) 207.

117 J Cioff, ‘Lighting Up Copper’ (2011) 49 *IEEE Communications Magazine* 30.

118 T L McLarty, ‘Liberalised Telecommunications Trade in the WTO: Implications for Universal Service Policy’ (1998) 15 *Federal Communications Law Journal* 12.

119 Hills, *Telecommunications and Empire* (n 24) 180.

120 *ibid.*

121 J S Nye, ‘UNCTAD: Poor Nations’ Pressure Group’ in R W Cox and H K Jacobson (eds), *The Anatomy of Influence: Decision-Making in International Organisation* (Yale University Press 1974) 334.

More broadly, the ascent of competitive telecommunication order materialised in the context of the ‘post-industrial society’—underpinned by technology transfer, foreign direct investment, and export-driven growth—and the broader integration of the financial and productive capital starting in the mid-1970s.¹²² Urey speaks of the ‘potential convergence of interests amongst those who control telecommunications development and those who control capital market development’.¹²³ The advent of digital and satellite technologies in the cradle of neoliberalism—the United States—had fundamental implications for the organisation of the global telecommunication regime. Experiencing trade deficits in different sectors, the American state/society complex had high hopes in expanding the market for its economic strongholds: technology and services.¹²⁴ The change was, indeed, ‘the product of particularly American business interests, wrapped in a “Chicago economic ideology”’,¹²⁵ and part of the broader American search for structural power over knowledge.¹²⁶ The US’ retreat from liberal internationalism started with Nixon’s delinking the US dollar from gold in 1971, and matured with Reagan’s withdrawal from the North-South negotiations after the 1981 Cancun Summit. The US’ conservative administrative-judicial apparatus, and soon other governments at the capitalist core, saw the cure to high inflation in the North and the debt crisis in the South in favouring multinationals and large users over their own workers, poor nations and, ultimately, their monopoly private carriers.

The ‘first salvo’ against the *ancien régime* was fired by the US FCC in 1980, when it unilaterally extended the US’ rules on resale and sharing of networks to international services in violation of the consensus built into the CCITT Recommendations for almost a century.¹²⁷ The FCC also waged a successful campaign on the ITU’s accounting rate system, which had allowed overseas PTOs to exploit the revenues of international calls to fund local networks—and imposed cost-based formulas.¹²⁸ Four years later, as part of the

122 See Y Masuda, *The Information Society as Post-Industrial Society* (Transactions Publishers 1980).

123 G Urey, ‘Telecommunications and Global Capitalism’ in J Straubhaar et al (eds), *Infrastructure for Global Financial Integration: The Role of the World Bank* (Lawrence Erlbaum Associates Publishers 1995) 53.

124 Lee (n 13) 101.

125 E M Noam, ‘The Public Telecommunications Network: A Concept in Transition’ (1987) 37 *Journal of Communication* 30.

126 S Strange, *The Retreat of the State: The Diffusion of Power in the World Economy* (Cambridge University Press 1998) xi.

127 W J Drake, ‘Global Private Networks and International Public Institutions: Leased Circuits and the International Telecommunications Regime’ (Columbia Institute for Tele-Information Working Paper No 513 1992).

128 D Walker, ‘International Accounting Rates’ (1996) 20 *Telecommunications Policy* 239.

incremental process of promoting competition both in service provision and equipment manufacturing, the US Department of Justice broke up the monopoly carrier AT&T, which soon set a goal of making 50 per cent of its revenue outside the US by the 2000s.¹²⁹ This then increased the pressure on Europe to open its market in reciprocity.¹³⁰ Following the US' example, the Thatcher government privatised British Telecom in 1984. Soon a process of hegemonic integration into the Anglo-American ideal for global telecommunications order started.¹³¹ Under US pressure, Japanese telecommunications were liberalised in 1985,¹³² which then inspired the rest of East Asia to do the same.¹³³ In a move to synchronise their domestic economies with the global economy, Latin American governments opened their telecommunications networks—that they had nationalised a few decades earlier—to foreign capital. Building upon the UK's experience, the European Commission started promoting a 'competition strategy' on the continent with the 1987 Green Paper on the Development of the Common Market for Telecommunications Services and Equipment.¹³⁴ The commission also encouraged cooperation between the Community members and non-European technology powers.

Solid steps towards juridification of pro-competition telecommunications were taken with the revision of the ITU Telegraph and Telephone Regulation. Fearing the total collapse of the old order and loss of revenues, Nordic and Japanese PTOs had supported a resolution at the 1982 Plenipotentiary Conference in Nairobi to study 'proposals . . . for the new situation in the field of new telecommunications services'.¹³⁵ The 1982 Nairobi conference inserted the 'special arrangements' into the ITU Convention, which meant the regulations and recommendations had to change as well.¹³⁶ Two years later, the CCITT Plenary Assembly set up a preparatory committee to

129 McLarty (n 118) n 2.

130 W Hulsink, *Privatisation and Liberalisation in Telecommunication: Comparing Britain, The Netherlands and France* (Routledge 1999).

