Datafied planning and the politics of expertise

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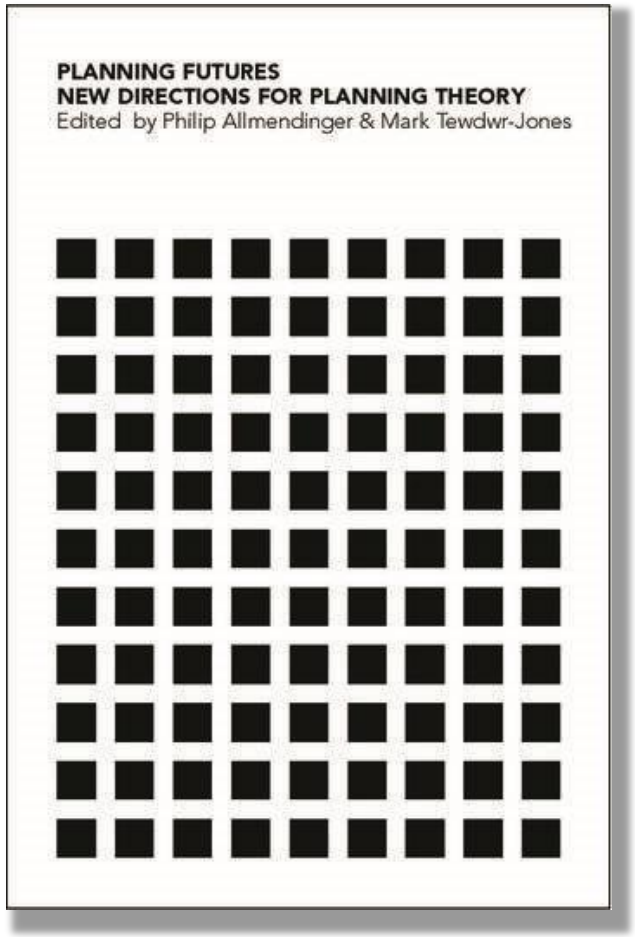
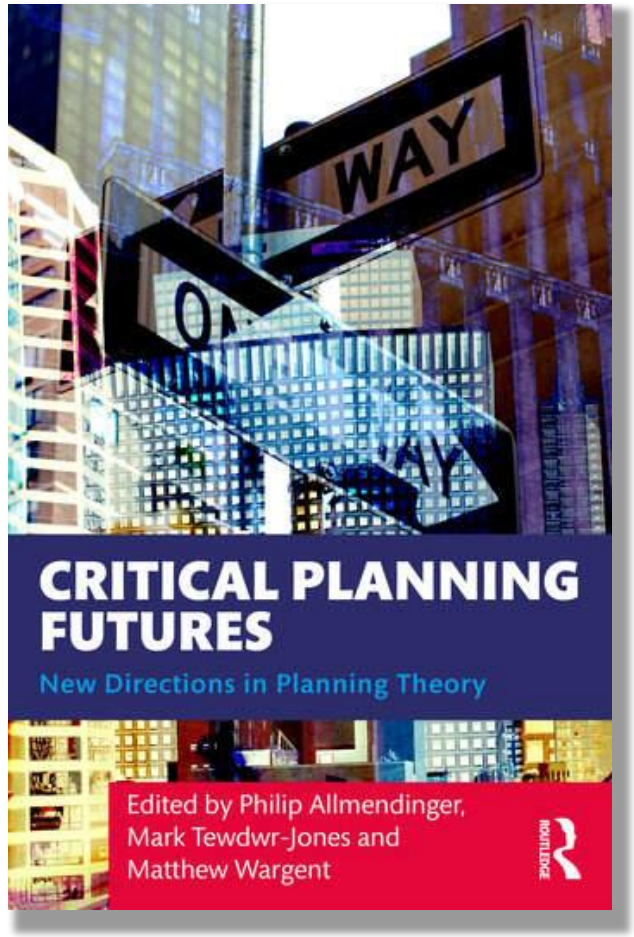
Linköping University, Wednesday 12th November 2025

Critical planning futures

"Future theory building must keep pace with planning as a complex governance activity shared across interests, sectors, and scales, but it cannot focus on practice alone, nor be rooted exclusively in normative theories that promise more just or more radical forms of planning."



