Forecasting International Events

SSIP Working Group
ISA Annual Convention, Toronto 2014

Coordinators:
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Interest has been rapidly growing in forecasting international events. This growing interest is part of a wider societal interest in predictive analytics, itself driven by the 'big data' revolution. While the questions of interest in international relations are complex and fundamentally difficult to predict, international relations researchers now have dramatically more data and computational power than at any time in the past, and this ability is growing exponentially.

Given these dramatic changes in the technology available to researchers, we propose bringing together leading international relations scholars with a wide variety of interests and a wide variety of methodological approaches but with a common interest in prediction.

This working group combines an all-day pre-conference meeting, a panel on forecasting, and an end-of-conference roundtable. During ISA 2014, we will discuss the state and the future of forecasting in international relations. Specifically, participants will address (1) the creation, dissemination, and use of disaggregated micro-level data, (2) multiple method approaches, (3) relevance to policymakers, and (4) the use of predictive methods to improve theory building and testing in international relations. Applications will include non-violent campaigns, conflict initiation and escalation, war, coups, genocide, maritime piracy, and democratization. We hope that this working group will lead to a workshop at ISA 2015 and subsequent collaboration by the participants.

Graduate students strongly encouraged to apply!
Working Group Schedule

Pre-Conference Meeting: Tuesday, March 25

9:30 - 9:45am  Welcome and Introductions

9:45 – 11:15 am  New Methods for Data Collection and Analysis
                  Presentations by (1) Phil Schrodt, (2) Curtis Signorino, (3) Jeffrey Arnold, and (4) Kristian Gleditsch and Gerald Schneider

11:15 – 11:30am  Coffee and Tea Break

11:30 - 1:00pm  Predicting Conflict and Mass Atrocities
                  Presentations by (1) Jay Ulfelder, (2) Benjamin Goldsmith, (3) Erik Gartzke and Oliver Westerwinter, and (4) Halvard Buhaug, Elisabeth Gilmore, and Håvard Hegre

1:00 – 2:00pm  Lunch

2:00 – 3:30pm  Other Applications: Piracy, Non-Violent Campaigns, and Democratization
                 Presentations by (1) Ursula Daxecker and Brandon Prins, (2) Richard Cincotta, (3) William Lahneman, and (4) Alex Braithwaite

3:30 - 3:45pm  Coffee and Tea Break

3:45 – 5:30pm  What Can We Learn with Forecasting? The Path Forward.
                 Presentations by (1) Skyler Cranmer and Bruce Desmarais, and (2) Julian Richards, followed by general discussion and wrap-up.

ISA 2014 Conference Panel: Thursday 1:45pm - 3:30pm

Assessing Methods of Forecasting State Failure, Rare Events and Mass Atrocities
This panel examines various forecasting techniques for predicting the onset of state failures, coups, politicides, and mass atrocities. Papers will examine methodological issues in the refinement of forecasting and prediction techniques, the strengths and weaknesses of existing databases and alternative frameworks for policy relevant forecasting.

Chair & Discussant
- Chair - David B. Carment (Carleton University)
- Discussant - Yiagadeesen Teddy Samy (Carleton University)
Presenters

- Ulfelder, Using the "Wisdom of Crowds" to Forecast Mass Atrocities
- Lustick et. al., "Studying the Edge of the State Space: An Agent-Based Modeling Approach to Forecasting Rare Events"
- Gutierrez, An Early Warning System for anticipating lethal attacks against peasant leaderships
- Minkov, Food Price Inflation as an Indicator of Instability: The Case of the Arab Spring
- Tikuisis et. al., Predicting Fragility and Failure: The Evolution of States from 1996 to 2010

ISA 2014 Roundtable:  Friday 10:30am - 12:15pm

Forecasting Conflict
This roundtable serves as a structured end-of-conference discussion on forecasting. What have we learned? What are the limitations of current data sets? What are the pros and cons of a model-based approach versus current data mining techniques? Where do we go from here in terms of data collection and analysis? What role might ‘tournaments’ play in developing better forecasting techniques?

