eHEALTH
Current Evidence, Promises, Perils and Future Directions

Edited by Timothy M. Hale, Wen-Ying Sylvia Chou and Shelia R. Cotten

Sponsored by the Communication, Information Technologies, and Media Sociology section of the American Sociological Association (CITAMS)

STUDIES IN MEDIA AND COMMUNICATIONS
VOLUME 15
eHEALTH: CURRENT EVIDENCE, PROMISES, PERILS AND FUTURE DIRECTIONS
STUDIES IN MEDIA AND COMMUNICATIONS

Series Editors: Shelia R. Cotten, Laura Robinson and Jeremy Schulz

Volumes 8–10: Laura Robinson and Shelia R. Cotten
Volume 11 Onwards: Laura Robinson, Shelia R. Cotten and Jeremy Schulz

Recent Volumes:
Volume 6: Human Rights and Media – Edited by Diana Papademas
Volume 7: School Shootings: Mediatized Violence in a Global Age – Edited by Glenn W. Muschert and Johanna Sumiala
Volume 8: Communication and Information Technologies Annual: Doing and Being Digital: Mediated Childhoods – Edited by Laura Robinson, Shelia R. Cotten, and Jeremy Schulz
Volume 10: Communication and Information Technologies Annual: Digital Distinctions and Inequalities – Edited by Laura Robinson, Shelia R. Cotten, Jeremy Schulz, Timothy M. Hale, and Apryl Williams
Volume 12: Communication and Information Technologies Annual: Digital Empowerment: Opportunities and Challenges of Inclusion in Latin America and the Caribbean – Edited by Laura Robinson, Jeremy Schulz, and Hopeton S. Dunn
Volume 13: Brazil: Media from the Country of the Future – ESMC volume editors: Laura Robinson, Jeremy Schulz, and Apryl Williams; guest volume editors: Pedro Aguiar, John Baldwin, Antonio C. La Pastina, Monica Martinez, Sonia Virgínia Moreira, Heloisa Pait, and Joseph D. Straubhaar; volume guest associate and assistant editors: Sayonara Leal and Nicole Speciale
Volume 14: Social Movements and Media – Edited by Jennifer Earl and Deana A. Rohlinger
CONTENTS

SERIES EDITOR BIOGRAPHIES ix

CONTRIBUTOR BIOGRAPHIES xi

EDITORIAL BOARD xix

INTRODUCTION: PROMISES AND PERILS OF eHEALTH
Timothy M. Hale, Wen-Ying Sylvia Chou and Shelia R. Cotten 1

CHAPTER 1 “I WENT HOME TO GOOGLE”: HOW USERS ASSESS THE CREDIBILITY OF ONLINE HEALTH INFORMATION
Erin Klawitter and Eszter Hargittai 11

CHAPTER 2 TRUST IN HEALTH INFORMATION SOURCES AND CHANNELS, THEN AND NOW: EVIDENCE FROM THE HEALTH INFORMATION NATIONAL TRENDS SURVEY (2005–2013)
Chan L. Thai, Anna Gaysynsky, Angela Falisi, Wen-Ying Sylvia Chou, Kelly Blake and Bradford W. Hesse 43

CHAPTER 3 HEALTH-RELATED INFORMATION SEEKING AMONG DEAF ADULTS: FINDINGS FROM THE 2017 HEALTH INFORMATION NATIONAL TRENDS SURVEY IN AMERICAN SIGN LANGUAGE (HINTS-ASL)
Poorna Kushalnagar and Raja Kushalnagar 69
CHAPTER 4 THE IMPACT OF HEALTH PRACTITIONERS’ USE OF COMMUNICATION TECHNOLOGIES ON TEMPORAL CAPITAL AND AUTONOMY
   Cynthia Wang 93

CHAPTER 5 TRACKING HEALTH AND FITNESS: A CULTURAL EXAMINATION OF SELF-QUANTIFICATION, BIOMEDICALIZATION, AND GENDER
   Amy A. Ross 123