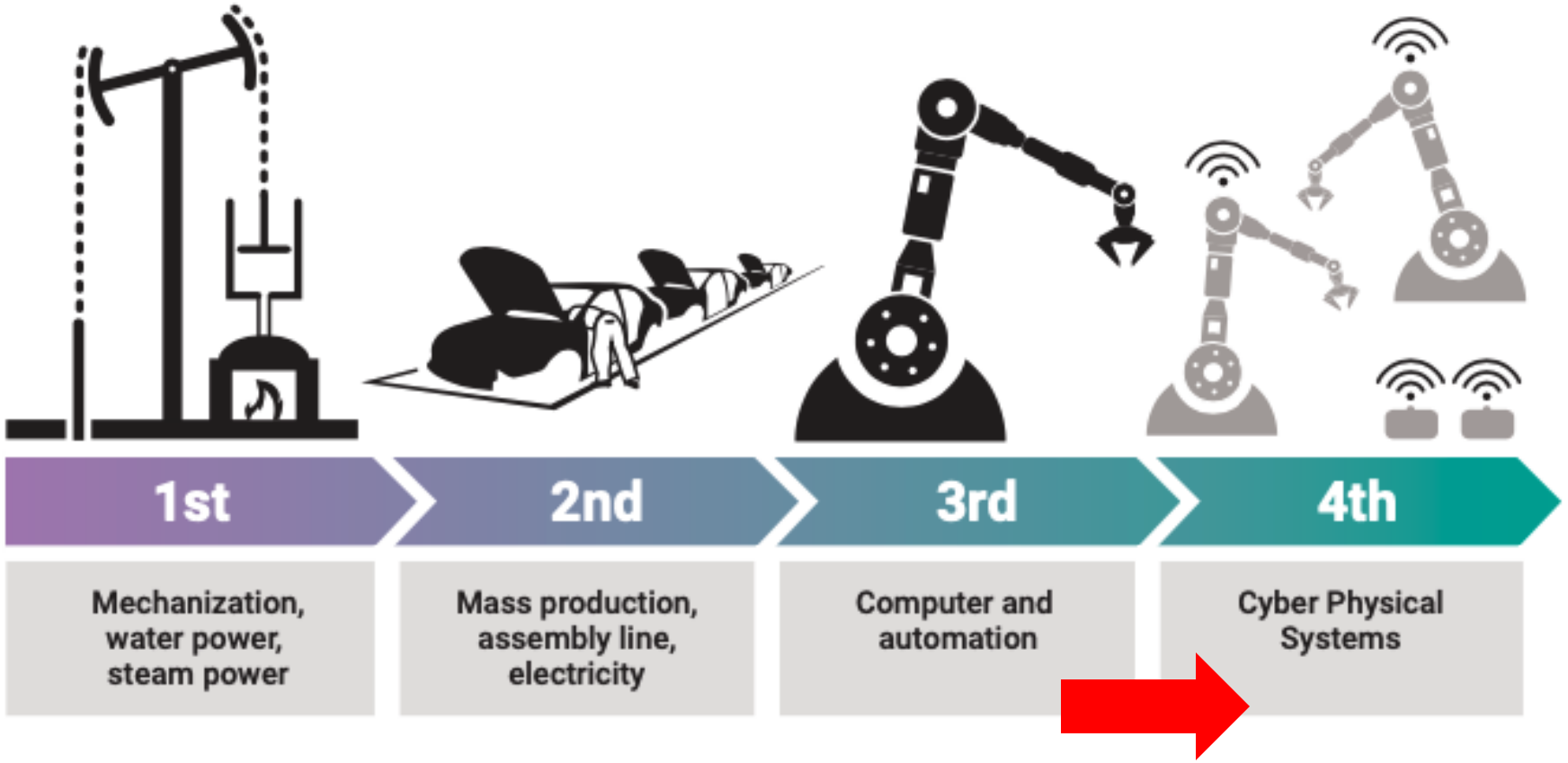


Sources: Allmendinger et al 2025

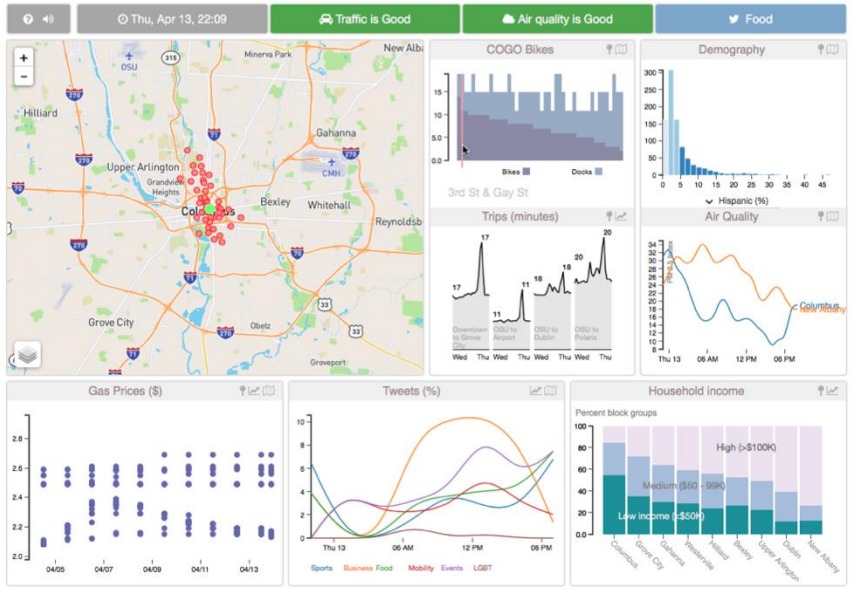
Talk structure

- Place digital planning in longer run debates about the private sector and technology in planning
- Digital technologies are not simply tools to be adopted or resisted, but forces that are reshaping what counts as planning expertise
- Explore changes to expertise in planning and how planners might respond
- Ask what an ‘ethical’ response to the rise of technology in planning?

Four industrial revolutions



“At every stage of the digital transformation, we have never been able to predict the next.” (Batty and Wei, 2022: 19)