Chair – Richard Cincotta
Panelists: Phil Schrodt, Curtis Signorino, Håvard Hegre, Kristian Gleditsch
Working Group Coordinators

Curtis S. Signorino

Curtis S. Signorino (PhD Harvard, 1998) is an Associate Professor of Political Science and the Director of the Theory and Statistics Research Lab (the star lab) at the University of Rochester. His current research (1) develops nonparametric estimation techniques for analyzing data resulting from self-selection or strategic behavior, (2) develops statistical methods for structural estimation of strategic choice models (e.g., game theoretic models) of conflict, (3) develops statistical methods for modeling temporal dependence in event history models, and (4) examines aggregation bias in indices of power and democracy. Prof Signorino’s publications have appeared in the *American Political Science Review*, the *American Journal of Political Science*, *International Interactions*, *International Studies Quarterly*, the *Journal of Conflict Resolution*, *Political Analysis*, and *Political Studies*. He has been awarded the Miller Prize for the best article published in *Political Analysis* and the Gosnell Prize for the best methods paper presented at a conference.

Jeffrey Arnold

Jeffrey Arnold is a doctoral candidate (ABD) in the Department of Political Science at the University of Rochester. Beginning August 2013, Jeffrey will be an Instructor in the Department of Political Science at Emory University. His research interests include international security and political economy (quantitative models of battles, war, and military technology, the use of financial markets as prediction markets) and topics in political methodology, such as state space models.

Working Group Speakers

Alex Braithwaite

Alex Braithwaite is Associate Professor of International Relations in the School of Government and Public Policy at the University of Arizona. He joined SGPP in August 2013. Prior to this he was Senior Lecturer in International Relations and Director of the MSc Security Studies at University College London (2008-2013), and before that, an Assistant Professor in the Department of Political Science at Colorado State University (2006-07). He completed his doctorate in political science at Pennsylvania State University (2002-06). Dr. Braithwaite’s research investigates the causes and geography of various forms of political violence, with a focus in examining where terrorist attacks, civil wars, and international conflicts are located.
Richard Cincotta

Richard Cincotta is a political demographer whose research focuses on the demographic transition and its influences on political, institutional and environmental conditions. He is an Intelligence Community Associate (working on politico-demographic modeling with the Strategic Futures Group at the National Intelligence Council), the demographer-in-residence at the Stimson Center, and a consultant to the Environmental Change and Security Project at the Woodrow Wilson International Center for Scholars in Washington, DC. Dr. Cincotta is the current chair of ISA’s Political Demography and Geography Section, and was trained professionally as a population biologist and behavioral modeler. He is a graduate of Syracuse University/SUNY-College of ESF, and received his MS and PhD in population ecology from Colorado State University. His publications on demographic topics have appeared in Foreign Policy, Current History, Nature and Science. As an Intelligence Community Associate, he has contributed to the National Intelligence Council’s two most recent global futuring exercises, Global Trends 2030: Alternative Worlds (2012), and Global Trends 2025: A Transformed World (2008).

Skyler Cranmer

Skyler Cranmer is an Assistant Professor in the department of Political Science at the University of North Carolina, Chapel Hill. Skyler received his Ph.D. in Political Science at the University of California, Davis and had both pre- and post-doctoral fellowships at Harvard University’s Institute for Quantitative Social Science. Skyler’s primary research focus is the development of models for statistical inference on networks and the application of these models to the study of international politics. Publications have appeared in political science journals such as the Journal of Politics and Political Analysis as well as outlets in sociology, computer science, statistical physics, behavioral genetics, and general science journals. Primary teaching areas are methodology and international politics.

Ursula E. Daxecker

Ursula E. Daxecker is an Assistant Professor of Political Science at the University of Amsterdam (2013-). She received Master's degrees from the University of Innsbruck and the University of New Orleans and completed her PhD in Political Science at the University of New Orleans in 2008. From 2008 until 2012, she was Assistant Professor of Political Science at Colorado State University. Her research interests focus on international relations, especially non-traditional security issues such as civil war, terrorism, maritime piracy, and political violence. Daxecker is the author of journal articles in the British Journal of Political Science, Journal of Conflict Resolution, Journal of Peace Research, European Journal of International Relations, among others. Current research projects are supported by a Veni grant from the Dutch Science Foundation (NWO), a Career Integration Grant from the European Commission’s Marie Curie actions, and the U.S. Department of Defense Minerva Initiative.
Bruce Desmarais received his Ph.D. in political science from the University of North Carolina at Chapel Hill in summer 2010. In fall 2010, he started as an assistant professor in the Department of Political Science at the University of Massachusetts Amherst. He joined UMass as one of the core faculty members of the Computational Social Science Initiative, a collaborative organization of scholars in sociology, political science, statistics and computer science. Bruce's primary areas of research include political methodology, computational social science and American politics. In his work, Bruce focuses on precisely identifying the complex ways in which political actors and institutions are interdependent, and developing quantitative methods capable of illuminating these dependencies. In his dissertation he developed methods for the identification and modeling of complex interdependence in collective decision-making processes, with extensive applications to the analysis of voting on the U.S. Supreme Court. Bruce's more recent work focuses on the development and application of methods for the analysis of political networks. Substantive applications of network analysis include international conflict, defense alliances, terrorist events, and legislative collaboration. He also has a research agenda in the use of out-of-sample predictive diagnostics for models of political processes. Very recently, Bruce has been working on the analysis of government information management and communication networks.

