

## BOOK REVIEW/COMPTE RENDU

**Clay Spinuzzi**, *Network: Theorizing Knowledge Work in Telecommunications*. New York: Cambridge University Press, 2008, 240pp. \$US 80.00 hardcover (978-0-521-89504-0)

**D**uring the past two decades or so, sociologists of organizations have paid increased attention to approaches initially developed in the sociology of science and technology, designed to deal of the problem of how (scientific) knowledge is produced and adopted in scientific communities. One of the most influential enterprises in this respect has been ANT, or Actor-Network Theory, developed since the later 1980s by a group of sociologists and anthropologists working at the École des Mines in Paris. Transferring this approach to the sociology of organizations held the promise of providing a conceptual toolbox for dealing with issues of organizational knowledge which were hard to grasp based on standard approaches centered on individual actors. Among others, ANT claimed to do away with the notion of individual human actors and replace it with that of actants, including here artifacts and technological systems.

In parallel with ANT's growth in influence, cognitive anthropology and developmental psychology emphasized more and more knowledge production as a practical activity, anchored in interactions and collaborative processes, and not devoid of contradictions and tensions. While ANT wanted to do away with human actors as a fundamental concept, this branch of developmental social psychology (called activity theory) stressed that, ultimately, the notion of individual actor is a key concept in the analysis of how knowledge is produced.

Which approach is most appropriate for the investigation of organizational knowledge in businesses which no longer fit the picture of a hierarchically organized, manufacturing-centred organization? Spinuzzi sets out to provide readers with an answer to this question by undertaking an ethnographic study (based on interviews and participant observation) of a US telecom company. The core of his book is a presentation side by side of activity theory and of ANT. The result of this conceptual competition is a bit inconclusive. Spinuzzi seems to favour activity theory, but not without first grafting upon it a rather large chunk of ANT's conceptual DNA. He puts forth the notion of activity network as the best way of grasping the communicational features of this type of organization.

While the book is very well written, the conceptual sections are situated right in its middle, requiring readers to come back to the introductory themes, which are laid out in the first sixty pages or so of the manuscript. For instance, after introducing the notion of communicational genre and the repair activities telecom workers are daily confronted with, Clay Spinuzzi sets activity theory and ANT side by side, after which he presents the historical and regulatory background which led to the emergence of hollowed out businesses in the telecom industry. After having done this in the first two thirds of the book, he goes back to the empirical case and discusses again concrete repair activities in the circulation of knowledge within the organizations. This kind of conceptual flashback requires that readers re-interpret and make sense of the opening sequences within the new theoretical frame; the organization of the book is supposed to help readers decide which of the two competing approaches works better (activity theory or ANT).

The focus of Spinuzzi's empirical analysis is how the uses of computer software, of formal and informal documents, as well as oral communication generate and circulate knowledge across various departments in an organization focused not on producing anything, but on providing a set of interrelated services.

Spinuzzi sees such organizations as being without an interior; they are organizations where all work (and workers) are massed at the borders (that is, in the communication with other clients and other organizations). In other words, businesses such as a telecom company which does not lay its own lines but resells to clients capacity bought from other companies is not centered on manufacturing; it is centered on constant external communication. The internal production and distribution of knowledge across departments is geared at maintaining (and repairing) external communications. Due to the high volume of the latter, as well as to its heterogeneity, communicational problems arise constantly, requiring a variety of repairs. Spinuzzi calls such organizations networked organizations, and the type of work done in them net-work.

Net-work makes use of communicational genres, with these latter understood as standardized and interrelated categories of documents (on paper and in electronic form) which are mutually supporting and used by workers in order to manage their own communication and deal with its problems. External communication (with clients and other firms) depends on internal communication; this latter is locally organized and includes personalized forms of knowledge. Therefore, internal communication across departments is prone to problems (such as omissions or misunderstandings) requiring constant repairs and redefinitions. Genres are tools with the help of which workers in various departments do re-

pairs and redefinitions. Without these genres, and without the constant work of internally repairing communication, external communication (i.e., work at the organizational boundaries) would not be possible.

Spinuzzi makes this argument using a conceptual toolbox which includes not only ANT and activity theory, but also other notions from the sociology of science and technology (like boundary objects, for instance), as well as from the philosophy of Gilles Deleuze and Felix Guattari. He also makes an argument which I personally regard as very important, but which somehow remains underdeveloped: namely that in their continuous efforts of repairing internal communications, workers also try to develop cross-departmental personal relationships with each other, as a way of building trust. This personal trust, when present, seems to reduce the amount of repairs needed. These relationships, however, appear to be rather the exception, and thus in themselves they cannot support an intra-organizational network. This is an interesting insight worthy of further elaboration, but the author does not seem to want to pursue it (it is also formulated toward the end of the book). Instead, Clay Spinuzzi closes his book by revisiting the differences between activity theory and ANT, and concludes that while the former is better suited for analyzing modular organizations, the latter can provide more insight into how networked organizations work. I was reminded here of the notion of activity network he had introduced earlier and, while the author emphatically states that he does not want to declare a winner, he also seems to be somehow uncomfortable with giving up the idea of individual actor in his analysis. This is also perhaps because his ethnography is chock full of them, and the most interesting insights come from these actors' efforts at communication repair.

The conclusion also includes a series of practical suggestions about the skills and knowledge required by workers in networked organizations, and how the managers of the latter can address these challenges. Encouraging relationships takes here a prominent role, and this reader wishes the author had spent more time overall on this aspect. Irrespective of this, however, *Network* is a well written, very useful organizational ethnography, raising a series of significant issues about how to conceptualize organizations.

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