Traditional urban data

Small samples, generated occasionally, limited in scope

Provide snapshots of cities at particular moments

Static, partial data, analysed at the aggregate level

Big data

Generated and processed in real time, exhaustive in scope, fine resolution

Radical expansion in the volume, range and granularity of data

Exhaustive, highly contextual and actionable data

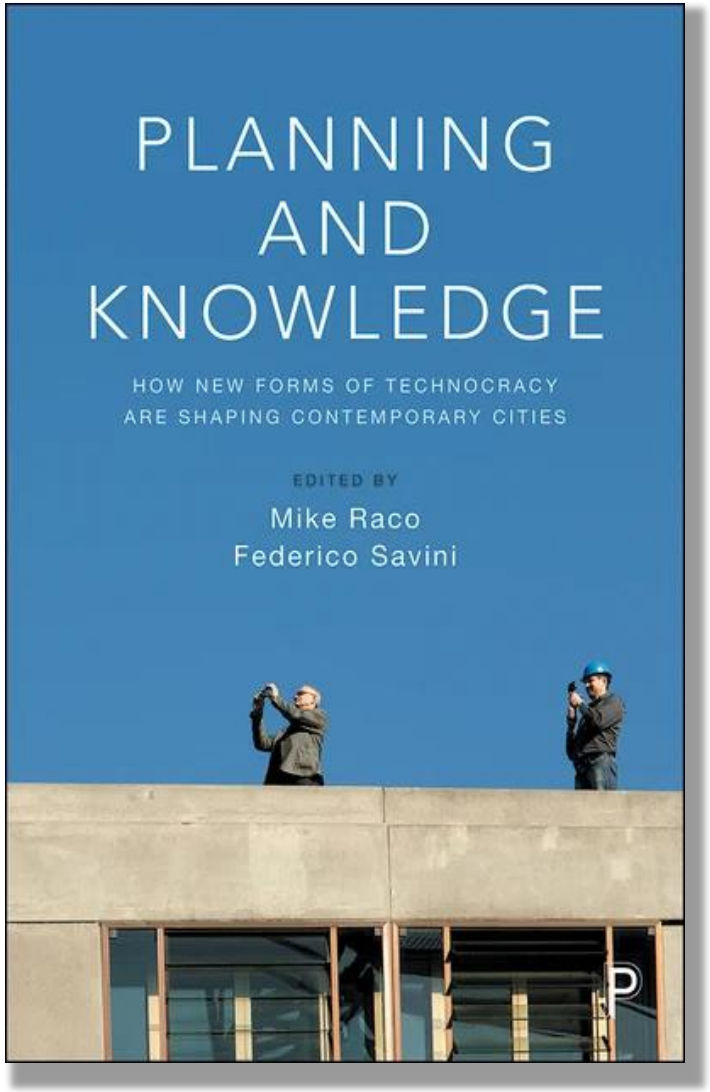
Digital technology in planning

- Digital technologies offer opportunities to close the gap between the slow, technical, and legalistic process of planning cities and the fluid and dynamic way in which we experience them
- Digitisation vs Digitalisation
- "… more interactive, intelligent, self-organising, and interconnected planning practice" (Potts, 2020, p273)
- Interactive, visual and data-driven
- Recent developments: shift from quantitative tools to generative qualitative insights

Sources: Potts 2020, Pellegrin et al 2021, Cugurullo et al 2024

Privatisation of expertise

- Contemporary urban challenges thought to require new knowledges and skills found beyond traditional built environment professions
