

Online Social Networks and Smoking Cessation: Strategic Research Opportunities

SEPTEMBER 30 – OCTOBER 1, 2010 | ACADEMY FOR EDUCATIONAL DEVELOPMENT | WASHINGTON, DC



LEGACYSM

The Schroeder Institute
FOR TOBACCO RESEARCH AND POLICY STUDIES

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We would like to gratefully acknowledge the following organizations for their generous support of this conference:

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Welcome!

On behalf of the organizers and planning committee, we welcome you to our conference on **Online Social Networks and Smoking Cessation: Strategic Research Opportunities**. This exciting conference is the first in a series on identifying emerging research opportunities in tobacco control. This event will focus on the powerful potential of online social network technology for smoking cessation behavior change and will define the state of the science and the research gaps, opportunities and funding priorities. The conference was planned by internationally renowned experts in behavioral and social science, tobacco cessation, and social network science. You are joined at the conference by thought leaders from multiple disciplines including academic and applied research in tobacco control and behavior change, Internet entrepreneurs, computational and mathematical scientists, and scientific grant funders.

The goal of this conference is to identify transdisciplinary research areas that are ripe for funding in this emerging new arena. It will provide a unique opportunity for networking among participants and the larger community of stakeholders committed to eliminating tobacco use behavior and its preventable disease and economic burdens on society.

Thank you for your involvement as we work together to leverage new opportunities to empower cessation and save lives.



David B. Abrams, PhD
Executive Director
Schroeder Institute



Nathan K. Cobb, MD
Research Investigator
Schroeder Institute



Amanda L. Graham, PhD
Director, Research Development
Schroeder Institute



BACKGROUND AND RATIONALE FOR THE CONFERENCE

Changing human behavior at the population level is a critical part of how the behavioral and social sciences can benefit society. Understanding and changing tobacco use behavior has served as a prime example of putting what is known about behavior change into practice and policy. Since the first Surgeon General's Report about the dangers of tobacco use in 1964, smoking prevalence has been more than halved from over 45% to under 20%. Despite this progress, over 40 million Americans still smoke. New, innovative intervention approaches are needed if we are to see major changes in the overall prevalence of tobacco use and its associated morbidity, mortality, and cost.

There is an extraordinary opportunity for innovation in population-based tobacco dependence treatment in understanding and harnessing the power of online networks. The Internet has changed the very fabric of social interaction and information exchange. While the private sector has taken advantage of technological trends and real-time data capture to understand and influence consumer behavior changes, the behavioral and social sciences have yet to fully harness the potential of online social networks for medical and health related behavior change.

Social network science is a well-established field with its own theories, measures, and methods that have been widely used in a variety of contexts. There is a growing evidence base for the application of social network methods within tobacco control. Several recent studies have applied social network methods to understand the role of face-to-face social networks in the uptake of smoking and in smoking cessation, while others have begun to investigate the role of online networks in health behavior change. Large-scale online social utilities such as Facebook and MySpace may offer unprecedented research opportunities and new insights into the social processes within functional networks, as well as powerful delivery channels for mass-scale, population-based interventions reaching hundreds of millions of users. This conference will inspire and nurture the future of online behavioral interventions not only for tobacco use behavior but also for other medical care and public health applications.

CONFERENCE PURPOSE

Given the rapidly changing technology landscape and the emergence of large-scale online social networks, this transdisciplinary conference will identify pressing research questions and funding priorities to improve smoking cessation outcomes. The event will also be relevant to other areas of health behavior such as adherence to treatment, obesity prevention, chronic disease management, and addiction treatment where harnessing the power of social networks and social support can play a central role in improving outcomes.

