

## **Euro-Nets - Euro-Channels - Euro-Visions**

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The Workshop „EuroNets-EuroChannels-EuroVisions“, organized by David Gugerli and Barbara Bonhage, Chair of the History of Technology at the Federal Institute of Technology, ETH Zurich, was funded partly by the Swiss National Science Foundation (SNF), partly by the European Science Foundation (ESF). It took place in connection with the European project „Tensions of Europe“ (Co-chaired by Johan Schot and Ruth Oldenziel, both Netherlands). „Tensions of Europe“ is a network of scientists of the history of technology, exploring Europe in the 20th century as shaping and being shaped by technological infrastructures. The subtitle „Towards a History of Telecommunication in 20th-Century Europe“ was both program and central content of the meeting held in Zurich. Some of the participants had already participated in a first exploratory workshop held in September 2002 on the same issue. In contrast to the first workshop where ideas, concepts and approaches towards a history of telecommunications have been exchanged at a round table, this second workshop focused on the discussion of research results. The form of the meeting, on the one hand, allowed the participants to present their research projects and results; on the other hand, it gave room to discuss the findings in the fields of (1) EuroNets, (2) EuroChannels and (3) EuroVisions. On each of these topics four papers were presented which referred to the proposed questions.

- „EuroNets“ addressed an analysis of the whole set of connections between any kind of terminals which serve the wide range of electronic transmission of information from telephone services to remote monitoring of technical infrastructures. Starting from an institutional perspective, organizational problems, system designs and the political economy could be analyzed.

- „EuroChannels“ was meant to open a discussion on social life as being channeled through telecommunications. Analyzing the logic of techniques and the topologies of networks (hierarchies, centralization, distribution), it is assumed that an effect on the organization of institutions as well as on the possibilities of access to the systems can be

demonstrated. In general, aspects of inclusion and exclusion from the technologies should be considered.

- The session „EuroVisions“ set the focus on the specific steps in the process of implementing telecommunication devices. Visions, expectations, promises, fears, warnings, surprises arising in the group of the technicians are seen as being crucial factors for the shaping of technologies. Thus, the shaping of society by means of telecommunication is not assumed as being a predictable, planned or intended process.

In general, the responses to the call for papers, issued towards the end of the year 2002, showed ample interest in the topic. The actual presentations, however, made it very clear from the beginning that a history of telecommunication in 20th-century Europe is still to be written. This, in fact, backed up the most central finding of the first exploratory workshop of September 2002. The work that is in progress is not only very broad regarding the chosen topics; it is also characterized by significant differences in methodological approaches. The presentations, therefore, were not only heterogeneous in themes, but were also originating from different scientific cultures. The joint, enlarged discussion held at the end of every of the three sessions, were suitable to bring these different perspectives together. The central topics, findings and discussions will be resumed in the following according to the course of the three sessions.

### **EuroChannels: Shaping Social Action**

The session opened up a large time period, beginning in the middle of the 19th century and closing with the anticipation of future developments. Furthermore, the European dimension was enlarged by an example of the introduction of networks in the USA. ANA PAULA SILVA (Lisbon) presented the Portuguese politics from the 1850s to the early 20th century in contributing to the inauguration of submarine cable networks. She drew it as a history of international state-run considerations and claims. Foreign cable builders and exploiters repeatedly sought Portugal's cooperation, certainly putting to debate the problem of landing rights in Portuguese territory. Channeling political power in the process of inaugurating submarine cables for telecommunications thus showed a certain cementing of already established relations of political power between the states involved. STEFAN KAUFMANN (Freiburg i.B.) explained the notion of networks in the sense it is understood by

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the US Army establishing a network for remote access, command and control over their soldiers in the future. His paper, concluding in giving insight into the new anthropological concept of the soldier and its collective consciousness, critically and fruitfully integrated the approach of the actors network theory (ANT) as a mirror to the so-called Network Centric Warfare concept. A good deal more explicitly BARBARA BONHAGE (Zurich) and JANNEKE HERMANS (Rotterdam) addressed the channeling of social life due to telecommunication infrastructures in financial markets. The first of these two presentations concentrated on the introduction of the private banking and postal accounts as a socio-technical process. Private accounts became the common method of paying wages and salaries in Europe (at the same time replacing the pay packets) since the early 60s and during the 70s. It thus became one of the central preconditions for the real-time financial markets established since the 80s allowing access at any time from any place. The second paper on aspects of the financial markets made a strong point on the acceleration of the transmission of information during the 20th century, certainly influencing the securities markets with the introduction of digital information and communication technologies. Using the example of the Amsterdam's Stock Exchange, the time span from the 19th century to the beginning of the 21st was captured again in this presentation.

The overall discussion showed complexity in resuming the papers under the roof of EuroChannels. What could be extracted as a common interest was the notion of the vulnerability of all of these telecommunication networks. Social channeling, understood as excluding participants from and including them in the use of the telecommunicative issues, was a common goal of the papers as well.