- Competition amongst a diverse ecology of urban technocrats
- "…ongoing processes of contestation over the disciplinary scope of planning as a field of governmental activity, and attendant debates about professional expertise" (Inch et al, 2023, p247)



Sources: Geuss 2001, Moore 2012, Mazzucato 2013, Raco and Savini 2019, Robin and Acuto 2023, Inch et al 2023

Policy reform

- “We will take a radical, digital-first approach to modernise the planning process … moving from a process based on documents to a process driven by data.”
- Open engagement with “PropTech entrepreneurs”
- “Government really had no idea what they were doing when they introduced the ‘digital first’ approach.”

Sources: Allmendinger and Haughton 2015, MHCLG 2020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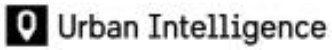
Urban Intelligence


Commonplace


PROPORTUNITY


LANDHAWK


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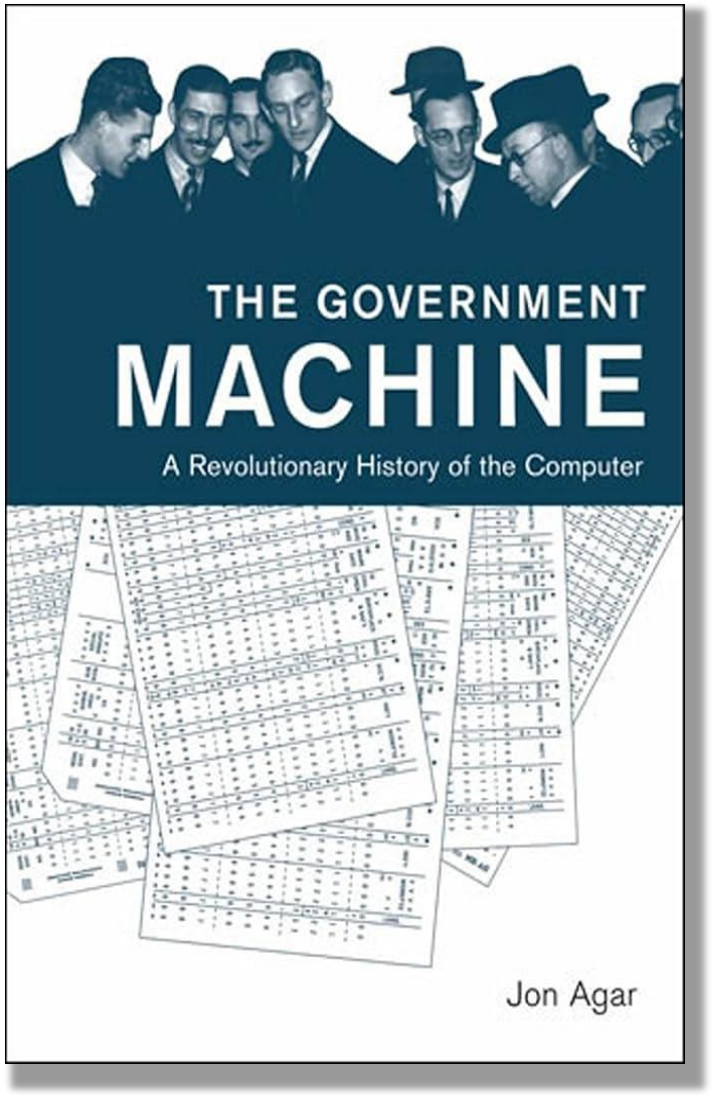
Epistemic communities

