**Data Methods in Big Data Age Reading List**

Module 1:

Introduction: Social Science Data Theory and Methods

Readings:

Foster, Ian, Rayid Ghani, Ron S. Jarmin, Frauke Kreuter, and Julia Lane (editors). 2016. [Big Data And Social Science: A Practical Guide to Methods and Tools](http://www.bigdatasocialscience.com/), Chapman and Hall/CRC Press.

Lazer, D., Kennedy, R., King, G. and Vespignani, A., 2014. The parable of Google Flu: traps in big data analysis. *Science*, *343*(6176), pp.1203-1205.

Module 2:

New Survey Methods and Design and Experiments

Readings:

Groves, R. M., et al. 2009. *Survey Methodology* Second Edition. Wiley-Interscience.   
Druckman, J.N., Green, D.P., Kuklinski, J.H. and Lupia, A., 2006. The growth and development of experimental research in political science. *American Political Science Review*, *100*(4), pp.627-635.

Campbell, D.T. and Stanley, J.C., 1966. Experimental and quasi-experimental designs for research. *Handbook of research on teaching* (NL Gage, Ed.), pp.171-246.  
Druckman, J.N. and Kam, C.D., 2009. Students as experimental participants: A defense of the 'narrow data base'.  
Morton, R.B. and Williams, K.C., 2010. *Experimental political science and the study of causality: From nature to the lab.*Cambridge University Press.

Module 3:

Complex Data

Readings:

Foster et al. Ch. 1, 3 and 4

Lazer, D., Pentland, A.S., Adamic, L., Aral, S., Barabasi, A.L., Brewer, D., Christakis, N., Contractor, N., Fowler, J., Gutmann, M. and Jebara, T., 2009. Life in the network: the coming age of computational social science. *Science (New York, NY)*, *323*(5915), p.721

Module 4:

Spatial data and Web Data

Readings:

Parker, R.N. and Asencio, E.K., 2009. G*IS and spatial analysis for the social sciences: Coding, mapping, and modeling*. Routledge.

Bivand, R.S., Pebesma, E.J., Gomez-Rubio, V. and Pebesma, E.J., 2008. *Applied spatial data analysis with R*(Vol. 747248717). New York: Springer.

Module 5:

Text Data, Big Data and New Strategies

Readings:

Liu, B., 2012. Sentiment analysis and opinion mining. *Synthesis lectures on human language technologies*, *5*(1), pp.1-167.

Advanced Readings:

Aggarwal, C.C. and Zhai, C. eds., 2012. *Mining text data*. Springer Science & Business Media.

Ignatow, G. and Mihalcea, R., 2016. *Text Mining: A Guidebook for the Social Sciences.* Sage Publications.