Evolutions and Perspectives of Cadastral Systems in North America

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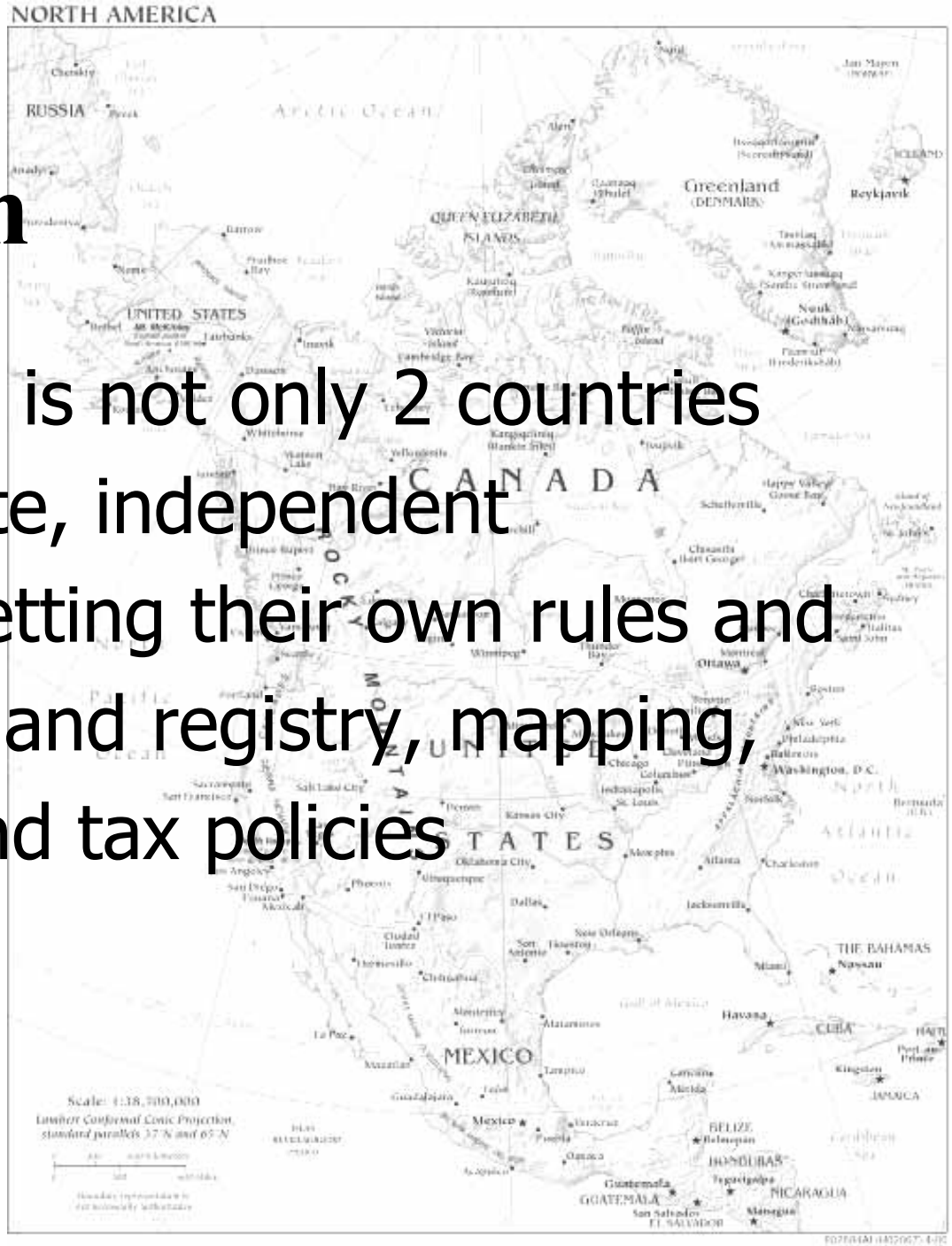
Introduction

North America is not only 2 countries but 62 separate, independent jurisdictions setting their own rules and processes for land registry, mapping, assessment and tax policies



History

At the introduction of Europeans into North American, the population was so small and the land mass so large - land was seen as a virtual *free good*

History

As a *free good* it was deemed unnecessary to create and maintain a quality cadastral system.