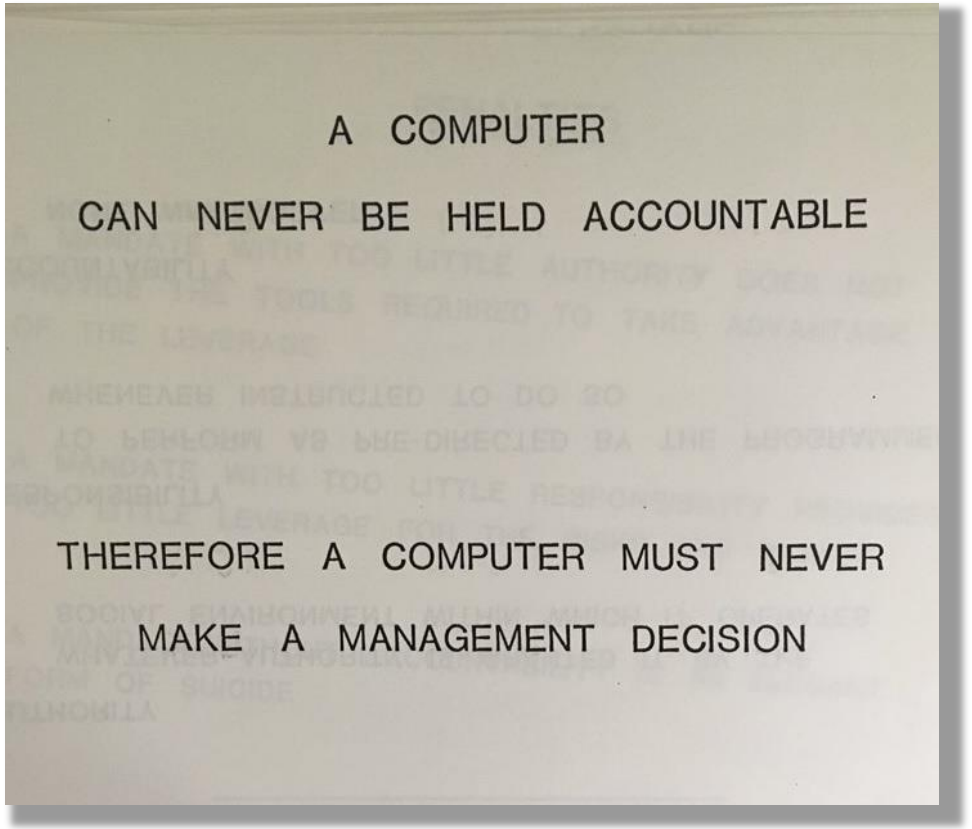
- “… knowledge-based experts [that] help decision-makers identify and define the problems they face along with possible policy solutions, and … assess policy outcomes.” (Kitchin et al, 2019, p204)
- Orthodox neoliberal view, echoes of New Public Management
- Introjection of ideas and understandings of place and planning



Sources: Haas 1992, Agar, 2003, Kitchin et al. 2019, Parker et al 2019, Cook and Karvonen 2024, Odendaal 2025

