The Right to the Smart City

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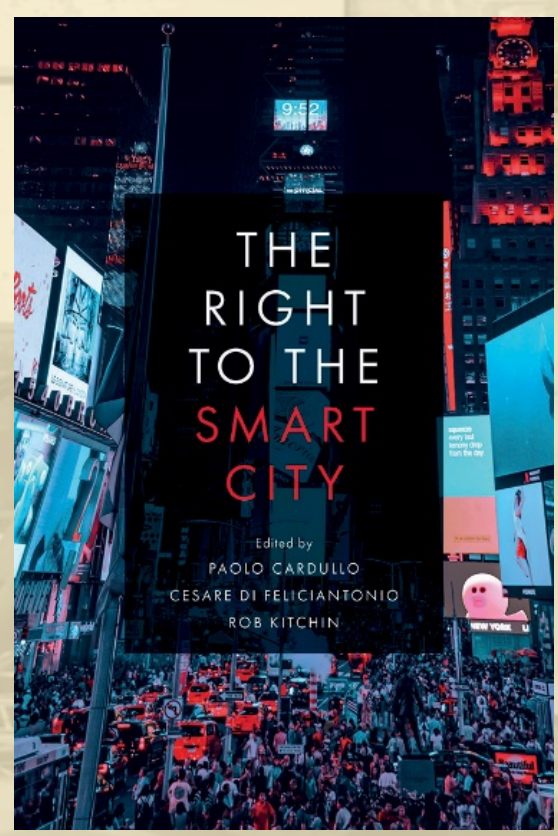


Building City Dashboards

The Programmable City

Maynooth University National University of Ireland Maynooth | Social Sciences Institute

Science Foundation Ireland sfi For what's next

erc European Research Council Established by the European Commission

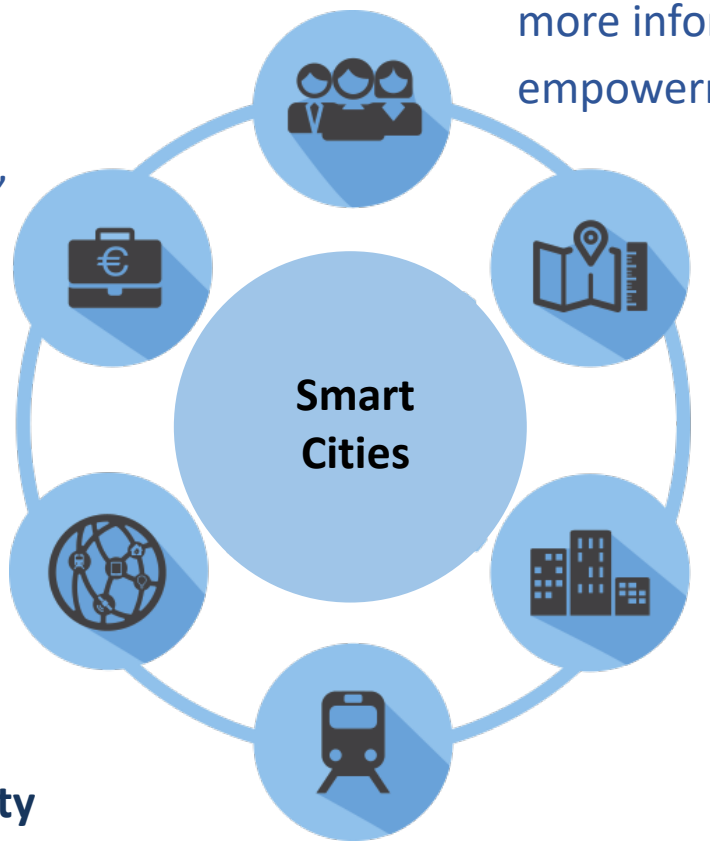
Smart city systems

Domain	Example technologies
Government	E-government systems; online transactions; city operating systems; performance management systems; urban dashboards
Security and emergency services	Control rooms; digital surveillance; predictive policing; coordinated emergency response
Transport	Intelligent transport systems; integrated ticketing; smart travel cards; bikeshare; real-time passenger information; smart parking; logistics management; transport apps
Energy	Smart grids; smart meters; energy usage apps; smart lighting
Waste	Compactor bins and dynamic routing/collection
Environment	Sensor networks (e.g., pollution, noise, weather; land movement; flood management)
Buildings	Building management systems; sensor networks
Homes	Smart meters; app controlled smart appliances
Civic	Various apps; open data; volunteered data/hacks