History

Two exceptions -

- Introduction of Torrens System of Land Registry in British Columbia
- Use of a rectangular survey system in both the United States and the Canadian west

History

This remained unchanged for about 200 years.

Impetus for Change

- Need for improved valuation systems for real property tax
- Social and economic cost created by the uncertainty of the records
- Need for better management of public land

Impetus for Change

In my home province of British Columbia 92% of the land mass is publicly owned

Last Decade

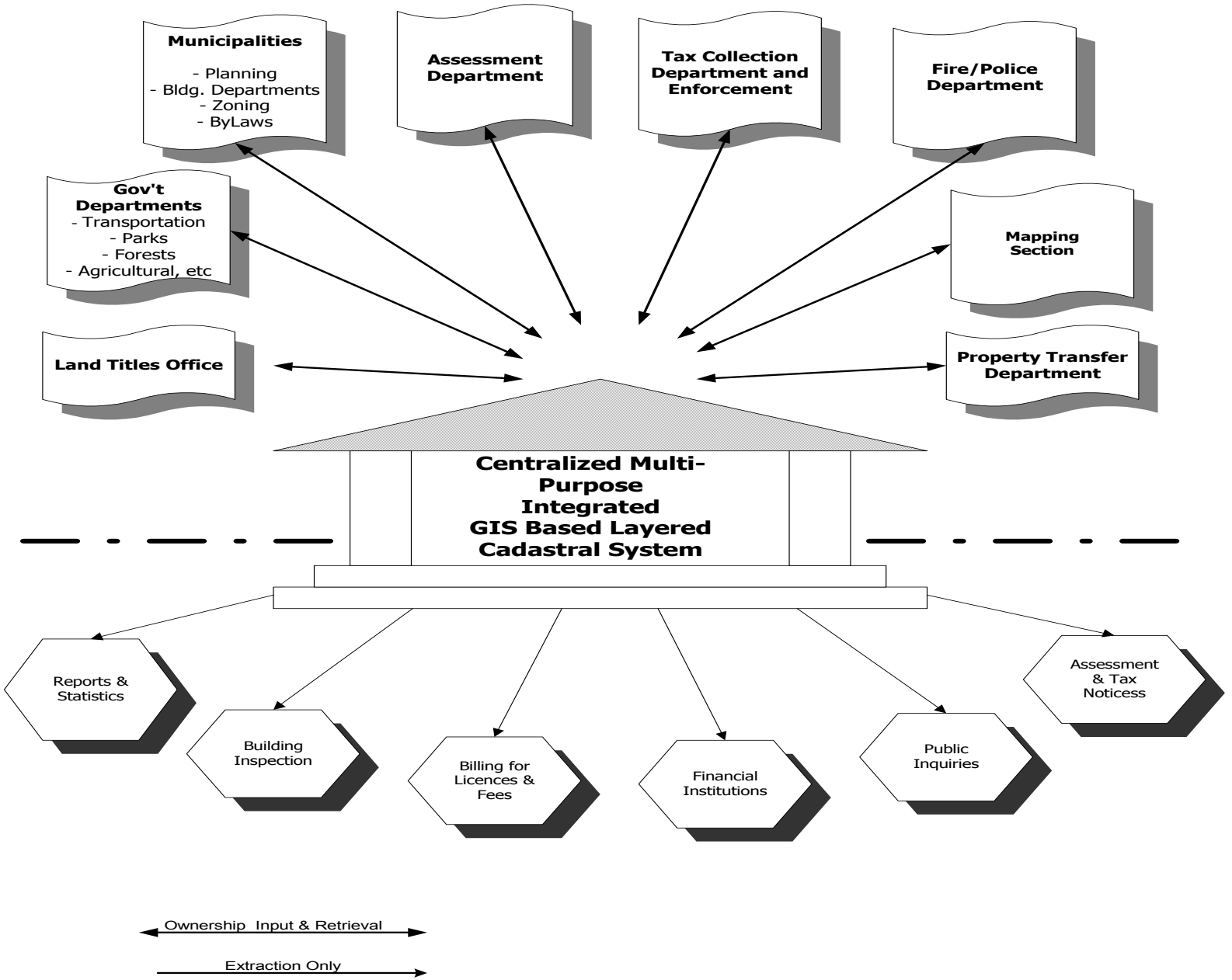
- Local government has become more complex creating major City States
- State and local interest in land use planning and zoning
- Population is becoming very urban
- Greater local infrastructure and services
- Urbanization increased property values

