

Edited by Larry D. Rosen, Nancy A. Cheever, and L. Mark Carrier

THE WILEY HANDBOOK OF

# Psychology, Technology and Society

WILEY Blackwell

### The Wiley Handbook of Psychology, Technology, and Society

# The Wiley Handbook of Psychology, Technology, and Society

Edited by

Larry D. Rosen, Nancy A. Cheever, and L. Mark Carrier

**WILEY** Blackwell

This edition first published 2015 © 2015 John Wiley & Sons, Ltd.

Registered Office

John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

Editorial Offices

350 Main Street, Malden, MA 02148-5020, USA 9600 Garsington Road, Oxford, OX4 2DO, UK

The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

For details of our global editorial offices, for customer services, and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell.

The right of Larry D. Rosen, Nancy A. Cheever, and L. Mark Carrier to be identified as the authors of the editorial material in this work has been asserted in accordance with the UK Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: While the publisher and authors have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. It is sold on the understanding that the publisher is not engaged in rendering professional services and neither the publisher nor the author shall be liable for damages arising herefrom. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data

Rosen, Larry D., editor.

The Wiley handbook of psychology, technology and society / edited by Larry D. Rosen, Nancy Cheever, L. Mark Carrier.

pages cm

Includes index.

ISBN 978-1-118-77202-7 (hardback)

- 1. Social psychology. 2. Internet–Social aspects. 3. Internet–Security measures.
- I. Cheever, Nancy D., editor. II. Carrier, L. Mark, editor. III. Title.

HM1025.W55 2015

302-dc23

2014048335

A catalogue record for this book is available from the British Library.

Cover image: © John Lund / Getty Images

Set in 10/12pt Galliard by SPi Publisher Services, Pondicherry, India

## Contents

A	bout the Editors	viii
Li	st of Contributors	X
Pı	reface	XXX
A	cknowledgments	xli
P	art I The Psychology of Technology	1
1	The Acute and Chronic Impact of Technology on our Brain David A. Ziegler, Jyoti Mishra, and Adam Gazzaley	3
2	Similarities and Differences in Workplace, Personal, and Technology-Related Values, Beliefs, and Attitudes Across Five Generations of Americans <i>Larry D. Rosen and José M. Lara-Ruiz</i>	20
3	Internet Credibility and Digital Media Literacy Nancy A. Cheever and Jeffrey Rokkum	56
4	Gender Digital Divide: Does it Exist and What are the Explanations? Richard Joiner, Caroline Stewart, and Chelsey Beaney	74
5	Access and Attitudes to Digital Technologies Across the Adult Lifespan: Evidence from Distance Education  John T. E. Richardson and Anne Jelfs	89
6	Navigating Psychological Ethics in Shared Multi-User Online Environments <i>Jeff Gavin and Karen Rodham</i>	105
Pa	art II Children, Teens, and Technology	117
7	Executive Function in Risky Online Behaviors by Adolescents and Young Adults  L. Mark Carrier, Vanessa Black, Ludivina Vasquez,  Aimee D. Miller and Larry D. Rosen	119
8	Cyberbullying: Prevalence, Causes, and Consequences Robin M. Kowalski and Elizabeth Whittaker	142
9	A Step Toward Understanding Cross-National and Cross-Cultural Variances in Cyberbullying Fatih Bayraktar	158

vi Contents

10	Michelle Drouin	176
11	Mobile Phone Dependency: What's All the Buzz About? Michelle Drouin, Daren Kaiser, and Daniel A. Miller	192
12	Assessing the Written Language of Text Messages  Abbie Grace and Nenagh Kemp	207
13	Texting Behavior and Language Skills in Children and Adults Sam Waldron, Nenagh Kemp, Beverly Plester, and Clare Wood	232
14	Are "Friends" Electric?: Why Those with an Autism Spectrum Disorder (ASD) Thrive in Online Cultures but Suffer in Offline Cultures <i>Mark Brosnan and Jeff Gavin</i>	250
Par	t III Social Media	271
15	Social Networking and Depression Brian A. Feinstein, Vickie Bhatia, Jessica A. Latack, and Joanne Davila	273
16	Sex, Alcohol, and Depression: Adolescent Health Displays on Social Media Megan A. Moreno and Megan A. Pumper	287
17	Exploring Disclosure and Privacy in a Digital Age: Risks and Benefits Karin Archer, Emily Christofides, Amanda Nosko, and Eileen Wood	301
18	The Emergence of Mobile Social Network Platforms on the Mobile Internet  Andrew Richard Schrock	321
19	Technology and Self-Presentation: Impression Management Online Miriam Bartsch and Kaveri Subrahmanyam	339
20	Narcissism, Emerging Media, and Society Keith W. Campbell and Jean M. Twenge	358
Par	t IV Multitasking	371
21	Searching for Generation M: Does Multitasking Practice Improve Multitasking Skill?  L. Mark Carrier, Mike Kersten, and Larry D. Rosen	373
22	Multitasking and Attention: Implications for College Students  Laura L. Bowman, Bradley M. Waite, and Laura E. Levine	388
23	Understanding Multimedia Multitasking in Educational Settings Eileen Wood and Lucia Zivcakova	404
24	Multitasking, Note-Taking, and Learning in Technology-Immersive Learning Environments Lin Lin and Chris Bigenho	420

vii

25	Multitasking and Interrupted Task Performance: From Theory to Application  Nicole E. Werner, David M. Cades, and Deborah A. Boehm-Davis	436
Part	V The Media's Impact on Audiences	453
26	Cultivation in the Twenty-First Century Nancy Signorielli	455
27	Internet Addiction Petra Vondráčková and David Šmahel	469
28	Smashing the Screen: Violent Video Game Effects  Ann Lewis, Sara Prot, Christopher L. Groves, and Douglas A. Gentile	486
29	What is Known About Video Game and Internet Addiction After DSM-5 Christopher L. Groves, Jorge A. Blanco-Herrera, Sara Prot, Olivia N. Berch, Shea McCowen, and Douglas A. Gentile	502
30	The Future of Technology in Education Candrianna Clem and Reynol Junco	514
Inde	ex	533

#### About the Editors

Larry D. Rosen, PhD, is Professor and past Chair of the Psychology department at California State University, Dominguez Hills. He is a research psychologist with specialties in multitasking, social networking, generational differences, parenting, child and adolescent development, and educational psychology, and is recognized as an international expert in the "psychology of technology." Over the past 30-plus years, Dr. Rosen and his colleagues have examined reactions to technology among more than 50,000 people in the United States and in 22 other countries. In addition to editing this handbook, he has written five books including: *iDisorder: Understanding* Our Obsession With Technology and Overcoming its Hold on Us (2012); Rewired: Understanding the iGeneration and the Way They Learn (2010); Me, MySpace and I: Parenting the Net Generation (2007); TechnoStress: Coping with Technology @Work @Home @Play (1997); and The Mental Health Technology Bible (1997), and writes a technology column for the newspaper The National Psychologist and regular blogs for the magazine *Psychology Today* and the *Huffington Post*. He is currently working on his next book, which concentrates on why we get so distracted from the dual perspective of brain science and psychology, which will be published in 2015. Dr. Rosen has been featured extensively in television, print, and radio media and has been a commentator on The Daily Show, Good Morning America, NPR, and CNN. He has been quoted in hundreds of magazines and newspapers including USA Today, The New York Times, Newsweek, Time, Chicago Tribune, and Los Angeles Times. He maintains an extremely active research program and his most recent investigations include: generational differences in technology use and multitasking; the distracted mind from the dual perspectives of psychology and neuroscience; the impact of technology on health and sleep; integrating technology in education; the impact of social networks on adolescents and parents; online empathy; the impact of task switching during studying and in the classroom; and the impact of texting language on English literacy. Further information is available at DrLarryRosen.com.

