

A Global Assessment of National AI Policies



Dr. James S. (Jim) Denford
Royal Military College of Canada
Kingston, Ontario

A Global
Assessment of
National AI Policies

DeepAI generated
picture



Department of Management

A Global Assessment of National AI Policies

Research project started in 2019 with partners:

- Kevin Desouza – QUT Business School, Brisbane, AU
- Greg Dawson – ASU W.P. Carey School of Business, Phoenix, AZ
- Samar Fatima – RMIT Hailey College of Commerce, Melbourne, AU

[Economic Analysis & Policy Articles](#)

[Brookings Institution Articles](#)



Dimensions of National AI Policies

Public Sector Functions

1. Healthcare
2. Transportation
3. Education
4. Environment and Natural Resources
5. Energy and Utilities
6. Information and Communication Technologies
7. Public Safety
8. Defense and National Security
9. Courts and the Judiciary
10. Revenue and Tax
11. Immigration, Customs, and Border Protection

Algorithms

1. Explainability
2. Ethics
3. Bias
4. Trust

Data

1. Data Exchange
2. Data Regulations
3. Privacy
4. Security

Governance

1. Regulations
2. Risks
3. Social and Economic Inequality
4. Security
5. Intellectual Property Rights Protection
6. Interoperability

Capability Development

1. Education
2. Research and Development
3. Public Policy-Driven Innovations
4. Financing

Industries

1. Healthcare
2. Agriculture
3. Information Technology
4. Manufacturing
5. Energy and Natural Resources
6. Financial
7. Defense
8. Tourism



Initial Observations

- Scope of plans
- Opportunities versus Risks
- Government roles
- Critical missing component – how
 - Execution – omit performance metrics and coordination standards
 - Funding – impacts on revenues, taxes and service provision
 - Communication – lack of communications strategy for preparation



Signalling in AI Policies

		Signal Veracity	
		High	Low
Signal Intention	Deliberate	<i>Traditional Signals</i>	<i>Opportunistic Signals</i>
	Inadvertent	<i>Inadvertent Disclosure Signals</i>	<i>Mixed Signals</i>