Promise of smart urbanism/cities

Smart people
more informed, creativity, inclusivity, empowerment, participation

Smart economy
entrepreneurship, innovation, productivity, competiveness



Smart living
quality of life, safety, security, manage risk

Smart environment
green energy, sustainability, resilience

Smart government
e-gov, open data, transparency, accountability, evidence-informed decision making, better service delivery

Smart mobility
intelligent transport systems, multi-modal inter-op, efficiency

Perils of smart cities

- Frames city as systems; knowable, rational, steerable machine
- Claims objective, neutral, non-ideological approach
- Neoliberal political economy & corporatisation of governance
- City as an accumulation strategy: tech-led entrepreneurial urbanism
- Technocratic governance and solutionism
- (Re)produces neoliberal citizenship & shifts governmentality from discipline to control
- Ahistorical, aspatial, homogenizing and bounded
- Buggy, brittle, hackable
- Reinforce power relations & inequalities
- Profound social, political, ethical effects

Key questions

- What are the ethical implications of smart city approaches and systems?
- How are citizens expected to act and participate in the smart city?
- How is public space and the urban commons framed and regulated in the smart city?
- What sort of publics can be formed and what actions can they take?
- To what extent are injustices embedded in city systems, infrastructures and services and in their calculative practices?
- What systems and structures of inequality are (re)produced within smart urbanism?
- What models of citizenship are enacted within the smart city?
- What forms of social justice operate in the smart city and what are their effects?
- What kind of smart city do we want to create and live in?

Recasting the smart city

- Main approaches to recasting the smart city:
  - procedural/regulatory interventions (ethics, law, technical solutions)
    - privacy/data protection, data governance, data security
    - re-envisioning and orientating the smart city so fair and proportionate
    - reifies existing structural relations, rather than challenging and transforming them
  - inverting the ethos and use of smart city technologies (citizen-centric, justice)
    - moral philosophy – citizenship, social justice, ethics of care, right to the city
    - Seeks genuinely humanizing smart urbanism
  - discontinuing and blocking their deployment
  - decentring: smart city → city
- Normative – what *should be* vs what *has to be*
- Principles, values, ethos (*vision*) vs meeting obligations (*compliance*)

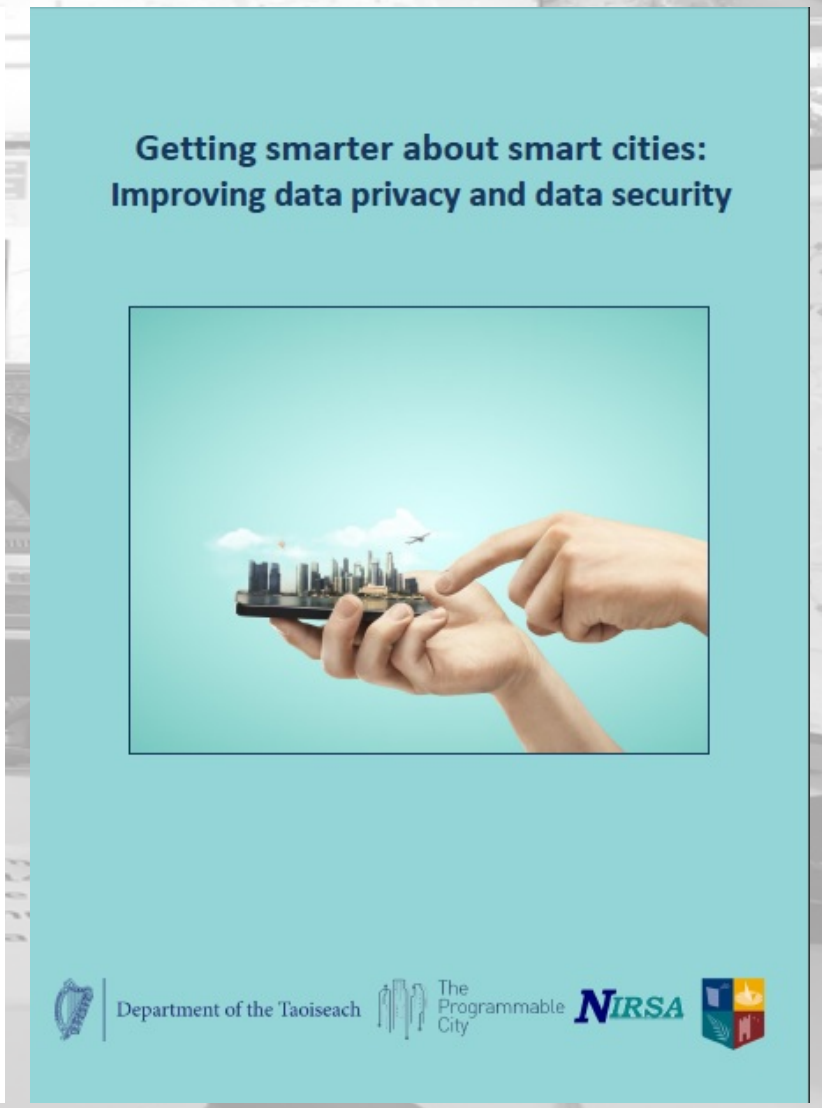
Technical/procedural vs normative/ideological