Nancy A. Cheever, PhD, is a Professor and past Chair of Communications at California State University, Dominguez Hills. She is a research psychologist, writer, teacher, and consultant who specializes in media psychology. As the Chair of the Communications Department from 2011 to 2014, Dr. Cheever oversaw the operations of a department with more than 500 majors and minors, and 20 faculty members. Dr. Cheever is a founding mentor of the George Marsh Applied Cognition Laboratory at the university, where she and her colleagues engage students in primary research associated with technology and psychology. A former newspaper journalist and magazine editor, Dr. Cheever's vast research interests examine emerging and

existing media technologies and their content and how they impact people's thoughts, attitudes, opinions, and behaviors. Her latest published research was an experiment measuring people's anxiety levels with and without their smartphones. In addition to editing this handbook, she is the co-author of two books: Rewired: Understanding the iGeneration and the Way They Learn (2010), and iDisorder: Understanding Our Obsession With Technology and Overcoming its Hold on Us (2012). Dr. Cheever regularly has presented her research at dozens of conferences, has been the subject of magazine and newspaper articles, and a featured guest on radio and television programs including NPR and PBS. Dr. Cheever teaches communications research methods, news writing and reporting, media psychology, and capstone courses. She received her BA in Communications from California State University, Dominguez Hills, where she was awarded the Outstanding Journalism Graduate; her first MA (communications) from California State University, Fullerton, where she won the Top Scholar Award from Kappa Tau Alpha, the national communications honor society; her second MA (media psychology) from Fielding Graduate University; and her PhD in media psychology from Fielding Graduate University.

L. Mark Carrier, PhD, has been a Professor of Psychology at California State University, Dominguez Hills (CSUDH), for more than 15 years. He has a bachelor's degree in cognitive psychology from the University of California, San Diego and a master's degree and a PhD in experimental psychology from the same institution. His research interests center on the psychology of technology, especially with regard to human multitasking. As Chairperson of the Psychology Department from 2006 to 2014, Dr. Carrier managed 1,200 majors and 40 instructors. He is co-founder of the George Marsh Applied Cognition Laboratory and of the Brain Imaging Laboratory at CSUDH. He has published articles in scientific journals on topics related to human cognition. Dr. Carrier has co-authored two prior books about the psychology of technology: Rewired: Understanding the iGeneration and the Way They Learn (2010) and iDisorder: Understanding Our Obsession with Technology and Overcoming Its Hold on Us (2012). In iDisorder, Dr. Carrier and his colleagues described many different ways in which the overuse and abuse of personal technology can affect how people think, feel, and behave. In 2010–2011, he was named the Outstanding Professor at CSUDH. Mark participates in national mentoring programs to train students for careers in scientific research and serves on a large number of campus committees related to student learning. In the past, Dr. Carrier served as the Co-Team Leader for the American Psychological Association/ National Institute of General Medical Sciences Project, an effort to increase the number of underrepresented students in the biomedical sciences.

#### List of Contributors

Karin Archer is currently in the final stages of completing her doctoral studies at Wilfrid Laurier University. Her research interests involve examining educational applications related to technology use. Specifically, her research has involved identification of key variables that predict disclosure when engaged in social networking. In addition she has been involved in the development of instructional interventions directed at promoting an understanding of disclosure and privacy online. Her current research program investigates early introduction to mobile devices and parental instruction in that context.

Miriam Bartsch, Dipl.-Psych, is research assistant at the Institute of Media and Communication at the University of Hamburg, Germany (with Prof. Dr. Uwe Hasebrink), where she is studying the effects of mass media, currently focusing on media repertoires. Before that, she studied media effects such as those of online advertisements, including neuropsychological methods such as EEG or eye-tracking, at Hamburg Media School. For her final thesis she conducted an empirical online study on impression management and privacy concerns on Facebook and is planning to do her doctoral degree in media sciences as well. Ms. Bartsch studied psychology at the University of Hamburg, where she focused on media psychology and media and communication sciences as well as on communication psychology (with the distinguished communications psychologist Dr. Friedemann Schulz von Thun). She also earned a certificate of media psychology with Dr. Sabine Trepte and a certificate of problemand conflict consulting with Dr. Alexander Redlich. She was a visiting scholar with Dr. Kaveri Subrahmanyam at the Children's Digital Media Center @ Los Angeles, CSULA/UCLA (California State University Los Angeles, University of California Los Angeles). Additionally, she worked as a student research assistant in media psychology at the University of Hamburg and in medical psychology at the University Hospital Hamburg-Eppendorf.

Fatih Bayraktar, PhD, is an Assistant Professor of Developmental Psychology in the Psychology Department, Faculty of Arts and Sciences, Eastern Mediterranean University, Famagusta. He received his PhD and MA in developmental psychology from Hacettepe University and Ege University of Turkey, respectively. He began studying cyberbullying during his PhD education and wrote his dissertation on this subject. He continued to study cyberbullying while he was working at the Institute for Research of Children, Youth, and Family at Masaryk University, Czech Republic as a postdoctoral research fellow. He contributed to the international project COST ISO801 "Action on cyberbullying: Coping with negative and enhancing positive uses of new technologies in relationships in educational settings" as a member of the

Czech team, and he wrote a paper titled "Cyberbullying: The discriminant factors among cyberbullies, cybervictims, and cyberbully victims in a Czech adolescent sample" by using COST data with this team. He continues to work on cyberbullying in an international project titled "Adolescents' perceptions and experiences with bullying and cyberbullying: A cross-cultural examination," which includes the United States, Czech Republic, North Cyprus, India, China, and Japan.

Chelsey Beaney, BSc, is a research assistant who has been working on projects investigating the role of new digital technology to support children's learning and development in the School of Management at the University of Bath.

Olivia N. Berch is an undergraduate student at Iowa State University. Her plan is to graduate in 2016 with a double major in psychology and child, adult, and family services. She is also planning to graduate with honors. Currently, Ms. Berch is working as the undergraduate manager of a research lab in the psychology department. After graduating, Olivia plans to attend graduate school and obtain a PhD in clinical child psychology or developmental psychology. Ms. Berch's passion is to have a positive impact on those children most affected by emotional and intellectual disorders. She has started these endeavors by devoting her time as a respite and supported community living provider for those in need due to intellectual or physical handicaps. While not working, she also delights in spending time with her family, friends, and co-workers who support her during all of her adventures as a student and future researcher.

Vickie Bhatia, MA, is a fifth-year doctoral candidate in clinical psychology at Stony Brook University. Her broad research interests involve examining the relationship between mental health and interpersonal functioning among adolescents and emerging adults as well as the mechanisms underlying these associations. More specifically, she is also interested in examining how individual differences (e.g., personality traits, cognitive biases, emotion regulation skills) may influence the association between romantic relationship functioning and depressive and anxious symptoms. Her research on the association between poor social networking interactions and mental health problems is guided by interpersonal models of depression and she seeks to extend the current literature to a novel, but extremely salient, interpersonal platform.

Chris Bigenho, PhD, is the Director of Educational Technology at Greenhill School in Dallas, Texas. He received his PhD in educational computing from the University of North Texas and his master's in educational technology from Pepperdine University. As an independent researcher, his research interests include emerging technologies in learning environments, and the cognitive aspects of technology in learning environments with a specific focus on dual-tasking and cognitive load. He also works in the fields of games for learning and self-regulatory practices for learning. Dr. Bigenho owns an educational consulting practice and is a frequent speaker and presenter on the topics of education and technology. He has spoken at schools and conferences across the United States and South America.

Vanessa Black, BA, graduated with a bachelor's in psychology and a minor in criminal justice from California State University, Dominguez Hills in May 2012. Since then she has been working as a lab manager for the CARES Study at the Los Angeles Biomedical Research Institute (LA BioMed) at Harbor-UCLA Medical

Center. Ms. Black is interested in forensic psychology and is planning to pursue graduate education.