Erik Gartzke is a Professor of Political Science at the University of Essex. His primary area of study involves the impact of information and institutions on war and peace. He applies bargaining theory, rational choice institutional theory, concepts of power and social identity, and statistical analysis to five substantive areas of interest: explaining the observed peace among developed liberal states; the role of intergovernmental organizations in forging commitments and revealing information; the theory of diplomacy; the systemic attributes and effects of international politics; and nuclear proliferation. His research has appeared in the *American Political Science Review*, the *American Journal of Political Science*, the *British Journal of Political Science*, *International Security*, *International Organization*, *International Studies Quarterly*, the *Journal of Conflict Resolution*, the *Journal of Politics*, *World Politics*, and elsewhere. A graduate of the University of Iowa, he has taught at the Pennsylvania State University, Columbia University and the University of California, San Diego.
Kristian Skrede Gleditsch
Kristian Skrede Gleditsch is a Professor in the Department of Government, University of Essex and a Research Associate at the Peace Research Institute Oslo (PRIO). His research interests include conflict and cooperation, democratization, and spatial dimensions of social and political processes. Recent publications include *Inequality, Grievances, and Civil War* (Cambridge University Press, 2013, with Lars-Erik Cederman and Halvard Buhaug) as well as articles in the *American Political Science Review, International Organization, International Studies Quarterly, Journal of Peace Research,* and *World Politics.*

Benjamin E. Goldsmith
Benjamin E. Goldsmith is an Associate Professor in the Department of Government and International Relations at the University of Sydney. His research and teaching are in the areas of international relations, comparative foreign policy, and political psychology. He is the author of the book *Imitation in International Relations: Observational Learning, Analogies, and Foreign Policy in Russia and Ukraine,* as well as articles in leading academic journals including *European Journal of International Relations, Journal of Conflict Resolution, Journal of Peace Research, Journal of Politics and World Politics.* He holds a Ph.D. in Political Science (Michigan 2001) and an M.A. in Russian Area Studies (Georgetown 1995). Before joining the University of Sydney in 2008, he taught at other universities in Australia, Singapore, and the United States.

Håvard Hegre
Håvard Hegre received his Dr. Philos in Political Science from the University of Oslo in 2004. Since 2008, he has been a researcher at the Centre for the Study of Civil War, where he is the Leader of Dynamics Of Institutional Change And Conflict Working Group. Previously, he worked as a project coordinator for The World Bank (2001-2003).

William J. Lahneman
William J. Lahneman is an Associate Professor of Homeland Security at Embry-Riddle Aeronautical University in Daytona Beach, Florida, and a Senior Research Scholar at the Center for International and Security Studies at Maryland (CISSM) at the University of Maryland’s School of Public Policy. He holds a Ph.D. in International Relations from the Johns Hopkins University’s School of Advanced International Studies (SAIS) and a B.S. from the United States Naval Academy. Lahneman has held academic positions as Associate Director for Programs at CISSM, where he conducted several open source research projects for the US intelligence community, and as Associate Chair of the Political Science Department at the U.S. Naval Academy. A former

**Brandon Prins**

Brandon Prins is a Professor of Political Science at the University of Tennessee-Knoxville. He is currently Director of Graduate Studies in the Department of Political Science and Global Security Fellow at the Howard H. Baker, Jr. Center for Public Policy. Brandon received his Ph.D. in Political Science from Michigan State University in 1999. Professor Prins is a member of the International Studies Association and the Peace Science Society (International). He also is an Editorial Board Member for the journal *Foreign Policy Analysis* and was former Chair of the Scientific Study of International Processes Section of the International Studies Association. Prins’ research focuses on the relationship between domestic politics, international relations, and militarized conflict. His research has been published in *International Studies Quarterly, British Journal of Political Science, Journal of Peace Research, Foreign Policy Analysis*, and *Legislative Studies Quarterly*. He also has a manuscript forthcoming in the *Journal of Conflict Resolution* entitled “Political Stability and the Incidence of Piracy.”