CHAPTER 6 THE THIRD DIGITAL DIVIDE IN THE HEALTH DOMAIN: IS INTERNET USE FOR HEALTH PURPOSES ASSOCIATED WITH HEALTH BENEFITS?
   Efrat Neter, Esther Brainin and Orna Baron-Epel 153

CHAPTER 7 WHO IS LIKELY TO BENEFIT MOST FROM ONLINE CANCER SUPPORT COMMUNITIES? THE ROLE OF PERSONALITY TRAITS
   Yuchen Ren and Xiaojing An 177

CHAPTER 8 POSITIVE IMPACTS OF ONLINE HEALTH INFORMATION SEEKING ON HEALTH PERCEPTIONS AND THE MEDIATIONAL RELATIONSHIP WITH HEALTH COMMUNICATION AND SENSE OF EMPOWERMENT
   Gül Seçkin, Susan Hughes, Cassie Hudson, David Laljer and Dale Yeatts 205

CHAPTER 9 DEVELOPING A GRAPHIC TEXT MESSAGING INTERVENTION FOR SMOKING CESSATION TARGETING FIRST-GENERATION CHINESE IMMIGRANT MEN: INSIGHTS FROM FOCUS GROUP INTERVIEWS
   Emily B. Peterson, Xiaoquan Zhao, Xiaomei Cai and Kyeung Mi Oh 241
This page intentionally left blank
SERIES EDITOR BIOGRAPHIES

Wen-Ying Sylvia Chou, MPH, PhD is a Program Director in the Health Communication and Informatics Research Branch (HCIRB) of the Behavioral Research Program (BRP) at the National Cancer Institute (NCI). Her recent research projects have included patient-provider communication, social media and cancer control, healthcare team communication, health literacy, and palliative care. Originally trained as a sociolinguist, she has expertise in qualitative analyses and ethnography and has extensive publications using mixed methods. As a Program Director, she leads a number of NIH initiatives in social media, communication inequalities, and mixed-methods research in health communication.

Shelia R. Cotten, PhD is MSU Foundation Professor in the Department of Media and Information at Michigan State University and the Director of the Sparrow/MSU Center for Innovation and Research. She has served as the Chair of CITAMS and has previously held appointments at the University of Alabama at Birmingham and the University of Maryland, Baltimore County. Cotten’s work addresses key social problems related to information and communication technology (ICT) access, use, and impacts/outcomes across the life course. She has published on a number of topics including the XO laptop program in Birmingham, Alabama, and the use of ICTs to improve older Americans’ health and quality of life. The body of her work was recognized by the CITASA Award for Public Sociology in 2013 and the CITAMS Career Achievement Award in 2016.

Timothy M. Hale, PhD is the Associate Director of Product Development at Partners HealthCare, Connected Health Innovation (CHI) and an Instructor at Harvard Medical School. His research interest is the impact of information and communication technologies (ICTs) on health care and health lifestyles. His current research explores the use of data collected from mobile devices to model an individual’s activity space and how this relates to physical health and mental well-being. Prior to joining CHI, he received a doctorate in medical sociology from the University of Alabama at Birmingham where
he continued as a postdoctoral fellow studying the social and psychological impacts of ICTs, focusing primarily on youth and older adults.

**Aneka Khilnani** is a recent Graduate from Santa Clara University with a BS in Public Health Science, where she graduated Summa Cum Laude. While at SCU, Khilnani researched the link between online support communities and health outcomes for diabetics, which she presented at an undergraduate conference and at the Partnership for Progress on the Digital Divide conference. She also received a $30,000 grant from the Health Trust Initiative to support a two-year research project investigating the link between stress hormone levels and obesity in a low-income adolescent population. She is currently doing clinical research at UC Irvine in preparation for entering an MS in Physiology at Georgetown in the Fall and eventually an MD program.
CONTRIBUTOR BIOGRAPHIES

**Xiaojing An, PhD** is a Lecturer in the School of Chinese Studies, Zhejiang International Studies University. She received her PhD in Communication from the Chinese University of Hong Kong. Her research interest mainly lies in social media, health communication, and cultural studies. She has carried out studies on (1) online support communities and cancer patients’ psychological adjustment, (2) new media uses and Chinese male’s body dissatisfaction, (3) documentary and historical memory of anti-Japanese war, (4) new media uses and Chinese female’s acceptance of cosmetic surgery, and (5) media coverage of Xinjiang separatist movement.