Jorge A. Blanco-Herrera is a second-year graduate student in social psychology and human-computer interaction at Iowa State University. He is managing and studying in the Media Research Lab under Dr. Douglas Gentile. Mr. Blanco-Herrera received his bachelor of arts in psychology at the University of Nevada, Las Vegas, where he worked in the Human Memory Lab under Dr. Colleen Parks and the Reasoning and Memory Lab under Dr. David Copeland. His area of focus lies at the intersection of psychology and technology, specifically, the cognitive, social, and developmental effects of video games. Mr. Blanco-Herrera's current line of research explores the effects of video game mechanics, player interactions, and content design, particularly their relationship to skill and competency attainment, attitude change, and education. Mr. Blanco-Herrera is especially interested in the positive potential of video games and other forms of play, as inherently engaging sources of learning, as well as vessels for otherwise unattainable vicarious experiences. His interest in video game addiction notes the extremity of this engagement in some gamers, as he hopes to create more balanced experiences. Overall, Mr. Blanco-Herrera seeks to expand on current research and advocacy in an environment of collaboration between researchers and industry professionals seeking to advance the field.

Deborah A. Boehm-Davis, PhD, is Dean of the College of Humanities and Social Sciences and a University Professor of Psychology at George Mason University. She received her graduate degrees from the University of California, Berkeley, Prior to joining George Mason in 1984, she worked on applied cognitive research at General Electric, NASA Ames, and Bell Laboratories. More recently, she served as a Senior Policy Advisor for Human Factors at the Food and Drug Administration's Center for Devices and Radiological Health. Dr. Boehm-Davis has served as President and Secretary-Treasurer of the Human Factors and Ergonomics Society (HFES) and as President of Division 21 (Applied Experimental and Engineering Psychology) of the American Psychological Association (APA). She is co-author of the textbook, An Introduction to Humans in Engineered Systems, and co-editor of the forthcoming Handbook of Human-Systems Integration. She has served as an associate editor for Human Factors and the International Journal of Human-Computer Studies and on the editorial boards of several journals. She is a fellow of the HFES, APA, and International Ergonomics Association. Dr. Boehm-Davis was awarded the Franklin V. Taylor award for career achievements from the APA and the Award for Scientific Achievement in the Behavioral and Social Sciences from the Washington Academy of Sciences. She has testified before Congress, and served on numerous panels for the National Research Council, National Research Foundation, Transportation Research Board, and NASA. She was a member and chair of the Federal Aviation Administration's Research, Engineering, and Development Advisory Committee, as well as their Human Factors Subcommittee. She was a member of the Air Force Scientific Advisory Board and the Transportation Security Administration's Scientific Advisory Board.

**Laura L. Bowman**, PhD, earned her undergraduate degree in psychology from the Ohio State University in 1983 and her PhD in experimental psychology with a focus on cognitive psychology from Kent State University in 1989. She is currently a

professor in the Department of Psychological Science at Central Connecticut State University (CCSU) where she has just completed a term as Department Chair. Her research centers on cognitive processes including memory and attention. She has published several articles on the distractibility of media multitasking and she and her colleagues are continuing to examine factors that relate to attention and electronic media use. In 1997 Dr. Bowman traveled to Malaysia as a Senior Fulbright Scholar at the Universiti Malaysia Sarawak where she taught and did research examining Malaysian university students' perceptions of research ethics. She returned to Malaysia more recently to the HELP University in Kuala Lumpur to teach and conduct a crosscultural comparison of Malaysian and American university students' distractibility, multitasking, and electronic media use. Dr. Bowman regularly teaches undergraduate courses in cognitive psychology, research methods, environmental psychology, and co-teaches an honors course in world cultures. In 2006 she was a semi-finalist for the Teaching Excellence Award at CCSU. In her 25 years at CCSU, she has been an active member of many departmental and university committees and has co-authored multiple posters/presentations at professional conferences such as the Association for Psychological Science and the American Psychological Association.

Mark Brosnan, PhD, is a Reader in Psychology and Director of Research for Psychology at the University of Bath. He is a chartered psychologist with the British Psychological Society (BPS) and a member of the Cognitive Psychology Section and the Division of Neuropsychology. Dr. Brosnan's current research projects examine how children with an autism spectrum disorder (ASD) can be involved within the design of a computer-based assistive technology. His team has developed protocols for "participatory design" that effectively support children with ASD to be active design partners. This has informed a series of design principles that have guided the development of a mathematics tutor and an iPad application to reduce challenging behaviors – both designed by people with ASD for people with ASD. Dr. Brosnan has a long-standing research interest in how technology is used, and has written a book on "Technophobia." This explores how and why people can become fearful of using technology. Recently this has extended into social media and Dr. Brosnan teaches a cyberpsychology course in the Second Life virtual world. Of particular interest is how these new online environments can facilitate communication in people with ASD. Dr. Brosnan has published extensively within the fields of both ASD and cyberpsychology research and focuses upon how technologies can be developed to support the deficits in social communication and interaction associated with ASD.

David M. Cades, PhD, received his doctorate in human factors and applied cognition from George Mason University in 2011. He specializes in investigations of vehicle operator behavior, including perception response time, vision, nighttime visibility, and distractions. Dr. Cades has expertise in the testing and analysis of how interruptions and distractions affect performance. He has investigated the negative effects of distractions in environments, including, but not limited to, driving, commercial aviation, health care, offices, and classrooms. He has applied this knowledge to see how distractions can cause errors that lead to accidents. Dr. Cades also has expertise in evaluating and designing graphical user interfaces including devices for use in automobiles and aircraft. He has investigated the effects of manual and voice-activated infotainment devices in automobiles. For commercial aircraft, he has worked with pilots, air traffic controllers, and airline operations in support of the Federal Aviation

Administration's NextGen initiative. Dr. Cades has investigated vehicle operator behavior of automobiles, trucks, bicycles, motorcycles, and aircraft. He has evaluated the adequacy of warnings on products and in their manuals and he has applied his experience to projects involving safety- and health-related user behaviors of industrial equipment, kitchen appliances, video game entertainment systems, home theater products, and personal protective equipment.

Keith W. Campbell, PhD, is a Professor of Psychology at the University of Georgia. His work is primarily on the topic of narcissism, ranging from understanding narcissism as a trait and disorder to narcissism as a cultural phenomenon. He is the author of more than 100 scientific journal articles and book chapters, and the books When You Love a Man Who Loves Himself: How to Deal with a One-way Relationship; The Narcissism Epidemic: Living in the Age of Entitlement (with Jean Twenge); and The Handbook of Narcissism and Narcissistic Personality Disorder: Theoretical Approaches, Empirical Findings, and Treatments (with Josh Miller). He and Jean Twenge also have a personality textbook, Personality Psychology: Understanding Yourself and Others, to be published in 2015. His work on narcissism has appeared in USA Today, Time, and The New York Times, and he has made numerous radio and television appearances, including The Today Show and the Glenn Beck Program. He holds a BA from the University of California at Berkeley, an MA from San Diego State University, a PhD from the University of North Carolina at Chapel Hill, and did his postdoctoral work at Case Western Reserve University. He lives in Athens, Georgia, with his wife and daughters.

Emily Christofides, PhD, currently holds a joint postdoctoral position at the University of Guelph and Wilfrid Laurier University. She completed her master's degree in consumer behavior and her PhD in social psychology at the University of Guelph. Her research has focused on privacy as a psychological concept and the social effects of new media. In her research on privacy theory she has contributed to our understanding of the personal and situational factors that impact privacy decisions. This research highlights the complexity of privacy as a concept and helps to explain some of the inconsistencies between privacy beliefs and behaviors. Dr. Christofides has also investigated the factors that explain peoples' tendency to disclose or protect their information online. She has examined this issue from a number of different perspectives including: the differences between age groups in the factors that predict online disclosure and use of privacy settings; the way in which being a member of a profession or a professional-in-training impacts online disclosure decisions; how online information sharing impacts romantic relationships; how exposure to relationship-relevant information online impacts information-seeking behavior; and how the information that one discloses, gender, and medium of disclosure affect the way others judge the discloser. More recently, her research has extended into the health domain, particularly around health decision-making and consumers' understanding of the privacy issues related to purchasing genetic tests from companies that provide direct-to-consumer genetic testing through their websites.

