

**Research part for the proposal of an International Exploratory Workshop:  
Transnational Histories of Telecommunication @ITU**

**1. Scientific aspects**

**1.1 Introduction of the research subject**

The goal of the proposed workshop is to explore and discuss recent developments and to pose questions related to the field of transnational history of telecommunications, with specific focus on the role of the International Telecommunication Union (ITU). Consequently, this workshop is at the intersection of three main topics of research: the history of telecommunications, transnational studies in communication and the history of the ITU as the most relevant international organization that manages point-to-point media.

The word “telecommunications,” which means literally “communications at a distance,” was the brainchild of a French postal administrator, Édouard Estaunié, who coined the term in 1904 as a convenient catchphrase to refer to both the landline telephone and electric telegraph (Huurdeman 2003; John 2010). Estaunié’s construct would not gain wide acceptance in France until the 1920s and would remain largely unknown throughout the rest of Europe until 1932, when it was included in the official title of a newly reorganized regulatory agency, the ITU itself. Today, historians of communications use this construct as an umbrella term for a variety of communications networks that often include, in addition to the electric telegraph and landline telephone, the optical telegraph, radio, television, satellite, mobile telephone, and Internet (Noam 1992; Huurdeman 2003).

The history of telecommunications has recently become a relevant field that is positioned at the intersection of “classical” mass media studies, the history of technology, and network economics. Over the last decades, telecommunications have increasingly attracted the attention of both Anglophone and Continental scholars (Balbi 2009). Historians have been inspired by the success of the Internet and mobile phone, by the expansion of the entire sector of point-to-point technologies and, finally, by the topical macro-phenomenon known as ‘media convergence’ (Jenkins 2006): works have thus been published specifically on the history of telecommunications (Hugill 1999; Headrick 2000; Matelart 2003; Mosco 2005; Winseck & Pike 2007), and chapters have been written on telecommunications in media history books, which analyze relationships between telecoms and mass media (Griset 1991; Flichy 1999; Briggs & Burke 2001; Huurdeman 2003; Starr 2004; Barbier and Bertho 2009; Mansell & Raboy 2011; Simonson et al. 2013).

Today, the demand for telecommunication history is responding to a contemporary need whereby digital media have finally revealed the major role of point-to-point communications and personal and instant messaging. However, the demand for communication is not a contemporary invention, but rather grew from the start of the 19th century with the advent of industrialized society. As James Beniger (Beniger 2009) states, the Industrial Revolution accelerated several material processes and increased the need for information. The need to study telecommunications is therefore also attributable to the importance of understanding an archetypal human need: understanding how these technologies were accepted or rejected, how they were used and how they were not used may help us reconstruct human relationships at defining moments of social history. Urgent contemporary needs can trigger historical research on telecommunications for another reason: as upheld by Scott Wallsten, the deregulation of telecom networks in the 1990s worried politicians, businessmen and the public alike. Yet, if they had merely reflected on the early days of the telephone sector, they would have recognized that this phenomenon was certainly not new but had already been experienced in several nations between the nineteenth and twentieth centuries. Indeed, the history of telecommunications may be used ‘to help understand the effects of competition and monopoly in modern service’ (Wallsten 2005, 17).

Finally, studying point-to-point technologies should be considered more essential for media researchers than for other scholars. Telecommunications indeed form part of the media system and, for example, understanding the birth and rise of broadcasting technologies without considering point-to-point communications, and vice versa, is scientifically sophistic.

Aside from the need for telecommunications history research, another growing field of inquiry is the transnational perspective. The term “transnational” has a long, complex and contested history in numerous political and academic contexts (Iriye and Saunier 2009, Conrad 2011), not excluding the history of technology (van der Vleuten 2008). A transnational approach to the study of infrastructures such as communication networks concerns itself with flows across national borders, with international institutions tasked with regulating these flows, with supranational economic powers, and with the circulation of ideas (and people) through the media that cannot be circumscribed by national spaces (Badenoch and Fickers 2010).

