A Pattern Approach To Interaction Design Wiley Software Patterns Series

The four-volume set LNAI 6881-LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 4: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 46 papers of Part 4 are organized in topical sections on human activity support in knowledge society, knowledge-based interface systems, model-based computing for innovative engineering, document analysis and knowledge science, immunity-based systems, natural language visualisation advances in theory and application of hybrid intelligent systems.

This four volume set provides the complete proceedings of the 10th International Conference on Human-Computer Interaction held June, 2003 in Crete, Greece. A total of 2,986 individuals from industry, academia, research institutes, and governmental agencies from 59 countries submitted their work for presentation at the conference. The papers address

Technology is meant to make life easier and to raise its quality. Our interaction with technology should be designed according to human needs instead of us being required to adapt to technology. Even so, technology may change quickly and people and their habits change slowly. With the aim of supporting user acceptance of iTV, the focus of this book is on the usability of iTV applications. A method for developing interaction design patterns especially for new technologies is presented for the first time. The main characteristics covered in this new approach are: systematic identification of recurrent design problems; usability as a quality criterion for design solutions; integration of designers into the pattern development process including identification of designers' needs, and iterative evaluation and optimisation of patterns to encourage designers to accept and use them; usability testing to identify proven design solutions and their trade-offs; presentation of specific design guidelines.

People rely on implicit interaction in their everyday interactions with one another to exchange queries, offers, responses, and feedback without explicit communication. A look with the eyes, a wave of the hand, the lift of the door handle—small moves can do a lot to enable joint action with elegance and economy. This work puts forward a theory that these implicit patterns of interaction with one another drive our expectations of how we should interact with devices. I introduce the Implicit Interaction Framework as a tool to map out interaction trajectories, and we use these trajectories to better understand the interactions transpiring around us. By analyzing everyday implicit interactions for patterns and tactics, designers of interactive devices can better understand how to design interactions that work or to remedy interactions that fail. This book looks at the “smart,” “automatic,” and “interactive” devices that increasingly permeate our everyday lives—doors, switches, whiteboards—and provides a close reading of how we interact with them. These vignettes add to the growing body of research targeted at teasing out the factors at play in our interactions. I take a look at current research, which indicates that our reactions to interactions are social, even if the entities we are interacting with are not human. These research insights are applied to allow us to refine and improve interactive devices so that they work better in the context of our day-to-day lives. Finally this book looks to the future, and outlines considerations that need to be taken into account in prototyping and validating devices that employ implicit interaction.

Interest in visualization design has increased in recent years. While there is a large body of existing work from which visualization designers can draw, much of the past research has focused on developing new tools and techniques that are aimed at specific contexts. Less focus has been placed on developing holistic frameworks, models, and theories that can guide visualization design at a general level—a level that transcends domains, data types, users, and other contextual factors. In addition, little emphasis has been placed on the thinking processes of designers, including the concepts that designers use, while they are engaged in a visualization design activity. In this book we present a general, holistic framework that is intended to support visualization design for human-information interaction. The framework is composed of a number of conceptual elements that can aid in design thinking. The core of the framework is a pattern language—consisting of a set of 14 basic, abstract patterns—and a simple syntax for describing how the patterns are blended. We also present a design process, made up of four main stages, for creating static or interactive visualizations. The 4-stage design process places the patterns at the core of designers’ thinking, and employs a number of conceptual tools that help designers think systematically about creating visualizations based on the information they intend to represent. Although the framework can be used to design static visualizations for simple tasks, its real utility can be found when designing visualizations with interactive possibilities in mind—in other words, designing to support a human-information interactive discourse. This is especially true in contexts where interactive visualizations need to support complex tasks and activities involving large and complex information spaces. The framework is intended to be general and can thus be used to design visualizations for diverse domains, users, information spaces, and tasks in different fields such as business intelligence, health and medical informatics, digital libraries, journalism, education, scientific discovery, and others. Drawing from research in multiple disciplines, we introduce novel concepts and terms that can positively contribute to visualization design practice and education, and will hopefully stimulate further research in this area.

