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

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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.

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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.



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



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).

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).

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).

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 = 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.

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?



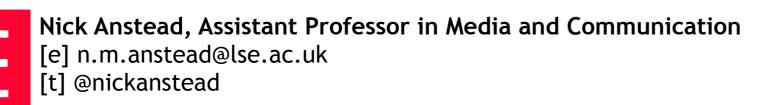
Sketching a Big Data infrastructure of public opinion

• 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?

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.



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