#### EuroNets: Culture of Efficiency

This session concentrated on networks, understood both as networks for social interaction and as technical infrastructures for telecommunications. To give insight into the shaping of political and specific infrastructural conditions for telecommunications, Pan-European as well as national examples were presented. LEONARD LABO-RIE (Paris) focused on the formation of the „European Conference of Posts and Telecommunications Administrations“ (CEPT) to give insight into the institutional shaping of Europe through telecommunications as a political history of the 1950s

to 1970s. He proposed a perception of Europe as getting to its integration through institutionalization, considering, however, the various viewpoints on technology of the institutions involved. ARI-STOTLE TYMPAS (Athens) described local Greece conditions in the early 20th century to explain telecommunication efficiency as a social issue in peripheral countries. The introduction of phantom lines admittedly affected the stability of telecommunication networks. However, it increased the strongly needed efficiency, given the tendencies of centralization in Greece towards the big cities of Athens-Piraeus, but also Tessaaloniki, Larisa, Patras or Heraclion. He assumed that, in accordance to geography and mentality in Greece and compared to other European countries, greater loss of quality was accepted if increasing efficiency could be reached. PHILIPP ISCHER (Zurich) focused on a national example too: the leased lines of the Swiss public company for post, telephone and telegraphs (PTT) since the 70s. He put a Swiss law of 1992, which allowed the interlinking of the public owned lines with privately established services, in the center of his speech. RONDA HAUBEN (New York) joined this topic by discussing the problem of interlinking already established networks. This was, as she concluded - in contrast to the ARPANET - the concern in establishing the today known and broadly used Internet. She focused on the European contribution in the inauguration of this network.

The joint discussion of the papers produced a certain irritation in bringing the topics together. Efficiency as the proposed central notion, used as metaphor or as argument to convince other actors in developing telecommunication networks, was however seen as a helpful concept in describing the developments. Admittedly, when drawing from the papers presented, a useful and overall definition of the term of networks as an analytical framework could not be gained.

#### EuroVisions: Bargaining Projects

The last session gave a framework for understanding the term „vision“ in two ways. On the one hand, a process of bargaining was meant when television in Europe was introduced. On the other hand, projections, visions and forecasts of technicians were approached analytically to understand the process of introducing new technologies. ONNO DE WIT (Utrecht) opened the discussion with a presentation on the introduction of the „Eurovision“ program in 1954. This was based on a network

of national television transmitter stations that facilitated the exchange of television programs between 23 European countries, which, as the author showed, was not at all motivated by a common European spirit. Ironically, as Eurovision developed mainly into a prefix for the Eurovision Song Contest, it developed more and more into an ideology of overcoming cultural differences and national sentiments. WALTER KAISER (Aachen) gave insights into the difficult process in finding a European standard for television. He showed how political reasoning superseded technology in the 50s. A glass curtain was added to the iron curtain when two different color television systems began to operate in Eastern and Western Europe. He enlarged his presentation with the process of standardization of the European mobile telephony, which successfully developed into a global standard for mobile telephony in the 80s. It was at a time when political interests in Europe, certainly between Germany and France, had changed fundamentally compared to the early post war period. The author thus gave the keyword to PATRICK KAMMERER'S (Zurich) presentation on the GSM (Global system of mobile communication) as a true story of European success in mobile telephony. He illustrated that in the early 80s, when the GSM-project was initiated by the CEPT as „Groupe Speciale Mobile“, nine competing analogue standards existed in Europe. The breakthrough for the European standard came in the late 90s, when GSM had become with a majority of subscribers the de facto global standard for global mobile communications. Finally, KORNELIA KONRAD (Kastanienbaum, CH) presented a clear-cut conceptualization of how to investigate visions in technological development. Drawing from the example of interactive television in the 90s, she demonstrated how expectations guided the involved actors in this technological project. Social expectations, she claimed, reaching beyond the local level should be taken into consideration since they generate specific mechanisms alien to the expectations of individual actors.

The joint discussion of these presentations focused on the conceptualization of envisioning technological developments. It pondered the question of how processes of transformation of society can be gathered not only by considering new technologies, but also by taking into account visions for future developments. The conviction was mostly shared that common or diverging national, trans-

national or e.g. European beliefs play a crucial role in shaping socio-technical settings.

#### Conclusion

The broadness of topics addressed during this workshop was rewarding and, at the same time, opening up a broad field for possible further research projects. During the meeting, common methodological and theoretical concepts were challenged, giving insight in newest findings on telecommunication research as well as into work in process. Above all, it showed that a lot of work is yet to be done to understand the process of the shaping of society and technology interdependently. It became clear that the analysis of this socio-technical process will give insight into past stories of success and failure, it will help to understand mechanisms of exclusion in the contemporary use of telecommunication devices, and it will help to be able to critically observe future developments in the information society. All in all, the workshop was part of creating a net between the participants and other researchers in the field of the history of telecommunications in Europe. It contributed in channeling existing research aims and methods in a productive way, and it gave multiple insights in envisioning promising future research topics.

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