INDUSTRY VERSION

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ECOSYSTM PREDICTS

The Top 5 Trends for Cities of the Future in 2022

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Introduction

Cities worldwide have been facing unexpected challenges since 2020 – and 2022 will see them continue to struggle with the after-effects of COVID-19. However, there is one thing that governments have learnt during this ongoing crisis - technology is not the only aspect of a Cities of the Future initiative. Besides technology, Cities of the Future will start revisiting organisational and institutional structures, prioritise goals, and design and deploy an architecture with data as its foundation.

CITIES OF THE FUTURE WILL FOCUS ON BEING:

SAFE
Driven by the ongoing healthcare crisis

SECURE
Driven by the multiple cyber attacks to critical infrastructure

SUSTAINABLE
Driven by citizen consciousness and global efforts such as the COP26

SMART
Driven by the need to be agile to face future uncertainties

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Ecosystm Rates the Cities of the Future Predicts for 2021

Cities Will Re-start Their Transformation Journey by Taking Stock

This prediction was made under the assumption that COVID-19 would be more controlled after vaccination efforts. Unfortunately, most cities are still grappling with the crisis.

Cities Will be Instrumented Using Intelligent Edge Devices

The rollout of Edge computing and IoT (originally predicted for 2020) gathered significant steam in 2021. Video Analytics in particular saw some adoption, with more planned for 2022.

COVID-19 Will Impact City Design

This one is still up for debate. With so much uncertainty, few cities or councils have been willing to overhaul their planning regulations – although alfresco dining is booming!
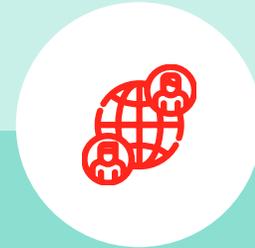
Technology Vendors Will Emerge as the Conductors of Cities of the Future

Technology vendors are certainly investing in Smart Cities expertise and have been supporting governments. However, not much has happened in terms of large transformation projects.

Compliance Will be at the Core of Citizen Engagement Initiatives

Some governments have taken steps to ensure their monitoring activities haven't inhibited personal liberties; whereas many governments just changed laws to allow greater access to and sharing of personal data.

#1 Cities of the Future Will Start Their Life in the Metaverse

Cities of the Future are likely to be very different from today's smart cities. We can get a glimpse of the future by observing the plans of cities like Neom and Seoul. Neom is a USD500 billion city being built by Saudi Arabia near the Red Sea. Once complete, it will be 33 times the size of New York. It plans to become a 'cognitive city' and have a digital twin in the Metaverse. This approach will allow for the development of iconic city designs in a virtual world, which can then be implemented in its analog twin. It will enable citizens to live, play, work and experience the city even as it is built. Neom will also have a new floating hexagonal industrial district named the Octagon.

Similarly, Seoul has announced plans to become the first city to offer services in the Metaverse as part of its 'Metaverse Seoul' initiative. Starting with a 'virtual' New Year bell-ringing ceremony at Bosingak (large bell pavilion) this year, the Metaverse platform will house a virtual Mayor's Office, Seoul Fintech Lab, Invest Seoul, and Seoul Campus Town. Once 'Metaverse Seoul' is completed, citizens will be able to interact with avatars of public officials, resolve civil complaints, and receive consultation services without visiting the City Hall.

> Cities of the Future will be part virtual and part real. They will transition from being smart to becoming cognitive, anticipating citizen needs, and creating an intelligent mesh that connects and manages urban planning and services in new and innovative ways.

Randeep Sudan
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#2 The Operational Confusion between IoT and Cities of the Future Will Come to a Head

A Smart City is not a place. It is not something someone simply buys from a technology company – that's an IoT solution. A Smart City is the leadership and cultural framework delivered through the adoption of design thinking principles within five key program areas: utility infrastructure, transportation infrastructure, the public realm, buildings, and the digital technologies layer.

Collectively, these five programs reach deep into every industry and service and supply chain on the planet. Unlike most IoT solutions, a Smart City program has sponsorship and an authorising environment at the highest levels of an organisation.

Criticisms about Smart Cities are usually criticisms about IoT projects; however, the board relationship remains in reach. End-user organisations must self-assess and go again – which means an honest review of functionally specific IoT solutions and providers across the business.

> Criticisms about Cities of the Future programs are usually criticisms about poorly integrated and disparate IoT solutions. In 2022 many organisations will reset their Smart City program after realising it was little more than a series of vendor-led IoT projects.

