

Human computation

Matthew J. Salganik
Department of Sociology
Princeton University

Summer Institute in Computational Social Science
June 22, 2018

The Summer Institute in Computational Social Science is supported by grants from the Russell Sage Foundation and the Alfred P. Sloan Foundation.



- ▶ Easy task, big scale

- ▶ Easy task, big scale
- ▶ Humans better than computers

- ▶ Easy task, big scale
- ▶ Humans better than computers
- ▶ Can be combined with supervised learning

- ▶ Easy task, big scale
- ▶ Humans better than computers
- ▶ Can be combined with supervised learning
- ▶ Increasingly important as we move from numeric survey data to working with text, images, movies, audio, etc.

Crowd-sourced Text Analysis: Reproducible and Agile Production of Political Data

KENNETH BENOIT *London School of Economics and Trinity College*

DREW CONWAY *New York University*

BENJAMIN E. LAUDERDALE *London School of Economics and Political Science*

MICHAEL LAVER *New York University*

SLAVA MIKHAYLOV *University College London*

<http://dx.doi.org/10.1017/S0003055416000058>

***E**mpirical social science often relies on data that are not observed in the field, but are transformed into quantitative variables by expert researchers who analyze and interpret qualitative raw sources. While generally considered the most valid way to produce data, this expert-driven process is inherently difficult to replicate or to assess on grounds of reliability. Using crowd-sourcing to distribute text for reading and interpretation by massive numbers of nonexperts, we generate results comparable to those using experts to read and interpret the same texts, but do so far more quickly and flexibly. Crucially,*

<http://dx.doi.org/10.1017/S0003055416000058>

Here's a piece of the manifesto of the Labor Party in the United Kingdom from 2010:

"Millions of people working in our public services embody the best values of Britain, helping empower people to make the most of their own lives while protecting them from the risks they should not have to bear on their own. Just as we need to be bolder about the role of government in making markets work fairly, we also need to be bold reformers of government."

FIGURE 1. Hierarchical Coding Scheme for Two Policy Domains with Ordinal Positioning

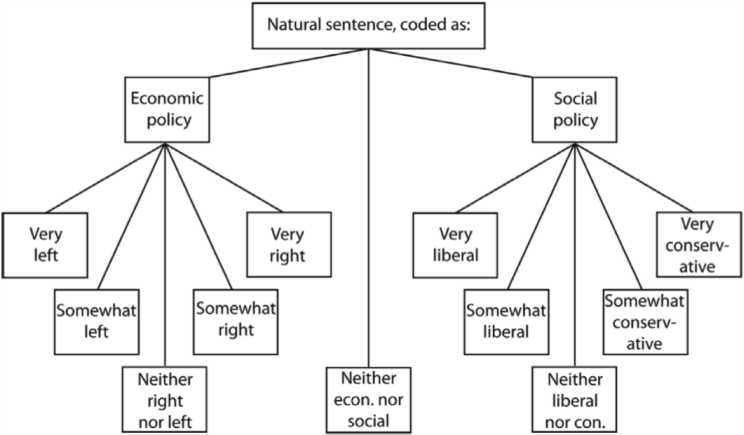
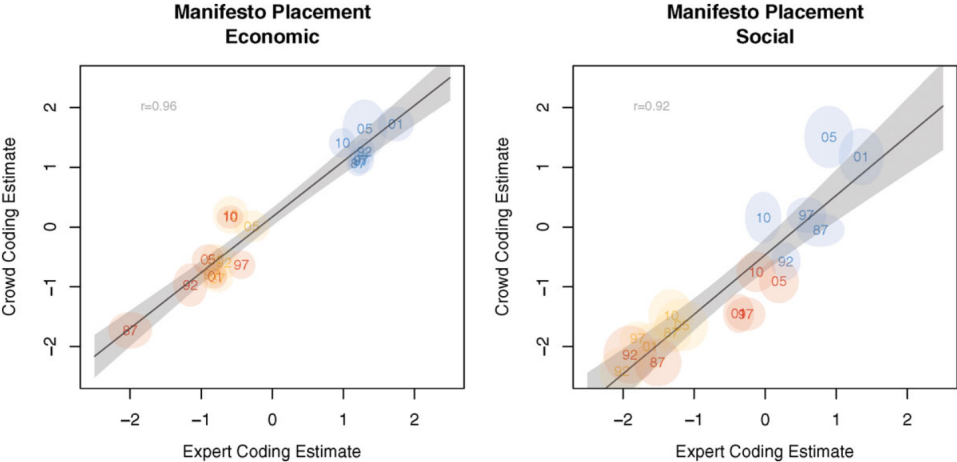


FIGURE 3. Expert and Crowd-sourced Estimates of Economic and Social Policy Positions



What I like about Benoit et al (2016)

- ▶ Better not cheaper

What I like about Benoit et al (2016)

- ▶ Better not cheaper
- ▶ Experts are a bug not a feature

Questions?