131 See J Ratto-Nielsen, *The International Telecommunications Regime: Domestic Preferences and Regime Change* (Lulu 2009); J Hills, *Deregulating Telecoms: Competition and Control in the United States, Japan and Britain* (Praeger 1986).

132 Hills, *Telecommunications and Empire* (n 24).96.

133 See Hills, *Deregulating Telecoms* (n 131).

134 'Green Paper on the Development of the Common Market for Telecommunications Services and Equipment' (Commission of the European Communities 1987). See, G Natalicchi, *Wiring Europe: Reshaping the European Telecommunications Regime* (Rowman and Littlefield Publishers 2001).

135 International Telecommunication Convention (Nairobi, 1982), Resolution No 10, 'World Administrative Telegraph and Telephone Conference'.

136 Cowhey and Aronson (n 92) 301.

draft necessary revisions to the regulations to be reviewed by the 1988 WATTC in Melbourne, Australia. The preparatory meetings reflected a new wave of the ‘monopoly versus competition’ debate in telephony and telegraphy. But what was exactly at stake?

The ITU regime was organised to institutionalise the statist model of telecommunications and public telecommunications entities. For example, a 1927 CCIF Recommendation had mandated that ‘[i]nternational telephone communication circuits should not be lent for a given relation unless the number of circuits serving this relation makes it feasible; that . . . it should not be possible for [central bureaus] to have the technical possibility of controlling the calls exchanged; [t]he stations so linked cannot in any case be stations normally made available to the public’.¹³⁷ To respond to companies’ telecommunication needs, the 1949 WATTC regulation had provided for the lease of telegraph circuits by one company from another.¹³⁸ However, inter-company resale of telephone circuits remained prohibited. In a few years, the 1956 CCIF Recommendation would allow ‘multiple-user lease’ by different private entities engaging in the same activity or in the same business. Yet, that recommendation banned connection to public networks, imposed a surcharge on the leased traffic and mandated that calls using leased circuits ‘must be concerned exclusively with the personal affairs of the subscribers or those of their firms’.¹³⁹ Companies also had to pay above-cost rates to not only compensate for the infrastructures built with tax money but also as part of the national welfare plans to cross-subsidise services. In an act of de-formalisation, the 1973 World Administrative Telegraph and Telephone Conference (WATTC-73) moved most of the binding regulations governing the two technologies to the non-binding recommendations, providing the multinationals with a ‘wedge with which to apply further pressure in the future’.¹⁴⁰ In response to pressure from the International Chamber of Commerce (ICC) and the International Air Transportation Association (IATA), amongst others, the

137 Comité Consultatif International des Communications Téléphoniques à grande distance (CCIF), *Assemblée Plénière de Côme, 5-12 Septembre 1927* (Paris: CCIF, 1927), pp. 117–19. Recommendation No. 13 on ‘Rental of international communications circuits for the private service not including submarine sections’, cited by Drake, ‘Global Private Networks’ (n 127) 13.

138 International Telecommunication Convention 1947 (n 43), Annex, Telegraph Regulations 1949: Final Protocol to the Telegraph Regulations (signed 5 August 1949, entered into force 1 July 1950), Resolution No 9, ‘Lease of Telegraph Circuits’.

139 International Telephone Consultative Committee (CCIF), XVIIIth Plenary Assembly (3–14 December 1956), Recommendation 21, ‘Lease of International Communication Channels for Private Service’, cited in Hills, *Telecommunications and Empire* (n 24) 93. The provision was formalised into CCITT Recommendation D.1 in 1965.

140 Drake, ‘Global Private Networks’ (n 127) 11.

CCITT allowed the interconnection of private networks upon authorisation of public telecommunication administrations and if the transmissions were exclusively concerned with the business activity for which the circuit was leased.¹⁴¹ They wanted the new ITU regulations to head in the same direction as the GATT negotiations on services.

The draft coming out of the WATTC-88 four Preparatory Committee meetings favoured state control over telecommunication networks.¹⁴² Draft Article 1(7) recognised the sovereign choice of member states to grant authorisation to private entities using the international telecommunication network, and that such entities should comply with the ITU regulations and if the Member State sees fit also with the CCITT recommendations.¹⁴³ This was seen by the proponents of deregulation as an unacceptable move against the wave of liberalisation underway in the industrialised world. The US and UK believed that the concern of the ITU should only be interconnection and its legal, technological, and economic aspects in the emerging competitive order.¹⁴⁴ They had also managed to gain the support of New Zealand, Japan, the Netherlands, Brazil, and some other countries. On the PTOs front, Sweden and Germany unsuccessfully attempted to incorporate 'the right to communication' and the Universal Declaration of Human Rights into the regulations.¹⁴⁵ The scramble for new markets amongst more powerful developing countries such as India and Brazil prevented the formation of a unified front. Soon the consensus on the instrumentality of public telecommunication to economic growth started to crack.¹⁴⁶

To prevent the US' withdrawal from the Union in the months leading to WATTC-88, the ITU Secretary General Richard Butler started mediating between the proponents of both positions, producing an alternative draft, known as the 'Butler Draft'. The draft was a major departure from the document adopted by the preparatory committee. An American observer called Butler's attitude 'schizophrenic', in the sense that he wished to portray ITU as

141 *ibid.*

142 W J Drake, 'WATTC-88: Restructuring International Telecommunications Regulations' (1988) 12 *Telecommunications Policy* 217.

