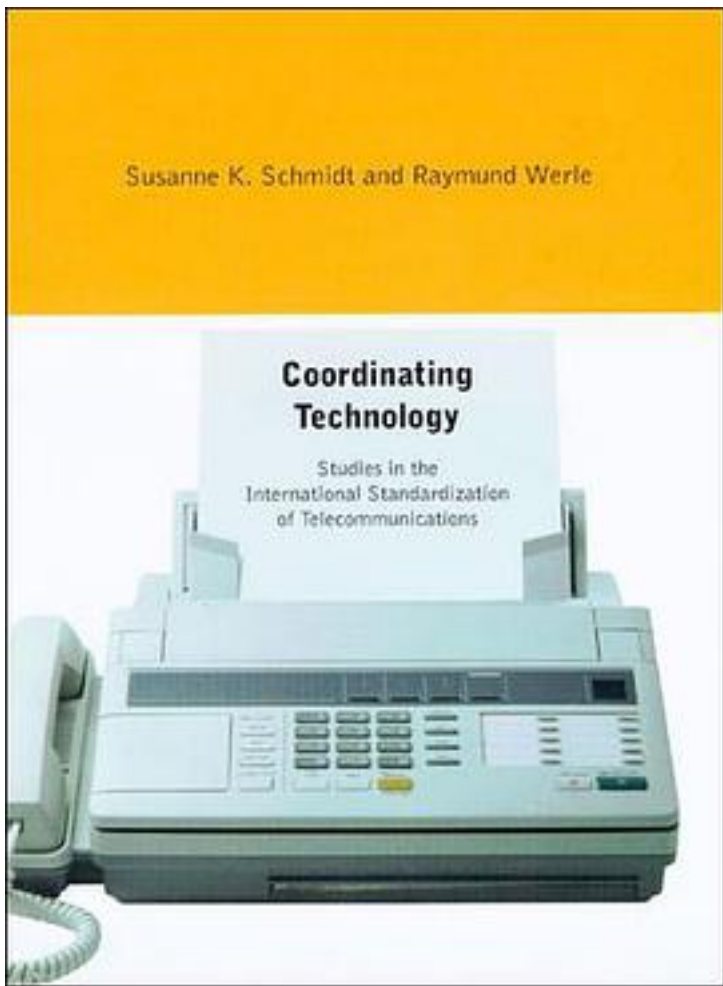# Coordinating Technology

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著者:Susanne K.Schmidt

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Reviewed by Ken Krechmer

Technical Editor, Communications Standards Review

Subtitled "Studies in the International Standardization of Telecommunications," this book provides an excellent background of the International Telecommunications Union (ITU) organization and process. It analyzes four significant ITU standardization projects (from the time when the ITU was called CCITT): Videotex, Group 3 facsimile, Group 3 digital facsimile, and X.400 Message Handling Service (MHS). This background and analysis is developed with extensive references to the current standards literature.

The authors, social scientists, use an actor (ITU standards' meeting participant) centered model of standards development and game theory as a tool to develop their analysis of standards development. Unfortunately this approach does not appear to shed new light on the standards development processes. They note that the actor's multiple motivations (company, career, relationship to other participants, technical, and ITU rules) make the problem difficult to model.

While the book offers an excellent background in the ITU standards process including interaction with related organizations, it is very much removed from market reality. The authors do not address any of the significant patent issues that affected the standards they analyze (e.g., Codex V.29 patent in Group 3 facsimile), nor do they present the standards development within the market forces of the period. The authors note that Group 3 digital facsimile standards development was an attack on Group 4 facsimile standards. But the authors neglect explaining that this occurred due to the weak support in the market for ISDN which is the bearer service for Group 4 facsimile. The authors note that videotex was based on the concept of fixed function terminals, but omit explaining that in the early 1980s the market was beginning to move away from fixed function terminals to personal computers. Failures in the ITU standard's development process often seem (to this writer) to occur when the market moves in different directions than the standards under development suggest.

The authors explain the major power of the Public Telephone and Telegraph (PTT) companies in the ITU but do not explain the PTTs' deployment of the technology they standardize. ITU standards have usually been less successful in the marketplace when the standards support expanded services with in-network capabilities (videotex, ISDN and MHS) and more successful when they support customer premise equipment (G3 facsimile and telephone modems) or in-network capabilities for internal network use (Signalling System 7, Synchronous Digital Hierarchy, Asynchronous Transfer Mode). It appears to this writer that PTTs generally have been marketing risk-adverse, usually not willing to deploy the standards they develop, unless they are also the customer. The one successful deployment of videotex (as noted by the authors), Minitel, occurred when France Telecom decided to fund the deployment of Minitel terminals with savings from a planned reduction in telephone books.

For those interested in ITU standards development, this is one of the few works to address in considerable and accurate detail this large, 133 year old, telecommunications standards leader. However, the author's extensive analysis is not followed with significant synthesis. Those looking for new insights into the process of ITU standards development will need to look further.

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目录:

标签

社会学

标准化

技术社会学

技术争论

评论

书评

这是从技术争论的视角来剖析标准化经验案例的研究成果，Schmidt和Werle做了一些很有启发意义的工作。前不久向Knut教授打听Schmidt的近况，听说他在这个领域已经不复活跃了。