



How data governance and digital maturity can help build a foundation for responsible smart cities

Speakers:

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- Andy Best, Public Data Advisor
- Ryan Androsoff, CEO & Founder, Think Digital

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**4TH ANNUAL CANADIAN
SMART CITIES SUMMIT**
OCTOBER 11 2023 | CANADA

Data strategy and governance: Trends and implications for smart cities

Andy Best, Public Data Advisor (independent)

Client trends in data strategies

View from my clients:

- Many public entities have new data strategies. All are grappling with need for more comprehensive management and stewardship of data holdings and governance of the associated technology ecosystem (modernizing public institutions, digital infrastructure and services)
- Particular challenges are posed to public sector as data and its governance cuts across our traditional public institutions, jurisdictions and regulatory framework on issues like: data ownership, commercialization and management; infrastructure planning and policy; procurement; economic development and innovation; cybersecurity; intellectual property, civil rights, privacy, more

Trends at municipal level

- Huge pressure to modernize on all fronts, especially re: digital and data. Extensive physical infrastructure expertise vs more complex digital infrastructure. We're early in the maturity cycle for local digital government
- Structural fiscal constraints continue as well as national physical infrastructure gap. No measured concept of "digital infrastructure gap" yet
- Realities of computer science vs. municipal boundaries
- As a macro-level public modernization model, it is less effective to do everything individually in every municipality. It's the same from the municipal perspective, having to each carve their own path
- Public governance weak - low ability of city councils to regulate / evaluate complex digital and data issues
- Example of all these factors: Quayside / Sidewalk Labs project in Toronto

Digital Public Infrastructure (DPI): Responsible modernization at scale

- How do we responsibly modernize municipalities at scale? What is the link to data governance and data strategies in the smart city context?
- The economic argument behind “shovels in the ground” can also apply to digital and data. When we build a road, we know how to do it safely and in the public interest with common approaches to infrastructure, enforcement, funding, etc.
- Digital public infrastructure combines the infrastructure, public policy, standards and funding layer of traditional physical stimulus and applies it to government modernization. This model allows for “digital shovels in the ground” projects to be delivered: digital public works at the heart of smart cities

Ontario to launch long-awaited data oversight body in new digital drive

JOSH O'KANE >

SEAN SILCOFF > TECHNOLOGY REPORTER

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This article was published more than 2 years ago. Some information may no longer be current.

- The Ontario Data Authority was an exploratory public initiative in 2021. No actual institution or programming exists at this time
- The archived Public Consultation page is: <https://www.ontario.ca/page/consultation-ontarios-data-authority>
- “Public consultations taking place Summer 2021 will focus on helping government develop new data stewardship models, governance and standards, as well as early use cases to become digital ‘shovels in the ground’” projects (Province of Ontario, 2021)

Long-term model for responsible modernization at scale

- Our panel goal is to understand the critical role of data governance and public infrastructure in building resilient and forward-thinking smart cities
- The solution to modernizing municipalities at scale, in my opinion, is the digital public infrastructure model designed and implemented as provincial data governance, standards and infrastructure over the coming decades
- Digital public works are networked and scalable systems that emphasize the interoperability of government and strong public governance

Conclusions

- The DPI model adapts “shovels in the ground” physical infrastructure stimulus to digital and data modernization in municipalities. It is also the delivery layer for public policy and regulatory decisions
- This is a complex 25-year modernization vision. In my opinion it needs to be accompanied by digital stimulus across multiple use cases that collectively grow common infrastructure layers like identity or data exchange
- In the meantime, most municipalities will do the hard work of digital modernization mostly in isolation, with pockets of high capacity, greater funding and early adopters leading

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Thank you

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Digital Maturity as a Foundation for Smart Cities

Dentons Smart Cities Summit
October 11, 2023

Ryan Androsoff, CEO and Founder, Think Digital

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Tom Loosemore

@tomskitomski

Following



Digital: Applying the culture, practices, processes & technologies of the Internet-era to respond to people's raised expectations.

