

# Digital Transformation:



## Know-How in the case of local governments.

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# Introduction:



Local government are using digital technologies to adapt organizational structures and the underlying processes of public service delivery.


This enabled public services to make the everyday lives of citizen:

- easier,
- more fulfilling and
- more secure.



Extant research suggest that Digital Transformation has stagnated due to lack of requisite know-how to replace legacy system with integrated enterprise system.

Know-how is tacit knowledge that enables organizations to coordinate, use resources and capabilities in new ways in the form of new vision, expertise and managerial skills, as well as the knowledge to enact new technology-enabled organizational processes.



Know-how is essential for Digital Transformation in government because:

- 1) Transformation involves a high number of decisions,
- 2) Enables decision makers.

Local government cannot plausibly achieve Digital Transformation without requisite management know-how.




Digital Transformation literature has revolved around how to transfer-in the requisite know-how such as:

- Relative advantages of different sources.

This article offers a theoretical perspective on the know-how to manage the disruptive punctuated organizational changes in government.

- Know-how managers require to lead the implementation and enactment of integrated enterprise system.



The study addresses the lack of systematic managers require to lead Digital Transformation

- Punctuated equilibrium theory.

Second model and six recommendations on how to transfer the requisite know-how through public-private partnerships were proposed.


# Digital Transformation in local government



Organization that fully achieve Digital Transformation tend to realize higher level of productivity and efficiency (than the others).

Core organization processes of Digital Transformation are redesigned by:


- 1) New technology tools replace old ones,
- 2) New skills are developed,
- 3) New ways of working are introduced.



Government bodies can implement new technologies without enacting an integrated enterprise system to avoid costs of process change. However, it can lead to problems such as:

- 1) Inefficiency and errors,
- 2) Lack of understanding among stakeholders,
- 3) Difficulty attaining consensus on priorities.





Private sector studies have long noted that organizational performance that relates to aligning IT with:

- Organizational strategy,
- IT with organizational structures,
- Structure with strategy.

An established of organizational dynamics theory of punctuated equilibrium.

- What know-how enables some local government managers to lead Digital Transformation,
- What know-how is lacking where Digital Transformation stagnated.



# Looking at Digital Transformation as a punctuated equilibrium.

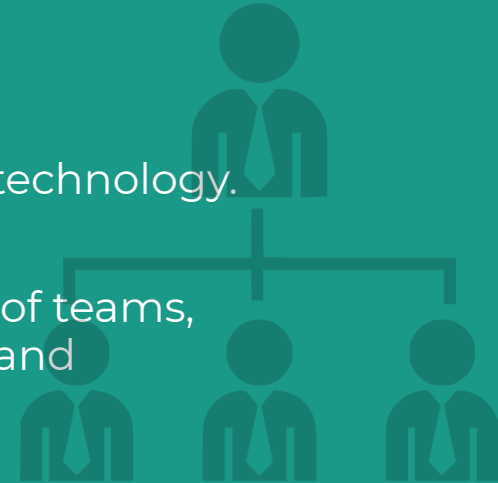
- A punctuated equilibrium under this context is defined as different periods where some period undergoes little to no changes but during a certain period, major changes occurs.
- Looking at digital transformation from this perspective allows a better understanding of the dynamicity for which digital transformation can evolve or regress.

PROGRESS

TIME

# 4 Important structures for Digital transformation

- Organizational Strategy
  - The plans and set goals to achieve the specific target, requires constant monitoring and control to ensure the plans and goals does not suffer setbacks or failures.
- IT Strategy
  - The plans and objectives that revolves around the use of technology.
- Organizational Structure
  - The structure of the organization, meaning the structure of teams, task allocation for teams, flow of instruction, information and authority between different levels and teams.
- IT Structure
  - Structure of IT is the similar to that of organizational structure but has to do more with the IT part of the organization.



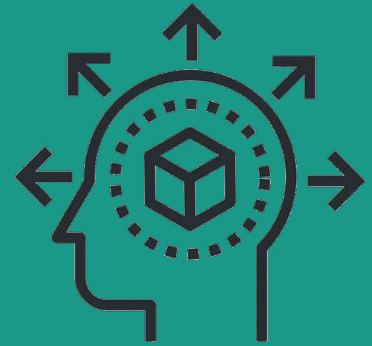
# To truly undergo Digital Transformation....

