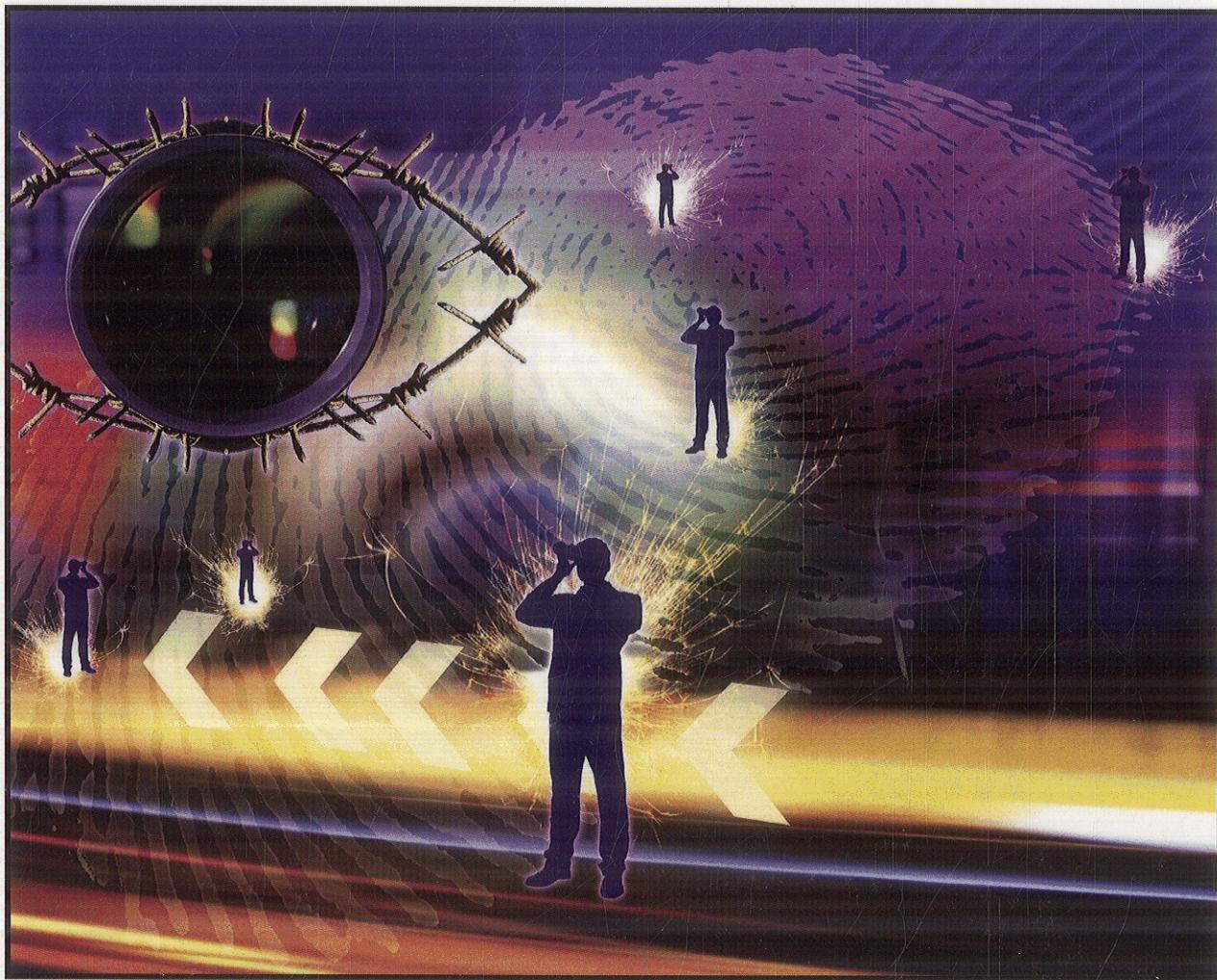


PREMIER REFERENCE SOURCE

# Security in Virtual Worlds, 3D Webs, and Immersive Environments

Models for Development, Interaction, and Management



ALAN REA

# Table of Contents

<b>Foreword .....</b>	xii
<b>Preface .....</b>	xv
<b>Chapter 1</b>	
Individual Privacy and Security in Virtual Worlds .....	1
<i>Malu Roldan, San Jose State University, USA</i>	
<i>Alan Rea, Western Michigan University, USA</i>	
<b>Chapter 2</b>	
3D3C Identity: Towards a Systematic Framework.....	20
<i>Yesha Y. Sivan, Metaverse Labs. Ltd. &amp; Shenkar College of Engineering and Design, Israel</i>	
<b>Chapter 3</b>	
Society in a Virtual World .....	36
<i>Vaclav Jirovsky, Czech Technical University, Czech Republic</i>	
<b>Chapter 4</b>	
Understanding Risk and Risk-Taking Behavior in Virtual Worlds .....	59
<i>Fariborz Farahmand, Purdue University, USA</i>	
<i>Eugene H. Spafford, Purdue University, USA</i>	
<b>Chapter 5</b>	
The Social Design of 3D Interactive Spaces for Security in Higher Education: A Preliminary View.....	72
<i>Shalin Hai-Jew, Kansas State University, USA</i>	
<b>Chapter 6</b>	
“No Drama!” A Case Study of Social Governance in Second Life® .....	97
<i>Nola Johnston, BC Institute of Technology, Canada</i>	

<b>Chapter 7</b>	
Sociable Behaviors in Virtual Worlds .....	123
<i>Francisco Grimaldo, Universitat de València, Spain</i>	
<i>Miguel Lozano, Universitat de València, Spain</i>	
<i>Fernando Barber, Universitat de València, Spain</i>	
<i>Juan M. Orduña, Universitat de València, Spain</i>	
<b>Chapter 8</b>	
Establishing Social Order in 3D Virtual Worlds with Virtual Institutions .....	140
<i>Anton Bogdanovych, University of Western Sydney, Australia</i>	
<i>Simeon Simoff, University of Western Sydney, Australia</i>	
<b>Chapter 9</b>	
Property-Based Object Management and Security .....	170
<i>Torsten Reiners, Curtin University of Technology, Australia &amp; University of Hamburg, Germany</i>	
<i>Sascha Wriedt, University of Hamburg, Germany</i>	
<i>Alan Rea, Western Michigan University, USA</i>	
<b>Chapter 10</b>	
X3D: A Secure ISO Standard for Virtual Worlds.....	208
<i>Joerg H. Kloss, X3D Consultant and Expert, Germany</i>	
<i>Peter Schickel, Bitmanagement Software GmbH, Germany &amp; Web3D Consortium, Germany</i>	
<b>Chapter 11</b>	
Aspect-Oriented Programming and Aspect.NET as Security and Privacy Tools for Web and 3D Web Programming.....	221
<i>Vladimir O. Safonov, St. Petersburg University, Russia</i>	
<b>Chapter 12</b>	
Modeling Secure 3D Web Applications.....	263
<i>Krzysztof Walczak, Poznań University of Economics, Poland</i>	
<b>Chapter 13</b>	
An Access Control Model for Dynamic VR Applications.....	284
<i>Adam Wójtowicz, Poznań University of Economics, Poland</i>	
<i>Wojciech Cellary, Poznań University of Economics. Poland</i>	
<b>Compilation of References .....</b>	306
<b>About the Contributors .....</b>	325
<b>Index.....</b>	331