Cities and digitalization

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Urbanization Challenges

More than 4,000 cities in the world with populations exceeding 100,000

1 billion people live in informal settlements and slums in overcrowded and inadequate housing

2.4 billion people lack adequate access to safe water and sanitation

+ Spatial and social inequality
+ Slums and informal settlements, deprived neighborhoods
+ Lack of urban services services
+ Rapid growth, urban sprawl and poor planning
+ Natural disasters and conflict
+ Environmental and health threats
+ Climate change
+ Safety and protection
+ Exclusion and lack of participation
+ Upsurge in international migration

Over 95% of total cases in urban areas

“The world we live in has been transformed in a manner not witnessed in recent times.”
Intrinsic *value of sustainable urbanization* to be harnessed for *wellbeing of all*:
- from an economic, social and environmental perspective > effective implementation of New Urban Agenda;
- innovation and technology;
- role of local governments;
- targeted investments.

**Affirmation**…
well-planned, managed and financed cities and towns create value that can be harnessed…
- to build resilient cities that can bounce back from the devastating impacts of pandemics;
- improve the quality of life of all residents;
- leverage in fight against poverty, inequality, unemployment, climate change and other pressing global challenges.

**World Cities Report 2020**

*Policy Considerations*…

- Cities must work to promote **effective policies** to protect citizen data and empower citizens to understand how to protect their personal data.
- Clear, **ethical frameworks and institutional arrangements** for data collection and data sharing should be put in place.
- **Technology** is most effective when coupled with **institutional innovation** and is not a substitute for improving governance.
- Results of smart city experiments are mixed and particularly poor when these efforts are technology rather than **people driven**.
- **Technology cannot displace citizen engagement** in community and city affairs.

[source: https://unhabitat.org/World%20Cities%20Report%202020]
New Urban Agenda

Paragraph 66:
“66. We commit ourselves to adopting a smart-city approach that makes use of opportunities from digitalization, clean energy and technologies, as well as innovative transport technologies…”

Paragraph 156:
“156. We will promote the development of national information and communications technology policies and e-government strategies, as well as citizen-centric digital governance tools, tapping into technological innovations, including capacity-development programmes, in order to make information and communications technologies accessible to the public, including women and girls, children and youth, persons with disabilities, older persons and persons in vulnerable situations, to enable them to develop and exercise civic responsibility, broadening participation and fostering responsible governance, as well as increasing efficiency…”

António Guterres, Secretary-General of the United Nations:
“We cannot go back to business as usual. Cities and communities are demanding that those in authority take the opportunity to build back better. To emerge stronger, we need a sustainable, inclusive and green recovery for people and the planet.”
(source: World Cities Report 2020)
Global Trends on Smart Cities

1st wave: marketers smart city

2nd wave: delivering digital services to citizens

3rd wave: city as a sharing platform

next generation ...?
Global Trends on Smart Cities

Towards a new paradigm…

Rethinking Smart Cities

Four flaws with the smart city vision…

1. Starting with technology instead of urban challenges
2. Insufficient use or generation of evidence
3. Lack of awareness of how others are working to improve cities
4. Little role for citizen and stakeholder engagement

Global Trends on Smart Cities

But are we really re-thinking smart cities?
Our approach to tech innovation

UN-Habitat Strategic Plan 2020-2023
new focus on innovation, digital and smart cities

82. Frontier technologies are profoundly influencing the emergence of smart cities, the ways in which we build and manage our cities and other human settlements, and how urban managers take more informed decisions.

85. An increased emphasis on capacity-building in local government and across the built environment professions is crucial in order to turn smart city plans and the use of frontier technologies in urban planning, design and regeneration into people-centred opportunities, rather than technology-led endeavours.

86. Ultimately, the deployment of frontier technologies and sustainable urban development needs to pay particular attention to underserved populations in order to address inequalities and bridge social and spatial divides.

UN-Habitat Flagship Initiative

1. Policy Transformation
Increased focus and mainstreaming of people-centered sustainable and inclusive digital transition as a critical policy topic in high level political forums and global dialogues on smart cities.

2. Financing Digital Urban Innovation
Increased investment and financing for people-focused smart cities to accelerate the achievement of the SDGs with a specific focus on developing countries, small and medium size cities and grassroots urban communities.

3. Digital Empowerment and Capacity Building
Enhanced capacity of governments at all levels to adopt a people-focused, privacy-enhancing, and rights-preserving approach to digital technologies for inclusion and sustainable urban development in the achievement of the SDGs.

"Digital technologies have the potential to serve people, improve public services and working conditions. But persistent digital divides remain, and the digital revolution must be directed and governed in a democratic and inclusive way."

Maimunah Mohd Sharif, UN-Habitat Executive Director
Smart cities policy transformation

Vice-Chair of ITU Focus Group of Data Processing for Smart Cities

Host of the Uraia network of smart cities and practitioners

Steering group of United for Smart Sustainable Cities

Steering group of Cities for Digital Rights Coalition
Building smart cities capacity globally
People-centered smart cities in practice

Block by Block – Using Minecraft for public participation in public space design
People-centered smart cities in practice

Developing inclusive technology solutions to urban mobility challenges through the Transformative Urban Mobility Initiative startup accelerator in Nairobi.
People-centered smart cities in practice

Maji Wazi – A community maintained sensor network to manage water supply in informal settlements
People-centered smart cities in practice

‘Mixed reality’ and digital twins to visualize and co-create urban design projects
People-centered smart cities in practice

Understanding walkability in informal settlements using brain monitoring technologies and making stress assessments.