**Orna Baron-Epel, PhD** is Director of the School of Public Health at the University of Haifa, Israel and Director at the Center for Evaluation of Health Promotion Interventions. Her PhD is in Biology from the Tel Aviv University and her MPH is from the Hebrew University. She has been involved in the development and running of the School of Public Health since 2003 and before that she oversaw publications at the Israeli CDC. Her research interests are mainly: health promotion, social epidemiology, health literacy, and health behaviors. She is involved in many research projects such as health literacy, social aspects of tobacco use, and vaccinations.

**Kelly Blake, ScD** is a Health Scientist and Program Director at the National Cancer Institute (NCI), where she serves on the management team for the Health Information National Trends Survey. Her research examines media effects and social determinants of health. Prior to re-joining NCI, she was a cancer prevention fellow at the Dana-Farber Cancer Institute; a science writer at the NCI, Office of the Director; a public health educator and site coordinator for the West Virginia Rural Health Education Partnerships; and a health communication research fellow at NIOSH. She earned a Doctor of Science degree in social epidemiology from the Harvard School of Public Health, a MS in community health education from West Virginia University, and a BA in journalism and mass communications from Marshall University.

**Esther Brainin, PhD** is a Lecturer at Ruppin Academic Center. She explores a range of topics linked to how information and communication
technologies lead to social change. She holds a PhD from the Israel Institute of Technology and for the past 20 years has conducted studies in the intersection of technology and society, the Digital Divide and partial usage of the Internet; and the relationship between Internet usage, social stratification, and individuals’ empowerment. Some of the current projects include examining e-WOM for health purposes.

Xiaomei Cai, PhD is an Associate Professor of Communication at George Mason University. She joined George Mason in 2006. She received her BA in English Language and Literature from Jilin University, MA in English Linguistics from Peking University, MA in Mass Communication from Indiana University, and PhD in Mass Communication from Indiana University. Her research focuses on children and media, in particular, children’s privacy issues on the Internet. She also examines online advertising practices on children's websites. Her other lines of research include the displacement effects of the Internet and health communication.

Wen-Ying Sylvia Chou, MPH, PhD is a Program Director in the Health Communication and Informatics Research Branch (HCIRB) of the Behavioral Research Program (BRP) at the National Cancer Institute (NCI). Her recent research projects have included patient-provider communication, social media and cancer control, healthcare team communication, health literacy, and palliative care. Originally trained as a sociolinguist, she has expertise in qualitative analyses and ethnography and has extensive publications using mixed methods. As a Program Director, she leads a number of NIH initiatives in social media, communication inequalities, and mixed-methods research in health communication.

Christopher Clemens, MFA, PhD is an Assistant Professor of Broadcast and Electronic Communication Arts at San Francisco State University where he teaches courses on media effects research and video production. His research focuses on gender and sexuality in media, media effects, and media literacy.

Angela Falisi, MPH is a Presidential Management Fellow at the National Cancer Institute. Angela first came to National Cancer Institute in 2015 as a trainee in the Health Communication and Informatics Research Branch, and has been involved in several initiatives and research projects in the areas of health information technology, cancer survivorship, and communication in cancer clinical trials. She also worked in program evaluation and communication planning at the New York State Department of Health, and in the implementation of behavioral health programs for college students at
Contributor Biographies

Cornell University. Angela holds an MPH from the University at Albany School of Public Health and a BS from Cornell University.