Peter Carr
PRINCIPAL ADVISOR, STRATEGY & TECHNOLOGY ADVISORY

#3 AI Will Drive Edge Adoption in Cities of the Future

2021 has seen an explosion of interest in smart analytics solutions in cities – smart parking, buses, trains, bridges, waterways and roads. Leading this interest has been video analytics – as all types of agencies and service providers use it to improve safety and compliance, while offering improves service levels.

To enable real-time analytics, video analytics solutions need processing on or close to the camera – which means computing power needs to be near the camera site. Most video analytics initiatives favour this model versus sending high quality streams to a central data centre or a cloud environment. So, edge computing installations will accelerate – driven by smart city strategies.

The growth of edge computing on networks means different management, security and data strategies. It means that government agencies and service providers will need to rethink their infrastructure architectures and data analysis and back-up strategies. Hybrid cloud is around for the long haul!

> The cloud hyperscalers are the ones with the most to lose from the growth in edge computing. Expect to see these providers accelerate their edge computing partners (particularly telecom providers) and improve edge solutions to evolve their hybrid cloud capabilities.

Tim Sheedy
PRINCIPAL ADVISOR, CLOUD, AI & CX

#4 Public Health Will Guide Other Agencies in the Cities of the Future

Imagine a world without COVID-19 – a happier world, but one where we do not take regular communications from the government as a given. Public Health across all cities had to be self-sustaining as fast as possible – and this included revamping tech infrastructure; re-hauling healthcare supply chains; enforcing safety measures; cross-agency data sharing; formulating vaccination protocols; and transparent citizen communications. Most importantly Healthcare had to pivot fast and often – with Resiliency and Innovation at its core.

As cities work on their business continuity plans, other public sector agencies will take a lesson or two from Healthcare – and part of it will continue to be driven by the need to create Healthcare resiliency. For example, crowd and safety management measures will be incorporated in public transportation infrastructure; governments will continue to invest in network and connectivity, especially for the underserved; supply chain agility will be built into all public sector agencies and so on. Most importantly, cities will work towards creating a data platform in conjunction with the private sector, where citizen data will be used for future citizen services.

> Public sector agencies (and large private firms such as telecom providers and Utilities companies) will start collaborating and co-creating on a central data platform – data privacy will not take a back seat but will be built into organisational cultures, as the reputational and financial cost of a breach increases.

Sash Mukherjee
PRINCIPAL ANALYST, INDUSTRY RESEARCH

#5 IoT Vendors Will Align to an Overall Strategic Pathway to Reach Full Potential

IBM Smart Cities lit the spark, the Cisco Lighthouse program carried the torch, and global mega engineering firm transformations, pivoting them headlong towards digital infrastructure practices have ensured a massive media groundswell. Unfortunately, the Cities of the Future tech market still resembles a bull run with siloed investments pouring into a chaotic land grab for end-user assets, mindshare and quick sales commissions.

The problem is not that IoT has attached itself to asset classes, as it mostly should. That is where practical projects, using mixed functional and discipline-based outcomes, underpinned by technology should sit.

But just as asset management as an engineering discipline, relies on pathways such as NAMS+ to provide overall structure within an organisation's long-term strategic asset and financial management plans, so too IoT must align itself to a strategic pathway in order to reach its full organisational potential.

> In 2022 IoT vendors that lead with strategic planning not point solutions, will see time-to-close sales cycles dramatically decrease and relationship annuities soar.
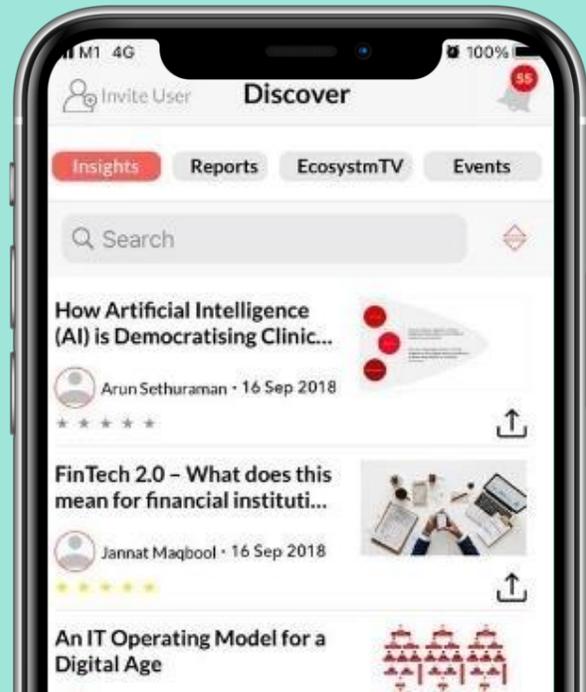
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