



ADB Digital Development Forum: OP6

Getting GovTech Ready for Artificial Intelligence

Stephanie Sy
CEO & Lead Data Scientist
Thinking Machines

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Founded in 2015, we build leading edge data science platforms for our clients.

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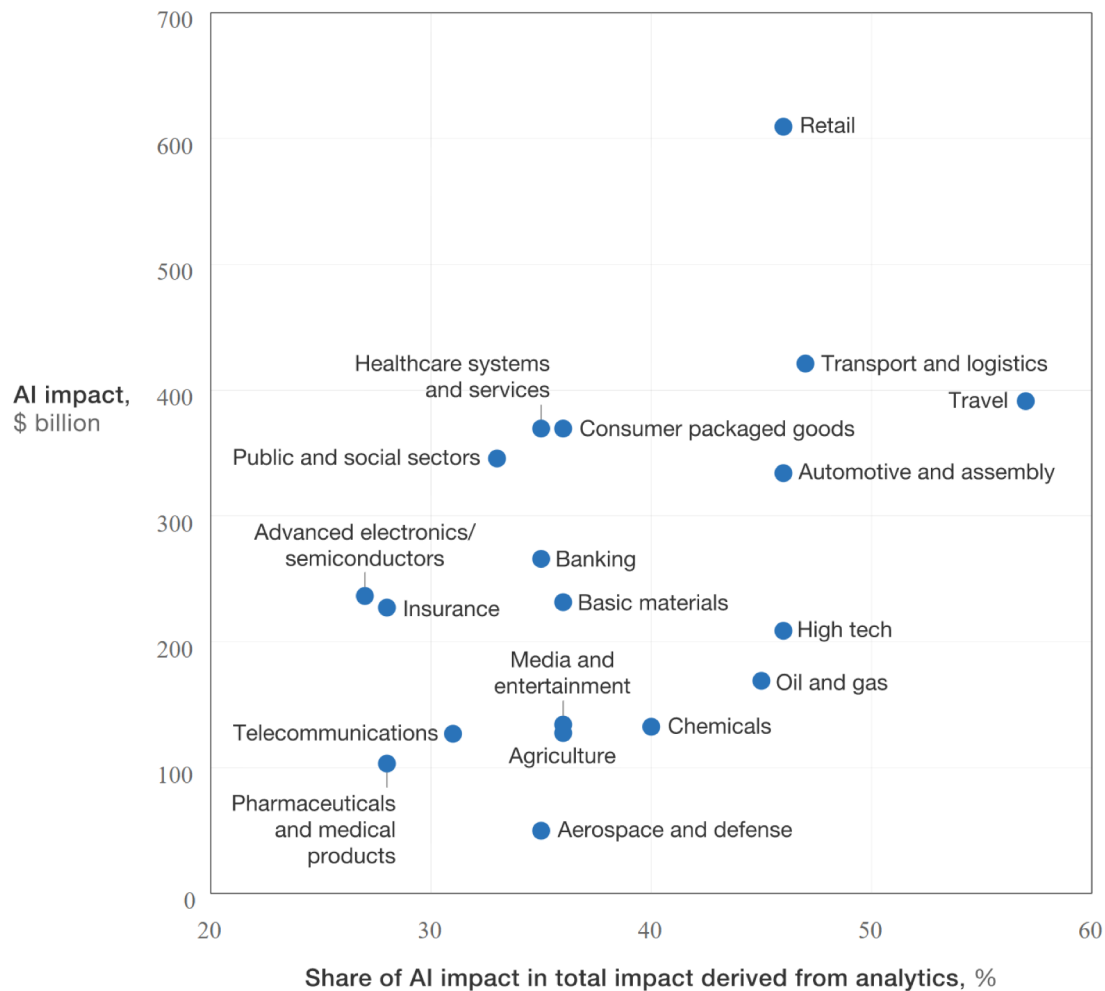
AI Innovation Fund*



Machine Learning Partner

** Thinking Machines was selected by UNICEF's Innovation Fund as part of their AI cohort*

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McKinsey estimates that AI technologies will drive about \$3.8 trillion to \$6.1 trillion annual impact for these 19 industries.

When and how should GovTech adopt AI?

- What enabling environment needs to be in place?
- How do you launch an AI Transformation Program?
- What AI applications are mature enough for adoption?
- What are the key risks and lessons GovTech can learn from industry?

What enabling environment needs to be in place?

- ◆ Digital Transformation is a prerequisite of Data/AI Transformation
- ◆ 5 additional criteria to consider:
 - A. Data Quality
 - B. Data Engineering
 - C. Data Privacy and Governance
 - D. Advanced Analytics & Machine Learning
 - E. Organizational Data Culture