Anna Gaysynsky, MPH is an Associate at ICF, providing programmatic support to the Behavioral Research Program (BRP) at the National Cancer Institute (NCI). Before joining NCI in 2016, Ms. Gaysynsky worked at The Corkery Group, a health-focused PR firm providing communications support to clients in the public health, non-profit, and pharmaceutical fields. Ms. Gaysynsky holds an MPH degree in Health Promotion from Columbia University and a BS degree in Media, Culture and Communication from New York University.

Eszter Hargittai, PhD is a Professor and Chair of Internet Use and Society at the University of Zurich. Hargittai’s research looks at how people benefit from their digital media use with a focus on how differences in people’s web-use skills influence what they do online. She has looked at these questions in the domains of information seeking, health, political participation, job search, the sharing of creative content, and privacy management. Hargittai is editor of Research Confidential: Solutions to Problems Most Social Scientists Pretend They Never Have and a co-editor of Digital Research Confidential: The Secrets of Studying Behavior Online.

Bradford W. Hesse, PhD is Chief of the Health Communication and Informatics Research Branch at the National Cancer Institute. Trained as a psychologist, he has worked on understanding the ways in which mediated communication environments can be used to improve decision-making, enhance the user experience, influence group outcomes, and support adaptive and healthy behaviors. His work has taken him into the areas of human–computer interaction, medical informatics, health psychology, and media psychology. He currently serves as program director for the Health Information National Trends Survey and oversees a portfolio of science communication grants. His book “Oncology Informatics” won the PROSE award for best text in clinical medicine in 2017.

Cassie Hudson is a Doctoral Candidate in the Department of Sociology at the University of North Texas (UNT) where she specializes in immigration and the sociology of information. Her primary field of interest is the dissemination of information about the migratory process and the availability of this information to potential immigrants. Cassie is currently employed as a Faculty Development Specialist at UNT where she designs, implements, and assess a professional development program for aspiring professors.
Susan Hughes is a Doctoral Student in Sociology at the University of North Texas. Her research interests include the role of structural dimensions of inequality on women's health, understanding how technology is transforming access to health information and relationships with healthcare professionals, exploring community-directed cultivation of cultural and social capital, and the use of peer mentoring as a protective factor for disadvantaged populations. She has taught as an Adjunct Professor of Sociology at Rose State College. She is a Research Analyst at the Oklahoma Department of Mental Health and Substance Abuse Services and has worked in the field of mental health for 11 years.

Erin Klawitter, PhD is a Graduate of the Media, Technology and Society Program at Northwestern University. She is a winner of the International Communication Association Communication and Technology Division’s 2017 Herbert S. Dordick Dissertation Prize. Her research focuses on how individuals achieve beneficial economic outcomes by participating in online peer-to-peer markets. Her main project examines independent artists’ use of social media and e-commerce websites to promote and sell their handmade creative goods.

Poorna Kushalnagar, PhD is a Professor and Director of the Deaf Communications Lab at Gallaudet University. She received her PhD in Developmental Psychology at the University of Houston and completed a National Institutes of Health (NIH) postdoctoral training and fellowship at the University of Washington and the University of Rochester School of Medicine and Dentistry, respectively. She is the PI of grants funded by the NIH, which support studies aligned with her research interests: (1) generic- and deaf-specific quality-of-life outcomes; (2) standardization of PROMIS-Deaf profile for deaf adults; (3) Internet usage for cancer purposes; and (4) interventions to improve deaf patient reported outcomes.

Raja Kushalnagar, PhD is a Director of the Information Technology Program in the Science, Technology, and Mathematics Department at Gallaudet University. His research interests focus on the intersection of disability law, accessible technology, and human–computer interaction. He worked in industry for over five years before returning to academia and disability law policy. He completed a JD and LLM in disability law, and an MS and PhD in Computer Science. He served on the Federal Communications Commission’s Consumer Advocacy Commission. He has published several peer-reviewed publications in accessible technology, and the intersection of disability and intellectual property law.
David “Jessie” Laljer, MA received his Master’s in Journalism at the University of North Texas and is currently pursuing a PhD in Sociology at the University of Oklahoma. His thesis compared media usage between binary and non-binary transgender individuals when discovering and describing their gender identity. His research interests include gender studies, LGBT, and particularly non-binary transgender individuals. He has written two novels and several short stories.

