Understanding Virtual Design Studios

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Understanding Virtual Design Studios

Springer

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Preface

The idea of a Virtual Design Studio (VDS) has been around for many years. In the early days, establishing a way of transferring documents by file transfer was enough to establish a virtual design studio. Our expectations are greater now. Along with document transfer, we expect to be able to work with others at a distance as if they were in the same physical room. We have seen how email, video conferences, and shared whiteboards can provide environments in which we can do many of the things we are used to doing face to face. The internet has changed the way we communicate at a personal level and now affects the way we work professionally. Along with the new technology and the initial excitement, we have also experienced frustration when our expectations are beyond the capability for the technology to deliver. This frustration is due to the relative immaturity of software solutions to collaboration, and also due to the lack of software support for designing. We cannot just take a set of tools off the shelf and create a virtual design studio. We first need to understand what is possible in a virtual design studio, and then understand what the technology can provide. At a more fundamental level, we need to understand the differences between working in the physical presence of our collaborators and using technology to allow us to communicate at a distance.

This book looks at the range of considerations when establishing a virtual design studio, including the development of shared understanding through representation and communication. Along with these considerations, the book presents alternatives for network technology to address the various needs of collaborating designers. The needs range from the use and transfer of digital media to the feasibility of an online meeting with full video and audio communication. The book addresses these issues in three parts: the basics of a virtual design studio, communication and representation in a virtual design studio, and the comprehensive design studio environment.

In Part I, the basic concepts and technology of the virtual design studio are introduced. The first chapter sets the scenario and then comments on the actual practice of collaborating and designing using network technology. The second chapter presents the basics of network technology, specifically, how the internet works from a designer's point of view. The third chapter is a broad coverage of how we can create design documents entirely as digital media. These chapters cover the fundamentals for setting up a virtual design studio.

In Part II, the focus turns to communication and shared understanding. Chapter 4 presents the technology and strategies for using electronic communication. This is presented according to the type of communication, the tools available to achieve communication, and the implications of choosing one communication medium over another. Chapter 5 complements the communication chapter, where the information being communicated is expressed directly in words among people, to the

communication of the design product through a shared computer representation. The issues in this chapter include the development of a shared organisation and a common vocabulary.

In Part III, different approaches to establishing a virtual design studio are presented. Chapter 6 gives an overview of the implications of a distributed design studio and considers in depth the loosely coupled solution. This distributed approach provides the most flexibility in the use of different technologies, but also requires a significant amount of management to ensure that communication really occurs. Chapter 7 considers the implementation of a central studio, located on a central server, where each participant "goes" in order to be in the virtual design studio. This approach facilitates communication and leaves document management to the individuals.

The book has a related Web site, which provides color versions of some of the illustrations of the book, on-line references to supporting software and other information related to virtual design studios. The URL of the Web site is http://www.arch.usyd.edu.au/kcdc/understanding_vds.

This book does not provide any answers to the problem of effective collaboration in a virtual design studio. Instead, the book tries to develop a better understanding of what is possible and how network technology can make the comprehensive virtual design studio possible.

Mary Lou Maher
Simeon J. Simoff
Anna Cicognani

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