The IFIP World Computer Congress (WCC) is one of the most important conferences in the area of computer science at the worldwide level and it has a federated structure, which takes into account the rapidly growing and expanding interests in this area. Informatics is rapidly changing and becoming more and more connected to a number of human and social science disciplines. Human–computer interaction is now a mature and still dynamically evolving part of this area, which is represented in IFIP by the Technical Committee 13 on HCI. In this WCC edition it was interesting and useful to have again a Symposium on Human–Computer Interaction in order to p- sent and discuss a number of contributions in this field. There has been increasing awareness among designers of interactive systems of the importance of designing for usability, but we are still far from having products that are really usable, and usability can mean different things depending on the app- cation domain. We are all aware that too many users of current technology often feel frustrated because computer systems are not compatible with their abilities and needs in existing work practices. As designers of tomorrow’s technology, we have the - sponsibility of creating computer artifacts that would permit better user experience with the various computing devices, so that users may enjoy more satisfying expe- ences with information and communications technologies.

Here is the fourth of a four-volume set that constitutes the refereed proceedings of the 12th International Conference on Human-Computer Interaction, HCII 2007, held in Beijing, China, jointly with eight other thematically similar conferences. It covers business applications; learning and entertainment; health applications; work and collaboration support; web-based and mobile applications; as well as, advanced design and development support.

A much-needed guide on how to apply patterns in user interface design While the subject of design patterns for software

development has been covered extensively, little has been written about the power of the pattern format in interface design. A Pattern Approach to Interactive Design remedies this situation, providing for the first time an introduction to the concepts and application of patterns in user interface design. The author shows interface designers how to structure and capture user interface design knowledge from their projects and learn to understand each other's design principles and solutions. Key features of this book include a comprehensive pattern language for the interface design of interactive exhibits as well as a thorough introduction to original pattern work and its application in software development. The book also offers invaluable practical guidance for interface designers, project managers, and researchers working in HCI, as well as for designers of interactive systems.

This edited book explores the many interesting questions that lie at the intersection between AI and HCI. It covers a comprehensive set of perspectives, methods and projects that present the challenges and opportunities that modern AI methods bring to HCI researchers and practitioners. The chapters take a clear departure from traditional HCI methods and leverage data-driven and deep learning methods to tackle HCI problems that were previously challenging or impossible to address. It starts with addressing classic HCI topics, including human behaviour modeling and input, and then dedicates a section to data and tools, two technical pillars of modern AI methods. These chapters exemplify how state-of-the-art deep learning methods infuse new directions and allow researchers to tackle long standing and newly emerging HCI problems alike. Artificial Intelligence for Human Computer Interaction: A Modern Approach concludes with a section on Specific Domains which covers a set of emerging HCI areas where modern AI methods start to show real impact, such as personalized medical, design, and UI automation.

This book constitutes the refereed proceedings of the Third Workshop on Human-Computer Interaction and Knowledge Discovery, HCI-KDD 2013, held in Maribor, Slovenia, in July 2013, at SouthCHI 2013. The 20 revised papers presented were carefully reviewed and selected from 68 submissions. The papers are organized in topical sections on human-computer interaction and knowledge discovery, knowledge discovery and smart homes, smart learning environments, and visualization data analytics.

This introductory volume to Alexander's other works, A Pattern of Language and The Oregon Experiment, explains concepts fundamental to his original approaches to the theory and application of architecture

This book covers the proceedings of INTERACT 2001 held in Tokyo, Japan, July 2001. The conference covers human-computer interaction and topics presented include: interaction design, usability, novel interface devices, computer supported co-operative works, visualization, and virtual reality. The papers presented in this book should appeal to students and professionals who wish to understand multimedia technologies and human-computer interaction.

Want to learn how to create great user experiences on today's Web? In this book, UI experts Bill Scott and Theresa Neil present more than 75 design patterns for building web interfaces that provide rich interaction. Distilled from the authors' years of experience at Sabre, Yahoo!, and Netflix, these best practices are grouped into six key principles to help you take advantage of the web technologies available today. With an entire section devoted to each design principle, Designing Web Interfaces helps you: Make It Direct-Edit content in context with design patterns for In Page Editing, Drag & Drop, and Direct Selection Keep It Lightweight-Reduce the effort required to interact with a site by using In Context Tools to leave a "light footprint" Stay on the Page-Keep visitors on a page with overlays, inlays, dynamic content, and in-page flow patterns Provide an Invitation-Help visitors discover site features with invitations that cue them to the next level of interaction Use Transitions-Learn when, why, and how to use animations, cinematic effects, and other transitions React Immediately-Provide a rich experience by using lively responses such as Live Search, Live Suggest, Live Previews, and more Designing Web Interfaces illustrates many patterns with examples from working websites. If you need to build or renovate a website to be truly interactive, this book gives you the principles for success.

