Chapter II

Beyond Relative Advantage:
Factors in End-User Uptake of Computer Supported Cooperative Work

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ABSTRACT

Researchers in Information Systems have produced a rich collection of meta-analyses and models of factors influencing the uptake of information technologies. In the domain of CSCW, however, these models have largely been neglected, and while there are many case studies, no systematic account of uptake has been produced. We use findings from Information Systems research to structure a meta-analysis of uptake issues as reported in Computer Supported Cooperative Work (CSCW) case studies, supplemented by a detailed re-examination of one of our own case studies from this perspective. This shows that while there are some factors that seem to be largely specific to CSCW introductions, many of the case study results are very similar to standard IS findings. We conclude by suggesting how the two communities of researchers might build on each other’s work.
INTRODUCTION

This paper considers how far established knowledge in the field of Information Systems (IS) about the dimensions underlying the uptake of new technologies can help researchers and practitioners understand uptake in the specific domain of computer supported cooperative work, hereafter CSCW. CSCW is usually treated as a separate domain by its researchers and practitioners, and the community has yet to develop a systematic model of uptake. As we observe at the beginning of section 2, this is a topic where terminology is often ambiguous, but by ‘uptake’, we simply mean the sustained use of the technology for real work or domestic purposes.

CSCW has emerged as a separate domain of research and practice since (at least) the 1988 CSCW conference held in the USA. Since then US CSCW and GROUP (group working) conferences have been held biennially, interspersed with a European series of conferences from 1989 onwards. Other specialist conferences and journals flourish, and explicitly CSCW papers are also to be found in the more general human computer interaction literature. The boundaries of the domain have been the subject of debate in the CSCW community, but a key distinguishing element is a focus on people using technology with the primary aim of enhancing or enabling collaborative activity rather than on people who work together using shared tools such as a multi-user database. More recently, studies of the collaborative use of home and mobile applications have been reported, so the CSCW literature is no longer confined to the world of ‘work’. While CSCW authors offer a variety of explanations for the success or otherwise of such interventions, there are still no overall models of CSCW uptake. (Grudin’s widely-cited discussions of groupware failure and challenges for CSCW systems - Grudin, 1998, 1994; Grudin & Poltrock, 1997 - address some uptake issues, but are more concerned with design challenges rather than the integration of the results of the body of case studies.) By contrast, the IS community has produced many meta-analyses and models of technology uptake, and the literature here is extensive. On the whole, these models are not drawn upon in the CSCW case study literature, although there are some notable exceptions: among others, Kraut et al. (1994), Orlikowski (1992), Orlikowski and Gash (1994) and Okamura et al. (1994), Baker et al. (1999). It is worth remarking that these researchers have their roots in the IS community, in contrast to many CSCW authors whose home disciplines are frequently in sociology, psychology or computer science.

As CSCW researchers and practitioners, we were interested to discover how far the existing IS models and dimensions of end-user uptake (as distinct from organisational acceptance) could account for the heterogeneous collection of CSCW case study findings. IS has a much more mature model of user acceptance
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