The result...

Property records reform required a large scale community oriented land information service designed to service both the public and private sector

This multipurpose cadastral must

- Employ a proprietary land parcel (the cadastral parcel) as a fundamental unit of special organization
- Relate a series of land information records to this parcel base
- Provide ready and efficient access


Municipalities
- Planning
- Bldg. Departments
- Zoning
- ByLaws
Assessment Department
Tax Collection Department and Enforcement
Fire/Police Department
Gov't Departments
- Transportation
- Parks
- Forests
- Agricultural, etc
Mapping Section
Land Titles Office
Property Transfer Department
Centralized Multi-Purpose Integrated GIS Based Layered Cadastral System
Reports & Statistics
Building Inspection
Billing for Licences & Fees
Financial Institutions
Public Inquiries
Assessment & Tax Noticess
Ownership Input & Retrieval
Extraction Only

The ability to interpret these data and the management of data allows a public organization to move from automating to informating

Introduction

The Atlantic Monthly: Cover Story titled "The Computer Delusion" by Todd Oppenheimer.

"There is no good evidence that most uses of computers significantly improve teaching and learning"

- Organizations, both public and private, are acquiring sophisticated information technologies
- Effort to reduce costs and increase efficiency.
- Acquiring these technologies may not be enough to achieve higher levels of effectiveness.

Technology, by itself, is not enough.

Automating vs. Informating

Automating	Informating
➢ incremental improvement	➢ significant improvement
➢ technology	➢ information & communication
➢ local / specific tasks	➢ global / enterprise wide
➢ improved efficiency by high volume, repetitive functions	➢ improved efficiency by improved decision-making
EVOLUTION	REVOLUTION

Automating

- Current technology tends to focus on automating;
- Bolting additional technologies on top of what is already being done

i.e. Using computers as expensive calculators or using computers as fancy word processors