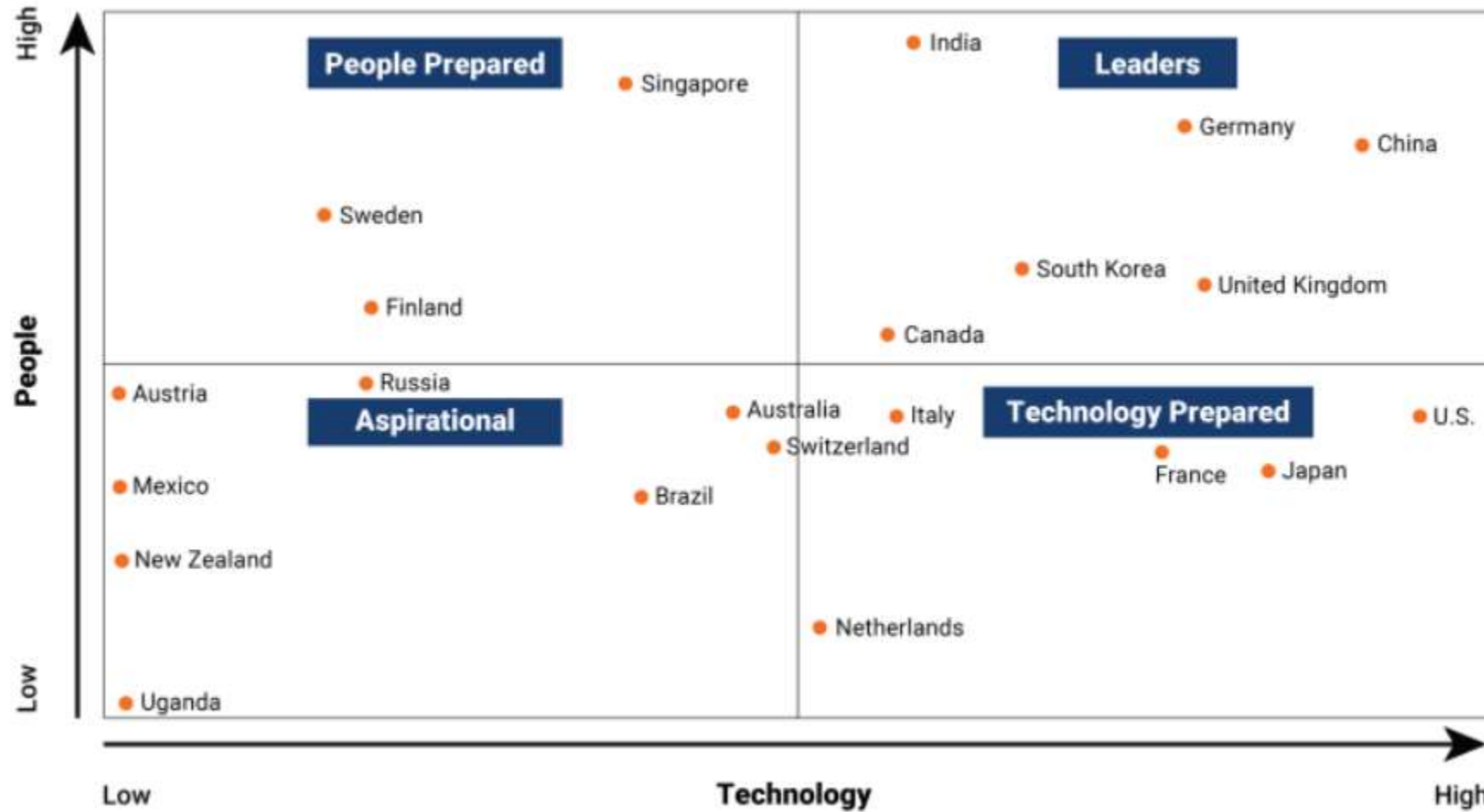


Signalling in AI Policies

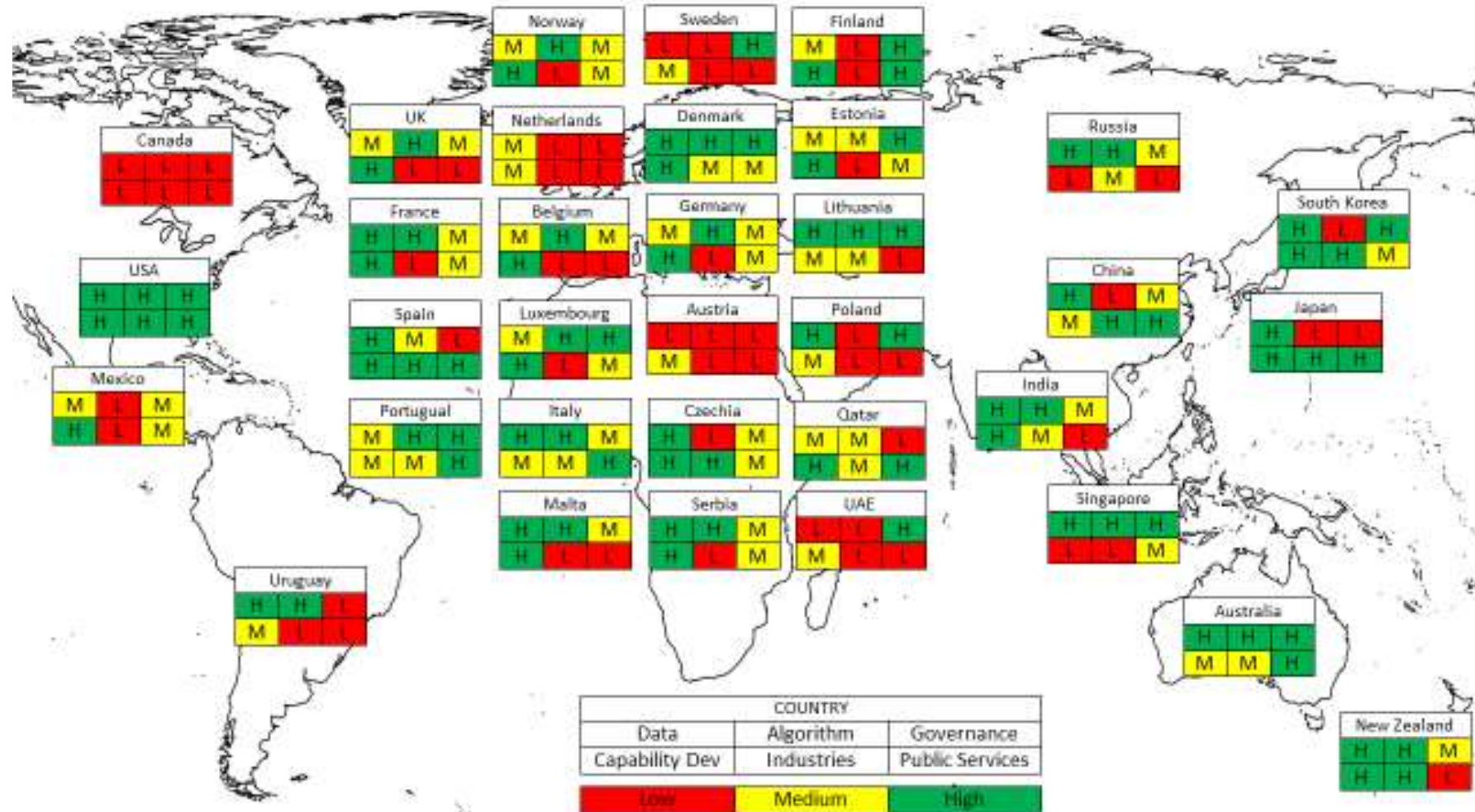
		Signal Veracity	
		High	Low
Signal Intention	Deliberate	<i>Research Data</i>	<i>Public Services (democratic)</i>
	Inadvertent	<i>Algorithmic Ethics Governance</i>	<i>Public Services (authoritarian)</i>