143 Draft Article 1(7) read: 'Members shall endeavour to ensure that any entity established in their territory, using the international telecommunication network to provide international telecommunication services: a) is so authorised by the member; b) complies with these regulations, and c) to the extent considered appropriate by the Member complies with the relevant CCITT Recommendations'.

144 Drake, 'WATTC-88' (n 142) 220.

145 Hills, *Telecommunications and Empire* (n 24) 98.

146 *ibid.* 105.

supporting the Uruguay Round negotiations, but he was also concerned about the overtake of telecommunication by trade actors and the shrinking relevance of the ITU.¹⁴⁷ The draft eliminated article 1(7) of the PrepCom's draft, replacing it with a provision on the purpose of regulations as 'promot[ing] the development and efficient operation of technical facilities, as well as the efficiency, usefulness, and availability to the public of international telecommunication services, while recognising the sovereign right of each country to regulate its telecommunication'.¹⁴⁸ Article 4 of the Butler Draft on 'the type of telecommunication services covered by regulations' removed the reference to the CCITT recommendations and required members to only 'promote the implementation of international telecommunication services and endeavour to make such services generally available to the public in their national networks'.¹⁴⁹ This essentially implied that there could be non-public telecommunication services outside national networks.

In the face of disagreements, both article 1(7) from the PrepCom's draft and the consenting adult clause (article 9) were maintained in the revised regulation, creating what many saw as a 'neutral' text, which fell short of fully revamping the inter-state telecommunication order but laid the ground for deregulation somewhere else.¹⁵⁰ Article 9 recognised the sovereign rights of the member states to break free the PTT-hegemony and open their networks to foreign capital. The draft left the application of the CCITT recommendations to private networks to member states. It recognised that provision of private services to the public was the providers' choice and made international rates 'cost-based'.¹⁵¹ Nevertheless, a 'framework of action' with a certain material and ideological configuration was emerging that could make anti-systemic moves difficult. Drake explains that the new regulations reinforced 'the ability of new suppliers and users to conclude special arrangements for any type of facilities and services as a presumptive baseline from which departures would need to be justified . . . refusal to provide it to influential companies would now be more difficult if PTTs could not hide behind a collective obligation to do so'.¹⁵² Despite the major disadvantage that these sweeping changes entailed for the developing and least developed states, no solid front

147 R B Woodrow, 'Tilting towards a Trade Regime: The ITU and the Uruguay Round Services Negotiations' (1991) 15 *Telecommunications Policy* 323.

148 Preparatory Committee/WATTC1988-Report R-4, CP/TT-R 4-E (May 1987) 14.

149 *ibid* art 4.1 (emphasis added).

150 *ibid*.

151 art 4 (3)(d) cited in Cowhey and Aronson (n 92) 306.

152 Drake, 'Rise and Decline' (n 5) 149.

was established. Their proposals for recognition of the ‘economic harm’ of liberalisation in the draft or inclusion of a clause to restrict private delivery of services to what public telecommunications networks could not offer were both rejected.¹⁵³ And of course, with the statist telecommunication order declining, the ITU had to be given a new role, that of preaching liberalisation and assisting restructuring in the developing world, interconnection, and interoperability of networks.¹⁵⁴

In the competition game of the late 1980s and early 1990s, the European PTOs and equipment manufacturers counted on their access to the continental market and their former colonies in Asia and Africa. The US channelled its aspirations through the World Bank and the ITU and Japan focused mainly on Asia and the World Bank projects in the continent. The 1990s started in the World Bank with Al Gore’s market-driven ‘Information Superhighways’ and the replacement of Claussen with the US congressman Barber Connable. Under Connable, the Bank departed from the poverty focus it had adopted during McNamara and ‘went hand in hand with multinational business’—what Hills and Urey called ‘the new agenda’.¹⁵⁵ Under the new paradigm, the Bank integrated its telecommunications staff into the vice presidency responsible for financial and private sector development. It moved from the ITU to strengthen its partnership with the private-sector arm of the World Bank Group, the International Finance Corporation (IFC) which had itself established a new unit mandated to mobilise capital for private investment in the South’s telecommunication.¹⁵⁶ Soon enough, the ITU saw its role as complementing the work of the Bank.

