

Preface

This book is an introductory text on design science. It is intended to support both researchers and students in structuring, undertaking, and presenting design science work. The book does not presume any prior knowledge of design science.

Chapter 1 provides an overview of design science and outlines its relationships with empirical research. Chapter 2 discusses the various types and forms of knowledge that can be used and produced by design science research. Chapter 3 gives a brief overview of common empirical research strategies and methods. Chapter 4 introduces a method framework for supporting researchers in doing design science research as well as in presenting design science results. The framework includes five activities, which are described in detail in Chaps. 5–9. Chapter 10 discusses how to communicate design science results. Chapter 11 compares the proposed method framework with methods for systems development and shows how they can be combined. Chapter 12 discusses how design science relates to research paradigms, in particular to positivism and interpretivism. Finally, Chap. 13 discusses ethical issues and principles for design science research.

The book offers an introduction to design science, and almost all of the topics covered can be pursued to a much deeper level. In order to help readers to find their way through relevant works, the sections on further reading provide numerous pointers to the literature. Furthermore, complementary multi-media material can be found at the book's web site at <http://introtodesignscience.wordpress.com/>.

The book builds on established design science methods as well as recent work on presenting design science studies and ethical principles for design science. The book also offers novel instruments for visualising design science results, both in the form of process diagrams and through a canvas format.

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