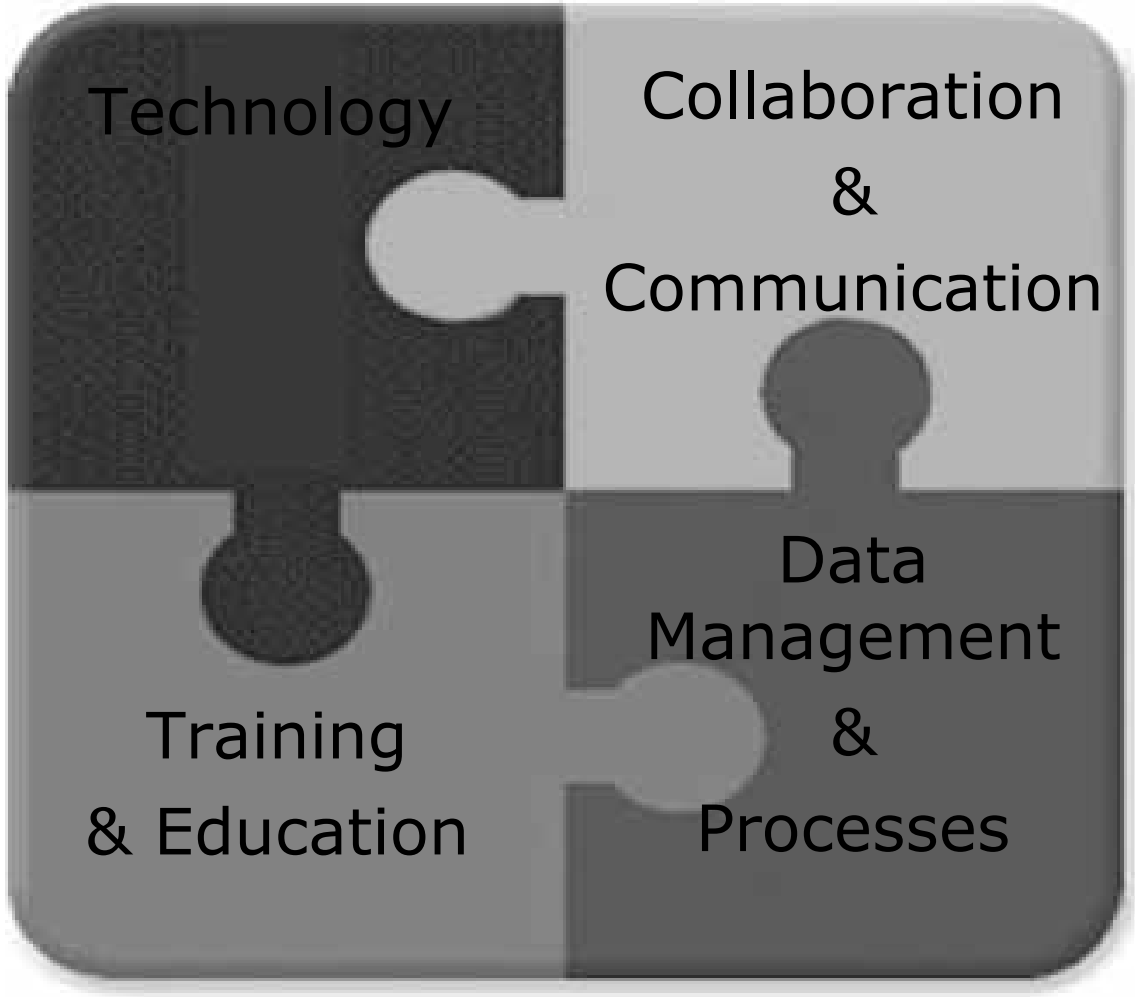
If reports are automated, the result is prettier reports; we don't necessarily improve the quality of the report or the quality of the conclusion.

Informating

- The 'real' revolution is information and communication – not technology.
- An informating strategy emphasizes innovation and competitive advantage in which manipulatior of information can be as important as the production of material goods, I.e.
- Data mining and benchmarking of existing data
- Knowledge management systems, portals, etc.