Candrianna Clem, MA, is a doctoral student in sociology specializing in demography at the University of Texas-Austin and examines the social implications of technology on college students' academic and social experiences. Ms. Clem's primary research interests use quantitative methods to analyze how racial and digital inequality impacts educational and occupational outcomes. Her research focuses on how race is linked to

residential segregation, poverty, STEM (science, technology, engineering, and math) literacy, and unequal access to technology. Of primary interest is determining the implications of these inequalities on educational experiences and outcomes, identifying strategies for increasing diversity/inclusion, and closing achievement gaps in education. Her most recent work uses digital textbook analytics data to explore the ways that age differences in online reading behavior influence academic performance. She is currently a member of the Education and Transition to Adulthood Group (ETAG) at the Population Research Center at the University of Texas-Austin, which studies the pathways through education and how they interact with family life and work. In particular, this group's focus includes STEM preparation and careers, with a primary interest dedicated to the diversity in experiences, and disparities according to gender, race and ethnicity, social class, as well as disability, immigration, or language minority status.

Joanne Davila, PhD, is a Professor of Psychology and the Director of Clinical Training at Stony Brook University. She has published widely in the areas of adolescent and adult psychopathology and interpersonal functioning. Her current research focuses on the interpersonal causes and consequences of depression and anxiety disorders, including social networking experiences, risk factors for the early development of romantic relationship dysfunction in adolescents, the role of attachment representations in interpersonal functioning, and well-being among LGBT individuals.

Michelle Drouin, PhD, is an Associate Professor of Psychology at Indiana University-Purdue University, Fort Wayne. She has been a faculty member there since 2005, after completing her bachelor's degree in psychology at Cornell University and her DPhil in experimental psychology (with a concentration in developmental psychology) at the University of Oxford. Dr. Drouin regularly teaches courses in human development, including social and personality development, language development, child psychology, and development across the lifespan. Additionally, she runs an active research laboratory, mentoring undergraduate research assistants in psychological research. Her primary research examines innovations in technology, such as texting and social networking, and the effects of these innovations on communication, literacy, relationships, and human development. She also studies the roles of technology in teaching and learning. Dr. Drouin's research on sexting and mobile phone addiction has attracted international attention, and she regularly does interviews for television, radio, newspapers, and magazines. Her research has been cited in a number of prominent news sources including CNN, NPR, MSNBC, CBS News, The New York Times, Huffington Post, Reuters, Men's Health, Parenting Magazine, and Psychology Today. Most recently, she has had articles published on the effects of Facebook on committed relationships, unwanted but consensual sexting, and solicitation of and communication with back burners (relationship alternatives) via social networking.

**Brian A. Feinstein**, MA, is a sixth-year doctoral candidate in clinical psychology at Stony Brook University. He has several related research interests, including the relationship between interpersonal functioning and mental health; stress and coping; and lesbian, gay, and bisexual (LGB) health. Specifically, he is interested in the extent to which people's interpersonal experiences influence their well-being and the mechanisms underlying these associations. He is also interested in how LGB individuals cope with stress related to their sexual orientation as well as risk and protective factors related

to psychopathology among LGB individuals. He has received support for his research from the American Psychological Association of Graduate Students, the National Science Foundation, and the Society for the Psychological Study of Social Issues.

Jeff Gavin, PhD, is a Senior Lecturer in the Department of Psychology, University of Bath, and an Adjunct Lecturer in the School of Law and Justice at Edith Cowan University, Australia. As a critical social psychologist, he has established a program of research examining how identities are constructed and negotiated through online communication. His current research explores social media and young people's relationships, online health support, and Internet stalking and other forms of online harassment. As these areas cut across several academic fields, Dr. Gavin's research is often interdisciplinary, involving collaborations with computer scientists, forensic psychologists, and healthcare professionals, as well as industry partners, such as uDate and Match.com. This work involves both textual and visual analyses of online interactions, as well as the design and implementation of online support in collaboration with colleagues in human–computer interaction. On the basis of his own research experience, as well as roles on various university research ethics committees, Dr. Gavin has also co-authored several scholarly articles on online research ethics.

Adam Gazzaley, MD, PhD, obtained an MD and a PhD in neuroscience at the Mount Sinai School of Medicine in New York, completed clinical residency in neurology at the University of Pennsylvania, and postdoctoral training in cognitive neuroscience at the University of California, Berkeley. He is the founding director of the Neuroscience Imaging Center at the University of California, San Francisco, a professor in neurology, physiology, and psychiatry, and principal investigator of a cognitive neuroscience laboratory. His laboratory studies neural mechanisms of perception, attention, and memory, with an emphasis on the impact of distraction and multitasking on these abilities. His unique research approach utilizes a powerful combination of human neurophysiological tools, including functional magnetic resonance imaging (fMRI), electroencephalography (EEG), and transcranial magnetic and electrical stimulation (TMS and TES). A major accomplishment of his research has been to expand our understanding of alterations in the aging brain that lead to cognitive decline. His most recent studies explore how we can enhance our cognitive abilities via engagement with custom-designed video games, and how this can be bolstered by closed loop systems using neurofeedback and TES. Dr. Gazzaley has authored more than 95 scientific articles, delivered more than 350 invited presentations around the world, and his research and perspectives have been consistently profiled in highimpact media, such as The New York Times, New Yorker, Wall Street Journal, Time, Discover, Wired, PBS, NPR, CNN, and NBC Nightly News. Recently, he wrote and hosted the nationally televised, PBS-sponsored special The Distracted Mind with Dr. Adam Gazzaley. Awards and honors for his research include the Pfizer/AFAR Innovations in Aging Award, the Ellison Foundation New Scholar Award in Aging, and the Harold Brenner Pepinsky Early Career Award in Neurobehavioral Science.

**Douglas A. Gentile**, PhD, is an award-winning research scientist, educator, author, and an Associate Professor of Developmental Psychology at Iowa State University. His experience includes more than 25 years conducting research with children and adults. He is the editor of the book *Media Violence and Children*, and co-author of the book *Violent Video Game Effects on Children and Adolescents: Theory, Research*,

and Public Policy. He has authored scores of peer-reviewed scientific journal articles, including studies on the positive and negative effects of video games on children in several countries, the validity of the American media ratings, how screen time contributes to youth obesity, and what is being called video game and Internet "addiction." He is the creator and host of the radio show The Science of Parenting (and also has a nationally syndicated comedy music radio show, The Tom & Doug Show). His work has been featured on National Public Radio, the BBC World Service, CNN, Good Morning America, and The Today Show, as well as The New York Times, Washington Post, Los Angeles Times, and hundreds of other newspapers and television stations internationally. In 2010, he was honored with the Distinguished Scientific Contributions to Media Psychology Award from the American Psychological Association (Division 46). Princeton Review named him one of the top 300 professors in the United States. Dr. Gentile earned his doctorate in child psychology at the University of Minnesota.

Abbie Grace, PhD, is a lecturer at the Wicking Dementia Research and Education Centre at the University of Tasmania. She recently completed a PhD at the University of Tasmania examining university students' use of text messaging language, specifically their use of textisms (such as y for why, btw for by the way, and emoticons such as :0) and :-D). Dr. Grace also investigated the links between students' use of textisms and a variety of factors such as literacy levels, gender, phone technology, opinions on the use of textisms, as well as the year and country in which messages were composed. This doctoral work showed that the use of textisms does not degrade young adults' literacy skills, and that, in fact, students used phone technology quite creatively to enhance the expressivity and efficiency of their phone-based communication. Dr. Grace is now working as a lecturer in the newly created Bachelor of Dementia Care at the University of Tasmania. She is enjoying the opportunity to help students to understand the underlying biological and cognitive processes involved in neurodegeneration, and to learn ways of improving the lives of people experiencing dementia and those who care for them.