The two-volume set LNCS 10271 and 10272 constitutes the refereed proceedings of the 19th International Conference on Human-Computer Interaction, HCII 2017, held in Vancouver, BC, Canada, in July 2017. The total of 1228 papers presented at the 15 colocated HCII 2017 conferences was carefully reviewed and selected from 4340 submissions. The papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. They cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The papers included in this volume cover the following topics: HCI theory and education; HCI, innovation and technology acceptance; interaction design and evaluation methods; user interface development; methods, tools, and architectures; multimodal interaction; and emotions in HCI.

Written by well-respected experts, this how-to guide provides patterns for the design of human computer human interaction (HCHI). An increasing number of applications are currently designed for use by more than one user, eg: multi-player games, interactive web sites, mobile phones, collaborative learning systems, interactive workspaces and smart environments. In these areas there is a shift from (HCI) human computer interaction to (HCHI) human computer human interaction. The role of patterns in this movement is twofold: 1st – patterns focus on the human user of the system; 2nd – patterns assist developers in the development process of groupware applications.

Patterns in Mathematics Classroom Interaction describes, exemplifies and considers the implications of patterns and structures of mathematics classroom interaction.

This book is part of a two-volume work that constitutes the refereed proceedings of the 11th IFIP TC13 International Conference on Human-Computer Interaction, INTERACT 2007, held in Rio de Janeiro, Brazil in September 2007. It covers social computing, UI prototyping, user centered design methods and techniques, intelligent user interfaces, accessibility, designing for multiples devices, affective computing, 3D interaction and 3D interfaces, as well evaluation methods.

This book constitutes the refereed proceedings of the First International Conference on Service-Oriented Computing, ICSOC 2003, held in Trento, Italy in December 2003. The 38 revised full papers presented were carefully reviewed and selected from 181 submissions. The papers are organized in topical sections on service description, service composition, quality of service models, service personalization, service semantics, business processes and transactions, business collaborations, service request and coordination, service security and reliability, infrastructure for service delivery, service P2P and grid computing, service and mobile computing, and service computing and applications.

Engineering Interactive Systems 2007 is an IFIP working conference that brings together researchers and practitioners interested in strengthening the scientific foun- tions of user interface design, examining the relationship between software engine- ing (SE) and human–computer interaction (HCI) and on how user-centerd design (UCD) could be strengthened as an essential part of the software engineering process. Engineering Interactive Systems 2007 was created by merging three conferences: • HCSE 2007 – Human-Centerd Software Engineering held for the first time. The HCSE Working Conference is a multidisciplinary conference entirely dedicated to advancing

the basic science and theory of human-centerd software systems engineering. It is organized by IFIP WG 13.2 on Methodologies for User-Centerd Systems Design. • EHCI 2007 – Engineering Human Computer Interaction was held for the tenth time. EHCI aims to investigate the nature, concepts, and construction of user interfaces for software systems. It is organized by IFIP WG 13.4/2.7 on User Interface Engineering. • DSV-IS 2007 – Design, Specification and Verification of Interactive Systems was held for the 13th time. DSV-IS provides a forum where researchers wo- ing on model-based techniques and tools for the design and development of - teractive systems can come together with practitioners and with those working on HCI models and theories.

Computing devices have become ever more present in our everyday environments, however embedding these technologies into our routines has remained a challenge. This book explores the novel theory of peripheral interaction to rectify this. This theory examines how interactive systems can be developed in such a way to allow people to seamlessly interact with their computer devices, but only focus on them at relevant times, building on the way in which people effortlessly divide their attention over several everyday activities in day to day life. Capturing the current state of the art within the field, this book explores the history and foundational theories of peripheral interaction, discusses novel interactive styles suitable for peripheral interaction, addresses different application domains which can benefit from peripheral interaction and presents visions of how these developments can have a positive impact on our future lives. As such, this book's aim is to contribute to research and practice in fields such as human-computer interaction, ubiquitous computing and Internet of Things, a view on how interactive technology could be redesigned to form a meaningful, yet unobtrusive part of people's everyday lives. Peripheral Interaction will be highly beneficial to researchers and designers alike in areas such as HCI, Ergonomics and Interaction Design.