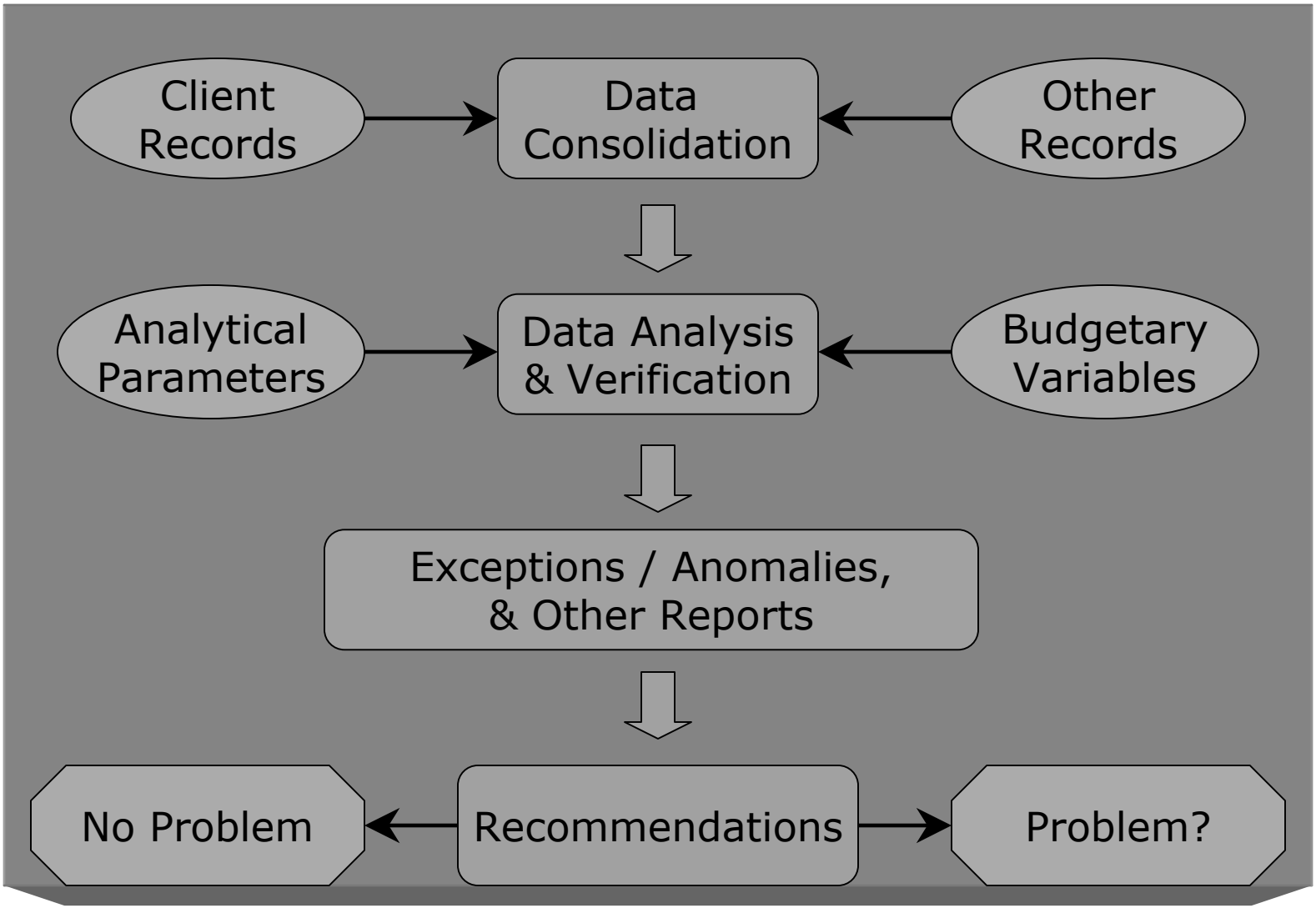
How it Works

CONVERGENCE



- Platforms / Mediums
- Internet
- E-Learning
- Knowledge Mgt.
- Internal
- External
- Automated Databases
- Document Mgt.