To study the history of transnational telecommunications, ITU history must be taken into account, and ITU archives are perhaps the best resources to use (see par. 2.2). The history of international organizations represents another expanding field of research associated with this symposium (Herren 2009, Kott 2011). Since 1865, international communications have been regulated by the first international organization ever established, the so-called Telegraph Union, which was later renamed the International Telecommunication Union. Yet, despite its historical relevance, there are few scientific studies on ITU evolution. First, commemorative works have been published by the Union itself, whose historical objectivity often takes a back seat to the self-celebratory reconstruction of events (ITU 1915, 1965; Michaelis 1965; Tarjanne 1996). The most important scientific studies on the Telegraph Union are, instead, law and political sciences publications that focus above all, but not exclusively, on the internal functioning of the Union itself (Coddington 1952, Navarro 1975, Durand Barteaux 1979, Lyall 2011). In recent years, there has been a revival of studies on ITU history, and scholarly attention has shifted from institutional history to other subjects: in particular, the role of the ITU as international regulator of telecommunications and as a virtual place where national interests converged and competed (see Fari 2008, Henrich-Franke 2008, Laborie 2010, Giuntini 2011, Balbi et al. 2014, Fari et al. 2015). This issue has also been central to questions posed by a group of technology historians, who gravitate around the association “Tensions of Europe” (<http://www.histech.nl/tensions>) and who have made some significant contributions in understanding the role of communication infrastructures in “networking Europe” (van der Vleuten and Kaiser 2006, Fickers and Griset forthcoming). In particular, this working group views telecommunications not only as infrastructure networks but also as decisive tools in developing so-called “hidden integration” processes (Misa and Schot 2005), which, according to some scholars, began in Europe in the nineteenth century and thus long before the European Union was established at the end of the Second World War.

For these reasons, a workshop on the “Transnational histories of telecommunications @ITU” is timely and can contribute in a unique manner to the development of this multidisciplinary field. The need for a transnational perspective and for more comprehensive knowledge of ITU archival collections may inspire further innovative research (see par. 1.3).

## **1.2 Scientific aims and methods of the workshop**

This workshop has three main objectives: the first is to compare different approaches, methodologies and research avenues employed in telecommunications history scholarship; the second is to discuss the role of the ITU as a subject of research and as a place to conduct research; finally, the last goal involves creating a platform of scholars for the development of further collaborations and scientific publications.

First, a crucial workshop outcome concerns the integration of different methodologies for studying the history of telecommunications. The cultural history of telecommunications employs stimuli, sources, insights and methodologies from other related fields: mainly from political economy of communications studies (1), business history studies (2), technology and network history studies (3), and science and technology studies (4).

1. Scholarship on the political economy of communication examines how the structuring presence of the state influences business strategies of media development (Starr 2004). Political economy is often associated with national politics, as each state typically employs unique principles and approaches in controlling, developing, or limiting communications. This workshop aims to apply principles of political economy to international policy and to thus identify worldwide constitutive choices in relation to telecommunications. Among the invited speakers, relevant political economists can be identified: Richard R. John, Marc Raboy, Giuseppe Richeri, Heidi Tworek, and Dwayne Winsek.

2. The business history field considers business organizations and philosophies, government regulations, labor relations, and company impacts on society. This workshop is designed to consider business strategies of telecommunication companies as crucial elements for understanding processes of cultural construction and industrial pressures on other societal sectors and on the ITU in particular. Again, among the telecommunications business historians participating in this workshop, Ana Paula da Silva, Simone Fari, Andrea Giuntini, Pascal Griset and Leonard Laborie will be able to discuss such issues.

3. Technology and network historians approach communications in a myriad ways. Some study the evolution of hardware, while others study the social context of invention (much of the English-language literature published on these issues is cited in Sterling and Shiers 2000 and in Sterling et al. 2006). Yet one approach – the large technical systems (or LTS) tradition – has proven to be particularly influential. While the LTS approach ignores neither politics nor culture, it places a particular emphasis on the internal logic of communications networks and, in particular, on their technical contrivances, formal organizations, rules, complex organizations, and flows of information (Hughes 1987; Gras 1993). Telecommunications networks are mainly LTSs, and this symposium aims to examine telegraph, telephone, wireless, and digital networks and their regulatory frameworks as national, regional, and even global infrastructures (Löhr and Wenzlhuemer 2012; Hampf and Mueller-Pohl 2013). Simone Mueller, Roland Wenzlhuemer, and Grahame Gooday, well-established scholars who employ network system perspectives, will enjoy the symposium.