Equally influential was the Bank’s promotion of the ‘ideal’ telecommunication order in its reports. The famous East Asian Miracle report attributed the success of eight high performing Asian economies to high levels of domestic savings resulting from state-controlled privatisation and their governments’ market-friendly approach.¹⁵⁷ Funded by Japan, the report portrayed the experience of a selected number of countries as the blueprint for development. The Bank’s chief economist Joseph Stiglitz wrote some years later that ‘[t]he IMF and the World Bank had almost consciously avoided studying the region ... The countries had been successful not only in spite of the fact that they

153 Hills, *Telecommunications and Empire* (n 24) 109.

154 As articulated in art 1(3), cited in *ibid*.

155 Hills, ‘Telecommunications Rich and Poor’ (n 33) 71.

156 P A Stern and B Wellenius, *Implementing Reforms in the Telecommunications Sector: Lessons from Experience* (World Bank 1994) ix.

157 N M Birdsall et al, *The East Asian Miracle: Economic Growth and Public Policy: A World Bank Policy Research Report* (World Bank 1993).

had not followed most of the dictates of the Washington Consensus, but because they had not'.¹⁵⁸ Many of the examples used in the report could at best be 'counter-evidence' for the Bank's prescriptions. For instance, the report was silent on why the liberalisation of telecommunication in New Zealand had resulted in several litigations or how Singapore's network intensity had increased under state monopoly and not after liberalisation.¹⁵⁹

The East Asian Miracle report was followed by a 1994 report called *Telecommunications Sector Reform in Asia: Towards a New Pragmatism* arguing that the governments in the South should take a 'serve it or lose it' approach.¹⁶⁰ It suggested that privatisation should be done not incrementally, ie, first value added services, then satellite services, cellular and finally basic telephony, but through a 'bold initiative, one that makes a real break from the past'.¹⁶¹ Narratives around 'closing the gap between supply and demand' and 'prospects of cost-based rates' were part of the broader portrayal of public telecommunication entities as 'bloated bureaucracies' and civil servants as 'unfit to run telecommunication like a business'. Reliance on the market as a 'governance structure, on the other hand, could promote both allocative and technical efficiency'.¹⁶²

With the changing narratives, the ITU itself was seen as an overly bureaucratic institution that was not up to pace with 'the changing environment'. An executive director of the Cable and Wireless wrote, '[w]ith the World Bank going decisively one way, where does this leave the ITU, whose membership is *Hedgehog in the main?*'.¹⁶³ In the meantime, new regional standard-setting organisations (RSOs), such as the Committee of the Exchange Carriers Standards Association in the US, the European Telecommunications Standards Institute (ETSI) and the Telecommunications Technology Committee (TTC) in Japan, had emerged. Set up by industry actors, these organisations not only had a faster pace in standardisation, they also did not have to bother with gaining the consensus of the developing countries and the

158 J E Stiglitz, *Globalisation and its' Discontents* (WW Norton and Company 2002) 91. See also A H Amsden, 'Why Isn't the Whole World Experimenting with the East Asian Model to Develop?: Review of The East Asian Miracle' (1994) 22 *World Development* 627.

159 Urey, 'Infrastructure for Global Financial Integration' (n 107) 129.

160 P L Smith and G C Staple, *Telecommunications Sector Reform in Asia: Toward a New Pragmatism* (World Bank Discussion Papers 1994) xiii.

161 *ibid* xvi.

162 *ibid* 7.

163 J Solomon, 'The World Bank's New Pragmatism: Telecommunications Reform in Asia' (1994) 18 *Telecommunications Policy* 675 (emphasis added).

‘old boys network’ populated by PTOs and ROAs, as was the case in the ITU’s standardisation bodies.¹⁶⁴

The 1989 Plenipotentiary Conference in Nice, France, had already launched the restructuring of the ITU. Butler had set up an advisory group with members ranging from the head of the US FCC and the presidents of American and British consultancy firms to academics and directors of national PTOs. The report coming out of the discussion advocated for a ‘clear separation of telecommunication operations from government operations’.¹⁶⁵ It also recommended the ITU to streamline and rationalise its secretariats for ‘greater efficiency and improved coordination’.¹⁶⁶ The Union not only had to ‘to woo the private sector and make it care what happens in Geneva’,¹⁶⁷ but also act as ‘an agent of the telecommunications sector of the World Bank’ and push developing countries in the direction of restructuring their telecommunication sectors and creating new property laws and foreign investment frameworks around their infrastructures. Concluding in 1998, the restructuring extended the wide membership privileges from the Recognised Operating Agencies (ROAs) to all telecommunication companies and gave new standard-setting powers to private sector members in the CCITT study groups.¹⁶⁸ They were allowed to adopt certain recommendations without formal consultation with Member States.¹⁶⁹

The Union was restructured in three independent sectors: Telecommunication Standardisation (ITU-T), Radiocommunication (ITU-R), and Telecommunication Development (ITU-D), each with their own directors and bureau. The restructuring insulated the regulatory and standard-setting mandate of the Union from the demands of developing countries that were now given their own sector and were expected not to drag questions of telecommunications poverty to other sectors.¹⁷⁰ The Development Sector was given a limited budget and staff and assigned a business advisory group to furnish advice on investment options. In parallel, the Secretariat started providing

164 J Savage, ‘The High-Level Committee and the ITU in the 21st Century’ (1991) 15 *Telecommunications Policy* 365.

165 P Hansen et al, ‘The Changing Telecommunication Environment Policy: Considerations for the Members of the ITU’ (Advisory Group on Telecommunication Policy 1989) para 4.3.