Efrat Neter, PhD is a Behavioral Scientist at Ruppin Academic Center. Her PhD is from the Hebrew University. Her research interests are primarily (1) Health behavior – antecedents, decision-making, promotion and change, and translating laboratory findings into large-scale population interventions; (2) Health information search on the Internet and particularly eHealth literacy; and (3) Self-management of chronic medical conditions such as multiple sclerosis and diabetes, where Efrat studies self-care behaviors and medication adherence. Efrat serves as a reviewer of several journals, scientific conferences, and funding agencies and she is also a recipient of several research grants.

Kyeung Mi Oh, PhD is a Professor of Nursing, specializes in Teaching Nursing Research and Statistics Courses. She has a strong background and extensive experience in quantitative, qualitative, and mixed methods research. Her current studies examine racial disparities in cancer screening practices. She is particularly interested in the Korean American population. She conducted a study to examine Korean Americans’ cancer-related health information sources and cancer screening knowledge and behaviors concerning the seven most prevalent types of cancers for Korean-Americans. Recently, in collaboration with Department of Communication, as a Co-PI, Dr. Oh conducted a pilot intervention study to encourage smoking cessation among first-generation Chinese and Korean immigrant men.

Emily B. Peterson, PhD is a Cancer Research Training Award Post-Doctoral Fellow in the Division of Cancer Control and Population Sciences at the National Cancer Institute. Improving the patient–provider relationship is the driving force of her research, with her past work focused on patient-centered care throughout the cancer continuum, cancer screening discussions, and pediatrician-adolescent counseling about nicotine and tobacco. Her work also focuses on incorporating message framing and persuasion theories into public health messaging. Dr. Peterson earned a PhD in Communication from George Mason University. Her dissertation used a mixed-methods approach to develop a training curriculum for primary care providers to discuss electronic cigarette with adolescent patients.
Yuchen Ren is a Doctoral Candidate in the School of Journalism and Communication, at the Chinese University of Hong Kong (CUHK). Yuchen graduated from CUHK with an MPhil degree in Communication in 2015. Before coming to Hong Kong, she graduated from Fudan University with a BA in Communication in 2012. She is interested in health communication, persuasion, and new media. Her dissertation explores how motivational factors influence the communication effect of medicalized media framing.

Amy A. Ross is PhD Candidate in the Media, Technology, and Society (MTS) program at Northwestern University. She received a BA in Communication from the Universidad de Costa Rica and an MA from the MTS program at Northwestern. Her research interests include medicalization and its relationship to gender, media, and technology. Her dissertation focuses specifically on the medicalization of eating. In her previous research, she studied the changing standards for news production in a learning newsroom. Before pursuing a graduate degree, she worked for five years as a Journalist at the Costa Rican newspaper, La Nación.

Ashley Sanders-Jackson, MA, PhD is an Assistant Professor of Advertising and Public Relations in the College of Communication Arts and Sciences at Michigan State University. Her research focuses on health disparities and health communication. In particular, Dr. Sanders-Jackson is interested in understanding how the mediated and physical environments impact on tobacco use and other health behaviors and how interpersonal relationships and mediated information can positively impact health behaviors.

Gül Seçkin, PhD is an Assistant Professor at the University of North Texas. Her research focuses on health, technology, and aging. Dr. Seckin explores the questions of electronic health literacy and how health information on the Internet affects medical encounters, patient participation in medical decision-making, and self-healthcare practices. Dr. Seckin also studies cancer survivorship issues within the context of computer-mediated social relationships. She received her Masters of Science degree in Gerontology from the University of Southern California and her PhD from Case Western Reserve University.

