

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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