

INES ANJA MERGEL

Dissertation Summary

"It's not what you know, but whom you know." In today's knowledge-driven economy, that catchphrase has become a metaphor for the importance of social networks. More generally, the statement is applied to all kinds of activities that fall under the umbrella of networking. This usage makes social networks appear to be just another management fad for organizational researchers to pursue. However, networking concepts and theories are much older than their current fame would suggest. Their origin can be traced back to the anthropologists and sociologists who created them in the second and third decade of the last century. In his seminal work on formal organizations, Blau claimed that it is impossible to understand the nature of a formal organization without investigating the networks of informal relations and comparing them to the official norms (Blau, 1970). The formal organization and networks of informal relations are highly intertwined and overlapping.

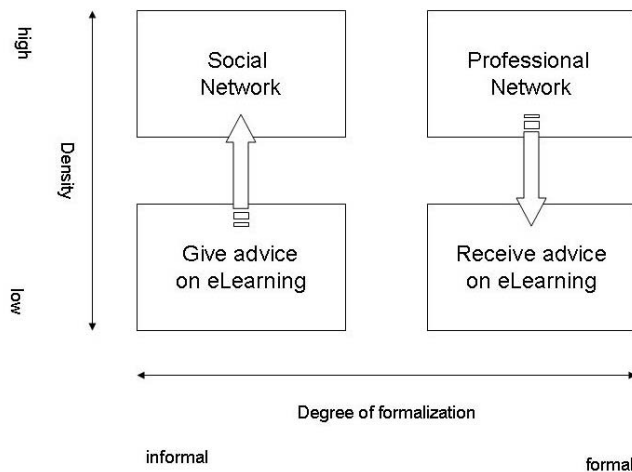
An increasing number of public institutions of higher education are realizing that there is a need to integrate innovative technologies into their curricula in order to enable students to access and review academic content anytime and to connect with each other outside of the classroom. Continuing competition in the higher education market, the internationalization of degrees, and the great efforts exerted in order to attract the best students have initiated a discussion about the flexibility of universities and academic content providers. Many public institutions of higher education have recognized this need and are in the process of introducing new practices in order to meet changing market conditions. These practices are generally referred to as *eLearning practices*. Besides the intended outcomes of digital student support and access to teaching content, applying eLearning practices and integrating them into the traditional existing teaching routines challenges an organization in multiple ways. eLearning has the power to transform the ways faculty members interact with their students and with outside actors in the environment of the university itself. Professors are forced to rethink their pedagogical and institutional roles as they begin to transfer traditional teaching content into online content. It has become necessary for professors to evaluate what kinds of practices are suitable for their needs and to appropriately adapt them to their existing routines. An active decision is needed in order to adopt or reject technological changes.

The aim of this study is to understand the factors that either positively influence or hinder this adoption decision process. To gain a deeper understanding of the patterns and success factors of the adoption of eLearning practices, I apply a social network perspective to the process through which innovative technologies and practices are diffused and adopted by faculty members. I conducted a social network analysis of relational data collected in a Swiss business school. To identify the adoption behavior of those who began to use innovative IT practices, I studied the formal and informal ties of 98 professors. To assess their adoption behavior, I developed a unique research design that applies relational correlation and regression analysis and that uses QAP and MRQAP techniques to understand the influence of social interactions on the decision to adopt an innovative practice. I detected formal, informal, and intra- and interdepartmental social influences and mapped social structure using sociograms. Finally, I employed a triangulation approach: I

conducted additional qualitative interviews in order to make sense of the results and better understand the statements of the respondents.

Overall, the objective of this dissertation is to understand the effects of social relationships on the making of the decision to adopt or reject interactive eLearning media in an institution of higher education. This study quantifies the social structures and examines how they affect respondents' self-reported adoption behavior. The results show that the diffusion of eLearning practices within the studied business school follows two distinct pathways of adoption: a) adoption of traditional eLearning media, and b) the adoption of interactive eLearning media. For these two pathways of adoption that are found in the organization, I deduced a unique set of influence factors. For example, collocation in the Management department combined with external influence from professional information sources mainly leads to the adoption of traditional eLearning media, like PowerPoint or eMail. Surprisingly, a theoretically important attribute of an innovation — its perceived innovativeness — does not have any influence on the decision to adopt within this elite network.

The main objective of this dissertation was to identify patterns of interactions among faculty members of a Swiss business school who were faced with the introduction of innovative eLearning practices that challenged their traditional teaching routines. By applying a unique research design using a multimethod and multilevel approach, I identified factors that influenced the decision of faculty members to either adopt or reject various new technologies. The main findings of this study are:



- (1.) eLearning practices are adopted in two distinct pathways: (a) traditional eLearning media, such as eMail and PowerPoint, and (b) interactive eLearning media, including Teaching Clips, Hypertexts/Web page, Same-Time/Virtual Classroom, Online Chats and Discussion boards;
- (2.) Information about eLearning is actively spread bottom-up through dense informal ties among professors in their social networks;
- (3.) Information about eLearning is spread top-down through formal advice network ties and absorbed passively by the receivers of information;
- (4.) The formal network ties are sparser than the informal network ties.

The study concludes with suggestions for future research on the adoption of organizational practices. Such research could be focused on the incentives of engaging in voluntary projects and the question of how strategic awareness about socially desirable adoption behavior within organizations can be raised.