4. Finally, the so-called Science and Technology Studies (STS) approach, and especially the Social Construction of Technology (SCOT) approach, embraces at least one key concept related to the history of telecommunications: that of “relevant social groups” (Pinch and Bijker 1984). The concept maintains that, especially during early phases, pressure groups attempt to impose their specific understandings and interests related to new technologies such as telecoms. This constitutes a way for reconstructing conflicting cultural histories of telecommunications, as what these actors thought, what they responded to, and how they acted on a global scale may be symbolic of what was “in the air” at that time. This workshop is designed to focus on at least three “relevant social groups” and actors: international organizations such as the ITU, national political and technical delegates at international conferences, and telecommunications company investors and managers. Andreas Fickers (who recently proposed a revision of the SCOT approach, see Fickers 2012) will be one of the main invited speakers at this workshop and, in addition to him, I (Gabriele Balbi) will use similar methodologies.

This workshop brings together a group of international leading experts and promising young scholars focusing on the transnational history of telecommunications and on the role of the ITU in sharing different approaches, avenues and ideas for future research in this field. Different generations of scholars participating in this workshop can thoroughly discuss the benefits and pitfalls of these perspectives by sharing numerous examples of research that has led to the publication of papers, books and new knowledge in general.

A second objective is related to the ITU as subject of research and as a place to conduct research. Invited scholars will present and discuss on specific aspects of ITU history (e.g., its origins, relation to the First World War, specific national histories, etc.) and will share research with different focuses: this will likely contribute to an overview of the role of the ITU in more global context, to questions regarding its relevance as a subject of research and, finally, to the prevention of fragmentary perceptions of ITU history. Furthermore, scholars will be afforded the opportunity to discuss sources preserved at the ITU with archivists to better understand opportunities for collecting, sharing and analyzing primary sources provided through new techniques of preservation. Scholars working with different sources will compare major documents and will discover new potential sources and, again, avenues for future research.

A third and final aim of the workshop is to gather a group of scholars that may serve as a platform of researchers. This would help, on one hand, to establish new networks and research groups (see par. 3.3) that will focus on this subject with fresh insights and, on the other, to inspire the publication of a book or journal with special issues on these topics (see par. 1.3).

### **1.3 Expected results**

The workshop will provide valuable opportunities for speakers and participants to present and discuss their recent scientific results and to propose future lines of research to a group of highly qualified scholars who are conducting research on the transnational history of telecommunications.

One expected outcome of the workshop is a special issue to be published in a leading academic journal (*Technology and Culture; Media History; Telecommunication Policy; History of Technology; etc.*).

Alternatively, the presented articles will be compiled in a book by a prestigious publisher like Routledge, Palgrave, Bloomsbury, Cambridge Scholar Publishing, etc. Papers will undergo the usual peer review process.

Another expected outcome of the workshop is the establishment of new collaborations for joint papers and projects. The organizer would like to engage all of the participants in order to establish a European project within the Horizon 2020 framework. National and regional funding opportunities will also be evaluated.

A fourth and final outcome may involve the establishment of a permanent network of scholars who focus on the history of telecommunications, but who more broadly act as policy advisors when decisions must be made by political organizations at the international level. This outcome may demonstrate the need for historians and social scientists to be involved in decision-making processes at the international scale.

## **2. Organizational aspects**

### **2.1 Preliminary workshop program**

The workshop – to be held on December 17, 18 and 19, 2015 – will include 21 speakers, three of which are based in Switzerland. The speakers will come from universities in 10 different countries: Canada, France, Germany, Italy, Luxembourg, Portugal, Spain, Switzerland, the United Kingdom, and the USA.

#### Program Schedule

\* December 17 2015

19.00 - Registration, assembly and reception

\* December 18 2015

08.30-09.00 - Welcome speeches

09.00-10.30 - Session 1: The Origins of the ITU

- Simone Fari (University of Granada): The role of constitutive choices in the ITU's history
- Gabriele Balbi (USI-Università della Svizzera italiana): The role of Switzerland in the construction of the Telegraph Union
- Kars Aznavour (EUI Florence): The key role of tariffs in the establishment of the ITU
- Discussant: Andreas Fickers (University of Luxembourg)