CONFERENCE STRUCTURE

The conference is structured to maximize opportunities for discussion and interaction among a multidisciplinary group of participants. To establish a common knowledge base and facilitate transdisciplinary discussion, the conference will consist of expert panel presentations of a core content area interspersed with discussion among all conference participants. Participants will be tasked with envisioning what the gaps and opportunities are and what breakthrough questions they would want to answer to move the field forward. With these presentations and discussions as a starting point, breakout groups will then discuss in more depth the research priorities and funding needs specific to optimizing cessation interventions and policies. Facilitators will lead each group so that at the end of this time a set of focused and well-crafted research recommendations and priorities will emerge. Members of an expanded planning committee will stay for a third day to synthesize and draft final recommendations generated by the conference regarding research and funding priorities for the next decade. These strategic recommendations will be widely and rapidly disseminated to key stakeholders

DISSEMINATION PLAN

There will be multiple target audiences and end-products from this conference. The audiences include federal funding agencies such as DHHS, the NIH and CDC as well as private foundations interested in public health. Peer-reviewed proceedings will be produced as part of the Schroeder Institute's conference series, designed as a timely resource for researchers and funders in tobacco control. The proceedings will be distributed rapidly after the conference for maximal impact using multiple dissemination channels and social media approaches to reach not only the scientific community, but also entrepreneurs and intervention developers. Other end-products may also include rapid publications in PubMed-accessible, high-impact journals that summarize core issues from the meeting. Finally, planning committee members will coordinate symposia at key conferences that summarize content from the conference.

ABOUT THE CONFERENCE SERIES

The Schroeder Institute's state-of-the-science conference series identifies extraordinary opportunities in basic science, intervention, and policy on tobacco use behavior with the potential to dramatically improve the nation's health. The series stimulates the field to focus on "what we know and what we need to know that will make a difference." The series is a call to action to highlight recommendations for research focus and investment by funding agencies. The ultimate goal is to alert the science, practice, and policy communities to the most pressing and exciting opportunities and challenges that will improve the nation's health and well-being.

ABOUT THE SCHROEDER INSTITUTE

The Schroeder Institute was established by Legacy in 2008 to provide a nexus for cutting edge research to accelerate reduction in smoking prevalence in the US. Strategically located in Washington, DC, the Schroeder Institute's twofold vision is to play a national leadership role in identifying new research priorities and to conduct research and training in tobacco control. The Schroeder Institute has established partnerships with the Johns Hopkins Bloomberg School of Public Health and Georgetown University's Lombardi Comprehensive Cancer Center to assist in achieving this vision.

ABOUT LEGACY

Located in Washington, DC, LegacySM is a national public health organization dedicated to building a world where young people reject tobacco and anyone can quit. Legacy was created as a result of the 1998 Master Settlement Agreement reached between attorneys general from 46 states, five U.S. territories and the tobacco industry. Legacy develops programs that address the health effects of tobacco use – especially among vulnerable populations disproportionately affected by the toll of tobacco – and is internationally known for its work in counter-marketing campaigns, youth activism, research, and training. Legacy's programs include truth[®], a national youth smoking prevention campaign that has been cited as having contributed to significant declines in youth smoking; EX[®], an innovative public health program designed to change the way smokers approach quitting, as well as numerous research initiatives. More information is available at www.legacyforhealth.org.

Conference Themes



THEME 1 SOCIAL SUPPORT, SOCIAL NETWORKS, AND SMOKING

The goals of this panel are 1) to review what is known about the theoretical processes that underlie the connections of social support, social influence, and social networks to health behavior change broadly and smoking cessation in particular, and 2) to provide a common understanding, context, and language for our multidisciplinary audience.

Dr. Robin Mermelstein will review and summarize the evidence regarding social support interventions for smoking cessation, with a focus on dyadic (partner and buddy) and small group intervention approaches. *Dr. Tom Valente* will review the evolution of “offline” social network based interventions in tobacco control, including observational studies and randomized controlled trials.

THEME 2 ONLINE SOCIAL NETWORKS

The goals of this session are 1) to provide common content, context, and language regarding online social networks, 2) to review what is known about the role of social networks in smoking and cessation, and 3) to describe current and potential future online social networks and the kinds of data and analytic opportunities they allow. *Dr. Nathan Cobb* will review the history of online communities for smoking cessation, research evidence regarding their effectiveness, and the limits of current data models and research methods. *Dr. Noshir Contractor* will describe the evolution of massive online social networks (such as Facebook) and how they differ from traditional concepts of social networks, including issues of scale, viral spread, and privacy. *Dr. Nathan Eagle* will review how network graphs can be constructed out of mobile device data, and how this information can inform behavioral interventions at massive scale.