This four-volume set LNCS 6761-6764 constitutes the refereed proceedings of the 14th International Conference on Human-Computer Interaction, HCII 2011, held in Orlando, FL, USA in July 2011, jointly with 8 other thematically similar conferences. The revised papers presented were carefully reviewed and selected from numerous submissions. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The papers of this first volume are organized in topical sections on HCI design, model-based and patterns-based design and development, cognitive, psychological and behavioural issues in HCI, development methods, algorithms, tools and environments, and image processing and retrieval in HCI.

This book constitutes the referred proceedings of the First IFIP WG 13.7 International Workshop on Human Aspects of Visualization, HCIV 2009, held in Uppsala, Sweden, in August 2009, as a satellite workshop of INTERACT 2009. The 11 revised full papers presented were carefully reviewed and selected from numerous submissions. These articles in this book give an overview of important issues concerning human-computer interaction and information visualization. They highlight the research required to understand what aspects of analysis match human capabilities most closely and how interactive visual support should be designed and adapted to make optimal use of human capabilities in terms of information perception and processing.

With hundreds of thousands of mobile applications available today, your app has to capture users immediately. This book provides practical techniques to help you catch—and keep—their attention. You'll learn core principles for designing effective user interfaces, along with a set of common patterns for interaction design on all types of mobile devices. Mobile design specialists Steven Hoober and Eric Berkman have collected and researched 76 best practices for everything from composing pages and displaying information to the use of screens, lights, and sensors. Each pattern includes a discussion of the design problem and solution, along with variations, interaction and presentation details, and antipatterns. Compose pages so that information is easy to locate and manipulate Provide labels and visual cues appropriate for your app's users Use information control widgets to help users quickly access details Take advantage of gestures and other sensors Apply specialized methods to prevent errors and the loss of user-entered data Enable users to easily make selections, enter text, and manipulate controls Use screens, lights, haptics, and sounds to communicate your message and increase user satisfaction "Designing Mobile Interfaces is another stellar addition to O'Reilly's essential interface books. Every mobile designer will want to have this thorough book on their shelf for reference." —Dan Saffer, Author of Designing Gestural Interfaces

The four LNCS volume set 9175-9178 constitutes the refereed proceedings of the 9th International Conference on Learning and Collaboration Technologies, UAHCI 2015, held as part of the 17th International Conference on Human-Computer Interaction, HCII 2015, in Los Angeles, CA, USA in August 2015, jointly with 15 other thematically similar conferences. The total of 1462 papers and 246 posters presented at the HCII 2015 conferences were carefully reviewed and selected from 4843 submissions. These papers of the four volume set address the following major topics: LNCS 9175, Universal Access in Human-Computer Interaction: Access to today's technologies (Part I), addressing the following major topics: LNCS 9175: Design and evaluation methods and tools for universal access, universal access to the web, universal access to mobile interaction, universal access to information, communication and media. LNCS 9176: Gesture-based interaction, touch-based and haptic Interaction, visual and multisensory experience, sign language technologies, and smart and assistive environments LNCS 9177: Universal Access to Education, universal access to health applications and services, games for learning and therapy and cognitive disabilities and cognitive support and LNCS 9178: Universal access to culture, orientation, navigation and driving, accessible security and voting, universal access to the built environment and ergonomics and universal access.

This book examines the theoretical and methodological research issues that underlie the design and use of interactive technology. The analysis directs attention to three human capacities: cognition, communication and interaction. The examination of these capacities is embedded in understanding concepts of communication and interaction and their application; conceptions of knowledge and cognition; and the role of aesthetics and ethics in design.

