Proceedings of the Fourth European Conference on Computer-Supported Cooperative Work,
September 10–14, Stockholm, Sweden
H. Marmolin, Y. Sundblad, and K. Schmidt (Editors)

Why Groupware Succeeds: Discretion or Mandate?

Jonathan Grudin and Leysia Palen
University of California, Irvine, USA

Abstract: Single-user applications are designed with a 'discretionary use' model In contrast, for large systems, upper management support is considered crucial to adoption Which applies to groupware? The relatively low cost of groupware reduces high-level visibility, but some argue that social dynamics will force mandated use—the large system approach Interview studies of recently adopted on-line meeting schedulers in two large organizations found successful, near-universal use achieved without managerial mandate Versatile functionality and ease of use associated with discretionary products appeared to be factors leading to adoption Other factors included organization-wide infrastructure and substantial peer pressure that developed over time

Introduction

Many groupware developers hope to emulate the success of individual productivity software products such as word processors and spreadsheets The use of single-user applications is often discretionary, and they are designed to appeal to discretionary users. Even corporate purchasers who do not themselves use such a product may consult users. Discretionary use and competition have led to emphasis on ease of use and more functionality. In contrast, a large system built or tailored for a specific setting has fewer resources for minor features and interface tuning, and requires users to adjust more A large system has a range of users, not all of whom may benefit from or like it. Studies of the introduction of large systems invariably report that strong backing by upper management is critical to success.

Groupware lies between the two Similarities to large systems include the need to tailor to individual settings and the likelihood of mixed reactions by group

members. It has been argued that groupware success will require mandated use. On the other hand, the low (and downward-spiraling) cost of groupware gives it less visibility in a large organization; it is unlikely that upper management will become involved in promoting every groupware application or feature.

For example, Markus and Connolly (1990) examined social factors in the adoption of groupware tools and concluded that mandated use or other top-down measures appeared necessary for the use of these tools to reach 'critical mass.' In a widely-cited case of groupware adoption (Orlikowski, 1992), a high-level mandate to use LOTUS NOTES received a mixed response, but use continued at Alpha Corp.

However, conflicting signs are present. An interesting aspect of Orlikowski's study is that the technical support staff, under no mandate to use NOTES, adopted it successfully. Markus (1995) studied mandated use of electronic mail in one organization and found that *how* email was used was highly discretionary and varied. And of course the use of email often spreads without a high-level mandate, although email is a risky application from which to generalize about groupware.

By examining factors that underlie cases of successful groupware adoption, our study addresses the tension between the recognized importance of high-level support for large system adoption and the lower visibility groupware can expect.

We examined collaborative meeting schedulers, applications with recent successes that stand in contrast to early, documented failures. About 15 years ago, commercial office systems began to provide meeting scheduling features with electronic calendar applications. Computer-assisted meeting scheduling represented an appealing technical solution to a clearly identified problem: People spend a lot of time arranging and rearranging meetings. Nevertheless, it was difficult to find successful use of the software, even in the development organizations and research laboratories that produced the software and provided widespread access to it. In fact, Grudin (1988) used meeting scheduling to illustrate several factors that contribute to the lack of widespread adoption of some groupware applications.

Today, successful use is more widespread. Electronic meeting scheduling occurs in environments very similar to those where it was not found a decade ago. In this paper we review the findings of the mid-1980s, then describe two detailed interview studies conducted in environments similar in many respects to those examined a decade earlier, but where on-line meeting scheduling is now routine.

The settings we studied are not typical, and we do not claim that the software will soon be universally adopted. Quite the contrary, the settings are special: they are software development organizations. However, meeting scheduling was not adopted in comparable settings a decade earlier. What has changed in the software or in these environments that contributes to current use? What is the adoption process? The actual or potential presence in other settings of such factors, once identified, might signal the usefulness of this or other groupware and suggest adoption processes to expect or encourage.