Locate source of the problem in individuals and technical systems	Acknowledges structural power and works towards redistribution and reconfiguration
Ethics	Justice
Bias	Oppression
Consumer rights	Citizenship
Fairness	Equity
Regulation infrastructure/spaces	Commons/public good
Accountability	Co-liberation
Transparency	Reflexivity
Understanding algorithms	Understanding history, culture, and context

Modified from ‘Data Feminism’ by Catherine D'Ignazio and Lauren Klein (MIT Press, 2020)

Technical/procedural concerns

- Smart city systems create a number of ethical concerns relating to:
  - Surveillance and privacy
  - Ownership, control, data markets
  - Social sorting / redlining
  - Predictive profiling / anticipatory governance
  - Nudge / behavioural change
  - Dynamic pricing
  - Data security
  - Control creep



Technical/procedural solutions/tactics

- Market:
  - Industry standards and self-regulation
  - Ethics as competitive advantage
- Technological
  - End-to-end strong encryption, access controls, security controls, audit trails, backups, up-to-date patching, etc.
  - Privacy enhancement tools, etc.
- Policy and regulation
  - Fair Information Practice Principles
  - Privacy by design; security by design
  - Education and training
- Governance
  - Vision and strategy
  - Oversight of delivery and compliance
  - Day-to-day delivery

Normative/ideological framing/strategy

- Practical solutions guided by, and embedded in, a holistic approach underpinned by a moral philosophy:
  - The Right to the Smart City
  - Citizenship
  - Social justice
  - Principles, values, ethos …

The Right to the Smart City

- Need to take seriously technical/procedural issues but framed within a normative/ideological approach
- 'The Right to the Smart City', following Lefebvre (1967/1996)
- Space should be shaped according to its inhabitants' needs and not determined predominately by a political and economic elite:
  - Right of habitation (*all* citizens receive the material (e.g., a living wage, shelter) and non-material (e.g., recognition, respect, dignity) necessities of life)
  - Right to participation and self-determination (citizens taking a direct part in the management of cities)
  - Includes a suite of related rights, such as the right to: information, free expression, culture, difference and equality, self-management, public and non-public services, free movement, occupy public spaces, protect the commons from private ownership, meetings and gathering, political representation and to vote

Citizenship

- Citizenship defines an individual's membership in a polity and their rights, entitlements, duties and responsibilities
- Initial critique: smart cities serve the interests of states and corporations more than they do citizens
- The response was to reframe smart cities as 'citizen-centric' or 'citizen-focused'
- However, citizens were an empty signifier
- Citizens mere recipients of stewardship (for citizens) and civic paternalism (deciding what is best for citizens) enacted by city administrations and the market
- Smart cities are rarely 'citizen-centric' beyond tokenism or by narrowly framing citizenship in neoliberal terms rooted in individual autonomy and freedom of 'choice' within constraints

