Geographic Data Science

New Forms of (Spatial) Data

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Tied into the (geo-)data revolution, new sources are appearing that are:

- Accidental –> created for different purposes but available for analysis as a side effect
- Very diverse in nature, resolution, and quality but, potentially, much more **detailed** in both space and time

Different ways to categorise them…

Lazer & Radford (2017)

- Digital life: digital actions (Twitter, Facebook, WikiPedia…)
- Digital traces: record of digital actions (CDRs, metadata…)
- Digitalised life: nonintrinsically digital life in digital form (Government records, web…)

Arribas-Bel (2014)

Three levels, based on how they originate:

- Bottom up: "Citizens as sensors"
- Intermediate: Digital businesses/businesses going digital
- Top down: Open Government Data

Opportunities (Lazer & Radford, 2017)

- Massive, passive
- Nowcasting
- Data on social systems
- Natural and field experiments ("always-on" observatory of human behaviour)
- Making big data small

Challenges (Arribas-Bel, 2014)

- Bias
- Technical barriers
- Methodological "mismatch"

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