10.30-11.00 - Coffee Break

11.00-12.30 - Session 2: Cables and Flows @ITU

- Simone Mueller (University of Freiburg): Beyond the means of 99 Percent of the Population: Business Interests and the Regulation of Submarine Cable Communication within the ITU Setting
- Ana Paula da Silva (Universidade Nova de Lisboa): The Centrality of Peripheral Nodes for Global Flows: the Portuguese case(s)
- Andrea Giuntini (University of Modena and Reggio Emilia): The first globalization under the sea. ITU and the submarine communication from the Atlantic cable to World War I
- Discussant: Pascal Griset

12.30-14.00 - Lunch

14.00-15.30 - Session 3: The First World War and its Aftermath @ITU

- Maria Rikitianskaia (USI-Università della Svizzera italiana): Transnational Telecommunications during World War One
- Graeme Gooday (University of Leeds): WW1 and the shaping of civilian post-war telecommunications
- Heidi Tworek (University of British Columbia): Expanding International Regulation from Telegraphy to Telecommunications
- Discussant: Richard R. John

15.30-16.00 - Coffee break

16.00-17.30 - Visit @ITU archives and description of the main sessions

19.00 - Social dinner

\* December 19 2015

09.00-10.30 - Session 4: Global Communication @ITU

- Roland Wenzhuemer (University of Heidelberg): Shrinking the world? Perceptions of time and space in the age of the telegraph
- Marc Raboy (McGill University): 'Anyone but Marconi': The 1903 Conference on Wireless Telegraphy and the Origins of International Radio Regulation
- Dwayne Winsek (Carleton University): ITU: Threat to the Net or How to Globalize Internet Governance
- Discussant: Simone Mueller

10.30-11.00 - Coffee break

11.00-12.30 - Session 5: Digitization @ITU

- Diana Citra (Columbia University): Understanding television digitization and the ITU's role through network power: a study on Indonesia's switchover
- Stephanie Hof and Christian Heinrich-Franke (University of Siegen): ISDN: ITU and the digitalization of networks
- Ben Klass (Carleton University): Gift horse or trojan horse? Regulators' responses to the zero rating of mobile applications in Canada and around the world.
- Discussant: Giuseppe Richeri (USI-Università della Svizzera italiana)

12.30-14.00 - Lunch

14.00-15.30 - Session 6: Roundtable on future research @ITU

- Kristine Clara (ITU Head Library, Archives and Mail Operations): Areas of Study supported by ITU Archives. Tips for scholars
- Discussants: Simone Fari, Andreas Fickers, Pascal Griset, Richard John, Simone Mueller, Giuseppe Richeri, Roland Wenzhuemer, Dwayne Winsek.
- Chair: Gabriele Balbi

15.30-16.00 - Final remarks

## **2.2 Venue**

The workshop will be held at the ITU headquarters, and specifically within the Library and Archives Department. This location was chosen for three main reasons.

First, the ITU Library and Archives Service in Geneva has preserved all official publications printed by the Telegraph Union since its establishment in 1865, and thus it is the “natural” place to begin research on the transnational history of telecommunications. Two types of documents preserved here may prove relevant to this workshop: documents on international conferences on telecommunications and data from the Correspondance du Bureau, a type of archive within an archive in which one can find all letters and telegrams received and sent by the International Bureau in the performance of its functions from 1869 to 1949.

The venue is unique for a second reason: Kristine Clara, head of the ITU archives, will interact with scholars and will give a talk on new sources, on their digitization and on directions for future research recently identified from the archives. This will allow scholars to identify and “see” documents that future research may be based on.

A third and final reason for using the ITU headquarters in Geneva as the main venue pertains the fact that this institution celebrates its 150th anniversary in 2015, being founded in 1865 as the Telegraph Union. Even though the main seat was originally held in Berne, gathering prominent scholars focusing on international telecommunications and on the ITU at the ITU is highly representative of the need for archives and for archival studies by historians.

## **2.3 Other funding sources**

Ten of the workshop participants (mainly full or associate professors) will be supported by their own universities: USI-Università della Svizzera italiana, University of Siegen, University of Luxemburg, University of Leeds, Université Paris-Sorbonne, McGill University, University of Heidelberg, European Institute of Florence or by national funding agencies, as in the Indonesian case.