Christopher L. Groves, MS, is a third-year graduate student studying social psychology at Iowa State University. He currently works under Dr. Craig Anderson as a member of the Aggression Research Team and regularly collaborates with Dr. Douglas Gentile and his Media Research Lab. Chris received his BA in psychology and English literature at Silver Lake College, at which time he worked as an autism line therapist applying behaviorist techniques to improving the behavioral functioning of children diagnosed with autism spectrum disorder. He received his MS in cognitive-affective psychology from the University of Wisconsin, Oshkosh, working under Dr. David Lishner and Dr. Quin Chrobak. During this time, he conducted research on violent media effects and false memory development. His current research involves examining the influence of media on outcomes such as aggression, moral disengagement, prosocial behavior, problem solving, and attributions regarding success and failure. Most recently, his research has focused on the identification processes at work when viewing violent media that give rise to increases in aggressive behavior. He has coauthored several book chapters on topics including violent media effects on aggression, attention, risk behaviors, prosocial behavior, and video game addiction. Mr. Groves plans to complete his PhD in 2017, at which time he intends to apply for a tenuretrack university faculty position.

Anne Jelfs, PhD, is head of the Learning and Teaching Development Team at the UK Open University's Institute of Educational Technology. Dr. Jelfs has 20 years of experience conducting evaluations and her research interests include the application and evaluation of technologies in education. She has published refereed journal articles in this area and also has an interest in the accessibility of educational technology. Her other interests are in the quality assurance of distance education, and her PhD was on stakeholders' conceptions of quality in distance higher education. Her PhD research used a qualitative approach termed phenomenological phenomenography, and qualitative research methods are key to her research designs. Her current work is in two areas: accessibility of disabled students to high-quality learning and teaching and the use of institutional data to support quality assurance processes.

Richard Joiner, PhD, is a Senior Lecturer in the Department of Psychology at the University of Bath and for the past 20 years he has been investigating the impact of gender on the uses of and attitudes toward new digital technology. He has published more than 20 papers in this area and recently has looked at whether the changes in technology (e.g., social networking sites and micro-blogging) have ameliorated or exacerbated the old gender digital divide.

Reynol Junco, EdD, is a social media scholar who investigates the impact of social technologies on college students. Dr. Junco is an Associate Professor of Education and Human–Computer Interaction at Iowa State University and a fellow at the Berkman Center for Internet and Society at Harvard University. Rey's primary research interest is using quantitative methods to analyze the effects of social media on student psychosocial development, engagement, and learning. His research has also focused on informing best practices in using social technologies to enhance learning outcomes. For instance, Rey's research has shown that technology, specifically social media such as Facebook and Twitter, can be used in ways that improve engagement and academic performance. He recently published a book entitled Engaging Students Through Social Media: Evidence-Based Practices for Use in Student Affairs with Jossey-Bass.

Daren Kaiser, PhD, is an Associate Professor in the Department of Psychology at Indiana University–Purdue University Fort Wayne (IPFW). He joined the faculty at IPFW in 2003 after spending four years as a visiting professor at East Carolina University. He teaches courses in learning and behavior, biopsychology, psychopharmacology, research methods, and elementary psychology. He received his PhD in experimental psychology with an emphasis in animal learning and cognition from the University of Kentucky in 2000. Since then he has continued his research in animal cognition, publishing papers on the flexibility of animal timing using rats as an animal model. Having broad interests in psychology, he has also collaborated with Drs. Michelle Drouin and Dan Miller, also of the IPFW Psychology Department, in the area of technology and human behavior (particularly as related to cell phone usage and texting). In his free time he enjoys canoeing, and fishing the beautiful northeastern Indiana natural lakes with his wonderful dog Josey.

Nenagh Kemp, PhD, is a Senior Lecturer in Psychology at the University of Tasmania. Her broad research interests lie in the acquisition, development, and use of spoken and written language, from infancy to adulthood, as it occurs both typically and

atypically. She is particularly interested in spelling development in children, and the use of spelling strategies in adults, and her doctoral thesis was on these topics. In recent years she has become fascinated with the fast-changing nature of the written language of digital communication. Dr. Kemp enjoys working with students and colleagues to investigate the links between "textese" use and other skills, and to examine the ongoing evolution of this new style of written language. She is currently looking at how people change their use of textese to suit their message recipient. She is also interested in the linguistic and social role of Australian diminutive word forms, such as arvo for afternoon and footy for football. Dr. Kemp is an associate editor for the Journal of Research in Reading and Reading and Writing, and a member of the editorial board of Scientific Studies of Reading. She received her bachelor of arts at the University of Tasmania, and her PhD at the University of Oxford.

Mike Kersten is pursuing his doctoral degree in experimental social psychology at Texas Christian University (TCU). He graduated summa cum laude from California State University, Dominguez Hills (CSUDH) with a bachelor's degree in psychology. Working from the perspective of terror management theory (TMT), his research interests focus on how people construct and maintain meaning in life as well as the wide array of social behaviors that people perform in response to existential threats. Some of his work, for example, has examined how thinking about mortality motivates people to unconsciously initiate communicable synchronization (e.g., language style matching) with others as a means of managing existential anxiety. More recently, Mr. Kersten has explored the benefits associated with nostalgia, the sentimental longing for the past. Specifically, his research examined nostalgia's proclivity to increase health optimism, which in turn promotes people to place more importance on their healthrelevant goals and engage in greater health behaviors. Mr. Kersten previously served as President of the CSUDH Psi Chi chapter and as an invited member on Psi Chi's Executive Leadership Committee. In 2012, he was awarded Psi Chi's Kay Wilson Leadership Award for Outstanding Chapter President, led his Psi Chi chapter to receive the CSUDH President's Award for Outstanding Academic Achievement, and was named the Outstanding Psychology Student of the Year at CSUDH.

Robin M. Kowalski, PhD, is a Professor of Psychology at Clemson University. She obtained her PhD in social psychology from the University of North Carolina at Greensboro. Her research interests focus primarily on aversive interpersonal behaviors, most notably complaining, teasing, and bullying, with a particular focus on cyberbullying. She is the author or co-author of several books including Complaining, Teasing, and Other Annoying Behaviors; Social Anxiety; Behaving Badly: Aversive Behaviors in Interpersonal Relationships, The Social Psychology of Emotional and Behavioral Problems; Cyberbullying: Bullying in the Digital Age; and two curriculum guides related to cyberbullying. Her research on complaining brought her international attention, including an appearance on NBC's The Today Show. Dr. Kowalski has received several awards including Clemson University's Award of Distinction, Clemson University's College of Business and Behavioral Science Award for Excellence in Undergraduate Teaching, the Phil Prince Award for Excellence and Innovation in the Classroom, Clemson University's College of Business and Behavioral Science Senior Research Award, Clemson University's Bradbury Award for contributions to the honors college, and the Clemson Board of Trustees Award for Faculty Excellence. She is a 2013 and 2014 finalist for the South Carolina Governor's Professor of the Year award.

José M. Lara-Ruiz earned his BA in psychology at California State University, Dominguez Hills (CSUDH). He is currently pursuing his MA in clinical psychology at California State University, Northridge. Upon completing his MA, Mr. Lara-Ruiz plans to pursue a doctoral degree in clinical psychology. His research interests include the biopsychosocial factors associated with post-traumatic stress disorder (PTSD). In addition, Mr. Lara-Ruiz is interested in the cognitive sequelae of PTSD and traumatic brain injury. He aspires to conduct research investigating this phenomenon and contribute to treatments that may result in improving functional outcomes in military and non-military populations. Mr. Lara-Ruiz became a member of the George Marsh Applied Cognition Laboratory in January 2013 under Drs. Larry Rosen, L. Mark Carrier, and Nancy Cheever and has assisted in several research projects, including his senior project investigating the effects of PTSD on academic performance and the use of technology as a maladaptive coping mechanism of traumatic events. Moreover, he has assisted in research utilizing functional near-infrared spectroscopy (fNIR) to examine prefrontal cortex activation during tasks of executive functioning. Additionally, Mr. Lara-Ruiz is a research assistant at the Neurocognitive Equipotentiality Recovery and Development Laboratory, at LA BioMed, Harbor UCLA Medical Center. He served as the CSUDH Psi Chi Chapter President and Student Co-Chair of the Ninth Annual CSUDH Student Research Day.

