Preface

The constantly changing landscape of web design and development makes it challenging for experts and practitioners to stay informed of the field’s most up-to-date research. That is why Information Science Reference is pleased to offer this three-volume reference collection that will empower students, researchers, and academicians with a strong understanding of critical issues within web design and development by providing both broad and detailed perspectives on cutting-edge theories and developments. This reference is designed to act as a single reference source on conceptual, methodological, technical, and managerial issues, as well as provide insight into emerging trends and future opportunities within the discipline.

*Web Design and Development: Concepts, Methodologies, Tools and Applications* is organized into eight distinct sections that provide comprehensive coverage of important topics. The sections are:

1. Fundamental Concepts and Theories,
2. Frameworks and Methodologies,
3. Tools and Technologies,
4. Cases and Application,
5. Critical Issues, and

The following paragraphs provide a summary of what to expect from this invaluable reference tool.

Section 1, *Fundamental Concepts and Theories*, serves as a foundation for this extensive reference tool by addressing crucial theories essential to the understanding of web design and development. Introducing the book is “Get Out of My Sandbox: Web Publication, Authority, and Originality” by Barbara Bordalejo, a great foundation laying the groundwork for the basic concepts and theories that will be discussed throughout the rest of the book. Another chapter of note in Section 1 is titled “The Role of Electronic Signature in the Third Millennium of the Development of International Trade Transactions” by Amir Bagherian and colleagues. Section 1 concludes, and leads into the following portion of the book with a nice segue chapter, “Complex Adaptive Systems Thinking Approach to Enterprise Architecture,” by Marc Rabaey. Where Section 1 leaves off with fundamental concepts, Section 2 discusses architectures and frameworks in place for web design and development.

Section 2, *Frameworks and Methodologies*, presents in-depth coverage of the conceptual design and architecture of web design and development. Opening the section is “First Steps in the Development of a Model for Integrating Formal and Informal Learning in Virtual Environments” by Victoria I. Marín and Jesús Salinas. Through case studies, this section lays excellent groundwork for later sections that will get into present and future applications for web design and development, such as: “Designing and
Preface

Delivering Web-Based Instruction to Adult Learners in Higher Education” by Mabel C. P. O. Okojie. The section concludes with an excellent work by Evelina Pencheva, titled “Design of Web Services for Mobile Monitoring and Access to Measurements.”

Section 3, Tools and Technologies, presents extensive coverage of the various tools and technologies used in the implementation of web design and development. Section 3 begins where Section 2 left off, though this section describes more concrete tools at place in the modeling, planning, and applications of web design and development. The first chapter, “Information Architecture for Pervasive Healthcare Information Provision with Technological Implementation,” by Chekfonung Tan and Shixiong Liu, lays a framework for the types of works that can be found in this section. Section 3 is full of excellent chapters like this one, including “Supporting Accessible User Interfaces Using Web Services” by Georgios Bouloukakis and colleagues. The section concludes with “Tracing the Use of Communication Technologies in Higher Education” by Fernando Ramos and colleagues. Where section 3 described specific tools and technologies at the disposal of practitioners, section 4 describes successes, failures, best practices, and different applications of the tools and frameworks discussed in previous sections.

Section 4, Cases and Application, describes how the broad range of web design and development efforts has been utilized and offers insight on and important lessons for their applications and impact. The first chapter in the section is titled “Using Website Analysis as a Tool for Computer Assisted Language Learning in a Foreign Language Classroom” written by Debopriyo Roy. Section 4 includes the widest range of topics because it describes case studies, research, methodologies, frameworks, architectures, theory, analysis, and guides for implementation. The breadth of topics covered in the chapter is also reflected in the diversity of its authors, from countries all over the globe. Another chapter of note is “Increasing Research Students’ Engagement through Virtual Communities” by Maria Limniou, Clare Holdcroft, and Paul S. Holme. Section 4 concludes with an excellent segue into the next section, “Actor Network Theory Applied to Organizational Change: A Case Study” by Carlos Páscoa and José Tribolet.

Section 5, Critical Issues, presents coverage of academic and research perspectives on web design and development tools and applications. The section begins with “How Interface Design and Search Strategy Influence Children’s Search Performance and Evaluation,” by Hanna Jochmann-Mannak, Leo Lentz, Theo Huibers, and Ted Sanders. Chapters in this section will look into theoretical approaches and offer alternatives to curtail questions on the subject of web design and development such as: “From Adoption to Routinization of B2B e-Commerce: Understanding Patterns across Europe” written by Tiago Oliveira and Gurpreet Dhillon. The section concludes with “A Business Motivation Model for IT Service Management” by Marco Vicente, Nelson Gama, and Miguel Mira da Silva.

Section 6, Emerging Trends, highlights areas for future research within the field of web design and development, opening with “Challenges, Opportunities, and Trends in Quality K-12 Online Environments” by Marius Boboc. Section 8 contains chapters that look at what might happen in the coming years that can extend the already staggering amount of applications for web design and development. The final chapter of the book looks at an emerging field within web design and development, in the excellent contribution, “‘Talking Tools’: Sloyd Processes Become Multimodal Stories with Smartphone Documentation” by Annika Wiklund-Engblom and colleagues.

Although the primary organization of the contents in this multi-volume work is based on its six sections, offering a progression of coverage of the important concepts, methodologies, technologies, applications, social issues, and emerging trends, the reader can also identify specific contents by utilizing the extensive indexing system listed at the end of each volume. As a comprehensive collection of
research on the latest findings related to using technology to providing various services, Web Design and Development: Concepts, Methodologies, Tools and Applications, provides researchers, administrators and all audiences with a complete understanding of the development of applications and concepts in web design and development. Given the vast number of issues concerning usage, failure, success, policies, strategies, and applications of web design and development in countries around the world, Web Design and Development: Concepts, Methodologies, Tools and Applications addresses the demand for a resource that encompasses the most pertinent research in technologies being employed to globally bolster the knowledge and applications of web design and development.