

Course title: Forecasting Conflict
Instructor: Dr. Philip A. Schrodt
Format: five 90-minute lectures, 14-18 October 2013

Course outline

Lecture 1:

Prediction as a methodological issue; development of technical prediction methods; metrics for assessing predictions

Tentative readings:

Gerald Schneider, Sabine C. Carey and Nils Petter Gleditsch. 2011. Forecasting in International Relations. *Conflict Management and Peace Science* 28/1: 5-14

Nils B. Weidmann & Michael D. Ward. Predicting Conflict in Space and Time. *Journal of Conflict Resolution*, Volume 54, Number 5, pp. 1-19, 2010.

Michael D. Ward, Brian D. Greenhill, and Kristin M. Bakke. The Perils of Policy by P-Value: Predicting Civil Conflicts. *Journal of Peace Research*, Volume 47, Number 4, pp. 1-13, 2010.

Lecture 2:

Large scale US government forecasting projects: Political Instability Task Force and Integrated Conflict Early Warning System

Tentative readings:

Jack A. Goldstone, Robert Bates, David L. Epstein, Ted Robert Gurr, Michael Lustik, Monty G. Marshall, Jay Ulfelder, and Mark Woodward. A global model for forecasting political instability. *American Journal of Political Science*, 54(1):190–208, 2010.

Sean O'Brien. A multi-method approach for near real time conflict and crisis early warning. In V.S. Subrahmanian, editor, *Handbook on Computational Approaches to Counterterrorism*. Springer, 2012.

Sean P. O'Brien. Crisis early warning and decision support: Contemporary approaches and thoughts on future research. *International Studies Review*, 12(1):87–104, 2010.

Lecture 3:

Event data: automated coding methods and GDELT

Tentative readings:

Leetaru, Kalev and Philip A. Schrodt. 2013. "GDELT: Global Data on Events, Location and Tone, 1979-2012." Presented at the annual meeting of the International Studies Association.

Philip A. Schrodt. Precedents, progress and prospects in political event data. *International Interactions*, 38(5):forthcoming, 2012.

Philip A. Schrodt and Deborah J. Gerner. 2012. *Analyzing International Event Data*. Chapters 1, 2

[<http://eventdata.psu.edu/books.html>]

Philip A. Schrodt (2012): Precedents, Progress, and Prospects in Political Event Data, *International Interactions* 38:4, 546-569

Lecture 4:

Frequentist and Bayesian time series approaches

Tentative readings:

Patrick T. Brandt, John R. Freeman, and Philip A. Schrodt. Real time, time series forecasting of inter- and intra-state political conflict. *Conflict Management and Peace Science*, 28(1):41–64, 2011.

Montgomery, Jacob M. and Brendan Nyhan. 2010. "Bayesian Model Averaging: Theoretical Developments and Practical Applications." *Political Analysis* 18(2):245{270.

Lecture 5:

Machine learning approaches

Tentative readings:

Valerie M. Hudson, Philip A. Schrodt, and Ray D. Whitmer. Discrete sequence rule models as a social science methodology: An exploratory analysis of foreign policy rule enactment within Palestinian-Israeli event data. *Foreign Policy Analysis*, 4(2):105–126, 2008.

Philip A. Schrodt, James Yonamine, and Benjamin Bagozzi. Data-based computational approaches to forecasting political violence. In V.S. Subrahmanian, editor, *Handbook of Computational Approaches to Counterterrorism*. Springer, 2012.

Philip A. Schrodt, "Forecasting Conflict in the Balkans using Hidden Markov Models." Pp. 161-184 in Robert Trapp, ed. *Programming for Peace: Computer-Aided Methods for International Conflict Resolution and Prevention*. Dordrecht, Netherlands: Kluwer Academic Publishers, 2006