

Preface

Background

Developing models and theories of design is one of the major, growing activities in design research. Yet, many of these theories and models are not widely known. It was, therefore, felt worthwhile to bring together, in a book, an anthology of as many as possible of the major models and theories that have emerged in this relatively young discipline. The other goal of the book was to present the highlights of the discussions that took place during the International Workshop on Models and Theories of Design (IWMT 2013) held at the Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore, India, during 3–5 January 2013. The workshop was organized to support intensive discussion around the theories and models, identify progress, and seek future directions.

This book is intended to provide a ready reference to a comprehensive collection of theories and models in design research, so that these can act as catalysts for further research that is informed by, and based on a better understanding of past effort. The book is meant primarily for young researchers in the area of design theory and methodology.

The editors have a long background in this area. Both have been involved in developing various theoretical and empirical aspects of design theories and models, and conducted as co-chairs several workshops in the past in this area (e.g., 1st Cambridge General Design Theory Workshop 1998, 2nd Cambridge General Design Theory Workshop 1999, and 1st Cambridge Design Synthesis Workshop 1999, all held at Churchill College, Cambridge, UK). Besides, the first author was involved in initiating a series of “Newness of Designs” workshops in Japan in 1997 that were precursors to the 1st Cambridge Design Synthesis Workshop in 1999.

Overview of the Book

The contributions in this book cover three related aspects of research into theories and models of design—philosophical, theoretical, and empirical. The book contains 21 chapters. The editorial chapter summarizes the findings in the book,

a review of some of the major theories and models not covered by the authors in the book, and the major findings from the workshop. The other chapters are written by eminent authors from 15 universities in 11 countries. The book has three parts: Part I—Philosophical Contributions—contains 6 chapters; Part II—Theoretical Contributions—contains 9 chapters; and Part III—Empirical Contributions—contains 5 chapters.

Apart from showcasing a representative cross-section of major contributions in these three aspects, the contributions and discussions attempt to explore three, related (sets of) questions:

- What is a theory or model of design? What is its purpose: what should it describe, explain, or predict?
- What are the criteria it must satisfy to be considered a design theory or model?
- How should a theory or model of design be evaluated or validated?

Even though by no means complete, the contributions and the workshop outcomes showcase the rich and varied tapestry of thoughts, concepts, and results that have emerged in this area. At the same time, they highlight the effort still required to establish a sound theoretical and empirical basis for further research into design.

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We hope that this book will help further theoretical progress by bringing together a wide range of thoughts, approaches, assumptions, concepts, scopes, and foci developed in our research community, and in doing so inspire readers and provide them with a broader basis for their own research.

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