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Tareq Ahram · Waldemar Karwowski
Editors

Advances in Human Factors in Cybersecurity

Proceedings of the AHFE 2019 International Conference on Human Factors in Cybersecurity, July 24–28, 2019, Washington D.C., USA

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Advances in Human Factors and Ergonomics 2019

AHFE 2019 Series Editors

Tareq Ahram, Florida, USA
Waldemar Karwowski, Florida, USA

10th International Conference on Applied Human Factors and Ergonomics and the Affiliated Conferences

Proceedings of the AHFE 2019 International Conference on Human Factors in Cybersecurity, held on July 24–28, 2019, in Washington D.C., USA

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Preface

Our daily life, economic vitality, and national security depend on a stable, safe, and resilient cyberspace. We rely on this vast array of networks to communicate and travel, power our homes, run our economy, and provide government services. Yet, cyber intrusions and attacks have increased dramatically over the last decade, exposing sensitive personal and business information, disrupting critical operations, and imposing high costs on the economy. The human factor at the core of cybersecurity provides greater insight into this issue and highlights human error and awareness as key factors, in addition to technical lapses, as the areas of greatest concern. This book focuses on the social, economic, and behavioral aspects of cyberspace, which are largely missing from the general discourse on cybersecurity. The human element at the core of cybersecurity is what makes cyberspace the complex, adaptive system that it is. An inclusive, multi-disciplinary, holistic approach that combines the technical and behavioral element is needed to enhance cybersecurity. Human factors also pervade the top cyber threats. Personnel management and cyber awareness are essential for achieving holistic cybersecurity.

This book will be of special value to a large variety of professionals, researchers, and students focusing on the human aspect of cyberspace, and for the effective evaluation of security measures, interfaces, user-centered design, and design for special populations, particularly the elderly. We hope this book is informative, but even more than that it is thought-provoking. We hope it inspires, leading the reader to contemplate other questions, applications, and potential solutions in creating safe and secure designs for all.

This book includes two main sections:

Section 1 Cybersecurity Applications and Privacy Research
Section 2 Awareness and Cyber-Physical Security

Each section contains research papers that have been reviewed by members of the International Editorial Board. Our sincere thanks and appreciation to the Board members as listed below:

Ritu Chadha, USA
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July 2019

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