Categorization of National AI Policies



Dimensional Policy Assessments



Data Clusters

Data Exchange between Agencies

Data Exchange with Stakeholders

Data Exchange with Other Nations

Data Exchange

Regulations

Privacy

Security

Australia, China, Czechia, Denmark, France, India, Italy, Japan, Korea, Lithuania, Malta, New Zealand, Poland, Russia, Serbia, Singapore, Spain, Uruguay, USA

Belgium, Estonia, Finland, Germany, Luxembourg, Mexico, Netherlands, Norway, Portugal, Qatar, UK

Austria, Canada, Sweden, UAE



AI Algorithm Clusters

Ethics

Bias

Transparency

Trust

Australia, Belgium, Denmark, France, Germany, India, Italy, Lithuania, Luxembourg, Malta, New Zealand, Norway, Portugal, Russia, Serbia, Singapore, UK, Uruguay, USA

Estonia, Qatar, Spain

Austria, Canada, China, Czechia, Finland, Japan, Korea, Mexico, Netherlands, Poland, Sweden, UAE



AI Governance Clusters

Security

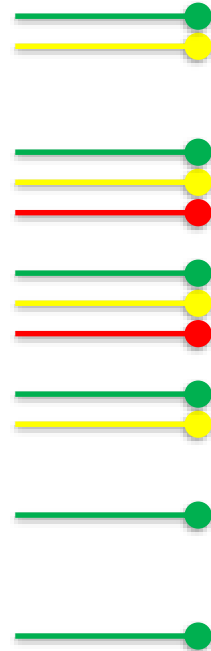
Regulations

Social Inequality Impact

Risks

IP Rights Protection

Interoperability



Belgium, China, Czechia, Estonia, France, Germany, India, Italy, Malta, Mexico, New Zealand, Norway, Russia, Serbia, UK

Australia, Denmark, Finland, Korea, Lithuania, Luxembourg, Poland, Portugal, Singapore, Sweden, UAE, USA

Austria, Canada, Japan, Netherlands, Qatar, Spain, Uruguay



Capability Development Clusters

R&D Multisector

R&D Funding

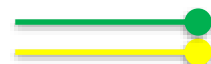
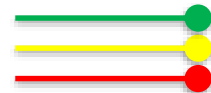
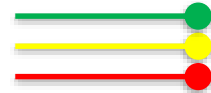
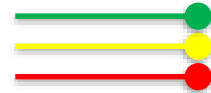
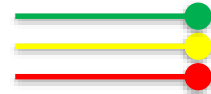
R&D Institutes

Ed PrimSec

Ed Higher Ed

Ed Lifelong Learning

Ed Vocational



Belgium, Czechia, Denmark, Estonia,
Finland, France, Germany, India, Japan,
Korea, Luxembourg, Malta, Mexico, New Zealand,
Norway, Qatar, Serbia, Spain, UK, USA

Australia, Austria, China, Italy, Lithuania, Netherlands,
Poland, Portugal, Sweden, UAE, Uruguay

Canada, Russia, Singapore



Capability Development Clusters

Fin SMEs & Startups

Fin Tax Incentives

PS Procurement

PS Pilot Projects

PS Attract Experts

Belgium, Czechia, Denmark, Estonia,
Finland, France, Germany, India, Japan,
Korea, Luxembourg, Malta, Mexico, New Zealand,
Norway, Qatar, Serbia, Spain, UK, USA

Australia, Austria, China, Italy, Lithuania, Netherlands,
Poland, Portugal, Sweden, UAE, Uruguay

Canada, Russia, Singapore



Industry Clusters

Financial

Manufacturing

Defence

Technology

Energy

Agriculture

Healthcare

Tourism

China, Czechia, Japan, Korea,
New Zealand, Spain, USA

Australia, Denmark, India, Italy, Lithuania,
Portugal, Qatar, Russia

Austria, Belgium, Canada, Estonia, Finland,
France, Germany, Luxembourg, Malta, Mexico,
Netherlands, Norway, Poland, Serbia,
Singapore, Sweden, UAE, UK, Uruguay