INTERACT 2009 was the 12th of a series of INTERACT international c- ferences supported by the IFIP Technical Committee 13 on Human–Computer Interaction. This year,INTERACT washeld in Uppsala (Sweden), organizedby the Swedish Interdisciplinary Interest Group for Human–Computer Interaction (STIMDI) in cooperation with the Department of Information Technology at Uppsala University. Like its predecessors, INTERACT 2009 highlighted, both to the academic and to the industrial world, the importance of the human–computer interaction (HCI) area and its most recent breakthroughs on current applications. Both - perienced HCI researchers and professionals, as well as newcomers to the HCI ?eld, interested in designing or evaluating interactive software, developing new interaction technologies, or investigating overarching theories of HCI, found in INTERACT 2009 a great forum for communication with people of similar int- ests, to encourage collaboration and to learn. INTERACT 2009 had Research and Practice as its special theme. The r- son we selected this theme is that the research within the ?eld has drifted away from the practicalapplicability of its results and that the HCI practice has come to disregard the knowledge and development within the academic community.

This agenda-setting book presents state of the art research in Music and Human-Computer Interaction (also known as 'Music Interaction'). Music Interaction research is at an exciting and formative stage. Topics discussed include interactive music systems, digital and virtual musical instruments, theories, methodologies and technologies for Music

Interaction. Musical activities covered include composition, performance, improvisation, analysis, live coding, and collaborative music making. Innovative approaches to existing musical activities are explored, as well as tools that make new kinds of musical activity possible. Music and Human-Computer Interaction is stimulating reading for professionals and enthusiasts alike: researchers, musicians, interactive music system designers, music software developers, educators, and those seeking deeper involvement in music interaction. It presents the very latest research, discusses fundamental ideas, and identifies key issues and directions for future work.

The 13th International Conference on Human–Computer Interaction, HCI Inter- tional 2009, was held in San Diego, California, USA, July 19–24, 2009, jointly with the Symposium on Human Interface (Japan) 2009, the 8th International Conference on Engineering Psychology and Cognitive Ergonomics, the 5th International Conference on Universal Access in Human–Computer Interaction, the Third International Conf- ence on Virtual and Mixed Reality, the Third International Conference on Internati- alization, Design and Global Development, the Third International Conference on Online Communities and Social Computing, the 5th International Conference on Augmented Cognition, the Second International Conference on Digital Human Mod- ing, and the First International Conference on Human Centered Design. A total of 4,348 individuals from academia, research institutes, industry and gove- mental agencies from 73 countries submitted contributions, and 1,397 papers that were judged to be of high scientific quality were included in the program. These papers - dress the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human–computer interaction, addressing major advances in the knowledge and effective use of computers in a variety of application areas.

A new edition of the #1 text in the human computer Interaction field! Hugely popular with students and professionals alike, the Fifth Edition of Interaction Design is an ideal resource for learning the interdisciplinary skills needed for interaction design, human-computer interaction, information design, web design, and ubiquitous computing. New to the fifth edition: a chapter on data at scale, which covers developments in the emerging fields of 'human data interaction' and data analytics. The chapter demonstrates the many ways organizations manipulate, analyze, and act upon the masses of data being collected with regards to human digital and physical behaviors, the environment, and society at large. Revised and updated throughout, this edition offers a cross-disciplinary, practical, and process-oriented, state-of-the-art introduction to the field, showing not just what principles ought to apply to interaction design, but crucially how they can be applied. Explains how to use design and evaluation techniques for developing successful interactive technologies Demonstrates, through many examples, the cognitive, social and affective issues that underpin the design of these technologies Provides thought-provoking design dilemmas and interviews with expert designers and researchers Uses a strong pedagogical format to foster understanding and enjoyment An accompanying website contains extensive additional teaching and learning material including slides for each chapter, comments on chapter activities, and a number of in-depth case studies written by researchers and designers.

This is the first of a three-volume set that constitutes the refereed proceedings of the 4th International Conference on Universal Access in Human-Computer Interaction, UAHCI 2007, held in Beijing, China. It covers designing for universal access, universal access methods, techniques and tools, understanding motor diversity, perceptual and cognitive abilities, as well as understanding age diversity.