Planning, technology and disciplinary homes

- Large scale urban models, particularly in US 1960s and 1970s
- Computer modelling shifts toward geography in 1980s (GIS, spatial data analytics, systems modelling)
- Strategic to local shift in UK undermined urban and regional modelling
- Rise of spatial planning around turn of the century ambivalent toward technology
- Smart city and urban data analytics commodified data, tools, platforms beyond national planning systems

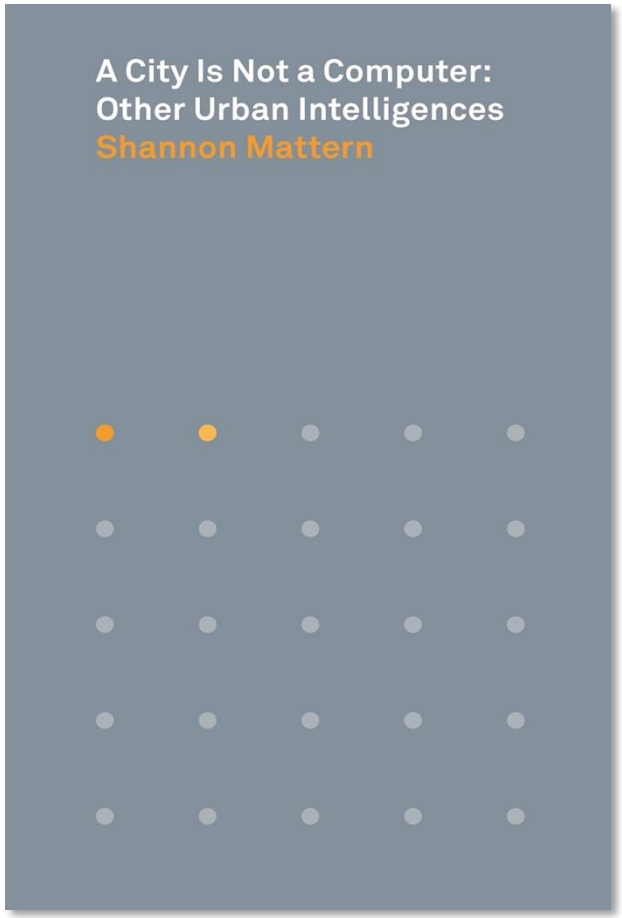


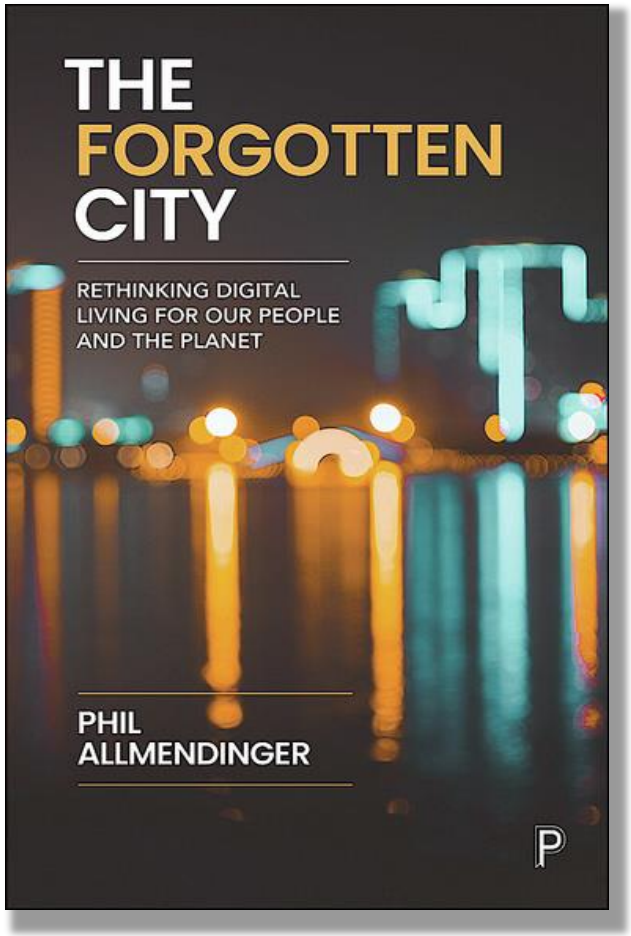
Internal IBM training slide, 1979 (reputedly)