Jessica A. Latack, MA, MS, is a fourth-year doctoral candidate in clinical psychology at Stony Brook University. Her research focuses on psychosocial sequelae of female sexual victimization, and in particular the ways in which sexual trauma affects women's romantic relationships and sexual risk behaviors. More specifically, she is interested in two seemingly opposite subgroups of sexual victims, those who become sexually avoidant and those who engage in increased sexual risk behavior. In an effort to examine the underlying mechanisms between the experience of sexual trauma and subsequent risk behavior, she has begun to investigate potential markers by leveraging attentional and neural measures in response to sexual stimuli.

Ann Lewis, MA, is a second-year doctoral student at Iowa State University. She received both her master's and bachelor's degrees in linguistics at Brigham Young University. Previously, she studied under Dr. Ross Flom in the Brigham Young University Infant Development Lab. Currently, Ms. Lewis studies under Dr. Douglas Gentile in the Iowa State University Media Research Lab and Dr. Kevin Blankenship in the Iowa State University Attitudes and Social Cognition Lab. Her research focuses on the intersection of quantitative communication studies, linguistics, and social psychology. Ms. Lewis' interests cover a broad scope of judgment, concept, and behavioral research. Her previous graduate work focused on the psycholinguistics of prosociality and aggression, as well as the effects of selfish vs. cooperative advertising language on customer service evaluations. Current lines of work include the role of identification and vicarious experience in narrative-based media; the formation, maintenance, and structure of value and attitudes systems; and relationship management through conversation. Ms. Lewis has industry experience in industrial/organizational psychology as a research associate in a corporate communications and behavior change training firm, focusing on trainings for speaking up in high-risk contexts. Ms. Lewis is interested in video gaming both as a method of communication between real people through multi-player modes and as a form of either developer- or player-generated narrative. It is a rich opportunity for both beneficial and destructive learning with the potential for long-term effects on interpersonal relationships and cognitive habits.

Laura E. Levine, PhD, received her PhD in developmental and clinical psychology from the University of Michigan. She worked with children and families at the Children's Psychiatric Hospital and in private practice for 10 years. She is currently a Professor in the Department of Psychological Science and has taught child psychology and lifespan development for 20 years at Central Connecticut State University. She has authored two textbooks: Child Development: An Active Learning Approach and Child Development from Infancy to Adolescence: An Active Learning Approach. Her research has focused on how media use shapes attention and has been published in the Journal of Applied Developmental Psychology, Computers and Education, International Journal of Cyber Behavior, Psychology and Learning, American Journal of Media Psychology, and CyberPsychology, Behavior, and Social Networking. Her work on the scholarship of teaching and learning has been published in New Directions for Teaching and Learning, College Teaching and International Journal for the Scholarship of Teaching and Learning. She also studies the social development of toddlers and this work has appeared in Developmental Psychology and Infant and Child Development. Currently she is combining her interests in early childhood and media with research on the impact of mobile media use by infants and toddlers.

Lin Lin, EdD, is an Associate Professor of Learning Technologies at the University of North Texas. Her research lies at the intersections of technology, cognition, and education. She has conducted research on the design of effective online and blended learning; the impact of media multitasking on cognition and learning; and the power, motivation, ethics, and usability issues related to game-based learning. Lin has published in dozens of academic journals, including the *Proceedings of the National Academy of Sciences* and *Computers and Education*. She has been cited and interviewed by magazines and newspapers such as *Le Temps, Ingeniøren, Scientific American*, and *Fort Worth Star-Telegram*. Lin received her doctoral degree from Teachers College Columbia University.

Shea McCowen graduated cum laude from Iowa State University in the spring of 2014 with a BA in psychology and a minor in women's studies. She spent several years at ISU working as a research assistant in a variety of laboratories exploring topics such as the effects of media with Dr. Douglas Gentle, and romantic relationships alongside Dr. David Vogel. Additionally, she spent many years as a Community Friend to an individual with a cognitive disability and Prader-Willi syndrome and as a volunteer wildlife rehabilitator. She is currently attending the University of Northern Colorado in Greeley, Colorado, pursuing a master's degree in counseling with a focus on marriage, couples, and family therapy. Once Ms. McCowen has graduated, her highest goal is to open up her own private practice and become a therapist for the community. She intends to offer therapy that provides a focus on positive and healthy sexuality as a space for personal growth and strength, ultimately working to dismantle barriers surrounding issues such as mental illness, sexuality, sexual/gender orientation,

and heteronormativity. In her free time Ms. McCowen enjoys spending time with her friends, family, and cat, baking, and supporting local social activism groups.

Aimee D. Miller, MA, obtained her BA in psychology, with honors in the major and her MA in clinical psychology from California State University, Dominguez Hills (CSUDH). Ms. Miller plans to pursue a PhD in clinical psychology with an emphasis in neuropsychology. She aspires to obtain tenure at a research university, where she can conduct research and teach courses in psychology. Her research interests include substance-related disorders and youth risk behaviors. Ms. Miller has been a member of the George Marsh Applied Cognition Laboratory since May 2012, where she has assisted with multiple research studies. She recently completed her master's thesis, which investigated the individual risk factors that increase the likelihood of recruitment, trafficking, and victimization on the Internet. In addition, she has examined the effects of everyday multitasking and media use in the Net Generation, as well as the role of technology in sleep disruption, and assists with research utilizing functional near-infrared spectroscopy to examine executive functioning. Ms. Miller is the former treasurer of the CSUDH Psi Chi chapter and has served as a research assistant, lab manager, student leader, and teaching assistant. She has presented her research at numerous national and regional conferences, and has been the recipient of several academic awards, including the 2014 Outstanding Psychology Student Award; several research awards, including first place at the 2012 and 2014 CSUDH Annual Student Research Day competitions; and scholarships, such as the 2013 Promoting Excellence in Graduate Studies, Student Travel Scholarship from CSUDH.

Daniel A. Miller, PhD, is an Associate Professor in the Department of Psychology at Indiana University–Purdue University, Fort Wayne, where he has been a faculty member since 2005. He teaches courses in elementary psychology, stereotyping and prejudice, statistics, and industrial organizational psychology. Daniel completed his PhD at Purdue University and his undergraduate studies at Ohio State University. His main research interests lie in the area of stereotyping and prejudice and social cognition; in particular, he is interested in the emotional aspects of collective actions in response to social injustice. However, in recent years he has begun collaborations with Drs. Michelle Drouin and Daren Kaiser, also of the IPFW Psychology Department, in the area of social networking and human behavior. In his ever-vanishing spare time, Daniel enjoys Ohio State football, classic cars, and good food, drinks, and live music. Daniel is married to his high school sweetheart and they have two daughters. Daniel has never had a cavity.

Jyoti Mishra, PhD, is an Assistant Professor of Neurology at the University of California, San Francisco (UCSF). She also serves as a Senior Scientist at the Brain Plasticity Institute at PositScience Corporation. Her training is in the field of human cognitive and computational neurosciences, with an emphasis on neural mechanisms of attention and cognitive control. Jyoti's current research focuses on developing and evaluating novel neurotherapeutic tools that enhance cognition in healthy individuals, with further applications in individuals with cognitive impairments, including children with attention deficit disorder (ADHD), underprivileged children with an early life history of stress and abuse, and older adults. These neurotherapeutic tools integrate the latest in software, hardware, and

Internet technologies and their efficacy is rigorously evaluated in randomized controlled trials, conducted in the United States and worldwide via research collaborations in global mental health. In recognition of her work, Dr. Mishra has received the Sandler Biomedical Breakthrough award, the NIH/Fogarty International Clinical Research Fellowship, a National Academies Keck Futures Initiative (NAKFI) grant shared with Dr. Adam Gazzaley, and a UC Global Health Basic Science Award, among other honors.

