

Chapter 1

Introduction

Preamble

We are all familiar with cooperative work in our daily lives as we perform tasks where we depend not just on ourselves but also on the efforts of others in order to get the work done. In such instances we often find ourselves spending time and using energy to coordinate our work tasks with the efforts of others. This book is about such coordinative efforts albeit on a somewhat larger scale. That is, the complexity and scope of cooperative work is variable, of course, with some endeavours being more elaborate and complex than others. In the past centuries, developments within industry, technology and not least society at large have resulted in the building process, our case in point, becoming a highly complex cooperative endeavour where sophisticated coordinative practice are in play in order to coordinate and integrate the tasks of hundreds of individuals and scores of organizational units and companies. For those engaged in the building process, planning, designing and constructing a large contemporary building is undoubtedly a source of headaches and exhaustion, broken and made careers as well as pride and joy. To qualify these individuals for this highly complex endeavour most of them have been formally trained and are experienced as architects, building engineers, specialists, masons, carpenters, electricians, painters etc. Based on their acquired skills and experience these actors are able to marry and match a multitude of interdependent cooperative work tasks involving for example the prolonged building design process spanning several design disciplines and organizations as well as the construction process itself involving a multitude of professions and building trades adhering from a plethora of contractors and subcontractors.

The main questions being addressed in this book are these: How do multiple actors from diverse organizations and disciplines achieve concerted action in the building process? Through which practices is such action coordinated and integrated? How can these coordinative practices be conceptualized? How can empirical material

and conceptual frameworks derived from an ethnographic study of the building process inform the design of computational technology in support of cooperative work? These are the fundamental questions asked in this book.

What is the purpose, then, of addressing these questions we may ask? Briefly, the purpose is to provide empirically informed accounts of the building process and discuss concepts of cooperative work and coordinative practices in order to frame technology development. That is, the ultimate purpose is to inform the design of information technology for cooperative work for the potential benefit of the actors in the building process as well as actors in similar complex cooperative work processes elsewhere. However, we will not provide any system designs or technology prototypes. What we will do is provide accounts of cooperative work and coordinative practices that may frame technology development in a potentially useful and innovative manner. An inkling of just how this will play out will be provided next in our 'Introduction to the Chapters' section of the book.

Introduction to the Chapters

The following provides a brief overview of the chapters. The objective is not to repeat the arguments in each chapter, but to provide a sense of how each chapter adds to the emerging views on the building process, including the coordination and integration of cooperative work. Generally speaking, the book starts out somewhat programmatic, becomes descriptive and moves towards discussions of a more conceptual nature.

In Chap. 2, an attempt is made to provide the reader with an introduction to the research program that frames the writing of the book. That is, the 'Practice-Oriented Research Program in CSCW' is revisited.

In Chap. 3, the view from CSCW is compared and contrasted to the tenets of organizational studies in order to further clarify and position the study and the research approached. The first three chapters may be especially helpful for readers that are perhaps unfamiliar with the field of CSCW.

In Chap. 4, the investigation of the building process takes off in earnest. An attempt is made to provide an overview of the building process. It is described as a complex endeavour, constituted by numerous distributed and interdependent tasks carried out by a diverse work ensemble. The tasks in the building process are said mainly to fall within two interconnected domains: design and construction.

In Chap. 5, the question of how design relates to construction and *vice versa* is addressed. It is observed that design and construction are overlapping and interdependent endeavours: Design is related to construction in the sense that design is partly a matter of designing spaces that will need to be realised during construction, and construction is related to design in the sense that construction may be influenced by actions taken previously in design.

In Chap. 6, a case of apprenticeship and visual skills is investigated. It is argued that participating in practices based on complex representation artifacts is an *acquired* skill that can be passed on through apprenticeship.

Chapter 7 addresses the question of how distributed tasks within the building process are integrated and coordinated. A range of specialised coordinative practices described as *articulation work* is accounted for. In addition it is described how distributed tasks can be integrated through individual acting on the physical evidence of work previously accomplished by others.

Chapter 8 sees the creation of the concept of *intrinsic coordination*. It is established in relation to the analysis of the integration of cooperative work tasks, and it is argued that it may be a useful addition to the conceptual toolkit if used in conjunction with concepts such as *articulation work* and *awareness*.

In Chap. 9, the study's implications for the field of computer supported cooperative work (CSCW) are discussed. The focus is not least on how computer technology may support inherent coordination. In addition the main propositions of the study are reiterated and summarised.