Sources: Batty 1972, Adler 1987, Lake 1993, Klosterman 1992; 1997

The city is not a computer

- Promise of control, optimisation, legibility
- Technologies with their own ontology, defining what the city is: an aggregate of variables
- Death of theory
- “don’t need politics; they just need lots and lots of data” (Allmendinger, 2021, p169)





Sources: Mattern 2021, Allmendinger 2021

digitalplanningdirectory.org

Go Vocal > Cambridge City Council analyses input 50% faster with... Go Vocal's AI assistant

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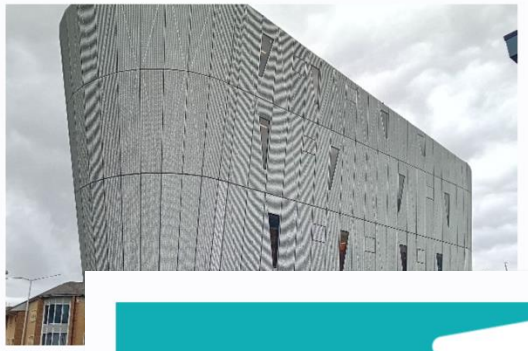
go vocal



Digital Urban > Folkestone use town centre 3D Model and Virtual Realit... to boost Regeneration Engagement

Folkestone use town centre 3D Model and Virtual Reality to boost Regeneration Engagement

Hello Lamp Post > Hello Environment Agency

Hello Environment Agency

HELLO LAMP POST

PlanningHub > Speeding Up Professional Planning Advice with...

Speeding Up Professional Planning Advice with PlanningHub AI

VU.CITY > Fast, Design Led Capacity Assessments with SiteSolve

Fast, Design Led Capacity Assessments with SiteSolve

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Full case study

View profile

Informed Solutions > NatureScot's AI-based decision support platform to... Enhance Environmental Decision Making

NatureScot's AI-based decision support platform to Enhance Environmental Decision Making

Informed Solutions

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Novaya Labs > Evaluating London's Planning Data for Predictive... Insights

Evaluating London's Planning Data for Predictive Insights

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How can a Local Authority or utility provider be certain that a new housing project will proceed when planning for new infrastructure?

What type of data can one use for that? Does it exist? And what does data quality mean in this context?

Outcomes

Our team found that CIL relief significantly influences the probability of development commencement, with a notable increase in commencement likelihood when CIL relief is granted.

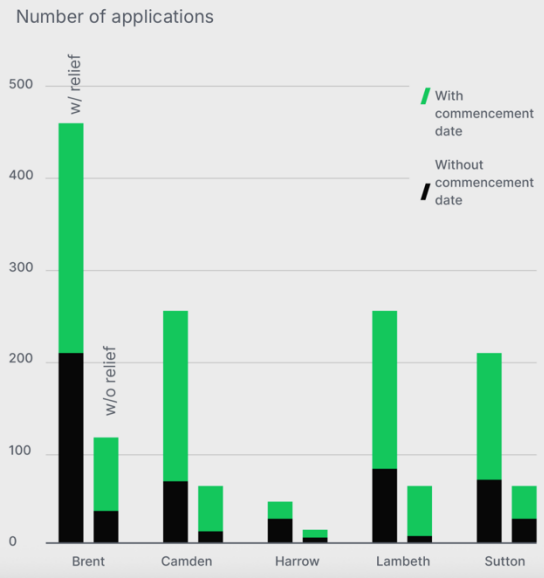
Additionally, we identified factors such as the applicant's tenure type and chargeable area that affect commencement probability. The study also offers insights for optimising data collection processes, data quality variations among boroughs, and limited sample sizes in some Boroughs.

1. Is Community Infrastructure Levy (CIL) relief a leading indicator for development progress? We tested this through the following hypotheses:

Does the relief impact the fact of commencement?

What impact does CIL Relief have on the probability of commencement?

Does CIL Relief impact the date of commencement?