166 *ibid* para 2.1.

167 Drake, ‘Rise and Decline’ (n 5) 156.

168 Instrument Amending the Convention of the International Telecommunication Union (Geneva, 1992) as Amended by the Plenipotentiary Conference (Kyoto, 1994) (adopted 6 November 1998, entered into force 1 January 2000) art 19.

169 *ibid* art 20.

170 Hills, *Telecommunications and Empire* (n 24) 126.

technical assistance to trade negotiations. In a historical moment, the ITU's Legal Symposium in October 1987 became a platform for launching the negotiations on legal aspects of trade in telecommunication.¹⁷¹

'TOOLS FOR TRADE': GATT, ITU AND TRADE IN BASIC AND ADVANCED TELECOMMUNICATIONS

In April 1986, 25 OECD Member States expressed their resolve to include trade in services in the upcoming Uruguay Round and negotiate the expansion of such trade 'under conditions of transparency and progressive liberalisation',¹⁷² and against the wish of 23 developing countries. Liberalisation in the context of telecommunication services meant interconnection and making public networks available for use by foreign companies on a reasonable and non-discriminatory basis. The Uruguay Round started in September 1986. A Group on Negotiation Services (GNS) was set up to study the forms and extent of trade liberalisation in various services sectors. Soon, it became clear that many nations would not agree to full liberalisation of telecommunication services, and some preferred separate sets of provisions on telecommunication.¹⁷³

On the same day that WATTC-88 reached a compromise in Melbourne (ie, 9 December 1988), the Uruguay Round in Montreal reached a consensus over principles and rules governing trade in services. Negotiation over specific sectors started in 1989 and lasted for five years. With lobbying from the US, the 1989 Nice Plenipotentiary Convention elected the Finnish engineer and former minister of transport and communication Pekka Tarjanne as the new Director General of the ITU.¹⁷⁴ Starting his tenure in 1990, Tarjanne pushed a narrative of 'telecommunications as a tool for trade',¹⁷⁵ and made sure that the Secretariat provided 'low key' but supportive assistance to the negotiations.¹⁷⁶ The application of the Most Favoured Nation (MFN) status was particularly contentious. Some states opposed its application to basic telecommunications and others did not see a strong justification for excluding

171 Woodrow (n 147) 329.

172 Ministerial Declaration on the Uruguay Round (20 December 1986) GATT MIN.DEC, Part II.

173 Woodrow (n 147) 337.

174 Hills, *Telecommunications and Empire* (n 24) 124.

175 P Tarjanne, 'Telecommunications for Users in the 90s: Tools for Trade' (Keynote address by the Secretary General of the ITU at World Telecommunication Seminar, organized by International Communications Association and International Telecommunications Users Group, Brussels, Belgium, 13 February 1990), copy held at ITU Library Archives, unnumbered.

176 Woodrow (n 147) 341.

the principle.¹⁷⁷ The distinction between basic telephony and enhanced services came to the rescue. In December 1990, a proposal was advanced to adopt an annex on enhanced telecommunication services and another on continued negotiations on basic telecommunications. The proposal was not accepted.

A year later, in December 1991, the GATT Director General Arthur Dunkel put forth a new draft, known as the 'Dunkel draft', recognising the application of the MFN principle to all service sectors. The draft also proposed a compromise regarding basic telecommunications, namely a commitment by the negotiating states to continue their negotiations on basic telecommunication. During the 1992 meeting, the US suggested an extension of two years, until 1994. A few months later, the North American Free Trade Agreement (NAFTA) committed the US, Canada and Mexico, to 'liberalise, as much as possible, trade in telecommunications equipment and services among the three countries'.¹⁷⁸ In the course of one year, the three countries eliminated tariffs for 80 per cent of telecommunication equipment.¹⁷⁹ They were also required to guarantee access for value added network (VAN) providers and companies to public networks and interconnection on a non-discriminatory basis. Basic telecommunications were, however, excluded. The formula was then exported into the Uruguay Round.

The 1994 GATS agreement coming out of the Uruguay Round negotiations in Marrakech included an Annex on Telecommunications, which targeted value-added telecommunication services, such as data, image, and video. The annex recognised 'the specificities of the telecommunications services sector and, in particular, its dual role as a distinct sector of economic activity and as the underlying transport means for other economic activities'.¹⁸⁰ It committed Member States to afford access to 'any service supplier of any other Member' for the 'use of public telecommunications transport networks and services on reasonable and non-discriminatory terms and conditions'.¹⁸¹ Foreign service providers were given the right to 'establish, construct, acquire, lease, operate, or supply telecommunications transport networks or services' in a member state's territory should they agree.¹⁸² Restrictions were allowed only to ensure the 'technical integrity of network', as well as 'security and

177 *ibid* 348.

