

Publics and big data: a new infrastructure of public opinion?



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

One point on Big Data

- What do we mean by big data?
 - It might be useful to differentiate between “big data” and “Big Data”.
 - The former might just mean using particularly large datasets from discrete sources in comparison with previous generations of researchers (much of my previous work has examined big data in this sense. See Anstead & O'Loughlin, Forthcoming).
 - The latter contains a variety of epistemological assumptions about the role of correlation and theory (for clearest statement of this approach, see Mayer-Schonberg & Cukier, 2013).
 - It is this latter type of “Big Data” that I am focusing on today.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Infrastructures of public opinion

- Herbst and Deniger argue that understandings of public opinion evolve over time (1994. See also Herbst, 2001).
- This means we can map various epochs with distinctive ideas of the public and public opinion.
- Evolution is driven by developments in democratic theory, methodological advances and shifts in the media.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Examples of public opinion infrastructures

	Definition of public opinion (Ontology and role of public)	Method for measurement (epistemology)	Forum of discussion (use and consequence)
Pre-revolutionary France	Conversational, educated “coffee shop” elite	Monitoring of conversation, reporting to authorities	Royal household
Mid-twentieth century US	Expressed preferences, one-person-one-vote,	Representative sample opinion poll	Government, media

Derived from Herbst & Beniger, 1994



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Recent history: a declining paradigm?

- For a number of reasons, the previous infrastructure of public opinion can be said to be in decline:
 - **The growing role for qualitative research.** This is especially true with the use of focus groups from the 1990s (Gould, 2011; Mattinson, 2010; Schier, 2000).
 - **Declining response rates to telephone surveys,** which is undermining traditional methodological approaches to public opinion research (Groves, 2011).
 - **The development of internet panel surveys,** which have challenged traditional methods and changed the market place for public opinion research (AAPOR, 2009).



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Recent history: a declining paradigm?

- For a number of reasons, the previous infrastructure of public opinion can be said to be in decline:
 - **The use of more complex statistical modelling techniques.** Partially as a result of lower response rates and partially because of internet panel surveys, pollsters have moved from sampling the population to modelling it (Groves, 2011).
 - **The rise of alternative metrics and predictors of public opinion.** Most famously Nate Silver employs Bayesian predictive modelling to predict US elections, while new social media research techniques have claimed reflect public opinion (Anstead & O'Loughlin, Forthcoming; Silver, 2012).



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

The decline of mass public opinion?

- Traditionally, it has been assumed that pollsters measure mass opinion (see for example Blumer 1948; Zaller, 1992).
- The logic behind this was that the mass equated with the voting population (Gallop & Rae, 1940).
- However, there is now an increased interest in segmented publics / sub-set of the mass - in other words, we want to know more and more about fewer and fewer people (Penn & Zalesne, 2007; Issenberg, 2012).



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Sketching a Big Data infrastructure of public opinion

- **Epistemology**

- Big Data public opinion research has a number of distinctive characteristics.
 - Move away from sampling, striving for $n = \text{all}$ approach.
 - Correlative. More interested in "how" than "why" questions (Anderson, 2008).
 - Probabilistic. Uses large datasets to predict the likelihood of specific events (Silver, 2012).
 - Integrative. Capable of overlaying large datasets (structured and unstructured) from multiple sources (Mayer-Schonberg & Cukier, 2013).
 - Sub-divisible. Large datasets can be broken down with less degradation than small ones.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Sketching a Big Data infrastructure of public opinion

- **Ontology (i.e. view of democracy)**
 - Optimistic reading is that measurement of public opinion will become more conversational, rather than about atomised individual opinion. It may even decentralise power.
 - More pessimistically, big data techniques may alienate citizens even more from public opinion collection by harvesting unconscious expressed preferences.
 - This would fit closely with more audience focused ideas of democracy (Green, 2009; De Bois, 2011).
 - How would this model work with classic liberal democratic ideas? If citizens are engaging in democracy but don't know they are, what does this mean?