All 4 key structures for Digital Transformation must undergo through revolutionary change.

A change WITHOUT the intent to preserve legacy approaches.  
Nor is it a change with heed to old cognitive frame.

An inherently true digital transformation needs to be a revolutionary period where virtually all aspects and way of organization is fundamentally changed.

Hence why Digital Transformation is seen as a punctuated Equilibrium.



However the timing for digital transformation is crucial. Undergoing through transformation during prosperous times can backfire.

Therefore, to achieve transformation without opposition, managers of government bodies should exploit their surroundings such as using visionary new insights , new technologies and discontent from previously poor performance to trigger large changes.



Research has been carried out on 11 Canadian local governments as it has been ranked top by UN in e-government initiatives.

To further research the topic firmly, the research methodology is split into three phases

Phase I - Research Design

Phase II - Data Collection

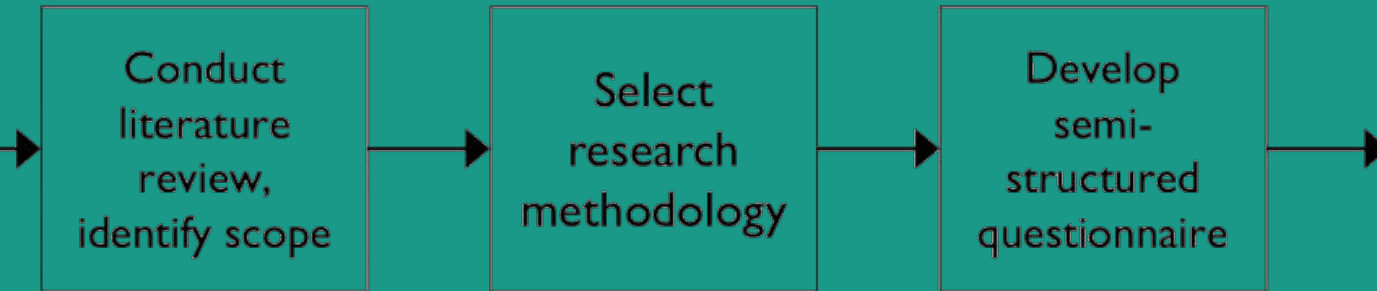
Phase III - Data analysis and synthesis

The government bodies picked were under the 3 same terms which were:

- 1) The governments were under same regulatory changes with 4 year-election cycles
- 2) Provided the same amount of government public service.
- 3) Had acquired enterprise system technology in the same year.

This is as to make sure the research would be fair and unbiased as possible.