During a working lunch, *Mr. Eric Asche* will discuss the importance of involving and considering end users throughout the development of online applications. He will then facilitate a discussion with a panel of current and former smokers who are members of online smoking cessation social networks. The purpose of this panel is enable a better understanding of the role that online social networks play in the lives of actual end-users and what might be learned from consumers with regard to research priorities.

THEME 3 METHODS, DESIGN, AND ANALYSIS

This session will feature presentations of real-world social network applications, both within tobacco control and in other arenas of behavior change. *Mr. Dave Heilmann* will describe SparkPeople.com and the key lessons learned in developing, implementing, and managing a large online social network focused on multiple health risk behaviors, including tobacco. *Mr. Trevor van Mierlo* will discuss the experience of Evolution Health in running a long-lived smoking cessation network, with an emphasis on issues related to sustaining online support groups and the future potential for online support interventions for cessation. *Mr. Chris Cartter* will describe the approach of MeYou Health to building an online community and social network outside the constraints of the traditional web. Discussion will address how online social networks might be leveraged at each phase of the cessation process (e.g., to drive demand for evidence based cessation treatments, to promote and assist with cessation or to help maintain abstinence); the potential for negative social interactions that adversely impact cessation and other outcomes (e.g., When is it beneficial to dissolve ties?); and intervention approaches at the macro or network level versus the ego level (feasibility, methodological implications).

THEME 4 INTERVENTION APPROACHES

The goal of this session is to review the methodological, measurement, and analytic issues regarding social network data collection, analysis, and interpretation as they pertain to behavior change. Discussion will center around how the field of tobacco control can move from descriptive to inferential to predictive/explanatory approaches, and how dynamic models can be used to inform theory and to develop and evaluate the impact of innovative network interventions on cessation. *Dr. Linda Collins* will describe iterative design and evaluation methodologies for the development of online behavioral interventions. *Dr. Tom Snijders* will describe the methodological challenges present in analyzing longitudinal network data, including the disentanglement of network evolution from behavior change at the actor level. *Dr. Michael Macy* will synthesize the opportunities and challenges of leveraging online social networks for smoking cessation intervention, including the challenges of collecting, analyzing, and using large-scale data.

Final Program

THURSDAY, SEPTEMBER 30, 2010

Continental Breakfast 7:30 – 8:00am

Conference Introduction 8:00 – 8:30am

David B. Abrams, PhD
Schroeder Institute for Tobacco Research and Policy Studies, Legacy

Saul Shiffman, PhD
University of Pittsburgh

Theme 1: Social Support, Health Behavior, and Smoking 8:30 – 9:30am

Robin J. Mermelstein, PhD
University of Illinois at Chicago

Thomas W. Valente, PhD
University of Southern California Keck School of Medicine

Keynote Address 9:30 – 10:15am

Nicholas A. Christakis, MD, MPH, PhD
Harvard Medical School

Break 10:15 – 10:30am

Theme 2: Online Social Networks 10:30am – 12:00pm

Nathan K. Cobb, MD
Schroeder Institute for Tobacco Research and Policy Studies, Legacy

Noshir S. Contractor, PhD
Northwestern University

Nathan N. Eagle, PhD
The MIT Design Laboratory, Massachusetts Institute of Technology

Lunch & End User Panel 12:00 – 1:45pm

Eric Asche (Moderator)

Theme 3: Intervention Approaches 1:45 – 3:15pm

Chris Cartter
MeYou Health, LLC

Dave Heilmann
SparkPeople, Inc.

Trevor van Mierlo
Evolution Health Systems, Inc.

