Smart City Transformation
Equitable Considerations for the World of Tomorrow

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Roadmap

1. What are “Smart Cities”?  
2. Features of a Smart City  
3. Use Cases of Smart Technologies  
4. Barriers to Change  
   1. The Digital Divide  
   2. A New Era of Privacy  
5. A Framework for a Digitally Inclusive Smart City
The Evolution of Cities

- Rapid urbanization – a hallmark of our times
- >50% of the world’s population lives in cities as of 2008
- Cities produce 60-80% of the world’s pollution
What is a “Smart” City?

- No one definition exists of what constitutes “smart”
Core Features of a Smart City

There are defining characteristics of what a smart city should be like

- Connected
- Responsive
- Optimized
Integration of Smart Technologies

*Smart Cities necessitate the coordinated deployment of new wave tech powered by data*

- Data Trusts
- Ownership of Personal and Aggregate Data?
New technologies are poised to radically alter the way communities live and organize.

- IoT Enhanced Ambulances
- Remote Diagnosis
- Precision Medicine
- Smart sensors in the home
- Shelter availability
- Use of local infrastructure
- AV technology in public/private transport
- Shared transport-on-demand
- Smart traffic lights
- Monitoring local energy consumption
- Managing waste flow
- Reducing carbon footprint

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Notable Implementations

- Health
- Transportation
- Housing
- Sustainability
Barriers to Transformation

Costs of change can lead to resistance in the adoption of smart technologies

**RELIABILITY**
- Does it perform well consistently, accurately and precisely?

**PREDICTABILITY**
- Does it perform according to human judgement?

**SAFETY**
- Does it pose threats to human health and wellbeing?
The Digital Divide

Equitable considerations arise upon implementation of technologies across a given area

1. **EDUCATION**
   - Digital Literacy
   - Digital Skills Gap

2. **ACCESS**
   - Digital Equity
   - Legacy Infrastructure

3. **AFFORDABILITY**
   - Disposable Income
   - Financial Literacy
A New Era of Privacy

- Digital Charter
- Standardization of Data Flows
- Data Rights Charter
- Go/No-Go Zones
- Data Subject Rights
- Privacy Impact Assessment

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A Framework for Digital Inclusion

*Cities must adopt inclusive design in their transformation strategies*

- Chicago – Digital Access Maturity Model (DAMM)
- AT&T – Smart Cities for All Inclusive Innovation Playbook
- Huawei – Tech4All Initiative
Planning for the Future

- **x-axis**: Regulatory Change Readiness
- **y-axis**: Relative Potential Impact for Stakeholder/Government Department/Industry/Economy

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<thead>
<tr>
<th>POLICY ACTION REQUIRED</th>
<th>POLICY WITH KEY STAKEHOLDERS</th>
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<tr>
<td>DO NOTHING</td>
<td>CO-CREATE</td>
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- **1st Quadrant**: High Policy Action Required
- **2nd Quadrant**: Low Policy Action Required
- **3rd Quadrant**: Low Regulatory Change Readiness
- **4th Quadrant**: High Regulatory Change Readiness

- **Technologies**: Quantum, AI, IoT, Blockchain, Nano, Robotics, Autonomous Vehicles, Quantum, AI, IoT, Blockchain, Nano, Robotics, Autonomous Vehicles

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Thank you!

SMART PEOPLE DISPOSE THEIR WASTE IN A SMART WAY IN THIS "SMART CITY"