178 I H Shefrin, 'The North American Free Trade Agreement: Telecommunications in Perspective' (1993) 17 *Telecommunications Policy* 14, 14.

179 S K Black, *Telecommunications Law in the Internet Age* (Elsevier 2002) 165.

180 General Agreement on Trade in Services (adopted 15 April 1994, entered into force 1 January 1995) 1869 UNTS 183, Part VI, Annex on Telecommunication, para 1 (objectives).

181 *ibid* para 5(a).

182 *ibid* para 2.

confidentiality of messages', only if they were necessary and not just a disguise to influence the competition.¹⁸³ Basic telecommunication, ie voice telephony, was kept out of the agreement. But not for long!

In Marrakech, the ministers also adopted the Decision on Negotiations on Basic Telecommunications, which set a deadline of 30 April 1996 for reaching an agreement on terms of trade in basic telecommunications. The Negotiating Group on Basic Telecommunications drafted a Reference Paper on Regulatory Principles, which included provisions on competitive safeguards, independence of regulators, interconnection negotiations, licensing, and transparency. The group also 'obtained market access offers to include basic telecommunications from 47 countries'.¹⁸⁴ The US was still unconvinced as to the full opening of its basic telecommunication market and asked for a higher number of commitments. A second deadline was set, February 1997. On 15 February 1997, the WTO Agreement on Basic Telecommunications opened 'the biggest chunk of the global market'.¹⁸⁵ After nine months of negotiations, 86 countries, accounting for 93 per cent of the global telecommunication markets and a total value of USD 600 billion per year, committed themselves to giving unrestricted access to their basic telecommunications.¹⁸⁶ The declaration adopted by Ministers in Singapore in 1996 read: '[w]e are determined to obtain a progressively higher level of liberalisation in services on a mutually advantageous basis with appropriate flexibility for individual developing country members ... we look forward to full MFN agreements based on improved market access commitments and national treatment'.¹⁸⁷

The Uruguay Round was the final episode of the subjection of telecommunication to the discipline of capital. It brought to maturity the fit between the new material capability of multinationals, the shared image of telecommunications as a commodity, and juridified mechanisms to maintain the order. In a sharp move, fifty-seven governments acceded to a reference paper that committed them to putting in place competitive safeguards and providing access to markets 'with interconnection at any technically feasible point in the network'.¹⁸⁸ Questions of social policy and sovereign choice were not fully excluded. However, the ascent of foreign direct investment created a

183 *ibid* para (d).

184 Black (n 179) 189.

185 Drake, 'Rise and Decline' (n 5) 156.

186 *ibid*.

187 World Trade Organisation, Singapore Ministerial Declaration (9–13 December 1996) WTO Doc WT/MIN(96)/DEC para 17.

188 WTO Reference Paper: Negotiating Group on Basic Telecommunications (30 April 1996) WTO Doc S/NGBT/18 para 2.2.

‘framework for action’, where the limits of social welfare within and across borders were set by corporate revenues and not the other way around. To borrow from Chimni, the ‘logic of territory’ was subjected to the ‘logic of capital’.¹⁸⁹

Liberalisation in the developing world took different forms.¹⁹⁰ What they all shared, however, was major income inequality and the disappearance of the middle classes in the face of the recession of the 1980s and 1990s. With the value of networks now being assessed based on the level of traffic, low-income countries with low network density, countries with small populations, and islands became unappealing to foreign capital.¹⁹¹ The new order was advertised as conducive to ‘competition’ and ‘an all-inclusive Information Society’. Yet, as Stiglitz explained in a keynote speech at the FCC years later, networks proved to be ‘prone to non-competitive equilibrium’ due to sunk costs.¹⁹² Soon private monopolies came into being in the developing world. Liberalisation of Latin American telecommunications networks and the rising fees for residential users led to customer protests from Chile and Argentina to Mexico and Venezuela.¹⁹³ The ITU’s under-researched extension of deregulation and competition to the African continent was viewed as ‘the death knell for public telecommunications operators (OPT), African properties and treasures (in all senses of the term, alas) [leading to] the gradual disappearance of public service’.¹⁹⁴

Within countries, the distinction between basic and enhanced services generated new sources of structural inequality; cellular mobile phones became luxury products and low-income masses were viewed as undeserving of the upgrade to ‘enhanced services’. This was a reflection of what Cox called the North ‘generating its own internal South’ and the South forming ‘a thin layer

189 B S Chimni, *International Law and World Order: A Critique of Contemporary Approaches* (2nd edn, Cambridge University Press 2017).

190 See B Mody et al (eds), *Telecommunications Politics: Ownership and Control of the Information Highway in Developing Countries* (Lawrence Erlbaum Associates Publishers 1995).