Table Discussion and report back to group 3:15 – 4:45pm

Wrap Up 4:45 – 5:00pm

“Social Networking” Cocktail Hour (Hilton Washington; heavy hors d’oeuvres will be served) 6:00 – 7:30pm

FRIDAY, OCTOBER 1, 2010

Continental Breakfast 7:30 – 8:00am

Day 1 Recap 8:00 – 8:30am

David B. Abrams, PhD
Schroeder Institute for Tobacco Research and Policy Studies, Legacy

Saul Shiffman, PhD
University of Pittsburgh

Theme 4: Methods, Design and Analysis 8:30 – 10:00am

Linda M. Collins, PhD
Penn State University

Thomas A.B. Snijders, PhD
University of Oxford

Michael W. Macy, PhD
Cornell University

Break 10:00 – 10:15am

Table Discussion and Report Back to Group 10:15am – 12:00pm

Lunch 12:00 – 1:00pm

Breakout Group Discussion 1:00 – 2:30pm

Facilitators:

Erik Augustson, PhD, MPH, National Cancer Institute

Carla J. Berg, PhD, Emory University

Janet Brigham, PhD, SRI International

David B. Buller, PhD, Klein Buendel, Inc.

Bradford W. Hesse, PhD, National Cancer Institute

Thomas K. Houston, MD, MPH, University of Massachusetts Medical School

Thomas R. Kirchner, PhD, Schroeder Institute for Tobacco Research and Policy Studies, Legacy

J. Lee Westmaas, PhD, American Cancer Society

Full Group Discussion & Synthesis 2:30 – 3:30pm

Wrap Up & Adjourn 3:30 – 3:45pm

SATURDAY, OCTOBER 2, 2010

In a half-day working session, a small group of planning committee members, breakout group facilitators, and selected participants will transform the conference proceedings into a format for rapid dissemination and publication.

Speaker Biosketches

ERIC ASCHE

Mr. Eric Asche is Senior Vice President of Marketing at Legacy where he leads the marketing team and an alliance of advertising agencies in the development of effective campaigns to change society's attitudes about tobacco. Examples include the truth® youth smoking prevention campaign and EX®, a new program to help smokers quit. Mr. Asche joined Legacy in July 2006 from award-winning advertising agency GSD&M in Austin, Texas. At GSD&M, Mr. Asche served as Account Director, working with the foundation on several advertising campaigns, including Bob Quits, Mary Quits, Great Start®, and Circle of Friends®, as well as overall foundation branding efforts. While with GSD&M, he also managed several national client brands including: AT&T, Southwest Airlines, Kinko's and Wenner Media (Rolling Stone, US Weekly and Men's Journal). Prior to his work at GSD&M, Mr. Asche served as Director of Business Development for YClip, an advertisement tracking firm, where he secured software licensing deals with national retailers such as Linens 'N Things, ULTA and CD Warehouse, in conjunction with financial institutions like Citi and Fleet, to track online advertising back to actual sales. His work also includes time on the client side with AmSouth Bancorporation, a southeastern financial institution with more than \$50 billion in assets, where he implemented a network-wide branch merchandising re-design and developed multiple consumer and business-to-business campaigns. Mr. Asche is a graduate of Auburn University.

DAVID B. ABRAMS, PHD

Dr. David Abrams is Executive Director of the Schroeder Institute and Professor, Department of Health, Behavior and Society in The Johns Hopkins Bloomberg School of Public Health. He directed the Office of Behavioral and Social Sciences Research (OBSSR) in the Office of the Director, National Institutes of Health (NIH). Prior to that, Dr. Abrams was Professor of Psychiatry and Human Behavior and Professor of Community Health at Brown University Medical School and founding Director of Brown's Transdisciplinary Centers for Behavioral and Preventive Medicine. Dr. Abrams is a licensed clinical psychologist specializing in health psychology, addictions and tobacco use behavior. He has published over 250 scholarly articles and has been a Principal or Co-Investigator on 65 grant awards, including a National Cancer Institute (NCI) Program Project award for a Transdisciplinary Tobacco Use Research Center (TTURC). Dr. Abrams is lead author of *The Tobacco Dependence Treatment Handbook: A Guide to Best Practices*, a recipient of a book of the year award. He was a member of the Board of Scientific Advisors of the NCI, a member of the Robert Wood Johnson Foundation's Transdisciplinary Tobacco Etiology Research Network (TERN), and served on Institute of Medicine expert committee on *Ending the Tobacco Problem: A Blueprint for the Nation*. Dr. Abrams received the Joseph W. Cullen Memorial Award from the American Society for Preventive Oncology for lifetime contributions to tobacco control. Dr. Abrams holds a B.Sc. (honours) in computer science and psychology from the University of Witwatersrand, Johannesburg, South Africa and a Doctorate in Clinical Psychology from Rutgers University.

