

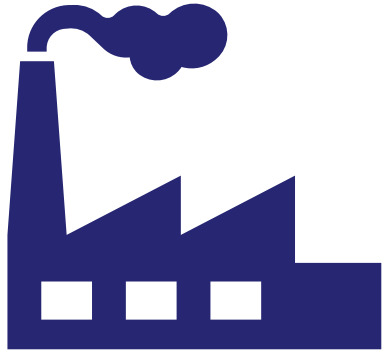
Problem Framing in UK Smart Cities: Data, Governance, and Ethics

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Outline

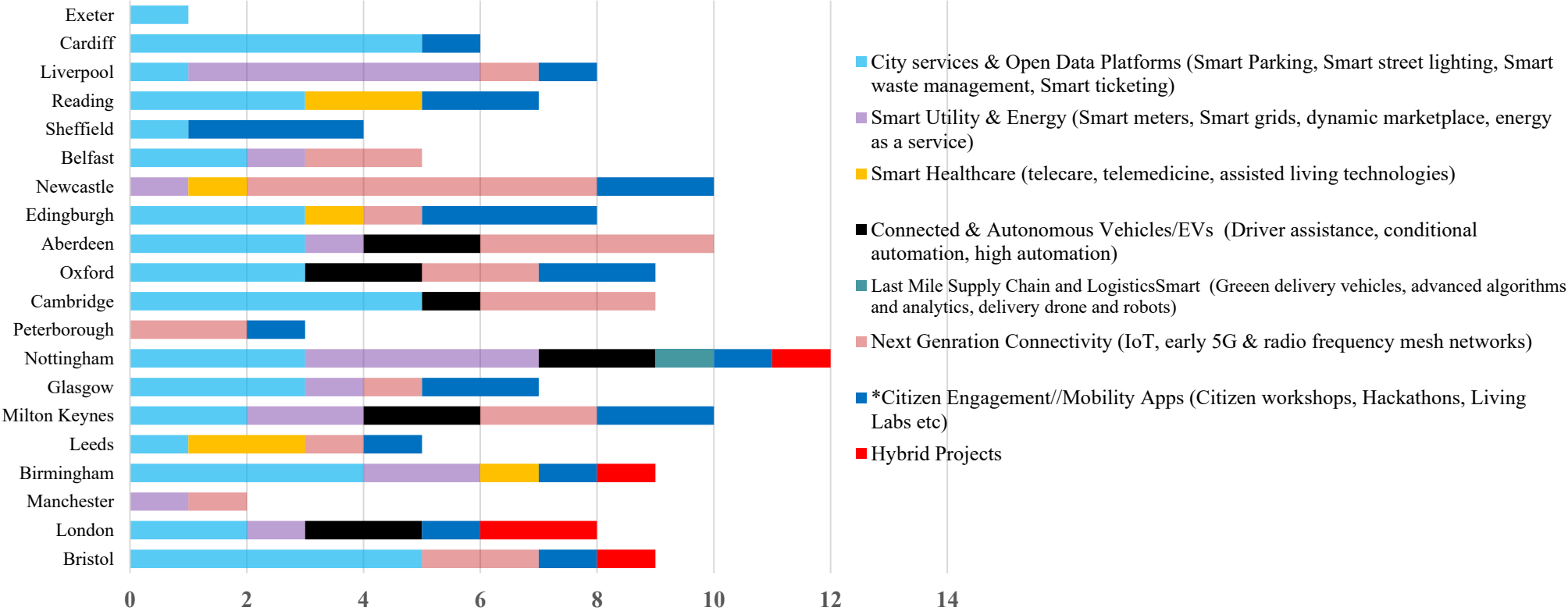
- The 'common problems' facing cities
- Research motivation
- Mapping the literature
- Research methodology
- Findings
- Closing remarks and future research directions



Emergence of smart cities

Research motivation

UK Cities and their Smart City Verticals & Number of trial/demonstrator projects based on Huawei 2017 Smart City Index



Research questions

1

What constitute city problems, how are they identified and framed, by who and using what?

