

6G & Smart Cities

Building the future

With its anticipated improvements in speed, latency, and the ability to connect billions of devices simultaneously, 6G will play a key role in transforming urban spaces into “smart cities.”

Yet, smart cities also raise deep questions about governance, data privacy, and social exclusion. Who controls urban data? Who benefits from automated decision-making? And how can we ensure that smart city developments prioritize public interest over corporate profit?



What will cities look like with 6G?

Intelligent Traffic Management & Urban Governance

6G's ultra-low latency and robust connectivity empower dynamic traffic management systems that adjust in real time to current conditions. By integrating AI with Ubiquitous Network Coverage, cities can offer personalized and adaptive public services – from dynamic traffic control to optimized public transportation schedules – ensuring smoother commutes, reduced pollution, and overall enhanced mobility. This data-driven approach supports proactive urban governance, enabling decision-makers to fine-tune services to meet the unique demands of their communities.

Environmental and Infrastructure Monitoring

6G will continue advancing integration with IoT (Internet of Things). Sensors connected via 6G will continuously monitor environmental factors such as air quality, water purity, and waste management efficiency, as well as the condition of critical infrastructures like bridges and roads including live traffic conditions to support vehicles at various levels of autonomy. This real-time monitoring allows for smarter maintenance and operations regimes and proactive management of urban resources, ensuring cities can respond swiftly to environmental challenges while reducing their ecological footprint.

Digital Twins for Enhanced Citizen Engagement

6G opens the door to the creation of digital twins—virtual replicas of physical cityscapes that facilitate real-time simulation, testing and validation of urban policies, infrastructure projects, and emergency scenarios before actually enacting them. These digital environments not only support urban planning but also serve as interactive platforms for citizen engagement and participatory planning. By integrating these advanced digital tools, cities become more inclusive and better equipped to meet the evolving needs of their residents.

OPEN QUESTIONS



Digital Disconnect

While smart cities offer greater convenience, there's a risk that some individuals, especially the elderly or those with limited access to technology, may find it harder to stay connected and keep the pace with their communities. Ensuring digital inclusion will be key to making sure everyone benefits from these advancements.

FOOD FOR THOUGHT

- Who should control the data generated by smart cities – governments, corporations, or the public?
- How do we prevent AI-driven governance from reinforcing social and economic disparities?
- What regulations are needed to ensure smart cities remain democratic transparent, and inclusive?

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