191 See P C Symeou, ‘Does Smallness Affect the Liberalisation of Telecommunications? The Case of Cyprus’ (2009) 33 *Telecommunications Policy* 215.

192 J E Stiglitz, ‘Engine for Growth: A Balance between Regulation and Unfettered Markets’ (United States Federal Communication Commission 2004) <<https://www.youtube.com/watch?v=iN1L2lqE5BY>>.

193 S Rhodes, *Social Movements and Free-Market Capitalism in Latin America Telecommunications Privatisation and the Rise of Consumer Protest* (SUNY Press 2006).

194 J-L Fullsack, ‘L’UIT, acteur déterminant dans l’évolution néolibérale du secteur des télécommunications’ in D Benamrane et al (eds), *Les télécommunications, entre bien public et marchandise* (Éditions Charles Léopold Mayer 2005) 347. (‘L’UIT a sonné le glas des opérateurs publics de télécommunication (OPT) africains, propriétés et trésors (dans tous les sens du terme, hélas) des États, en même temps qu’elle a participé à l’effacement progressif du service public’).

of society that is fully integrated into the economic North'.¹⁹⁵ For example, privatisation of British Telecom failed to lower prices or increase quality or choice for non-business users.¹⁹⁶ With the removal of cross-subsidies, local telephone fees were increased to lower the costs for long-distance transmission and make them more competitive. In India, the pressure from 'well-organised and articulate business groups' led to the de-prioritisation of rural areas in network expansion plans.¹⁹⁷ In other words, the working population of the South started to pay the telecommunication costs of their business elites. With the trembling role of the state in development by the late 1990s, it was no longer certain that separating the 'regulator' from the 'service providers'—as advocated by proponents of liberalization—could increase the density of networks and quality of telecommunications services in poor communities.¹⁹⁸

The neoliberal turn in global telecommunication took the ITU Secretariat beyond its century-old role as a 'penholder', giving it a new agency and politics. This meant a shift from the old bureaucratic mentality to a 'cadre stratum' spirit. Van der Pijl explains: '[t]he ruling class cedes aspects of its rule to the cadre stratum . . . the cadres effectively integrate the various moments of alienation into an integral world of rules and norms, so that people subject to the dislocating effects of commodification and exploitation are surrounded by functionaries and organisations "taking care" of their drives, aspirations, and fears'.¹⁹⁹ With the ascent of the trade regime, the ITU Secretariat needed a full-fledged entrepreneurial spirit to promote 'the ethical and moral rectitude and rationality of the capitalist world market'.²⁰⁰ Under Tarjanne's direction, the Secretariat took up the moral leadership of neoliberal reform, encouraging developing countries to create what he called 'the right climate for outside investment, liberalisation and deregulation'.²⁰¹ Tarjanne saw a 'catalytic role' for

195 R W Cox, 'The Crisis in World Order and the Challenge to International Organisation' (1994) 29 *Cooperation and Conflict* 99, 108.

196 See Blackman (n 2).

197 S D McDowell, 'International Services Liberalisation and Indian Telecommunications Policy' in E A Comor (ed), *The Global Political Economy of Communication Hegemony, Telecommunication and the Information Economy* (Palgrave MacMillan 1996) 103.

198 See J Hills, 'Liberalisation, Regulation and Development: Telecommunications' (1998) 60 *International Communication Gazette* 459.

199 K Van Der Pijl (n 4) 138.

200 S Gill and A C Cutler, *New Constitutionalism and World Order* (Cambridge University Press 2014) 30.

201 'Tarjanne's Response to an Enquiry from a Colombian Researcher' (13 December 1996). (copy held at ITU Library Archives, call number: n\text\articles\colom.doc).

the ITU,²⁰² in which the Union would support regulatory initiatives in low-income countries and act as a dynamic source of information on the market status of developing telecommunication markets. With the fall of the Soviet territories in Eastern Europe, he encouraged ‘new openness, new machineries of management and operation . . . imaginative and dynamic policy consideration’.²⁰³ In response to the question whether the ITU itself should be privatised, he responded, ‘[w]hy not treat some of the ITU activities as if privatised . . . It would be a good start!’²⁰⁴ In the face of the widening telecommunications gap of the 1990s, Tarjanne made sure to address the fears and antagonism and assure the public about the prospects of competitive telecommunications. In an interview with the Wall Street Journal in 1996, he said ‘[m]y worst nightmare is that, if present market trend continues, the benefits of new technologies will not be equally shared’, but ‘wise policies, based on new forms of cooperation between the government and industry’ could help tackle the gap.²⁰⁵

Complementing the work of the World Bank and the WTO, the Secretariat and the new Telecommunication Development Sector (ITU-D) became specifically responsible for collecting market intelligence on the state of telecommunication markets and helping developing countries create their own neoliberal legality.²⁰⁶ As Krever explains, the law’s value in a neoliberal order ‘lies in its ability to provide a stable investment environment and the predictability necessary for markets to operate [to] reproduce and embed social relations of the free market and a belief that development is predicated on individual entrepreneurial activity’.²⁰⁷ By the late 1990s, the secretariat started organising the Telecommunication Policy Forum, with technical, strategic, policy and legal symposia, to promote more broadly the merging of

202 ‘Message of Dr Pekka Tarjanne to the 16th Annual Pacific Telecommunications Conference’ (4 July 1996) (copy held at ITU Library and Archives, call number: IN/7/97).