Accelerating the planning process with 3D city model

esri UK

A single source for all planning information

For the first time, Nottingham City Council's planners can see all the inform
ning application process in a single GIS application

Quicker decision making in planning process

Using the Nottingham City Digital Twin, planners can now make faster, well-informed decisions about the potential impacts of new developments on the city's distinctive character and skyline. "Having this tool allows plar
Dunn. "Planning proposals can therefore
sooner and developers to realise their co

Greater ROI from ArcGIS and 2D data holdings

Dunn is justly proud of Nottingham City Council's achievements and recognises that the development of the Nottingham City Digital Twin has significantly increased the return on investment that the council gains from ArcGIS licenses and staff training. The digital twin has given the council an exciting new platform, based on familiar technology, that can be used as the foundation for other value-adding planning tools in the future. "We are proud to be leveraging our investment in Esri technology and maximising the value of our existing 2D data in a 3D environment to modernise the planning process and increase user engagement," Dunn concludes.

Results

The Digital Twin is now used for site assessments and is fully embedded within the council's pre-application planning process resulting in.

Go Vocal > How AI sped up reporting on consultation feedback for... West Oxfordshire and Cotswold District Councils

How AI sped up reporting on consultation feedback for West Oxfordshire and Cotswold District Councils

go vocal

Full case study

View profile

Results

The pilot showed a dramatic reduction of up to 85% in planning officer time, resources and costs required per consultation to summarise and report on feedback received.

In terms of reporting, the test-case consultation conducted in West Oxfordshire in August – October 2023 was compared to the Cotswolds consultation in February 2022 as the baseline. It was shown that the AI interventions could offer an average saving in officer time of up to 85%. That's a significant reduction in time spent summarising and reporting on thousands of words in qualitative responses received in a consultation. The pilot delivered considerable savings.

Articles

Deciphering Public Voices in the Digital Era

Benchmarking ChatGPT for Analyzing Citizen Feedback in Hamilton, New Zealand

Xinyu Fu, Thomas W. Sanchez, Chaosu Li & Juliana Reu Junqueira

Pages 728-741 | Published online: 20 Mar 2024

Three trends in planning expertise

1. A new epistemic hierarchy?
   - Algorithmic outputs and visualisation routinely framed as more “robust” or “efficient” than slower, qualitative methods
2. Commodification and packaging of expertise
   - Calibrated data products, APIs, turnkey platforms that public bodies then adopt
   - ‘Plug and play’, data standards, interoperability – ‘opening up’ planning
3. Expertise is increasingly mediated - intermediaries
   - Substantive and co-produced knowledge travelling through partnerships, workshops and training
   - Dependence on external infrastructures while simultaneously embedding new competencies inside public teams

Sources: Chapman et al., 2015; van Schalkwyk et al 2015; Wargent et al 2020

Reclaiming the future of planning

- Politicising the ‘infrastructural layer’ of digital planning
  - Shift attention from the interface level of user experience to underlying infrastructure: code, relationship between values and metrics
  - Will require greater data literacy
  - What is measured, how it is measured, why is it measured?
- Moving upstream; intervention in procurement and system design
  - Being a better client
- Prioritising tacit knowledge, qualitative insights, deliberative spaces
  - Qualitative insights can also guide parameter selection, interpretation, and weighting in digital models
  - Deliberative spaces where stakeholders interpret digital outputs collectively

Towards an ethics of digital planning

- Understand technological adoption is an ongoing normative and political project of societal ordering
- Ethics less about morality or universalising rules, more about the practice of professional self-formation
- Reflective attitude / recognising how software encourages certain professional subjectivities
- Recognise digital planning as a sociotechnical system
  - How do technologies shape human behaviour, changing what is possible, accepted, and expected?
  - How are collective understandings of ‘good’ planning changing?

Sources: Foucault 1980, Jonas 1984, Vallor 2016, Beer 2017, Safransky 2020, Boenig-Liptsin 2022

Final thoughts and questions

- Digital reforms reveal latest problematisation of planning
- Digital solutions as a disciplinary practices
- Private ‘innovation’ solving crisis
- Can tacit, experiential, or qualitative insights ever have equal authority to digital modelling?
- What role for professional judgement in a datafied planning?
- How do we educate future planners?

Thank you

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