### 3. Partnership aspects

#### 3.1 List of participants

*Participants to be funded by the SNSF (max. 10):*

<i>Last Name</i>	<i>First Name</i>	<i>Where will the participant travel from?</i>	<i>Home institution</i>	<i>Position currently held at home institution</i>
da Silva	Ana Paula	Lisbon (Portugal)	Universidade Nova de Lisboa	Post Doc
Fari	Simone	Granada (Spain)	Granada University	Assistant Professor
Giuntini	Andrea	Florence (Italy)	University of Modena and Reggio Emilia	Associate Professor
Gooday	Graeme	Leeds (UK)	University Of Leeds	Full Professor
Hof	Stefanie	Siegen (Germany)	University of Siegen	Graduate assistant
John	Richard R.	New York (USA)	Columbia University	Full Professor
Laborie	Leonard	Paris (France)	Université Paris-Sorbonne	Junior research fellow
Mueller	Simone	Freiburg (Germany)	University of Freiburg	Assistant Professor
Tworek	Heidi	Vancouver (Canada)	University of British Columbia	Associate Professor
Winsek	Dwayne	Ottawa (Canada)	Carleton University	Full Professor

#### **Other participants:**

<i>Last Name</i>	<i>First Name</i>	<i>Where will the participant travel from?</i>	<i>Home institution</i>	<i>Position currently held at home institution</i>
Aznavour	Kars	Florence (Italy)	European University Institute	Postdoctoral visiting fellow
Balbi	Gabriele	Lugano (Switzerland)	USI-Università della Svizzera italiana	Assistant Professor
Citra	Diana	New York (USA)	Columbia University	PhD Student
Henrich-Franke	Christian	Siegen (Germany)	University of Siegen	Full Professor
Fickers	Andreas	Luxemburg (Luxemburg)	University of Luxembourg	Full Professor
Griset	Pascal	Paris (France)	Université Paris-Sorbonne	Full Professor
Klass	Ben	Ottawa (Canada)	Carleton University	PhD student
Raboy	Marc	Montreal (Canada)	McGill University	Full Professor
Richeri	Giuseppe	Lugano (Switzerland)	USI-Università della Svizzera italiana	Emeritus Professor
Rikitianskaia	Maria	Lugano (Switzerland)	USI-Università della Svizzera italiana	PhD Student
Wenzlheimer	Roland	Heidelberg (Germany)	University of Heidelberg	Full Professor

#### 3.2 Complementarity aspects

The invited workshop participants complement one another for several reasons. First, as noted in paragraph 1.2, the participants come from differing but converging disciplines and fields of study, and so they will likely address different aspects of the transnational history of telecommunications: political guidance, economic and business pressures, technological dimensions, and even user perspectives. Second, the workshop was also designed to exchange knowledge, methods and ideas among senior and junior researchers. Individuals of all academic levels are intentionally represented at this workshop, ranging from Graduate Assistants starting a PhD to Full and Emeritus Professors.

For these two main reasons, the proposed workshop will serve as an invaluable opportunity to convene the most prominent scholars in the field, to present seminal works conducted in the discipline and to finally advance research on the transnational history of telecoms at the ITU. Participation from scholars from abroad is indispensable for several reasons, but especially to introduce broad, international perspectives on global flows of communication and to compare different but interrelated approaches.

### 3.3 Potential for further collaboration

Given the above-mentioned participant characteristics (a diverse group of scientists sharing a common interest in the transnational history of telecommunications), it is straightforward to envision future collaborations between the workshop participants, in particular with regards to the following: (i) methodological and source comparisons; and (ii) research collaborations, including the potential development of joint papers and common research proposals that exploit different Swiss and international funding opportunities (see par. 1.3). Some of the participants have already established strong collaborations: see the work of Balbi, Fari and Richeri (Balbi et al. 2014; Fari et al. 2015); Balbi and John (forthcoming); Fickers and Griset (forthcoming) and several other examples.

A workshop with participants from Switzerland and abroad will serve as a valuable opportunity for triggering such international collaborations and may pave the way for similar initiatives in Switzerland or elsewhere. With regards to specific benefits for research in Switzerland, the proposed workshop will serve as an opportunity for Swiss researchers (including young scholars) to interact with international experts in the field and for the ITU, as an institution that is historically based in Switzerland, to be recognized and studied at an international scale.