Megan A. Moreno, MD, MSEd, MPH, is an Associate Professor of Pediatrics at the University of Washington School of Medicine. She is PI of the Social Media and Adolescent Health Research Team (SMAHRT) at Seattle Children's Research Institute. Dr. Moreno's training includes an MD from George Washington University, a master's in education from the University of Wisconsin-Madison, and a master's in public health from the University of Washington. Dr. Moreno's research interests focus on the intersection of technology and adolescent health. SMAHRT is a transdisciplinary research team with emphasis on trainee mentorship, collaboration, and member diversity. Dr. Moreno and her research team focus on three core research areas: innovative approaches to adolescent health using social media, Internet safety education, and measuring technology use and misuse. SMAHRT places emphasis on the development and dissemination of ethical and sound research practices using innovative technologies. Dr. Moreno has provided presentations and served on committee and advisory boards both internationally and nationally regarding adolescent health and social media. Dr. Moreno currently serves as an executive committee member on the American Academy of Pediatrics Committee on Communications and Media. An important aspect of her research is in translation of research findings into practices and tools for use in communities by parents, educators, and providers. She is author of a parenting handbook for Internet safety based on research and collaborations with the American Academy of Practice.

Amanda Nosko, PhD, obtained her doctorate in social and developmental psychology at Wilfrid Laurier University. Her research focuses on disclosure and privacy practices in social networking sites and interventions aimed at promoting safe and effective use of social media for social and educational purposes. In particular, Amanda's research looks at how and why people are so drawn to social media, and whether usage differences exist as a function of various factors including, but not limited to, age, gender, experience, education, and peer culture. Currently, Amanda works as an instructional designer and instructor at Wilfrid Laurier University and the University of Waterloo. She has a well-developed knowledge of effective learning strategies (i.e., adult learning theory) and technologies, and has extensive experience with designing and instructing both in-class and online courses at the post-secondary level.

**Beverly Plester**, PhD, is a retired Senior Lecturer in Psychology and Honorary Research Fellow at Coventry University. She completed her PhD at the University of Sheffield, and has conducted research into children's use of textspeak and its relationship with traditional literacy measures. She has also studied children's spatial cognition and understanding of aerial photographs, and children's understanding of the speech act of promising.

Sara Prot, MA, completed her master's degree at the University of Zagreb in 2009 and is currently a doctoral candidate at Iowa State University. She is working with

Drs. Craig Anderson and Douglas Gentile, conducting research on aggression, prosocial behavior, media effects, and intergroup conflict.

Megan A. Pumper is a clinical research associate with the Social Media and Adolescent Health Research Team (SMAHRT) at Seattle Children's Research Institute, and she has been with SMAHRT since 2009. She graduated from the University of Wisconsin-Madison in 2012 with degrees in psychology and zoology and is looking to pursue graduate school in the future. Megan's research interests include substance use dependence and mental health predispositions such as depression, specifically how older adolescents are talking about these on social media. She is interested in differences in health displays across the variety of social media websites to which adolescents have access. Ms. Pumper has a particular interest in working with high-risk and international populations.

John T. E. Richardson, PhD, is a Professor of Student Learning and Assessment in the UK Open University's Institute of Educational Technology. He taught psychology for many years at Brunel University and has many publications in that field. He has spent the last 14 years as an educational researcher at the Open University. He specializes in large-scale quantitative surveys on various aspects of the experience of students in higher education (i.e., their approaches to studying, their academic engagement with their courses, and their perceptions of the academic quality of their courses and programs), as well as their academic attainment. He is a fellow of the British Psychological Society, a fellow of the UK Society for Research into Higher Education, and an academician of the UK Academy of Social Sciences.

Karen Rodham, PhD, is a Professor of Health Psychology at Staffordshire University. Her research explores the coping strategies employed by people when they are facing complex and/or chronic health-related problems. The questions that interest her most are those that require an in-depth qualitative approach to answer. More recently her focus has been on exploring how the Internet might be a means of obtaining/providing support for groups who are marginalized, perhaps because they have a taboo health issue (e.g., self-harm) or because they have mobility issues. In addition to her academic role, from 2006 to 2013 Karen was a practicing health psychologist in the National Health Service (NHS). During this time, she worked with people who were living with complex regional pain syndrome (CRPS), known more commonly in the United States as reflex sympathetic dystrophy (RSD). Her interest in ethics stems from her research and practice work that often involved sensitive issues, as well as from her experiences of serving on an NHS ethics committee as an expert panel member and chairing university faculty ethics committees.

Jeffrey Rokkum, MA, is the first in his family to attend college, and received his MA in clinical psychology in summer of 2014. Mr. Rokkum holds a special interest in the study of belief formation and how technology interacts with beliefs. Currently he mentors psychology undergraduate students in the George Marsh Applied Cognition Laboratory at California State University, Dominguez Hills while working on his independent projects under Drs. Larry Rosen, L. Mark Carrier, and Nancy Cheever. He maintains an active research role and just finished conducting a study on technology usage and fantasy proneness predicting magical beliefs. When he isn't attached to his various technologies (or attempting to acquire more technologies), he spends time outside hiking or photographing the wilderness.

Andrew Richard Schrock is a PhD candidate at the Annenberg School for Communication and Journalism at the University of Southern California (USC). His research focuses on practices and politics related to emergent media, particularly mobile communication, social media, and open data movements. Andrew received his BA in computer science from Brandeis University, successively working as a software engineer and freelance journalist for five years. At the University of Central Florida he taught applied courses in the Digital Media Department and wrote a thesis on habitual use of MySpace. Upon arriving in California he taught at CSU Long Beach and USC while serving as a research assistant to danah boyd at the Harvard Berkman Center for Internet and Society. He is currently part of several research groups including Civic Paths, the Annenberg Innovation Lab, and Open Data LA.

Nancy Signorielli, PhD (University of Pennsylvania, 1975), is Professor of Communication and Director of the MA program in communication at the University of Delaware. Beginning with her dissertation research, an in-depth methodological examination of television characters, she has conducted research on images in the media and how these images are related to people's conceptions of social reality (cultivation analysis) for the past 45 years. She is an original member of the Cultural Indicators Research Team. She has written and/or edited eight single- and coauthored books and published more than 100 journal articles and book chapters, as well as numerous research/grant reports and encyclopedia entries. She has made more than 150 presentations at invitational conferences as well as the annual conferences of the discipline's major organizations. She testified in May 1993 at House Energy and Commerce committee's subcommittee on telecommunications and finance oversight hearing on television violence and its impact on children. Her current research focuses on portrayals of aging, gender roles, occupations, minorities, and violence on prime-time network television. Dr. Signorielli teaches courses on mass communication, research methods, children and the media, and media message analysis. She has served on the editorial boards of several communication journals, and serves as an ad hoc reviewer for numerous journals. She has been noted as a prolific communication scholar, named a Centennial Scholar of the Eastern Communication Association in 2009, and received the Distinguished Scholar Award of the Broadcast Education Association in 2010.

David Šmahel, PhD, is an Associate Professor at the Institute of Children, Youth, and Family Research, Masaryk University, the Czech Republic. He directs the Interdisciplinary Research Team on Internet and Society workgroup, which researches social-psychological implications of the Internet and technology. His current research focuses on adolescents' and adults' Internet use, the risks and online problematic situations of children and adolescents, the construction of online identities, virtual relationships, and online addictive behavior. He is editor of Cyberpsychology: Journal of Psychosocial Research on Cyberspace and has co-authored the book Digital Youth: The Role of Media in Development. Dr. Šmahel led a cross-cultural qualitative investigation in nine European countries within the EU Kids Online III project and is author of the relevant report, The Meaning of Online Problematic Situations for Children. Dr. Šmahel has also published in several international journals such as Developmental Psychology, Cyberpsychology and Behavior, Zeitschrift für Psychologie, European Journal of Developmental Psychology, and others. He is also author of several book chapters in anthologies, including the Encyclopedia of Cyber Behavior,

Encyclopedia of Adolescence, Internet Addiction: A Handbook and Guide to Evaluation and Treatment, and Gesundheit und Neue Medien.

Caroline Stewart, BSc, is a research assistant in the School of Management at the University of Bath and has been working on projects investigating the role of new digital technology to support children's learning and development.