Public Services Clusters

Immigration, Customs & Borders

Courts & the Judiciary

Public Safety

Revenue & Tax

Education

Environment & Natural Resources

Australia, China, Finland, Italy, Japan,
Portugal, Qatar, Spain, USA

Czechia, Denmark, Estonia,
France, Germany, Korea, Luxembourg,
Mexico, Norway, Serbia, Singapore

Austria, Belgium, Canada, India, Lithuania,
Malta, Netherlands, New Zealand,
Poland, Russia, Sweden, UAE, UK, Uruguay



Public Services Clusters

Energy & Utilities

Healthcare

Defence & Security

Transportation

ICT

Australia, China, Finland, Italy, Japan,
Portugal, Qatar, Spain, USA

Czechia, Denmark, Estonia,
France, Germany, Korea, Luxembourg,
Mexico, Norway, Serbia, Singapore

Austria, Belgium, Canada, India, Lithuania,
Malta, Netherlands, New Zealand,
Poland, Russia, Sweden, UAE, UK, Uruguay



WEIRD Country Analysis

WEIRD				
Australia	Austria	Belgium	Canada	Denmark
Finland	Germany	Luxembourg	Malta	Netherlands
New Zealand	Norway	Sweden	United Kingdom	United States

WeIRD
France
Italy
Portugal
Spain

WeirD
Mexico
Serbia
Uruguay

wEIRD
Japan
Korea

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Singapore

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Qatar

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China

WEIRD
Czechia
Estonia
Lithuania
Poland

wEIRD
Russia
The Emirates

weIRD
India



A Westernized,
Educated,
Industrialized, Rich and
Democratic country.



WEIRD Country Analysis

Data Management

WEIRD				
Australia	Austria	Belgium	Canada	Denmark
Finland	Germany	Luxembourg	Malta	Netherlands
New Zealand	Norway	Sweden	United Kingdom	United States

WeIRD
France
Italy
Portugal
Spain

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Japan
Korea

WEIRD
Czechia
Estonia
Lithuania
Poland

weIRD
Singapore

wEIRD
Russia
The Emirates

WeIRD
Mexico
Serbia
Uruguay

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Qatar

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China

weIRD
India



WEIRD Country Analysis

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New Zealand	Norway	Sweden	United Kingdom	United States

Algorithmic Management

WeIRD
France
Italy
Portugal
Spain

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Japan
Korea

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Estonia
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Singapore

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Russia
The Emirates

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Qatar

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China

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India



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Czechia
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Russia
The Emirates

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India

AI Governance



WEIRD Country Analysis

WEIRD				
Australia	Austria	Belgium	Canada	Denmark
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Czechia
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Poland

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The Emirates

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India

R&D Capacity Development



WEIRD Country Analysis

WEIRD				
Australia	Austria	Belgium	Canada	Denmark
Finland	Germany	Luxembourg	Malta	Netherlands
New Zealand	Norway	Sweden	United Kingdom	United States

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Poland

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The Emirates

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India

Education Capacity Development



WEIRD Country Analysis

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Qatar

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China

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Czechia
Estonia
Lithuania
Poland

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Russia
The Emirates

weIRD
India

Public Service Capacity Development



Summary of Analyses

France	Italy	Australia	Austria	Belgium	Canada	Denmark
H H M	H H M	H H H	L L L	M H M	L L L	H H H
H L M	M M H	M M H	M L L	H L L	L L L	H M M
Portugal	Spain	Finland	Germany	Luxembourg	Malta	Netherlands
M H H	H M L	M L H	M H M	M H H	H H M	M L L
M M H	H H H	H L H	H L M	H L M	H L L	M L L
Japan	South Korea	New Zealand	Norway	Sweden	UK	USA
H L L	H L H	H H M	M H M	L L H	M H M	H H H
H H H	H H M	H H L	H L M	M L L	H L L	H H H
Qatar	China	Mexico	Serbia	Russia	India	
M M L	H L M	M L M	H H M	H H M	H H M	
H M H	M H H	H L M	H L M	L M L	H M L	
Uruguay	Singapore	Serbia	UAE	Poland		
H H L	H H H	H H M	L L H	H L H		
M L L	L L M	H L M	M L L	M L L		
Czechia	Estonia	Lithuania	Poland			
H L M	M M H	H H H	H L H			
H H M	H L M	M M L	M L L			



How to Advance Canadian AI Capabilities

- Mitigating Factors
 - Examined nations with strategies
 - Canada was a first mover in 2017
 - More robust strategy issued in 2021
 - Second phase initiated in 2022
- Options for advancing AI
 - Space-race investment
 - Multi-nation development consortium
 - Single partner approach



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Questions?

An artificial intelligence waits for you to ask it a question.

DeepAI generated picture



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