CHRIS CARTTER

Chris Cartter has worked in the areas of networking technologies, health, and social change for over 25 years. He is currently General Manager at Me You Health (MYH), a Boston-based subsidiary of Healthways (NASDAQ: HWAY) dedicated to helping people improve their well-being. MYH creates Web and mobile applications designed to help people do small daily actions and engage their social networks for support. Before starting MYH in 2009, Chris was Senior Vice President of Internet Innovation at Healthways. He came to Healthways in 2006 through the acquisition of QuitNet, an online smoking cessation company where he served as President and CEO from the time the program was spun out of Boston University (BU) in 2001. While at BU, Chris led the development of online services for the Join Together program at the School of Public Health. Earlier in his career, Chris worked for two international NGO's, Oxfam America and Grassroots International, which he co-founded in 1983. Chris was an early adopter of pre-Internet technologies, helping start alternative news services from crisis spots, including Eritrea, the Philippines and Haiti using early text-based bulletin board systems. He led press tours into war and famine zones of Eritrea and northern Ethiopia, including for NBC Nightly News and The Boston Globe (which won a Pulitzer for the trip in 1984) and has published photographs in major media. Chris has a BA in Biology from Bowdoin College.

NICHOLAS A. CHRISTAKIS, MD, MPH, PHD

Dr. Nicholas Christakis is an internist and social scientist who conducts research on social factors that affect health, health care, and longevity. He is a Professor of Sociology in the Department of Sociology in the Harvard Faculty of Arts and Sciences; Professor of Medical Sociology in the Department of Health Care Policy at Harvard Medical School; and Professor of Medicine in the Department of Medicine at Harvard Medical School. Dr. Christakis' current work is principally concerned with health and social networks, and specifically with how ill health, disability, health behavior, health care, and death in one person can influence the same phenomena in a person's social network. Some current work focuses on the health benefits of marriage and on how ill health in one spouse can have cascading effects on the other spouse. Other work examines a very large social network (of 12,000 people, including family, friends, co-workers and neighbors) followed for over 30 years to look broadly at the role of networks in health and health care. This work involves the application of network science and mathematical models to understand the dynamics of health in longitudinally evolving networks. To the extent that health behaviors such as smoking, drinking, or unhealthy eating spread within networks in intelligible ways, there are substantial implications for our understanding of health behavior and health policy. Most recently, Dr. Christakis has been exploring the joint genetic and socio-environmental determinants of the formation and operation of human social networks. In 2009, he co-authored with James H. Fowler a book entitled *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*.

NATHAN K. COBB, MD

Dr. Nathan Cobb is a Research Investigator at the Schroeder Institute, a practicing Pulmonary/Critical Care physician, and expert in the field of behavioral informatics. He holds appointments as Adjunct Assistant Professor of the Schroeder/Lombardi Cancer Control Consortium, and in the Division of Pulmonary, Critical Care and Sleep Medicine at Georgetown University School of Medicine, as well as in the Department of Health, Behavior and Society at The Johns Hopkins Bloomberg School of Public Health. He has worked in the development of electronic systems for behavior change since the late 1980s as well as health education in the US and the developing world. His work for the Massachusetts Tobacco Control Program in the mid-90's led to a position at Boston University's School of Public Health where he was a pioneer in the use of the Internet to both prevent and treat substance abuse. His prior work as a smoking cessation counselor and computer programmer for health risk assessments were a springboard for the development of QuitNet, one of the first Internet based behavior change interventions. Dr. Cobb was the principle architect for QuitNet's social support and influence systems, as well as the underlying software code and data storage. Dr. Cobb's research interests are in leveraging social networks to effect behavior change through social support and social influence. His current work includes a retrospective exploration of a 10 year database of interactions of current and former smokers in the QuitNet network, as well as the development and evaluation of novel smoking cessation interventions using social utilities such as Facebook. Dr. Cobb earned his MD from Boston University and completed his medical residency at Beth Israel Deaconess Medical Center and Pulmonary & Critical Care Fellowships at the Harvard Combined program in Boston.