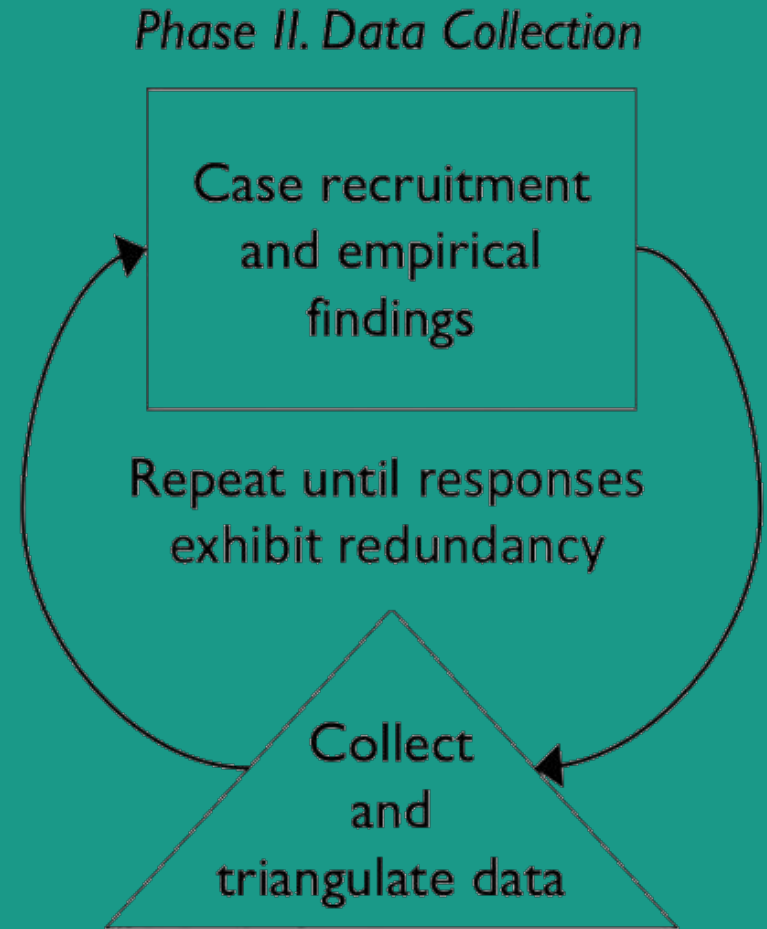
*Phase I. Research Design*



Since Digital Transformation progress can be seen as implementing integrated enterprise systems, data can be triangulated by:

- 1) Selection by the CIOs of the representative IT architectures.
- 2) Budget documents to indicate whether or not majority of annual IT budgets were directed to fully integrated enterprise system usage or alternatives.
- 3) Whether or not, users received Gartner industry-benchmark investments.

(Gartner is a company which helps provides key cost and performance of companies)





Previously seen was an assessment on IT structure, IT governance however can be triangulated in a more differing number of points

- 1) Deference to expertise
- 2) Commitment to resilience
- 3) Performance monitoring
- 4) Sensitivity to operations
- 5) Complexity seeking





# Research on local governments Digital Transformation:

- 11 canadian local governments.
- Comparing their adaptability in using their enterprise systems.
  - All governments are focusing in decreasing the cost of adapting the system operation.
  - Organisation IT structure operates in poor efficiency.
  - Minimal collaboration with expertise.
  - Failing to implement and improving old process.
  - Frequent network and system failures



## Organisation after 13 years.

- Organisation are split into 3 group of organisations.
  - Alpha.
    - Making use of necessary budget in implementing integrated enterprise.
    - Making an investment in training and educating employee.
    - Successfully digitally transformed.
  - Iota, Gamma, Delta.
    - Implementing integrated enterprise on specific departments.
    - Only a few employee are sent for training.
    - Failed to achieve digital transformation
  - Mu, Lambda, Epsilon, Beta, Zeta, Theta, Kappa.
    - Implementing specialise application silos.
    - Failed to achieve digital transformation.



# What made Alpha successfully digital transformed?

- By successfully adapting know-how skills:
  - Completely reengineering business process and its services.
    - System could take and process more data.
  - Having managers fully engage with CIO and experts.
    - Discussing what and how the system could bring profit to the company.
  - CIO and managers are able to gain support from stakeholders by showing and monitoring the system performance.



## Why the other 10 organisational failed?

- The 10 groups either partially implementing integrated system or application that limit itself.
  - Partially - 3 organizations
  - Application silos - 7 organisations
- Keeping most of the system structure and strategy unchanged.
  - iota , Gamma, delta - ignored the necessary management that needs to be changes.
  - Mu, Lambda, Epsilon, Beta, Zeta, Theta, Kappa.
    - Does not make use of the evolving IT structure.
- Less cooperation or collaboration between stakeholders, managers and CIOs.

# Implication and Recommendation - How to Transfer the requisite of know-how.

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According to digital transformation literature:

- To transfer-in the requisite from external source.
- To prevent:
  - Increase rework
  - Waste money
  - Security risk
  - Slow progress
  - And increase in failure.

Empirical studies: need for social capital, motivation and relevant prior knowledge to promote the transfer-in of external know-how for digital transformation.