### References

- Badenoch, A., & Fickers, A. (2010). Introduction: Europe Materializing? Toward a Transnational History of European Infrastructures. In *Materializing Europe. Transnational Infrastructures and the Project of Europe*. Basingstoke, Hampshire and New York: Palgrave Macmillan.
- Balbi, G. (2009). Studying the Social History of Telecommunications. *Media History*, 15 (1), 85–101.
- Balbi, G. with S. Fari, G. Richeri and S. Calvo (2014). *Network Neutrality: Switzerland's Role in the Genesis of the Telegraph Union, 1855-1875*. Bern: Peter Lang.
- Balbi, G., & John, R. (forthcoming). Point-to-Point: Telecommunications Networks from the Optical Telegraph to the Mobile Telephone. In L. Cantoni & J. A. Danowski (Eds.), *Communication and Technology, 5th volume of the Handbook of Communication Science*. Berlin: De Gruyter Mouton.
- Barbier, F., & Bertho-Lavenir, C. (2009). *Histoire des médias: De Diderot à internet*. Paris: Armand Colin.
- Beniger, J. (2009). *The Control Revolution: Technological and Economic Origins of the Information Society*. Cambridge, MA: Harvard University Press.
- Briggs, A., & Burke, P. (2001). *A Social History of the Media: From Gutenberg to the Internet*. Malden, MA: Polity Press.
- Codding, G. A. (1952). *The International Telecommunication Union: An Experiment in International Cooperation*. Leiden: Brill.
- Concard, C. (2011). Social policy history after the transnational turn. In P. Kettunen & K. Petersen (Eds.), *Beyond Welfare State Models. Transnational Historical Perspectives on Social Policy*. Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- Durand-Barthez, P. (1979). *Union Internationale des Télécommunications* (Thèse pour le doctorat en droit). Université de Paris I-Panthéon-Sorbonne Sciences Economiques-Science Humaines-Sciences Juridiques.
- Fari, S. (2008). *Una penisola in comunicazione. Il servizio telegrafico italiano dall'unità alla grande guerra*. Bari: Cacucci.
- Fari, S. with G. Balbi and G. Richeri (forthcoming). *The Formative Years of the Telegraph Union*. Cambridge: Cambridge Scholar Publishing.
- Fickers, A., & Griset, P. (forthcoming). *Eventing Europe: Electronic Information and Communication Spaces in Europe (1850-2000)*. London: Palgrave/MacMillan.
- Fickers, A. (2012). Visibly Audible. The Radio Dial as Mediating Interface. In Pinch, T. & Bijsterveld, K. (Eds.), *Oxford Handbook of Sound Studies* (pp. 411–439). Oxford: Oxford University Press.
- Flichy, P. (1999). *Une histoire de la communication moderne: espace public et vie privée*. Paris: La Découverte.
- Giuntini, A. (2011). *Le meraviglie del mondo: il sistema internazionale delle comunicazioni nell'Ottocento*. Prato: Istituto di studi storici postali.
- Gras, A., & Poirot-Delpech, S. L. (1993). *Grandeur et dépendance: sociologie des macro-systèmes techniques*. Paris: Presses universitaires de France.
- Griset, P. (1991). *Les révolutions de la communication, XIXe-XXe siècle*. Paris: Hachette.
- Hampf, M. M., & Mueller-Pohl S. (Eds.). (2013). *Global communication electric: business, news and politics in the world of telegraphy*. Frankfurt and New York: Campus Verlag.
- Headrick, D. (2000). *When Information Came of Age: Technologies of Knowledge in the Age of Reason and Revolution, 1700-1850*. Oxford: Oxford University Press.

