Your TechCity: Using Technology for Good Governance and Economic Development

Our Shared Goals Today

- Learn about Tech Sector Trends
- Learn about how Tech is Challenging Local Governments
- Explore How the “Internet of Things” can be leveraged to Improve Services, Safety and Transparency
- Investigate Best Practices for Successful Tech Based Initiatives
- Discover How Cities are Leveraging Technology to Improve Economic Development and the Lessons Learned
- Bonus: Take a Selfie...to post on social media 😊
Are We in the Future?!
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Trends: Technology and Local Government

- Smaller, Better, Faster, Stronger
- More Accessible and Integrated
- Maturing Products and Marketplaces – Toys to Tools to Work Platforms
- More Mobile, Interconnected, and Autonomous
- Consolidation of Services by Providers (Ex. Comcast Offering TV, Internet, and Phone Plans).
Trends: Technology and Local Government

- Enhancing Local Government Transparency
  - Open Data Policies and Web Portals
    - Raw Data
    - Mapping
  - Improving Government Efficiency and Accessibility
    - "One-Stop Shop" Local Government Websites for Residents, Business Owners, Tourists, Entrepreneurs
- Facilitating Economic Development
  - Business Permitting, Development and Government Contract Portals
Tensions: Technology and Local Government

- Disrupting Traditional Industries and Trades – Hotels, Taxis, Restaurants
- Transforming the American Workforce – Wages, Benefits, Schedules and Classifications
- Challenging Longstanding State and Local Laws (some in need of an update)
- Threatening Local Revenues – User Utility Tax, Transient Occupancy Tax, Business Operation Taxes/Fees, Rents, Sales and Use Taxes, Property Taxes

Leading Your “Smart” City

“VISION IS THE ARTOF SEEING WHAT IS INVISIBLE TO OTHERS”
“Smart Cities” and the Internet of Things (IOT)

Internet of Things (IOT) refers to the growing range of Internet-connected devices that capture or generate an enormous amount of information every day (ex. cell phones, tablets, computers, thermostats, watches, parking meters).

A “smart city” is one that has developed interconnected technological infrastructure that enables it to collect, aggregate, and analyze real-time data to improve the lives of its residents.
Leading Your “Smart” City

- Smart “Tech” solutions and initiatives should aim to solve public problems and attain community goals unique to each city.
- Best Practice Stepping Stones
  - Align Leadership and Vision
  - Robust Community Engagement
  - Aligning Goals with Policies and Incentives
  - Clearly Define Department/Agency Responsibilities
  - Establishing Partnerships

What Can be Achieved?
**Smart Logistics/Freight**
Platooning trucks carry freight efficiently from the port to their final destination. Smart inventory systems inform operators about when freight is moved between different locations.

**Vehicle Fleet Communication**
Public transit and city fleet vehicles communicate with their home agency when it is time for maintenance or replacement.

**Self-Driving Cars**
Self-driving cars shuttle people in and out of the city, providing rides for others and making deliveries.

**Transportation Congestion Sensors**
Smart transportation systems use sensors to detect congestion and bottlenecks in traffic patterns. They also rely on cameras to enforce speed and traffic infractions.

**Parking**
Apps coordinate with smart parking meters to inform drivers of where there is parking availability.

**Surveillance Cameras**
Cameras ensure security by monitoring activity in areas that are not frequented by public safety officers. Areas that are not open to public access can be monitored to keep unauthorized personnel out.

**Broadband Infrastructure**
A reliable internet ecosystem is the glue that holds the Internet of things together.

**Drones**
Drones can be used for law enforcement and firefighting, as rural ambulances, for infrastructure inspections, and for environmental monitoring. Commercial uses include precision farming, aerial photography, and in the near future, package delivery.

**Body Cameras**
Public safety officers can wear body cameras that capture footage of interactions between themselves and city residents to ensure safety for both parties.

**Wearable Detection**
Cities can build in smartphone and wearable detection sensors so that people can be an active part of the internet ecosystem, communicating with the city, and with each other.
**SOLAR PANELS**
Solar panels can be monitored to determine how much energy they are providing and whether they need maintenance.

**WASTE MANAGEMENT**
Sensors detect the amount of garbage in receptacles around the city so that sanitation workers can maximize efficiency in their routes.

**LIGHTING**
LED lights are weather adaptive and automatically inform Department of Public Works when the bulbs need to be changed.

**WATER AND WASTEWATER**
Monitoring devices can detect leaks as well as changes in water pressure to determine whether water infrastructure is modified properly.

**FIRE DETECTION**
Sensors monitor conditions in public parks and wooded areas that might be prone to fire. Sensors can also detect fires in buildings and initiate a call to the fire department in an emergency.

**RADIATION LEVELS**
Power plants can be monitored for safety and city officials can be informed of any flux in radiation levels.

**E-COMMERCE**
Cities rely on and facilitate e-commerce to remain competitive in the 21st century economy.
Policy Questions

- What is the appropriate balance of privacy and disclosure?
- What is the appropriate measure of oversight and regulation of new industries, products, and services?
- To what extent do cities value local revenue sources and land use authority weighed against popular services?
- How do cities tax and regulate new business models, products, and services?
- How do or should cities modernize existing legal and tax structures to address the new “sharing” or “on demand” economy?

Additional Considerations

- Equal vs. Equitable Access
- Financing
- Scale
- Resources/Existing Infrastructure
- Adaptability
- Diversity
- Professional Development
How Cities are Leveraging Technology to Improve Economic Development and the Lessons Learned Along the Way

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