LINDA M. COLLINS, PHD

Dr. Linda Collins is Professor of Human Development and Family Studies, the Director of The Methodology Center at Penn State, and Principal Investigator of the Center for Prevention and Treatment Methodology, a P50 Center funded by NIDA since 1996. Dr. Collins is interested in design, measurement, and statistical methodology for prevention research. Her current interests include phased experimental approaches for optimization of behavioral interventions for prevention and treatment; applying ideas from engineering, such as control theory, to intervention optimization; and statistical methods for longitudinal research, particularly Latent Transition Analysis (LTA), a method for fitting models of discrete development. Dr. Collins has received the Cattell Award for outstanding early career contributions to multivariate behavioral research, Pennsylvania State University's Faculty Scholar Medal in the Social and Behavioral Sciences, and the 2004 Society for Prevention Research's President's Award. She is a Fellow of the American Psychological Association and the Association for Science, a past president of the Society of Multivariate Experimental Psychology, and is currently President of the Society for Prevention Research.

NOSHIR S. CONTRACTOR, PHD

Dr. Noshir Contractor is the Jane S. & William J. White Professor of Behavioral Sciences in the School of Engineering, School of Communication and the Kellogg School of Management at Northwestern University. He is also the Director of the Science of Networks in Communities (SONIC) Research Group at Northwestern University. He is investigating factors that lead to the formation, maintenance, and dissolution of dynamically linked social and knowledge networks in communities. Specifically, his research team is developing and testing theories and methods of network science to map, understand and enable more effective networks in a wide variety of contexts including communities of practice in business, science and engineering communities, disaster response teams, public health networks, digital media and learning networks, and in virtual worlds, such as Second Life. His research program has been funded continuously for over a decade by major grants from the U.S. National Science Foundation with additional funding from the U.S. National Institutes of Health (NIH), U.S. National Aeronautics and Space Administration (NASA), the Rockefeller Foundation, and the MacArthur Foundation. Dr. Contractor holds a Ph.D. from the Annenberg School for Communication at the University of Southern California and a Bachelor's Degree in Electrical Engineering from the Indian Institute of Technology in Madras (Chennai). He was on the faculty at the University of Illinois at Urbana-Champaign for twenty years prior to joining Northwestern in 2007.

NATHAN EAGLE, PHD

Dr. Nathan Eagle is the CEO of txteagle Inc. He holds faculty appointments at the MIT Media Laboratory and Northeastern University, and is an Omidyar Fellow at the Santa Fe Institute. His research involves engineering computational tools, designed to explore how the petabytes of data generated about human movements, financial transactions, and communication patterns can be used for social good. As a Research Scientist at MIT and Fulbright Scholar in 2006, he launched MIT's EPROM initiative, developing a mobile phone programming curriculum that has been adopted by twelve Computer Science departments across Sub-Saharan Africa. Thousands of African computer science students have gone through his curriculum, leading to hundreds of mobile applications designed specifically for the African market, as well as a significant number of local start-ups. One such start-up is txteagle, a company he formed in 2008 with the goal of enabling the 2 billion mobile phone subscribers living in the developing world to generate income using their phones. He holds a BS and two MS degrees from Stanford's School of Engineering; his PhD from the MIT Media Laboratory on Reality Mining was declared one of the '10 technologies most likely to change the way we live' by the *MIT Technology Review*. In 2008, Nokia named him as one of the world's top mobile phone developers, and in 2009, he was elected to the TR35, a group of the top innovators under 35. His academic work has appeared in *Science*, *Nature* and *PNAS*; and his research featured in the *New York Times*, *The Wall Street Journal*, *BusinessWeek*, and *CNN*.