6:00 AM - 10 May 2016

citizens' AND employees'

134 Retweets 257 Likes



5

134

257



*Mid-1990s -
Early 2000s*

Government On-Line (eGov)



*Mid- 2000s -
Mid- 2010s*

Government 2.0 & Open Gov



Today

Digital Government



Digital Government Defined



“Digital Government refers to the use of digital technologies, as an integrated part of governments’ modernisation strategies, to create public value. It relies on a digital government ecosystem comprised of government actors, non-governmental organisations, businesses, citizens’ associations and individuals which supports the production of and access to data, services and content through interactions with the government.”

 Pinned Tweet



Jennifer Pahlka

@pahlkadot

Technology modernization without policy and process simplification is borderline useless.

2:55 PM · Aug 4, 2020 · Twitter Web App

122 Retweets **27** Quote Tweets **493** Likes



**[RE]CODING
<AMERICA/>**

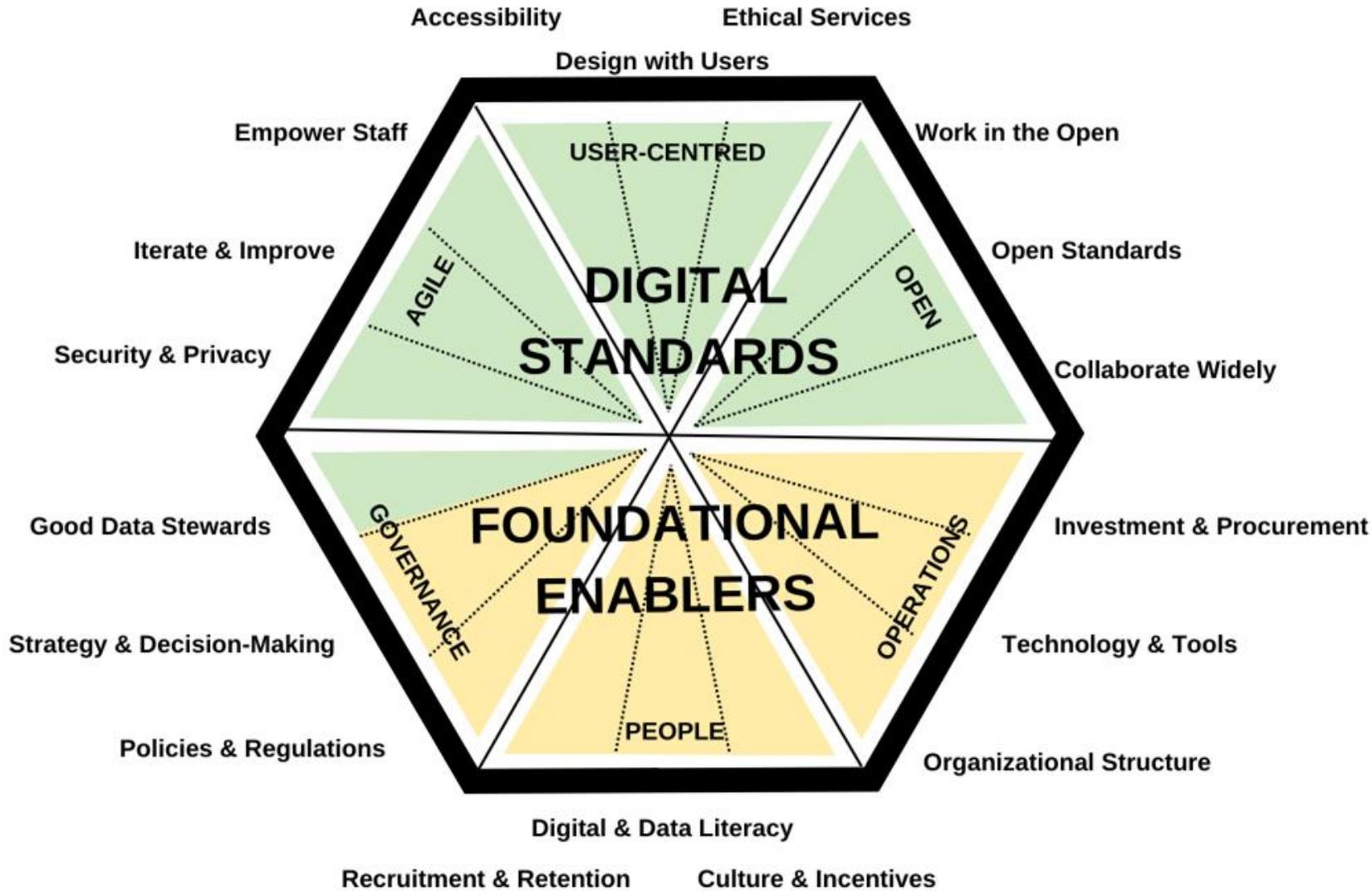


Why Government Is Failing
in the Digital Age and How
We Can Do Better

JENNIFER PAHLKA

Building a Digital Maturity Model in Partnership with York

- With the York Region Digital Plan having been in place for over a year, there was interest in better understanding the current level of digital maturity across the organization
- Think Digital was approached to work with the Region to develop a Digital Maturity Assessment to help identify key strengths and gaps in the Region's digital transformation journey
- The goals of the assessment are to:
 - Identify strengths and opportunities for growth in digital practices and processes, including organizational culture.
 - Evaluate work to date on digital maturity as an organization, as well as serving as a benchmark to evaluate progress over time.
 - Help determine priorities related to organizational digital transformation in the short, medium, and longer term.



Key Design Aspects:

- Combines both the 10 Digital Standards as well as 8 Foundational Enablers that were identified during our research
- Sub-divides into 6 categories and 18 sub-categories, which each will have a 1-5 maturity model score.
- Equal weighting across each of the 18 sub-categories
- 3 indicators for each sub-category, for a total of 54 indicators in total

Three Types of Indicators

Documentation/Data Review Questions:

This type provides a view on the organizational perspective as expressed through formal policies, procedures, and rules.

Survey Questions:

This type provides a view on employee perspectives through responses to an online survey sent to the entire organization.

Workshop Questions:

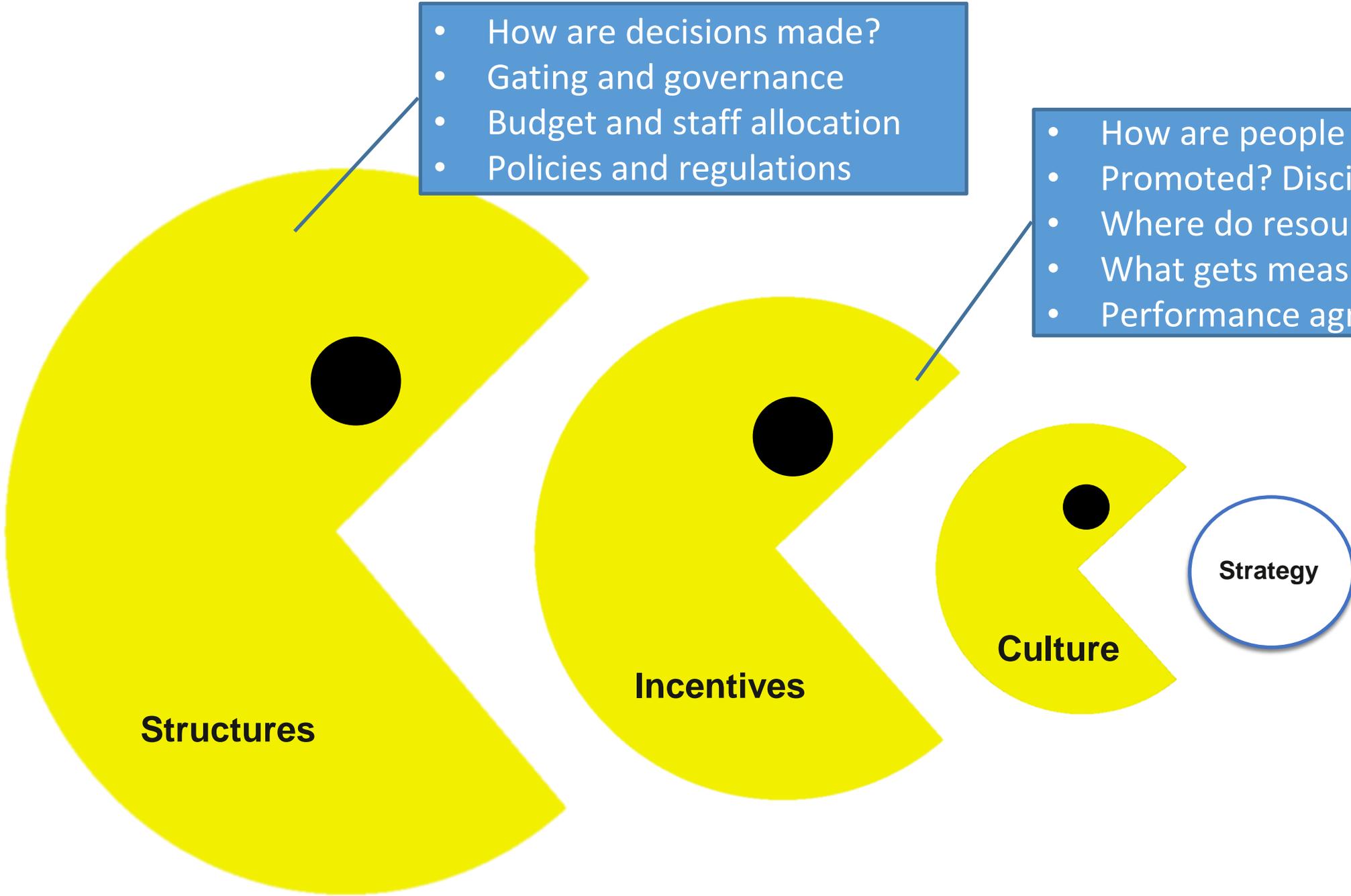
This type provides a view on management practices as informed by a cross-section of management and employees participating in a live workshop with voting.

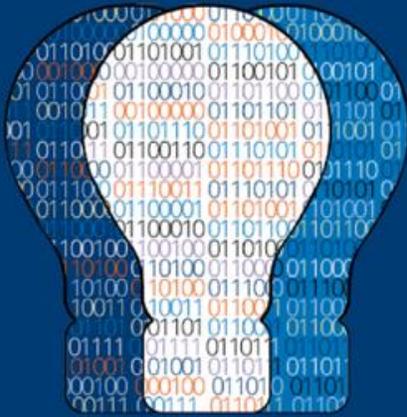
Maturity Model Scoring Levels

Level	Level Description
1. First Steps	Non-existent and/or basic rudimentary practices in most or all indicators, rooted in legacy approaches. General lack of awareness of digital-era behaviours and low desire for change across the organization.
2. Early Progress	Existent and/or emergent foundational practices in at least some indicators. Pockets of digital champions, but inconsistent understanding and approaches across the organization. Experimentation, but rooted in legacy.
3. Maturing Practices	Vision and strategy for digital transformation is in place and the organization has been generally engaged in executing against it with leadership support. Pockets of resistance that remain focused on legacy approaches remain.
4. Advanced Progress	Well established governance practices across all aspects of digital. Digital transformation and capacity building is treated as a priority and resourced accordingly. Open communication and agile project practices are standard.
5. Leading Practice	Best-in-class, cutting-edge, and pioneering practices that are emulated by others. Well defined and understood vision and aligned user-centric culture across the organization practiced by leadership and employees at all levels.

What do we mean by “Digital”?

- Digital in our context is more than just IT tools - we are looking holistically at the culture, processes, practices, and technologies that we believe public sector organizations must adapt to in order to be successful in the modern era.
- While some of the indicators in our digital maturity model look at specific uses of technology, the majority are focused on examining how the organization works including mindsets of employees and management.





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