# Implication and Recommendation - How to Transfer the requisite of know-how.

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- Behaviors : search, discovery and innovation are central to exploratory learning.
- Organizations that actively explore the external IT environment
  - More likely to learn about effective ways to implement and enact IT
  - because higher performing firms know about more rewarding opportunities
- However, exploration will not be sufficient without the local government's exploitation of the IT in improved processes.
- Without it, organization will not realize the full benefits of exploration
- Local government managers expected to explore the external IT environment with partners – including IT service providers, governments, and universities
- in order to transfer-in the requisite know-how for digital transformation

# Know-how to Manage Digital Transformation - Private Sector

1. Local governments and IT service providers should establish public-private partnerships with the purpose :
  - transferring context-relevant knowledge to IT service providers from local governments about their organizational processes;
  - Co creating some of the requisite know-how to enact an integrated enterprise system to support high levels of cooperation among stakeholders with process management.
2. Local government managers should outsource to IT service providers for their competencies in enacting integrated enterprise systems,
  - focus on developing the core competence to manage selection of the most rewarding innovations
  - the best plans for implementing these innovations in support of improved public service delivery.



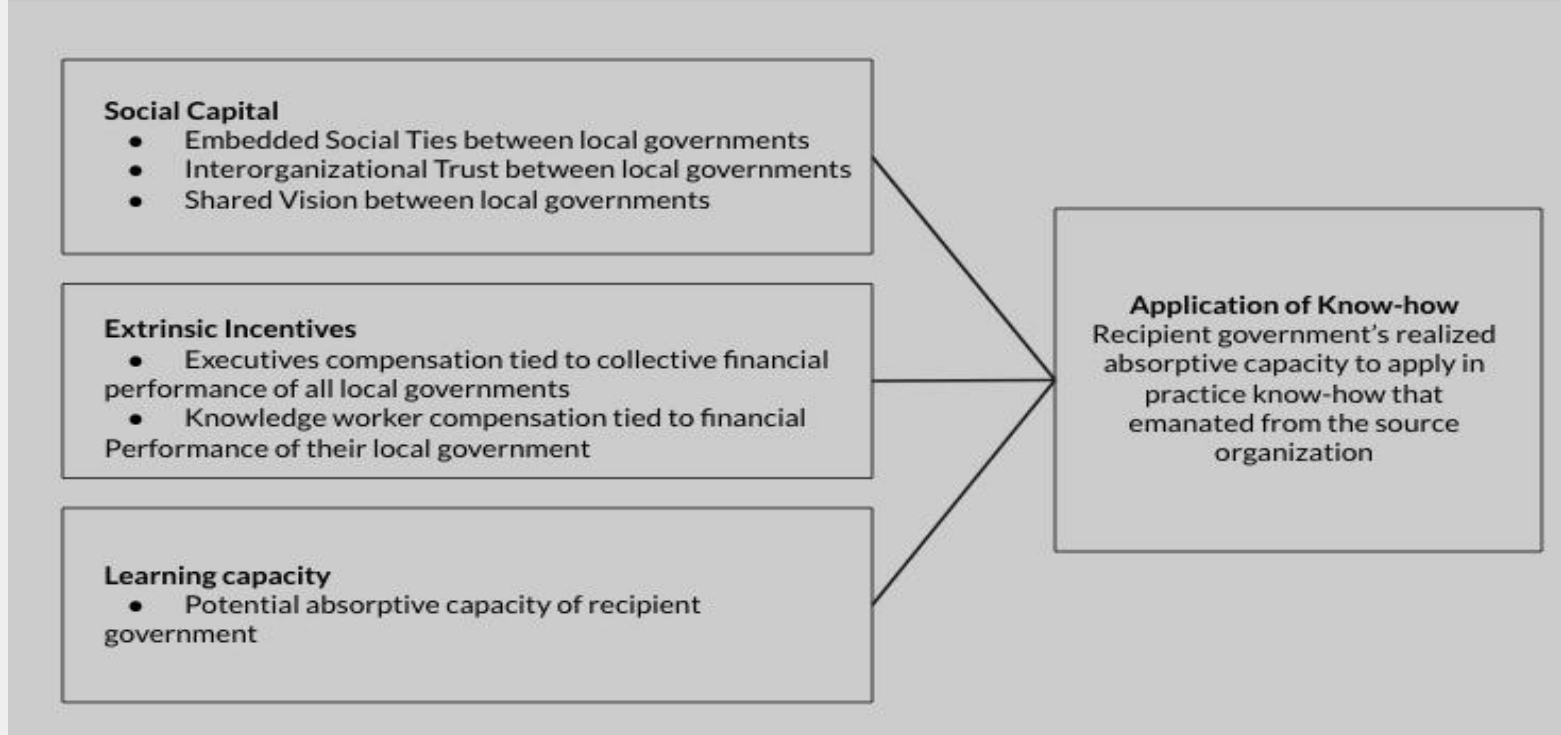
# Know How To Manage Digital Transformation - Peers'



Peer local governments that exhibit above-average financial performance are particularly good sources of knowledge because;

- they have more experience with reward opportunities
- and recipients can take advantage of these opportunities.