**Julian Richards**

Julian Richards obtained a PhD in political violence in Pakistan in Cambridge University in 1992. He then entered the UK Ministry of Defense, where he worked for a number of years on defense and security policy, returning to academic life as a Research Fellow with Brunel University’s Centre for Intelligence and Security Studies in 2006. In 2008, he jointly founded the new Centre for Security and Intelligence Studies (BUCSIS) at the University of Buckingham, and joined the Global Affairs teaching staff two years later. Dr Richards is also an Associate of the Pakistan Security Research Unit (PSRU) at Bradford University, and an active member of the European Ideas Network (EIN), with whom he has published a number of articles and delivered addresses at various conferences and events. Dr. Richards has published two books with Oxford University Press: *The Art and Science of Intelligence Analysis* (2010) and *A Guide to National Security: Threats, Responses and Strategies* (2012). In addition, he has published a number of articles and papers on intelligence issues, the security situation in the Afghanistan / Pakistan region, and international terrorism and counter-terrorism policy in the UK and Europe. Dr Richards continues to be active in European affairs, contributing regularly to EIN events, and sitting on the panel of the Global Security Challenges competition in Brussels in 2009. His current research interests focus on the security situation in Pakistan; counter-terrorism policy in the UK and Europe; processes of extremism and radicalisation among Western youth; and the security implications of contemporary globalisation.
Gerald Schneider

Gerald Schneider is a Professor of International Politics in the Department of Politics and Public Administration at the University of Konstanz. Schneider completed a doctoral dissertation at the University of Zurich and is currently serving as President of the European Political Science Association. He has been a Vice President and a Program Co-Chair of the International Studies Association. Recent research has been published or is forthcoming in International Organization, Journal of Common Market Studies, Journal of Peace Research and Violence against Women. He is editor of European Union Politics and will be co-editor of International Interactions. His research examines EU decision making and the causes and consequences of political violence.

Philip Schrodt

Philip Schrodt is a senior research scientist at the statistical consulting firm Parus Analytical Systems. He received an M.A. in mathematics and a Ph.D. in political science from Indiana University in 1976, and has held permanent academic positions at Pennsylvania State University, the University of Kansas, and Northwestern University. He has also held research appointments in the United Kingdom and Norway, and has taught and done field research in the Middle East. Dr. Schrodt's major areas of research are quantitative models of political conflict and computational political methodology. His current research focuses on predicting political change using statistical and pattern recognition methods, research that has been supported by the U.S. National Science Foundation, the Defense Advanced Research Projects Agency, and the U.S. government's multi-agency Political Instability Task Force. Dr. Schrodt has published more than 85 articles in political science, is past president and a fellow of the Society for Political Methodology, and his Kansas Event Data System computer program won the "Outstanding Computer Software Award" from the American Political Science Association in 1995.

Jay Ulfelder

Jay Ulfelder works as a freelance researcher. He received his Ph.D. in Political Science from Stanford University in 1997. From 2001 until 2011, he served as research director for the Political Instability Task Force (PITF), a U.S. government-funded program that develops statistical models from open-source data to forecast various forms of political change in countries worldwide. Personal research interests center on the causes and dynamics of social unrest, democratization, democratic breakdown, and state collapse, and ways to forecast them. His publications have appeared in the American Journal of Political Science, Comparative Political Studies, Democratization, and the International Political Science Review.
Oliver Westerwinter

Oliver Westerwinter is a doctoral candidate at the Department of Political and Social Sciences at the European University Institute. In 2011, he conducted his research as a visiting fellow at the University of California, San Diego, School of International Relations and Pacific Studies. Beginning in August 2013, Oliver will be a post-doctoral fellow at the School for Economics and Political Science at the University of St. Gallen, Switzerland. His research interests include informal institutions, public-private governance, bargaining, international security, network theory, and political methodology. In his dissertation, Oliver analyzes the formation and evolution of transnational institutions in which public and private actors cooperate on global security issues.