Form and Level of Participation		Role	Citizen Involvement	Political discourse/ framing	Modality	Dublin Examples
Citizen Power	Citizen Control	Leader/ Member	Ideas, Vision, Leadership, Ownership, Create	Rights, Social/Political Citizenship, Deliberative Democracy, Commons	Inclusive, Bottom-up, Collective, Autonomy, Experimental	Code for Ireland, Tog
	Delegated Power	Decision-maker, Maker				Civic Hacking, Hackathons, Living Labs, Dublin Beta
	Partnership	Co-creator	Negotiate, Produce	Participation, Co-creation		
Tokenism	Placation	Proposer	Suggest		Top-down, Civic Paternalism, Stewardship, Bound-to-succeed	Fix-Your-Street, Smart Dublin Advisory Network
	Consultation	Participant, Tester	Feedback	Civic Engagement		CIVIQ, Smart Stadium
	Information	Recipient	Browse, Consume, Act			Dublinked, Dublin Dashboard, RTPI
Consumerism	Choice	Resident		Capitalism, Market, Neoliberalism		Smart building/Smart district
		Consumer				Smart meters
		Product				Personal data generated by tech
Non-Participation	Therapy	Patient, Learner, User, Data-point	Steered, Nudged, Controlled	Stewardship, Technocracy, Paternalism		Smart Dublin, Dublin Bikes
	Manipulation					Traffic control

Social Justice

- Social justice concerns the expected and acceptable ways in which people are treated and the conditions in which they live
- Theories of social justice fall into four broad types:
  - distributional (fair share);
  - procedural (fair treatment);
  - retributive (fair punishment for wrongs);
  - restorative (righting of wrongs)
- Which version, within each type, is adopted makes a fundamental difference to the principles and ethos underpinning smart urbanism

Theory of Social Justice	Application to data-driven harms
Egalitarianism argues for equality in terms of distribution of wealth and power across all members of a society regardless of ability and inheritance	**Egalitarians** would see data-driven harms and differential treatment as an affront to their principles of equality and demand that it be removed or made equal in effects across all citizens
Utilitarianism seeks the greater good for the greatest number	**Utilitarians** would treat the problem as a social nuisance that ought to addressed for the greater good as it reproduces and deepens inequalities and their long term effects; or that it should be tolerated for greater good if benefits outweigh harms
Libertarianism prioritises individual autonomy over the state and society and suggests that the free-market is inherently just	**Libertarians** would put the rights of data extractors and profilers at a premium and what happens between the parties involved is a private matter, with citizens receiving the treatment they deserve or can afford
Contractarianism seeks to find a distributional arrangement of resources that all involved considers just (not equal)	**Contractarians** would look at the problem from all sides, arguing that if one group is unwilling to tolerate such data-driven harms then nobody should and the systems should be dismantled
Marxism argues that society has to be restructured away from its current capitalist base into a society where the full value of an individual's contribution is rewarded	**Marxists** would argue that system that led to surveillance capitalism needs to be changed to a social democracy where people are not discriminated, exploited and alienated.

What forms of social justice do and should operate in the smart city?

Towards a genuinely humanizing smart urbanism

- Need to move beyond commonsensical, taken-for-granted, pragmatic, practical, technical, post-political notions of the smart city
- Need to avoid ‘citizenship-washing’ and ‘ethics-washing’
- Instead, need to reframe, reimagine and remake the smart city within an emancipatory and empowering framework
- Need to produce a genuinely humanizing smart urbanism underpinned by the notion of the ‘right to the city’
- Requires drawing on normative thinking related to citizenship, social justice, equity, and democracy
- This is no easy task given the interests of states and corporations, and embedded trajectory of capitalism and neoliberalism
- A further step is to decentre the smart city

Decentring smart cities

- Decentering ‘is to ‘see through’ technology and position it in relation to systems of oppression’ (Gangadharan and Niklas 2019: 895).
- Move away from the reification of technologies and recognize them as the agents of wider structural forces
- Focus on future city in a more holistic sense: how smartness *might or might not* be a means of realising a fairer, more open and tolerant city
- Not inserting equality/justice into smartness, but how smartness might create equality/justice *in conjunction* with other kinds of interventions (e.g., policy, collaborative planning, community development, investment packages, multi-stakeholder engagement, etc.)
- Not starting with tech (looking for problem), or turning first to tech for solution …

Decentring smart cities

- The issues facing cities are not going to be fixed through technological solutionism, but a multifaceted approach:
  - Homelessness is not going to be fixed with an app
  - Congestion is not going to be fixed with intelligent transport systems
  - Institutionalized racism in predictive policing will not be fixed by tinkering with data and algorithms
- Platform and surveillance capitalism are not separate and distinct forms of capitalism; racism expressed through smart urbanism is not cut adrift from the structural logics and operations of institutionalized racism
- Instead, frame smart city technologies and their operations with respect to capitalism and racism *per se*; the solutions are anti-capitalist alternatives and anti-racism in which smart city technologies *might or might not* play some part
- Smart urbanism → urbanism

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