Chan L. Thai, PhD, MPH is an Assistant Professor in the Department of Communication at Santa Clara University (SCU). Her areas of research include strategic health communication, media literacy interventions, and program design and evaluation. Prior to joining SCU, Dr. Thai completed a post-doctoral fellowship in the Health Communication and Informatics Research Branch at the National Cancer Institute. Her work has been published in communication, public health, and behavioral medicine journals. She earned
her PhD in Communication at the University of California, Santa Barbara, her MPH in Community Health Sciences from the UCLA Fielding School of Public Health, and her BA with a double major in Mass Communication and Social Welfare from the University of California, Berkeley.

Cynthia Wang, PhD is an Assistant Professor of Communication Studies at California State University, Los Angeles. She received her PhD from the Annenberg School of Communication at the University of Southern California. Her research, framed in critical/cultural perspectives, focuses on how digital media and new communication technologies shift and reconfigure social relations, cultural practices, and power dynamics.

Kristen Wozniak is an Undergraduate Student in Communication Arts and Sciences at Michigan State University. Her interests generally revolve around health communication and health disparities.

Dale Yeatts, PhD specializes in Research on Aging, Health, Environment, and Work teams. He has published three books and over 50 articles. He has had three major grants funded, including funding from the National Science Foundation. More recently, he has examined the impacts of the environment on the physical and mental health of older persons living in Chinese villages and has examined factors inhibiting persons from using energy-efficient technologies (e.g., programmable thermostats, solar panels). Currently he is exploring factors contributing to a “revolving door” found among older, low-income persons being admitted to the hospital.

Xiaoquan Zhao, PhD is a Professor at George Mason University. His research focuses on health message design and effects, evaluation of public communication campaigns, health information seeking, information disparities affecting vulnerable populations, news effects on health and risk perceptions, and the role of the self in health behavior and persuasive communication. His recent projects include research on the effectiveness of graphic warning labels on cigarette packets, message testing for FDA's youth tobacco prevention campaigns, evaluation of climate change communication campaigns featuring TV meteorologists as message sources, and studies of self-affirmation as a method to reduce resistance to health and risk communication messages.
Anne Holohan  
*Trinity College Dublin*

Heather Horst  
*RMIT University*

Gabe Ignatow  
*University of North Texas*

Samantha Nogueira Joyce  
*St. Mary’s College of California*

Vikki Katz  
*Rutgers University*

Nalini Kotamraju  
*IT University of Copenhagen*

Robert LaRose  
*Michigan State University*

Sayonara Leal  
*University of Brasilia*

Brian Loader  
*University of York*

Monica Martinez  
*Universidade de Sorocaba*

Noah McClain  
*Illinois Institute of Technology*

Gustavo Mesch  
*University of Haifa*

Sonia Virginia Moreira  
*Universidade do Estado Rio de Janeiro*

Gina Neff  
*University of Washington*

Christena Nippert-Eng  
*Illinois Institute of Technology*

Hiroshi Ono  
*Texas A&M University*

Heloisa Pait  
*Universidade Estadual Paulista*

C. J. Pascoe  
*University of Oregon*

Antonio C. La Pastina  
*Texas A&M*

Trevor Pinch  
*Cornell University*

Anabel Quan-Haase  
*University of Western Ontario*

Kelly Quinn  
*University of Illinois at Chicago*

Violaine Roussel  
*University of Paris 8*

Saskia Sassen  
*Columbia University*

Sara Schoonmaker  
*University of Redlands*

Markus Schulz  
*The New School*

Mike Stern  
*University of Chicago*

Joseph D. Straubhaar  
*The University of Texas at Austin*

Andrea Hoplight Tapia  
*Penn State University*

Simone Tosoni  
*Catholic University of Milan*
Editorial Board

Zeynep Tufekci
University of North Carolina, Chapel Hill

Keith Warner
Santa Clara University

Barry Wellman
NetLab, University of Toronto

Jim Witte
George Mason University

Julie B. Wiest
West Chester University of Pennsylvania

Simeon Yates
University of Liverpool