203 Pekka Tarjanne, ‘Welcoming Remarks’, Policy Symposium: New Openness Throughout Europe, Europa Telecom, (Budapest, 12 October 1992) available at <https://www.itu.int/itudoc/osp/ptspeech/chron/1992/eupsym_wv2.doc>.

204 ‘Minneapolis and the Future: Interview with Pekka Tarjanne, ITU Secretary-General’ *ITU News* (no 8, October 1998) 7–10, available at <<https://search.itu.int/history/HistoryDigitalCollectionDocLibrary/4.16.57.en.101.pdf>>.

205 P Tarjanne, ‘Electronic Communications Today-and Tomorrow’ (Interview with Wall Street Journal, 14 September 1996) (copy held at ITU Library and Archives, unnumbered).

206 P K McCormick, ‘Private Sector Influence in the International Telecommunication Union’ (2007) 9 *Journal of Policy, Regulation and Strategy for Telecommunications, Information, and Media* 70, 77.

207 T Krever, ‘Law, Development, and Political Closure under Neoliberalism’ in H Brabazon (ed), *Neoliberal Legality: Understanding the Role of Law in the Neoliberal Project* (Routledge 2017) 22, 33–34.

telecommunication into trade. In parallel, it financed training on development of regulatory frameworks for liberalised markets.²⁰⁸

CONCLUSION

In a 2022 piece in *New Left Review*, Marco D'Eramo speaks of 'America's novel mode of dominion—not taking territory, or siphoning off capital, but controlling the networks and procedures that govern those territories and capitals, under the norms of the Washington Consensus'.²⁰⁹ The domino liberalisation of telecommunications networks and services in the last quarter of the twentieth century manifested the ascent of a new hegemonic fit in line with the Anglo-American ideal for organic organisation of production relations: one that follows supply and demand and is structurally indifferent to social questions. This ideal travelled across the industrialised world, from there to international institutions, and soon extended to the rest of the world. Like any other hegemonic order, no state/society complex was structurally barred from imagining and materialising other ways of organising production. The change, however, depended on how the existing productive and destructive potentials, and the collective image of relations of production and institutions, could be reconfigured in the service of alternative ideas.

Alongside international financial institutions and development banks, the ITU played an important role in commodifying networks and services. The Union helped create new markets for the industrialised world's companies in the neo-colonial era, and through its technical assistance missions and world telecommunications exhibitions, it institutionalised a pro-market ideology amongst the new generation of telecommunications experts in the developing world. Equally important was the ITU's role in the socialisation (*Vergesellschaftung*) process inherent to the competitive and liberal telecommunications order. At a time when the developing world had become alienated from the GATT, and with the UNCTAD failing to challenge the structural forces of the global economy,²¹⁰ the ITU Secretariat became instrumental to the market socialisation of the 1970s through the 1990s. More specifically, the Union's Secretariat helped revise the International Telegraph and Telephone Regulation, create new norms through the GATT, assist the restructuring and

208 Hills, *Telecommunications and Empire* (n 24) 132.

209 M D'Eramo, 'American Decline' (2002) 135 *New Left Review* 5, 12.

210 See Q Deforge and B Lemoine, 'The Global South Debt Revolution That Wasn't: UNCTAD from Technocratic Activism to Technical Assistance' in P Penet and J F Zendejas (eds), *Sovereign Debt Diplomacies: Rethinking Sovereign Debt from Colonial Empires to Hegemony* (Oxford University Press 2021).

regulatory developments in the developing countries, and finally mitigate the anxieties generated by the growing disparity in global telecommunications. The new structure of the ITU, with the development sector being separated from the standards and radio sectors, was the last nail in the coffin of the Union's social policy for the developing world, and part of the broader move to 'kick away the ladder' for the South nations.²¹¹

The history of the neoliberal turn in the global telecommunications, how it was generated by broader forces in global relations of production, and the implications it bore beyond networks and machines raises fundamental questions about infrastructures, their ownership, and the role that (international) law plays in solidifying or disrupting a certain configuration of production relations. The unexplored histories of infrastructures (and logistics, one might add) also require engaging with the past and present of technical international organisations and their role in capitalism's spatial fix. Ultimately, processes of socialisation, such as setting new standards, de-politicisation, managing externalities of production, communicating with the governed, making culture and containing class antagonism, amongst others, are as inherent to the global capitalist expansion as the hauling of nature and humans into the circuits of production and exchange. Many histories to explore, many stories to write!

211 H-J Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (Anthem Press 2002).