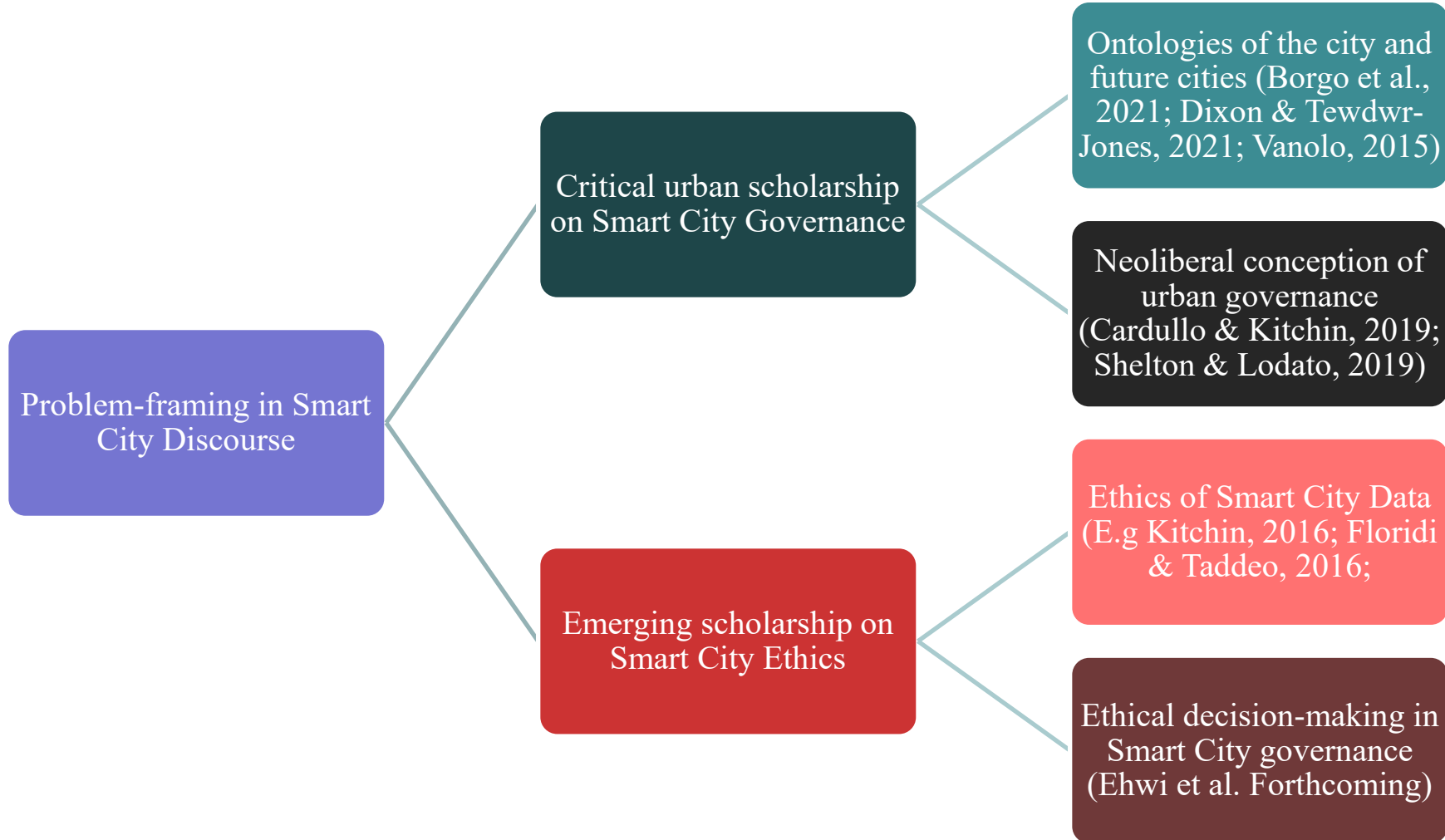
2

How do Smart City verticals emerge and what do the different emergence pathways tell us about urban governance?