- Henrich-Franke, C. (2008). Cookies for ITU: The role of cultural backgrounds and social practices in standardization processes. In A. Fickers, A. Hommels, & J. Schüler (Eds.), *Bargaining norms, arguing standards* (pp. 86–97). Den Haag: STT Netherlands Study Centre for Technology Trends.
- Herren, M. (2009). *Internationale Organisationen seit 1865. Eine Globalgeschichte der internationalen Ordnung*. Darmstadt: WBG.
- Hughes, T. P. (1987). The evolution of large technical systems. In T. P. Hughes & T. Pinch (Eds.), *The social construction of technological systems* (pp. 51–82). Cambridge MA: MIT Press.
- Hugill, P. J. (1999). *Global Communications since 1844: Geopolitics and Technology*. Baltimore: Johns Hopkins University Press.
- Huurdeman, A. A. (2003). *The Worldwide History of Telecommunications*. Hoboken, NJ: John Wiley & Sons.
- Iriye, A., & Saunier, P.-Y. (Eds.). (2009). *The Palgrave Dictionary of Transnational History*. New York: Palgrave Macmillan.
- ITU. (1915). *L'Union télégraphique internationale: 1865-1915*. Berne: Bureau international de l'Union télégraphique.
- ITU. (1965). *L'Union Internationale des télécommunications, cent ans de coopération internationale*. Geneve: UIT.
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press.
- John, R. R. (2010). *Network Nation. Inventing American Telecommunications*. Cambridge MA and London: The Belknap Press of Harvard University Press.
- Kott, S. (dir.). (2011). *Une autre approche de la globalisation: Socio-histoire des organisations internationales (1900-1940)*. Numéro spécial de *Critique internationale*, 52.
- Laborie, L. (2010). *L'Europe mise en réseaux: la France et la coopération internationale dans les postes et les télécommunications (années 1850-années 1950)*. Bern: Peter Lang.
- Löhr, I., & Wenzlhuemer, R. (Eds.). (2012). *The Nation State and Beyond. Governing Globalization Processes in the Nineteenth and Twentieth Century*. Heidelberg and New York: Springer.
- Lyall, F. (2011). *International Communications: The International Telecommunication Union and the Universal Postal Union*. Farnham: Ashgate.
- Mansell, R., & Raboy, M. (2011). *The Handbook of Global Media and Communication Policy*. Chichester: Wiley-Blackwell.
- Mattelart, A. (2003). *Histoire de la société de l'information*. Paris: La Découverte.
- Michaelis, A. R. (1965). *Du sémaphore au satellite*. Geneve: ITU.
- Misa, T. J., & Schot, J. (2005). Inventing Europe: Technology and the hidden integration of Europe. *History and Technology*, 21(1), 1–19.
- Mosco, V. (2005). *The Digital Sublime: Myth, Power, and Cyberspace*. Cambridge, MA: MIT Press.
- Navarro, J. F. (1975). *ITU: síntesis de organización, funcionamiento y objetivos de la Union Internacional de Telecomunicaciones (U.I.T)*. Chile: Entel-Chile.
- Noam, E. (1992). *Television in Europe*. New York: Oxford University Press.
- Pinch, T. J., & Bijker, W. E. (1984). The Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology might Benefit Each Other. *Social Studies of Science*, 14 (3), 399–441.
- Simonson, P., Peck, J., Craig, R. T., & Jackson, J. (2013). *The Handbook of Communication History*. London: Routledge.
- Starr, P. (2004). *The Creation of the Media: Political Origins of Modern Communications*. New York: Basic Books.
- Sterling, C. H., Bernt, P. W., & Weiss, M. B. H. (2006). *Shaping American Telecommunications: A History of Technology, Policy, and Economics*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sterling, C. H., & Shiers, G. (2000). *History of Telecommunications Technology: An Annotated Bibliography*. Lanham, MD: Scarecrow Press.
- Tarjanne, P. (1996). (Avant-propos par). In *Union internationale des télécommunications: célèbre 130 années d'existence 1865 – 1995*. Genève: International Telecommunication Union and International Systems and Communications Ltd.
- Vleuten, E. van der. (2008). Toward a Transnational History of Technology: Meanings, Promises, Pitfalls. *Technology and Culture*, 49 (4), 974–994.
- Vleuten, E. van der, & Kaijser, A. (Eds.). (2006). *Networking Europe: Transnational Infrastructures and the Shaping of Europe, 1850-2000*. Sagamore Beach, MA: Science History Publications.
- Wallsten, S. (2005). Returning to Victorian Competition, Ownership, and Regulation: An Empirical Study of European Telecommunications at the Turn of the Twentieth Century. *The Journal of Economic History*, 65 (03), 693–722.
- Winseck, D., & Pike, R. (2007). *Communication and Empire: Media, Markets, and Globalization, 1860-1930*. Durnham, N.C.: Duke University Press.