Previous studies in the context of local governments have not provided guidelines for the factors that give the ability to acquire and utilize know-how from peers, namely "realized absorption capacity."



Three organizational factors allow (or, without them, prevent) the transfer of know-how between organizations:

1. Social capital, providing rich transmission channels and intrinsic motivations;
2. External incentives, creating incentives for colleagues to cooperate in the transfer of know-how;
3. The potential capacity of the host organization to learn or “absorb”.

The proposed model shows that, the lack of **shared vision, trust, and external incentives** may become obstacles to knowledge transfer for two reasons:



First, local governments that have struggled to dismantle and reconstruct the technical knowledge needed to lead the development and implementation of integrated business systems (eg Alpha) may lose property, privilege or advantage, these technologies. Turn off sharing of knowledge and hard work. Insufficient compensation for success.

Second, power struggles within local governments may cause some administrators to pretend that the knowledge they possess is not unique and valuable, thereby attempting to weaken the potential power of other local governments. This short-sightedness weakens the willingness to investigate and take action based on technical knowledge, such as "best practices" in IT governance provided by other local governments



In the MNC context, the headquarters actively

1. promote external incentives for knowledge sharing;
2. formulate a collective common vision;
3. establish formal structures, processes and routines for knowledge sharing between business units, thereby create a stable environment in which trust between organizations can develop and continue.

## Recommendations:



3. Key stakeholders in public-service delivery, such as policymakers in higher-tier governments, local governments' chief administrative officers, and the citizens and businesses served, should demand that managers of multiple local governments actively work in joint problem-solving teams to identify opportunities to exploit private-sector know-how to manage digital transformation.
4. Policymakers in higher-tier governments should exercise their authority to promote performance evaluation and incentive pay schemes for local governments that are explicitly linked to exploring for and exploiting private-sector know-how to manage digital transformation

# Universities and learning capacity



- Know-how transfer is difficult
- must be "contextualized" to fit the context of the recipient.
- requires deconstructing the proprietary technology, transforming it into a general form, and then reconstructing it in the context of the recipient.

Due to the lack of learning capacity, the so-called "potential absorptive capacity", the receiving administrator may not be able to reconstruct external knowledge.




Administrators can participate in universities

- an important role in digital innovation
- through co-creation of new knowledge that is transferred through research, policy and practice education.

The knowledge co-creation process involves studying behavior

- managers work with researchers from real-world case studies
- develop knowledge about policy and practice in the context of local government.
- can be integrated into an educational program for managers.

## Recommendations:




5. Local governments should work with academic institutions to develop an integrated knowledge base specific to the local government context, supplemented with additional in-depth case studies examining municipal governance that leverages private-sector know-how to manage digital transformation.
6. Local governments should work with academic institutions to design executive education programs specifically to close the knowledge gaps identified in this research.



# Conclusion:

The evidence shows that management requires to know-how to exploit trigger events for discontinuous organisational change by concurrently:

- 1) Promulgating an analyzer type organizational strategy entwined with an innovation type IT strategy,
- 2) Enacting the integrated core organizational processes embedded in enterprise systems,
- 3) Restructuring the organization around those integrated organizational processes,
- 4) Restructuring IT governance:
  - Vesting IT investment power in CIO,
  - Creating a collaborative IT group led by management,
  - Collaborative monitoring gaps,
  - Promulgating a shared innovation among departments.



If local governments are to realize the full potential of achieving Digital Transformation, managers should promote rapid and concurrent organizational change in four dimensions:

- 1) Organizational strategy,
- 2) IT strategy,
- 3) Organizational structure,
- 4) IT structure.

Therefore, this study contributes:

- A dynamic model of Digital Transformation,
- A theory of the requisite know-how to lead Digital Transformation,
- A model of how to transfer-in that know-how,
- Six recommendations to help realize this objective.



Thank  
you!