Kaveri Subrahmanyam, PhD, is Professor of Psychology at California State University, Los Angeles and Associate Director of the Children's Digital Media Center @ Los Angeles (UCLA/CSULA). In 2013, she was a recipient of the CSULA Outstanding Professor Award. Dr. Subrahmanyam is a nationally recognized expert regarding the effect of interactive media on children and adolescents. She also conducts research on dual language development, and studies Latino children's learning of Spanish and English. Dr. Subrahmanyam studies the cognitive and social implications of interactive media use. She conducted one of the first training studies showing the effects of computer game use on spatial skills. Subsequently she studied the developmental implications of chat rooms, blogs, social networking sites, and virtual worlds (e.g., Second Life) with a focus on the development of identity and intimacy. She is currently studying the relation between digital communication and well-being, the cognitive implications of digital media and multitasking, as well as the relation between Latino pre-school children's home media use and their oral language development. Dr. Subrahmanyam has published several research articles and book chapters on youth and digital media and has co-edited a special issue on social networking for the Journal of Applied Developmental Psychology (2008) and a special section on interactive media and human development for Developmental Psychology (2012). She is the co-author (with Dr. David Smahel) of Digital Youth: The Role of Media in Development (2010).

Jean M. Twenge, PhD, is a Professor of Psychology at San Diego State University, the author of more than 100 scientific publications, and author or co-author of two books: Generation Me: Why Today's Young Americans Are More Confident, Assertive, Entitled—and More Miserable Than Ever Before and The Narcissism Epidemic: Living in the Age of Entitlement (co-authored with W. Keith Campbell). Dr. Twenge frequently gives talks and seminars on teaching and working with today's young generation based on a dataset of 11 million young people. Her audiences have included college faculty and staff, high school teachers, military personnel, camp directors, and corporate executives. Her research has been covered in Time, Newsweek, The New York Times, USA Today, U.S. News & World Report, and The Washington Post, and she has been featured on The Today Show, Good Morning America, CBS This Morning, Fox and Friends, NBC Nightly News, Dateline NBC, and National Public Radio. She holds a BA and MA from the University of Chicago and a PhD from the University of Michigan.

Ludivina Vasquez was a member and research assistant at the George Marsh Applied Cognition (GMAC) Laboratory at California State University, Dominguez Hills (CSUDH) from 2010 to 2012. As an undergraduate, Ms. Vasquez was also a member of the Minority Biomedical Research Support Research Initiative for Scientific Enhancement, which afforded her the opportunity to present her research at both regional and national conferences on topics related to risky online and offline behavior. Ms. Vasquez was also a teaching assistant for several upper- and lower-division psychology courses at CSUDH and was a member of both Psi Chi, the National Honor

Society in Psychology, and the Honor Society of Phi Kappa Phi. She graduated from CSUDH with honors and was awarded both the Presidential Award for Personal Perseverance and the Presidential Outstanding Student Award. Currently, Ms. Vasquez is a graduate student at the University of Tulsa where she is earning her master's in clinical psychology. She is a member and research assistant at the Study of Prevention, Adjustment, and Resilience to Trauma and Adversity research lab and the University of Tulsa Institute of Trauma, Adversity, and Injustice. After graduating, Ms. Vasquez hopes to work in a school setting, preferably with at-risk or disadvantaged youth.

**Petra Vondráčková**, PhD, is a lecturer at Charles University in Prague and General University Hospital in Prague, First Faculty of Medicine, Department of Addictology, Czech Republic. She is a co-author of an online self-help program for people with Internet addiction. As a clinical psychologist and psychotherapist she has rich experience in working with people with mental illness. Her current research interests include Internet addiction and attachment.

Bradley M. Waite, PhD (Kent State University), is an experimental psychologist. He is Professor and former Chairperson of the Department of Psychological Science at Central Connecticut State University. He has long been interested in the ethics of research, and served administratively as the Chairperson of the CCSU Institutional Review Board where he had oversight of university research ethics compliance processes for more than 20 years. He has studied the impact of media and taught courses in media psychology for nearly 30 years. Dr. Waite also teaches courses at the graduate and undergraduate level in developmental psychology and research methodology. His primary research interests are in media psychology. His perspective is embedded in developmental psychology. Dr. Waite's research focuses on the impact of electronic media use on individuals by examining connections among media use, multitasking, and psychological dimensions such as cognition, attention, distractibility, and aggression. Dr. Waite is also interested in "real-life" issues associated with the ethics of research and in exploring the uses of in situ research strategies. He believes in the efficacy of collaborative research endeavors with colleagues and students and regularly serves as a research mentor to graduate and undergraduate students on a broad spectrum of media-related topics. He is an active member of several professional organizations including the American Psychological Association, the Association for Psychological Science, and Public Responsibility in Medicine and Research.

Sam Waldron, BSc, graduated from Aston University with a BSc in human psychology in 2010. She has since been working as a researcher based at Coventry University, within the Centre for Research in Psychology, Behaviour, and Achievement. Her research interests focus mainly on the impact of new technologies upon language skills in both children and adults. To date she has co-authored several journal articles examining the impact of text messaging and textism use upon spelling and grammatical abilities in primary school, secondary school, and undergraduate cohorts. These studies have been published in several journals, including the *British Journal of Developmental Psychology*, *Computers and Education*, and the *Journal of Reading and Writing*. She is currently looking at the impact predictive text use has upon both textism use and grammatical ability. She also intends to extend her work by examining the differences between intentional and unintentional texting errors. She is also interested in attitudinal differences between traditional and digital reading formats.

Nicole E. Werner, PhD, received her doctorate in human factors and applied cognition in the George Mason University Department of Psychology. Her research focuses on interrupted and multiple task management, communication and team coordination, error analysis and prevention, as well as applying human factors to improve patient safety and healthcare systems. She has studied interrupted task performance in a variety of settings including the laboratory, the pharmacy, in nursing, and in trauma resuscitation teams. Her research has focused on bridging theoretical concepts related to interrupted task management developed in the laboratory into real-world settings. Ms. Werner is also a research analyst at the Johns Hopkins University School of Medicine in the Division of Geriatric Medicine and Gerontology as well as the Johns Hopkins University School of Nursing Center for Innovative Care in Aging, and a member of the Johns Hopkins Medicine Armstrong Institute for Patient Safety and Quality. She is a Telluride Patient Safety Roundtable Scholar and recipient of the 2014 Human Factors and Ergonomics Society Student Member with Honors award.

**Elizabeth Whittaker** is a student at Clemson University majoring in psychology with a focus on statistics. Elizabeth's primary research focus is on cyberbullying and the use of social media in cyber aggression.

Clare Wood, PhD, is Professor of Psychology in Education at Coventry University and the Director of the Centre for Research in Psychology, Behaviour, and Achievement. Her research interests over the last 20 years include the early identification and remediation of literacy difficulties in children, the relationships between speech and written language skills, and the educational potential of technology. In 2000 she was awarded the Reading/Literacy Research Fellowship by the International Reading Association and in 2006 she received the British Psychological Society's award for Excellence in the Teaching of Psychology. She is committed to developing more integrated theoretical accounts of literacy attainment and understanding the ecology of reading difficulties.

Eileen Wood, PhD, is a Professor in the Department of Psychology at Wilfrid Laurier University. With degrees in both developmental and instructional psychology, her primary research interests involve examining how children, youth, and adults (emerging through older) acquire, maintain, and reproduce information in educational contexts. One of her research programs investigates traditional instructional strategies that facilitate learning and memory. A second program investigates the use of technology as instructional tools and its impact on instructors and learners. This research examines new instructional technologies relative to traditional instructional strategies, and as unique instructional opportunities. In addition, she examines the use and impact of using computers, digital technology, and mobile technologies for social purposes both in and out of the classroom. She has published numerous research articles, chapters, and textbooks. She has been recognized for her strengths as an instructor and researcher. She is the recipient of the University Teaching Excellence Award, the Hoffman-Little Award for Teaching Excellence, and the OCUFA Teaching Excellence Award. She is also the recipient of the Research Professor Award. In addition, two of her textbooks were awarded Book of the Year awards. She is currently investigating on-task multitasking when using technology in the classroom and parent-child social interactions with mobile devices.