DAVE HEILMANN

Dave Heilmann is Chief Operating Officer of SparkPeople.com and has been with SparkPeople since its launch in 2001. Since that time SparkPeople has grown to be the biggest diet and fitness website (according to Comscore) and one of the most used health websites. By combining free tools, content, and community SparkPeople is able to help its members learn to live a healthy lifestyle. This comprehensive approach lets members pick what works for them, and by creating new habits helps members do things like lose weight for good and also exercise consistently. As the COO, Dave oversees the site's features and community, works with partners, and more. Dave has a BBA in Information Systems from the University of Cincinnati and an MBA from Xavier University.

MICHAEL W. MACY, PHD

Dr. Michael Macy is Goldwin Smith Professor of Sociology and Director of the Social Dynamics Laboratory at Cornell University. With support from the U.S. National Science Foundation, he uses computational models, online laboratory experiments, and digital traces of device-mediated interaction to study how cooperation, trust, social norms, and innovations emerge and spread through processes of social influence on dynamic social networks. Dr. Macy pioneered the use of agent-based computational models in sociology, as well as the use of massive data collected from online social networks. From 2005 to 2008, he led a Cornell initiative to promote cross-disciplinary collaborative research on social and information networks. His research has been published in leading journals, including *Science*, *PNAS*, *American Journal of Sociology*, *American Sociological Review*, and *Annual Review of Sociology*.

ROBIN J. MERMELSTEIN, PHD

Dr. Robin Mermelstein is Director of the Institute for Health Research and Policy at the University of Illinois at Chicago (UIC), Professor in the Department of Psychology, and Clinical Professor of Community Health Sciences at UIC. Dr. Mermelstein has been active in cancer prevention and tobacco-related research for over 20 years, with continuous NIH funding as a Principal Investigator since 1986. Her smoking cessation research has included developing and evaluating interventions for both adults and adolescents that range from intensive clinic-based approaches to more self-help, media based programs, and ones with telephone and internet adjuncts. Over the past 10 years, Dr. Mermelstein has devoted much of her research efforts to the issue of adolescent and young adult smoking. She has had funding from the National Cancer Institute to employ novel approaches (e.g., Ecological Momentary Assessments) to understanding contextual factors in the development of nicotine dependence. Dr. Mermelstein has had long-standing interests in understanding the role of social support and social networks in smoking initiation, escalation, cessation, and relapse.

SAUL SHIFFMAN, PHD

Dr. Saul Shiffman is Research Professor at the University of Pittsburgh, with faculty appointments in Clinical and Health Psychology, Psychiatry, Pharmaceutical Sciences, and Clinical and Translational Science. He serves as Senior Scientific Advisor to Pinney Associates, a consultancy on health behavior and health policy. Dr. Shiffman has published over 300 scientific papers. The main focus of his research has been on tobacco use, where his work has included research on nicotine withdrawal and nicotine dependence, as well as development and evaluation of both behavioral and pharmacological treatments for smoking. A major focus of his work has been on understanding the process of smoking relapse. Dr. Shiffman has also done research on diverse health behavior issues such as obesity and cardiovascular reactivity, and on methods for capturing real-time data in real-world settings.

THOMAS A.B. SNIJDERS, PHD

Dr. Thomas Snijders is professor of Statistics in the Social Sciences at the University of Oxford and a fellow of Nuffield College. He is also professor of Statistics and Methodology in the Social Sciences at the University of Groningen. His research focuses on statistical modeling of network data, in particular network dynamics. Together with Patrick Doreian, he edits the journal *Social Networks* and he is the 2010 recipient of the Georg Simmel Award of INSNA, the International Network for Social Network Analysis. He has written about a variety of topics in statistical inference for social networks, resulting in methodological as well as substantive social science papers. His work on developing statistical methodology for network dynamics is implemented in the software SIENA (Simulation Inference for Empirical Network Analysis), which is available as the package RSiena in the statistical system R. This methodology is designed for the detailed modeling of the dynamics of complete networks, and for the co-evolution of networks and the behavior or other characteristics of the individuals who make up the network. This has been applied in longitudinal studies of the co-evolution of friendship and smoking initiation, adolescent friendship and delinquency, collaboration between students and employer choice, cooperation between political stakeholders and generalized trust, etc. The methodology and its applications are in a continuing state of development.

