

Smart Cities and the Sustainable Development Goals (SDGs)

Two pillars of Governance in the GCC?

Anna Laura Petrucci

The Sustainable Development Goals (SDGs) are a manifesto of principles of good human-centered design. In 2020 those were reconnected to Smart Cities by the UN-Habitat document on People-centered smart cities to improve urban efficiency, quality of life, and sustainability. The New Urban Agenda ([NUA, 2015](#)) also calls for adopting a smart city approach using digitalization, clean energy, and technologies. On the other hand, it warns about the risk of technology being applied uncritically, without considering the needs of cities, the people living in them, or the broader aims of sustainability and inclusion.

By interlinking these two potent policy-making paradigms, the Smart City with the SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable), we could support not only the traditional urban functional domains such as transportation, health, home, and environmental measurements. We could extend the meaning of SDG11 into several other sectors as digital Governance, e-democracy, health care access, public-private partnerships, well-being, and more. Smart connectivity can facilitate a qualitative experience for citizens and overall inclusion to better services and integration, making local governments the main actors of the urban transformation and the potential of connectivity with all citizens. People, technology, and policy could be considered pillars of the governance process, where their interplay can support decision-making processes. National governments bridging the digital divide, especially for marginalized groups, can build more efficient and secure data management systems while protecting citizens' privacy and engaging for inclusive and resilient smart cities ([UN-Habitat, 2020](#)).

So, how information and communications technology (ICT) enhanced applications and services are useful in implementing inclusivity and quality of life?

The critical point of increasing technologies is cybersecurity threats and citizens' protection from too invasive governance. On this issue, UNESCO recently issued a chart for setting the ethics aspects in applying AI and highlighting the importance of not using technology for mass surveillance or intruding data and privacy protection. ([UNESCO, 2021](#))

Once cybersecurity is made safe and respectful of people, it can strongly benefit sustainability and resilience in smart cities. Those supported by technology can respond to dynamic multifunctional communities sharing visions about the future shape of the city and the systems as a key for smart city development. City foresight enables the exploration of alternative development paths. It, therefore, provides practical tools for policy-makers to enhance their decision-making capabilities by using different scenario design exercises and exploratory hypotheses ([Visvizi and Pérez del Hoyo, 2021](#)).

GCC countries are already hyper-connected: UAE ranks at #30, Qatar at #38, and Saudi Arabia at #41. They rank much higher on ICT usage and skills among individuals (UAE ranks #1, Qatar #10, and Saudi Arabia #12) and access to ICT (Qatar ranks at #2, UAE at #10, and Saudi Arabia at #19). Notably, Saudi Arabia is the world leader in terms of internet access in schools and #4 in government promotion of investment in emerging technologies ([NRI, 2021](#)). All the countries are consistently committed to being avant-garde in affordable access to the Internet, and connectivity, availability, affordability, accessibility of government portals and services, and increasing digital literacy and skills of inclusion to the eGovernment supported by training, awareness, with almost the 100% of the population having a mobile-cellular network.

In Saudi Arabia, with 60,000 points for Public Wi-Fi Hotspots throughout the Kingdom, eGovernance is a big part of its Vision 2030. All government portals, mobile applications, and services are available and

accessible by all citizens, residents, and visitors 24/7/365. Those are legally obliged to implement the WCAG 2.0 AAA accessibility standards, ensuring that online contents on the government portals is easy to use and accessible for all uses, particularly for people with disabilities ([Saudi Arabia, 2021](#)).

The recently launched Riyadh's Accelerator for Cities matches Riyadh's potential of digital technologies, data, and innovation to contribute to sustainable urban development. It is expected to allow mapping, spatial analysis, data analytics, and visualization through remote sensing, big data, augmented and mixed reality, or drones by optimizing transport systems, collecting spatial data, or visualizing important information for citizens by 'mapping the unmapped' ([UN-UNITAC, 2021](#)).

In UAE, many initiatives are in place: Online services for vulnerable groups, Digital Customer and Digital Government Service Policy, National Policy for Quality of Digital Life, UAE Council for Digital well-being and the Digital Wellbeing Support Line. Interesting is the launched public digital participation project titled 'Designing the Next 50', having as major aim, to engage all segments of the society: public and private sectors, and citizens and residents in designing the 50 years after 2021. A 50-Year Challenge includes innovative bottom-up solutions to achieve the four Zero objectives in accidents, carbon emissions, plastic waste, and child obesity through the UAE Digital Wellbeing Platform. Moreover, government entities share a documented reference to the optimal way of using social networking tools to provide customers with better service standards, interact more with them, and increase their involvement in the service evaluation process ([UAE, 2021](#)).

In Qatar, in line with the National Vision 2030 (QNV2030), four key areas drive digital adoption: access to the Internet, smart devices, and e-payment facilities; basic digital skills and knowhow to search for, download, and use digital services; motivation needed to understand the benefits of digital services and encourage usage; and trust in using online services. The government is developing and enacting policies that ensure that all digital services in Qatar are intuitive and easily accessible by different population segments. Among the several inclusive programs in place: the 'Better Connections' Programme for digital inclusion of expatriate workers, the 'Wasla' intergenerational ICT learning program for the elderly, and the 'Cyber Safety' Programme to empower people to have safer cyberspace and be responsible online ([Qatar, 2021](#)).

The Omani government launched official recommendations to promote human rights and contribute to the Sustainable Development Goals, addressing transparency, accountability, and privacy issues, with action-oriented policy chapters on data governance, education, culture, labor, healthcare, and the economy. The main goals are to protect data by ensuring transparency; banning AI systems for social scoring and mass surveillance; monitoring and evaluating legal and technical infrastructure; taking appropriate measures to ensure that ethics are implemented in practice. Regarding the environment, the main goal is to use technology to assess the direct and indirect environmental impact throughout the AI system life cycle. It includes its carbon footprint, energy consumption, and the environmental impact of raw material extraction to support AI technologies ([Oman, 2021](#)).

We can say that GCC are showing important commitment to inclusion through the potential of technology governance to drive social change while addressing the needs of the population and society. National governments provide accessible connectivity, policies and regulations, infrastructures, and the needed frameworks for public interconnection and the regional and local governments. It encourages public-private partnerships (PPP) in facilitating community networks. The next step to dissolve the possible digital divide will be having nonprofits & community-based organizations playing a dominant role in connecting residents to digital skills development opportunities and serving as critical mass for a localized plan for addressing the digital divide and as controller of a real humanized process ([UN-Habitat, 2021](#)).

Active citizen participation in urban decision-making has proven valuable for better aligning population needs with urban planning proposals. Social media to inform and improve urban planning processes and social platforms are now largely used for institutional communications in the GCC more than everywhere else. Further development in policy-making should incorporate the user-generated information offered by these sources into the process to promote smarter, participatory, and inclusive urban planning and management. It would allow the shift from "smart cities" to the smart growth of all cities.

Dr. Anna Laura Petrucci is an accomplished academic and architect active between Europe and GCC, pioneer in community service through applied research and exceptional scouter of local identities.

Disclaimer

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Contact Konrad-Adenauer-Stiftung e.V.

Regional Programme Gulf States

Fabian Blumberg
Representative to the Gulf States
Email: fabian.blumberg@kas.de

Dr. Mohammad Yaghi
Research Fellow and Programme Manager
Email: mohammad.yaghi@kas.de

<https://www.kas.de/rpg>