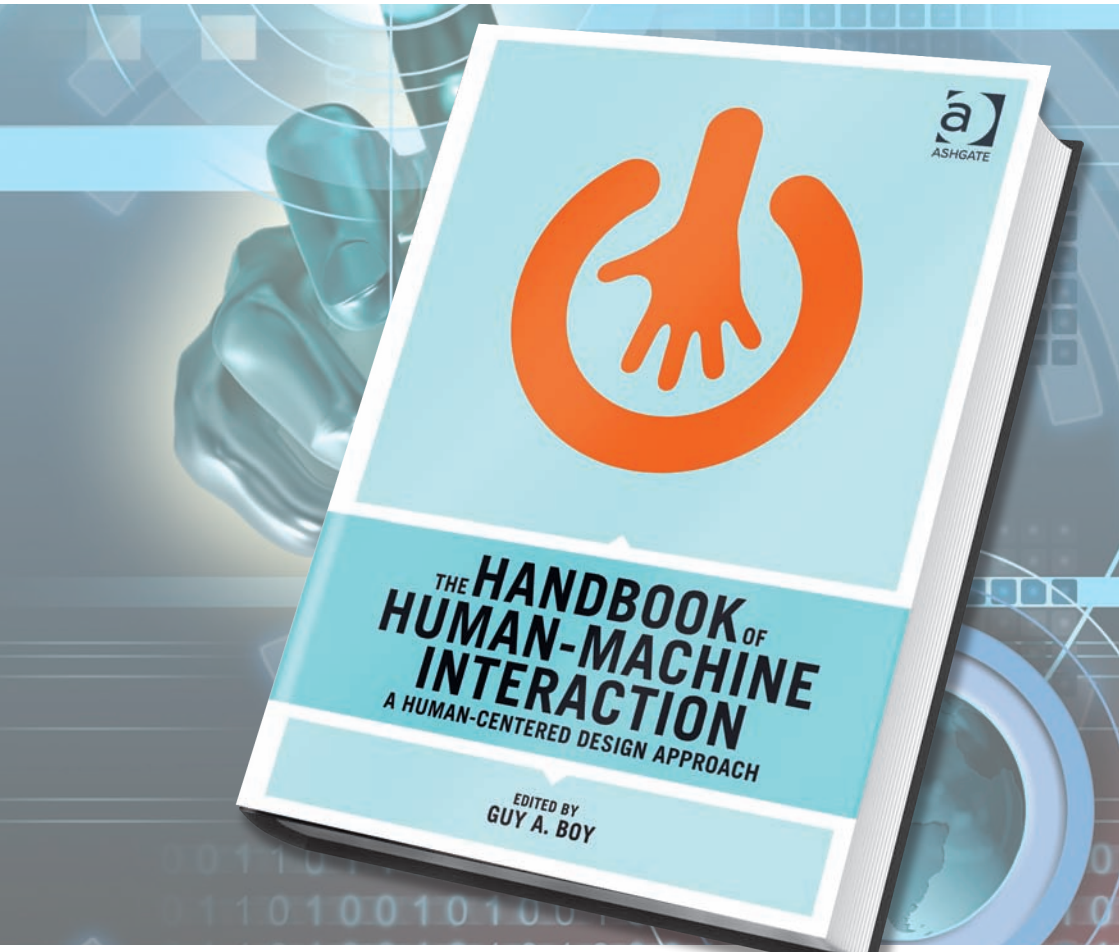
The Handbook of Human-Machine Interaction

A Human-Centered Design Approach

Edited by Guy A. Boy, Florida Institute of Technology, USA, Florida Institute for Human and Machine Cognition, and NASA Kennedy Space Center, USA



A definitive 'state of the field' reference on HMI

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- Top calibre contributors from all over the world give balanced, global perspective
- Contains studies from key application domains, eg aviation, healthcare, defence
- 'Matrix' design has three 'vertical' themes (analysis; design and engineering; evaluation) and three 'horizontal' perspectives (human-machine interaction; methods and tools for human-centred design and engineering; continuity and change in human-machine systems) to ensure comprehensive and consistent treatment

'…a well-organized book…tied together with an excellent index that does a good job assisting the reader in cross-referencing between the chapters. In all, an excellent snapshot of the current status of this important topic… Highly recommended. Upper-division under-graduates through professionals.'

Choice

The Handbook of Human-Machine Interaction features 20 original chapters and a conclusion focusing on human-machine interaction (HMI) from analysis, design and evaluation perspectives. It offers a comprehensive range of principles, methods, techniques and tools to provide the reader with a clear knowledge of the current academic and industry practice and debate that define the field. The text considers physical, cognitive, social and emotional aspects and is illustrated by key application domains such as aerospace, automotive, medicine and defence.

Above all, this volume is designed as a research guide that will both inform readers on the basics of human-machine interaction from academic and industrial perspectives and also provide a view ahead at the means through which human-centred designers, including engineers and human factors specialists, will attempt to design and develop human-machine systems.

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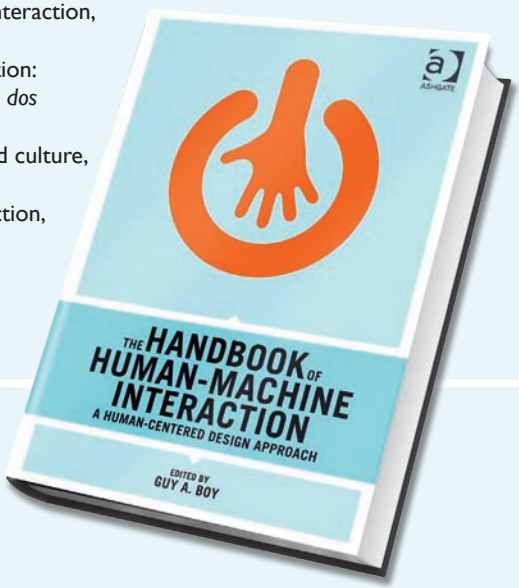

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ABOUT THE EDITOR

Guy A. Boy is University Professor and Director of the Human-Centered Design Institute (HCDi) at the Florida Institute of Technology, Senior Research Scientist at the Florida Institute for Human and Machine Cognition, and Chief Scientist for Human-Centered Design at NASA Kennedy Space Center. He is also a Fellow of the Air and Space Academy and Chair of the Technical Committee on AeroSpace Human Factors and Ergonomics (TCASHFE) of the International Ergonomics Association (IEA).

The author of three major books and more than 200 scientific and technical papers, Professor Boy was the coordinator of the RoHMI (Robust Human-Machine Interaction) Network of Excellence (DG XII, European Commission) from 1994 to 1996; Executive Vice-Chair of ACM-SIGCHI (Association for Computing Machinery (Special Interest Group on Computer-Human Interaction) from 1995 to 1999 and the scientific coordinator of WISE (Web-enabled Information System for Engineering) project (IST) from 2001 to 2004. He has been the coordinator of the PAUSA (Authority distribution in air traffic management) project (French government, Ministry of transportation) from 2006 to 2008. Until 2008 he was President of EURISCO International (European Institute of Cognitive Sciences and Engineering) and had managed the organization since its creation in 1992.