3

What are the ethical considerations involved in the selection of Smart City verticals and how do those considerations advance the current scholarship the ethics of Smart Cities?

Mapping the Smart Cities literature we contribute to



Methodology

Research Design: Qualitative research with multiple case studies

Preliminary data gathering phase:

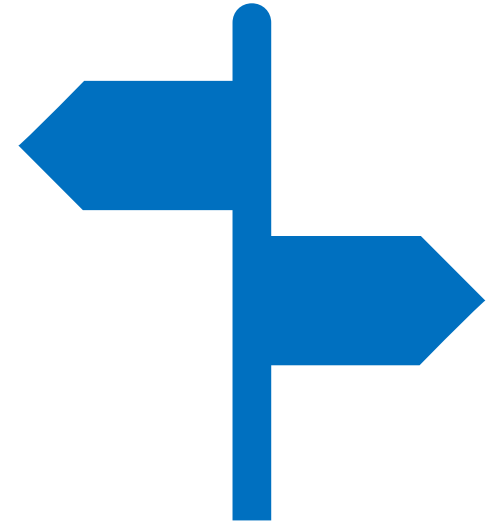
- Review of secondary literature to map Smart City verticals across UK cities (Huawei 2017 Smart City Index & Future City Catapult Demonstrator Projects 2016).
- Review of website information on some UK Smart Cities
- Shortlisting of UK cities with ongoing Smart City projects straddling multiple verticals.

Empirical data gathering phase:

- Online semi-structured interviews with 14 participants in total (8 council officers, 2 elected councillors, 1 innovation consultant, 1 academic) via Teams.

Findings:

- How smart city verticals emerge, and how the selection of areas of focus are justified
 - Limited resources and precarity of employment
 - The 'business case' for smart initiatives
 - Interurban competition and knowledge sharing
 - Existing governance networks and organisational structures



Limited resources and precarity of employment

"I'm on a very short role in six months fixed term contracts. So it very much puts the pressure on the now and performance and outcomes. So, I'm trying to deliver on the digital strategy and the last mile strategy, so we can show that we are delivering on outcomes" - Interview

Participant 7

The 'business case' for smart initiatives

"I think the parking [initiative] is sometimes seen as one where there is a very clear business case. And that can help pay for some of the others where perhaps the business case is less clear." - Interview participant 6

"So we're kind of using these 1400 [council-owned] buildings as our anchors [for the 5G pilot], and then it will go out into people's homes from there. It just makes the business case for Open Reach, you know, easier to manage and to justify, I suppose." - Interview Participant 2





Justifying prioritising the business case

- *"We want to be a city of inclusive growth... We can't rely on our private sector to make sure everybody is included and has access to and benefits from digital services and the digital network and digital infrastructure" - Interview Participant 2*

Interurban competition and knowledge sharing



- Peer learning and building on existing knowledge
- Carving out a niche

"I spoke to a city... about their adult social care plans. And we talked about a number of products that were out there on the market. And they said, 'no, no, no, we have to build our own, because our situation is unique'... And then they said, but once we built it, we can then sell that to all of the other cities. I said, 'but you just said you were unique. If it's unique to you, then how useful is that going to be to other cities?'... And I think sometimes a lot more information could be shared." - Interview Participant 6

Existing networks and organisational structures

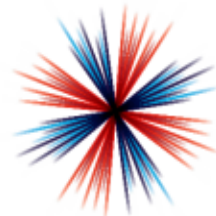
- *"my role sits in economic development. So anything I do, I'm constantly checked and pullback, and it's like, 'have you considered x, y, z local business in the in this? Please get them involved'." - Interview participant 7*
- *"The other thing that you need to know about [City A] which isn't the case in every city is that [City A] University has what's called an [urban data centre]... And that data set gives you a really good basis on which to kind of configure public services and design new services." - Interview participant 3*

Conclusions

- There are several ways in which smart city verticals emerge
- Existing local governance arrangements are important in shaping selection of areas of focus
- Justification of the way in which verticals are selected are rooted in broader shifts in urban governance
- Further research and analysis

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