Classroom interaction has a significant influence on teaching and learning. It is through interaction that we solve problems, build ideas, make connections and develop our understanding. Patterns in Mathematics Classroom Interaction describes, exemplifies and considers the implications of patterns and structures of mathematics classroom interaction. Drawing on a Conversation Analytic approach, the book examines how the structures of interactions between teachers and students influence, enable, and constrain the mathematics that students are experiencing and learning in school. In particular, it considers the handling of difficulties or errors and the consequences on both the mathematics students are learning, and the learning of this mathematics. The various roles of silence and the treatment of knowledge and understanding within everyday classroom interactions also reveal the nature of mathematics as it is taught in different classrooms. Examples of students explaining, reasoning and justifying as they interact are also drawn upon to examine how the structures of classroom interaction support students to develop these discursive practices. The approach taken in Patterns in Mathematics Classroom Interaction enables the identification of not only what structures exist and pervade classroom discourse, but also how these structures influence teaching and learning. It is the understanding of how these structures affect students' experiences in the classroom that permits the use and development of practices that can support students' learning. This reflexive relationship between these structures of interactions and student actions and learning is central to the issues explored in this book, alongside the implications these may have for teachers' practice, and students' learning.

Here is the first of a four-volume set that constitutes the refereed proceedings of the 12th International Conference on Human-Computer Interaction, HCII 2007, held in Beijing, China, jointly with eight other thematically similar conferences. It covers interaction design: theoretical issues, methods, techniques and practice; usability and evaluation methods and tools; understanding users and contexts of use; and models and patterns in HCI.

As its name suggests, the EHCI-DSVIS conference has been a special event, merging two different, although overlapping, research communities: EHCI (Engineering for Human-Computer Interaction) is a conference organized by the IFIP 2.7/13.4 working group, started in 1974 and held every three years since 1989. The group’s activity is the scientific investigation of the relationships among the human factors in computing and software engineering. DSVIS (Design, Specification and Verification of Interactive Systems) is an annual conference started in 1994, and dedicated to the use of formal methods for the design of interactive systems. Of course these two research domains have a lot in common, and are informed by each other’s results. The year 2004 was a good opportunity to bring closer these two

research communities for an event, the 11th edition of DSVIS and the 9th edition of EHCI. EHCI-DSVIS was set up as a working conference bringing together researchers and practitioners interested in strengthening the scientific foundations of user interface design, specification and verification, and in examining the relationships between software engineering and human-computer interaction. The call for papers attracted a lot of attention, and we received a record number of submissions: out of the 65 submissions, 23 full papers were accepted, which gives an acceptance rate of approximately 34%. Three short papers were also included. The contributions were categorized in 8 chapters: Chapter 1 (Usability and Software Architecture) contains three contributions which advance the state of the art in usability approaches for modern software engineering.

For the last 20 years the dominant form of user interface has been the Graphical User Interface (GUI) with direct manipulation. As software gets more complicated and more and more inexperienced users come into contact with computers, enticed by the World Wide Web and smaller mobile devices, new interface metaphors are required. The increasing complexity of software has introduced more options to the user. This seemingly increased control actually decreases control as the number of options and features available to them overwhelms the users and 'information overload' can occur (Lachman, 1997). Conversational anthropomorphic interfaces provide a possible alternative to the direct manipulation metaphor. The aim of this paper is to investigate users reactions and assumptions when interacting with anthropomorphic agents. Here we consider how the level of anthropomorphism exhibited by the character and the level of interaction affects these assumptions. We compared characters of different levels of anthropomorphic abstraction, from a very abstract character to a realistic yet not human character. As more software is released for general use with anthropomorphic interfaces there seems to be no consensus of what the characters should look like and what look is more suited for different applications. Some software and research opts for realistic looking characters (for example, Haptek Inc., see http://www.haptek.com). others opt for cartoon characters (Microsoft, 1999) others opt for floating heads (Dohi & Ishizuka, 1997; Takama & Ishizuka, 1998; Koda, 1996; Koda & Maes, 1996a; Koda & Maes, 1996b).

Provides information on designing easy-to-use interfaces.

The 3-volume set LNCS 9731, 9732, and 9733 constitutes the refereed proceedings of the 18th International Conference on Human-Computer Interaction, HCII 2016, held in Toronto, ON, Canada, in July 2016. The total of 1287 papers and 186 posters presented at the HCII 2016 conferences and were carefully reviewed and selected from 4354 submissions. The papers thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The volumes constituting the full 27-volume set of the conference proceedings.