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Sketching a Big Data infrastructure of public opinion

- **Forum of discussion (use and consequences):**
 - Big data is already starting to bleed over into mainstream political journalism, but is still something of a novelty.
 - However, it is questionable how much big data analysis citizens will get access to, and how transparent its construction will be. This is especially true if we are talking about data held in the private sector.
 - Will the public be given access to the frivolous, while important information is held by government and corporations?
 - Government is clearly interested in big data, but it is not clear the legitimacy that various policy actors attribute to it (civil service, executive, MPs, local councils etc).
 - How will Big Data be spoken about? Will method be used but for elite decision making, but rejected by media and many in political classes?



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

Conclusion: some questions

- Is the idea of a public and public opinion a useful prism to view Big Data through?
- This presentation has focused on Big Data *as* public opinion. What about big data *and* public opinion (and in particular when they contradict each other)?
- To what extent should we see Big Data techniques as representing continuity or discontinuity with recent changes in public opinion research?
- Public opinion research represents an output, but what does Big Data do to the input ie. the information citizens have access to through media?
- Are we entering an era of multi-method research in public opinion?
- Comments, questions, feedback and ideas welcome @nickanstead.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

References

AAPOR. (2009). AAPOR Report on Online Panels. Washington D.C.: American Association of Public Opinion Researchers.

Anderson, C. (2008, 23th June). The end of theory? Wired.com. Retrieved 27th June, 2013, from http://www.wired.com/science/discoveries/magazine/16-07/pb_theory

Anstead, N., & O'Loughlin, B. (Forthcoming). 1936 and all that: Can semantic polling dissolve the myth of two traditions of public opinion research? In R. K. Gibson, M. Cantijoch & S. Ward (Eds.), *Analyzing Social Media Data and Web Networks: New Methods for Political Science*. Basingstoke, England: Palgrave Macmillan.

Blumer, H. (1948). Public opinion and public opinion polling. *American Sociological Review*, 13(5), 542-549.

De Beus, J. (2011). Audience democracy: An emerging pattern in postmodern political communication *Political Communication in Postmodern Democracy. Challenging the Primacy of Politics* (pp. 19-38).

Gallup, G., & Rae, S. F. (1940). *The pulse of democracy : the public-opinion poll and how it works*. New York: Simon and Schuster.

Gould, P. (2011). *The Unfinished Revolution: How New Labour Changed British Politics for Ever*. London: Abacus.

Green, J. E. (2009). *The eyes of the people: democracy in an age of spectatorship*: Oxford University Press.

Groves, R. M. (2011). Three Eras of Survey Research. *Public Opinion Quarterly*, 75(5), 861-871.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead

References

- Herbst, S. (2001). Public Opinion Infrastructures: Meanings, Measures, Media. *Political Communication*, 18(4), 451-464. doi: 10.1080/10584600152647146
- Herbst, S., & Beniger, J. R. (1994). The changing infrastructure of public opinion. *Audience making: How the media create the audience*, 95-114.
- Mattinson, D. (2010). *Talking to a brick wall : how New Labour stopped listening to the voter and why we need a new politics*. London: Biteback.
- Mayer-Schonberger, V., & Cukier, K. (2013). *Big Data: A Revolution That Will Transform How We Live Work and Think*. London: John Murray.
- Penn, M., & Zalesne, E. K. (2007). *Microtrends: The small forces behind tomorrow's big changes*: Hachette Digital, Inc.
- Schier, S. E. (2000). *By invitation only : the rise of exclusive politics in the United States*. Pittsburgh, Pa.: University of Pittsburgh Press.
- Silver, N. (2012). *The signal and the noise: Why so many predictions fail-but some don't*. New York: Penguin.
- Zaller, J. (1992). *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.



Nick Anstead, Assistant Professor in Media and Communication

[e] n.m.anstead@lse.ac.uk

[t] @nickanstead