Proactive Management Model

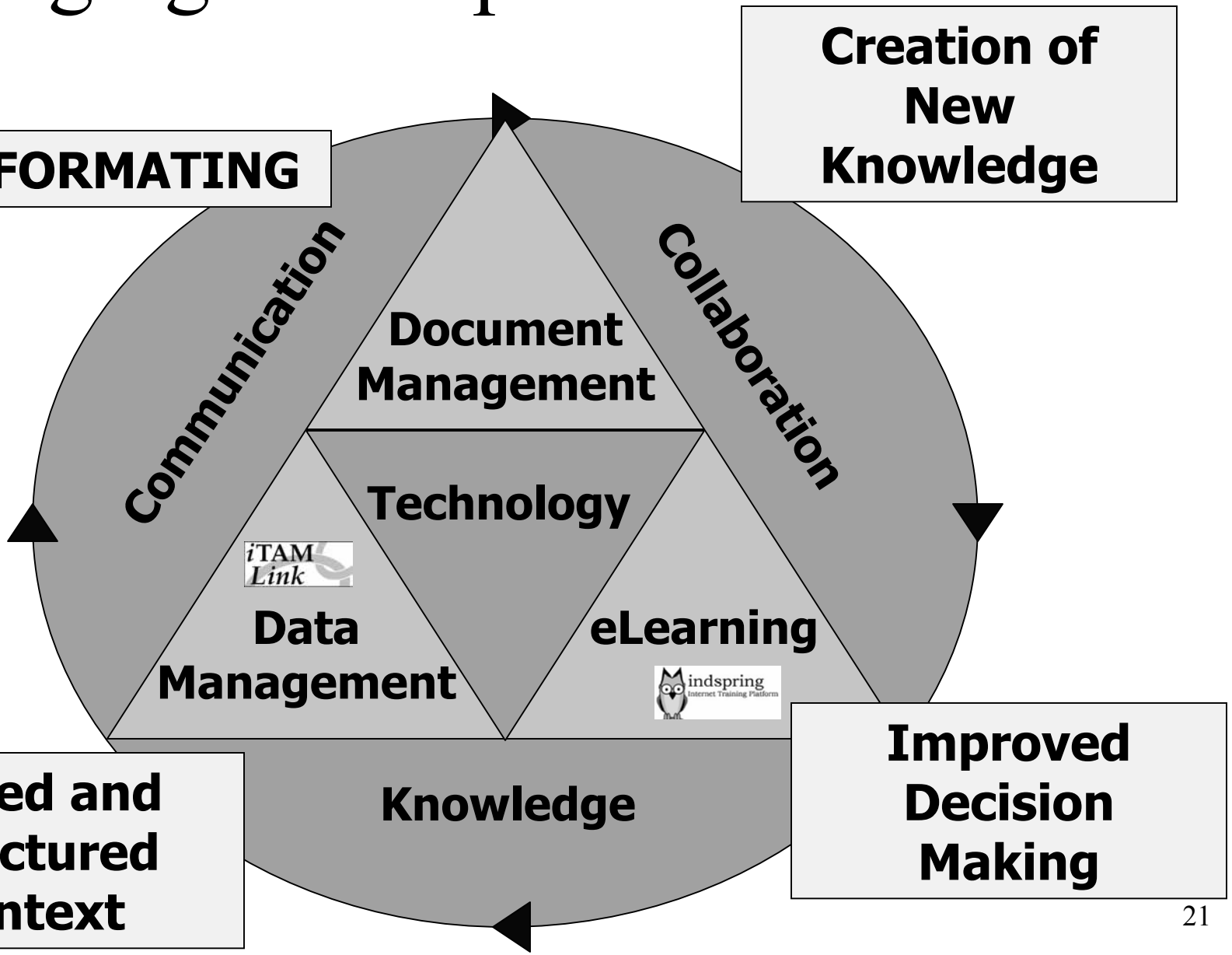


iTAM Link

An example of “information”

- Market movement graph
- Automatic, single property valuation update
- For financial institution - mortgage application
- For assessor - update values
- Assessment audit by public

Bridging the Gap



The merger of a multi-purpose cadastre with a comprehensive management tool will:

- Identify knowledge gaps and point to training needs
- Affect/facilitate change and change management
- Assist in making well informed decisions in a holistic manner and ensuing all decisions are transparent

When one automates, it is evolutionary - changing speed, comfort in winning incremental improvement

When one informates - it is revolutionary - a whole new dynamic is created

This new dynamic builds capacity and the framework for:

- Improved outputs

It greatly improves decision making

Conclusion

The evolution of cadastral systems is more about management decisions than technology.

Management Drives -

Technology Powers