Background Reading for Participants

THOMAS W. VALENTE, PHD

Dr. Thomas Valente is a Professor and Director of the Master of Public Health Program in the Department of Preventive Medicine, Keck School of Medicine, University of Southern California. He is author of *Social Networks and Health: Models, Methods, and Applications* (2010, Oxford University Press); *Evaluating Health Promotion Programs* (2002, Oxford University Press); *Network Models of the Diffusion of Innovations* (1995, Hampton Press); and over 100 articles and chapters on social networks, behavior change, and program evaluation. Dr. Valente uses social network analysis, health communication, and mathematical models to implement and evaluate health promotion programs designed to prevent tobacco and substance abuse, unintended fertility, and STD/HIV infections. He is also engaged in mapping community coalitions and collaborations to improve health care delivery and reduce healthcare disparities. Dr. Valente received his BS in Mathematics from the University of Mary Washington, his MS in Mass Communication from San Diego State University, and his PhD from the Annenberg School for Communication at USC.

TREVOR VAN MIERLO

Trevor van Mierlo is the CEO of Evolution Health. Since 2000, Evolution Health has developed digital health behavior change systems for pharmaceutical companies, employee health, government agencies, non-profit organizations and academic institutions. In addition to managing the company's operations in Canada, United States, the United Kingdom and Japan, Trevor directs teams of scientific advisors, global eHealth business development experts, and software application architects. He has also co-authored peer-reviewed journal articles focusing on eHealth and frequently presents outcome data, business case modeling, and development strategies at international scientific conferences. Trevor has a combined honors degree in Literature and History from the University of Western Ontario, and a Masters of Science in Community Health (MScCH) from the Dalla Lana School of Public Health at the University of Toronto.

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Notes

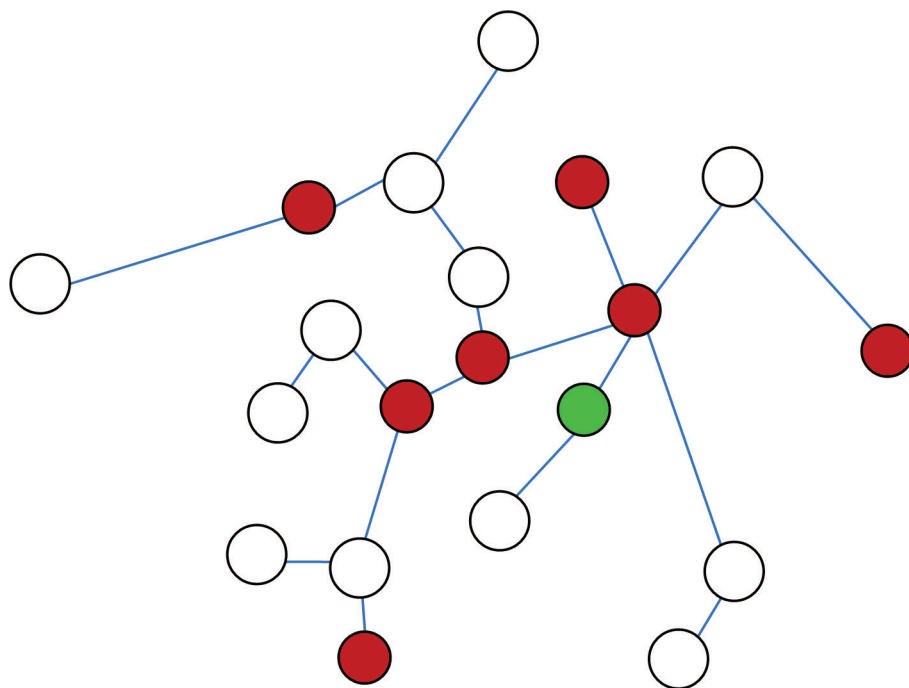
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