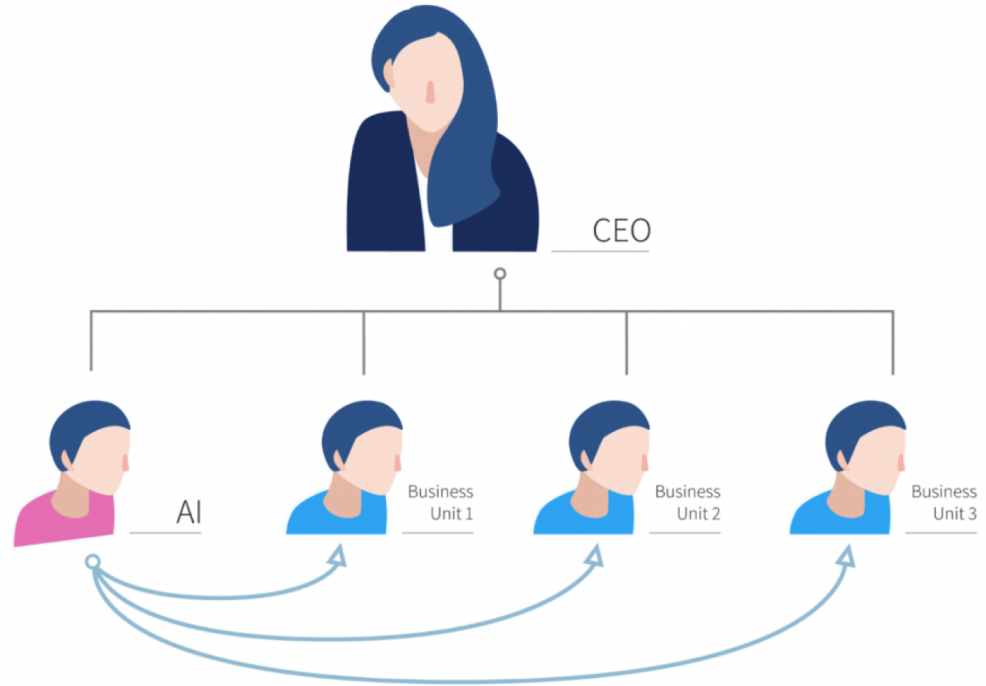
How do you launch an AI Transformation program?

- **Execute pilot projects to gain momentum**
- **Build an in-house AI team**
- **Provide broad AI training**
- **Develop an AI strategy**
- **Develop internal and external communication**

How do you launch an AI Transformation program?

These are new jobs with very few experienced specialists, so best to put them in their own unit to cross-matrix into gov units.

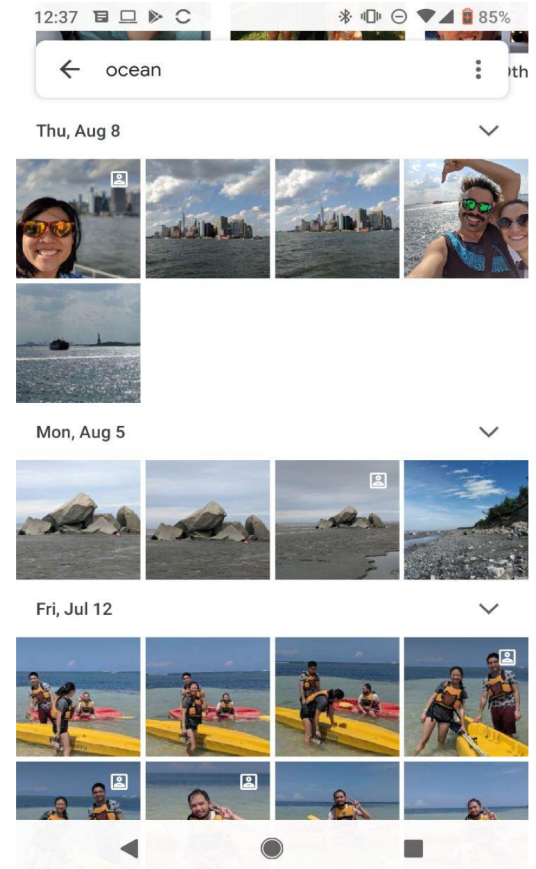
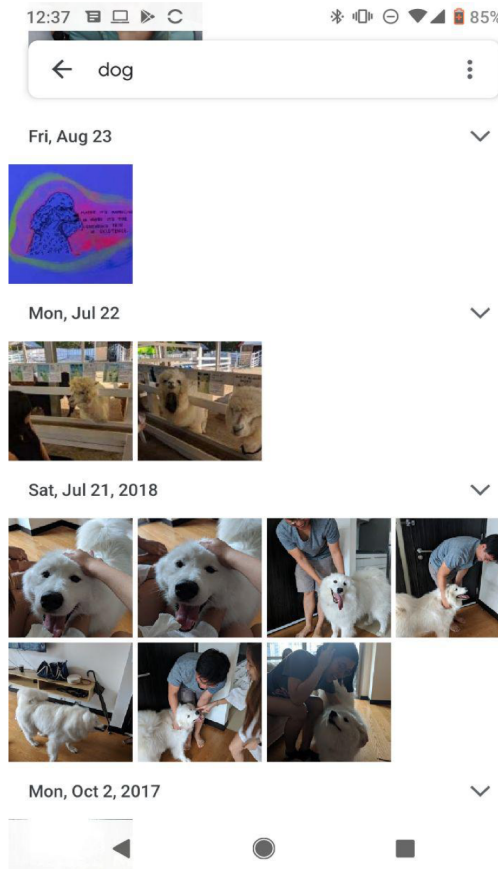
AI jobs include: Machine Learning Engineer, Data Engineer, Data Scientist, and AI Product Manager



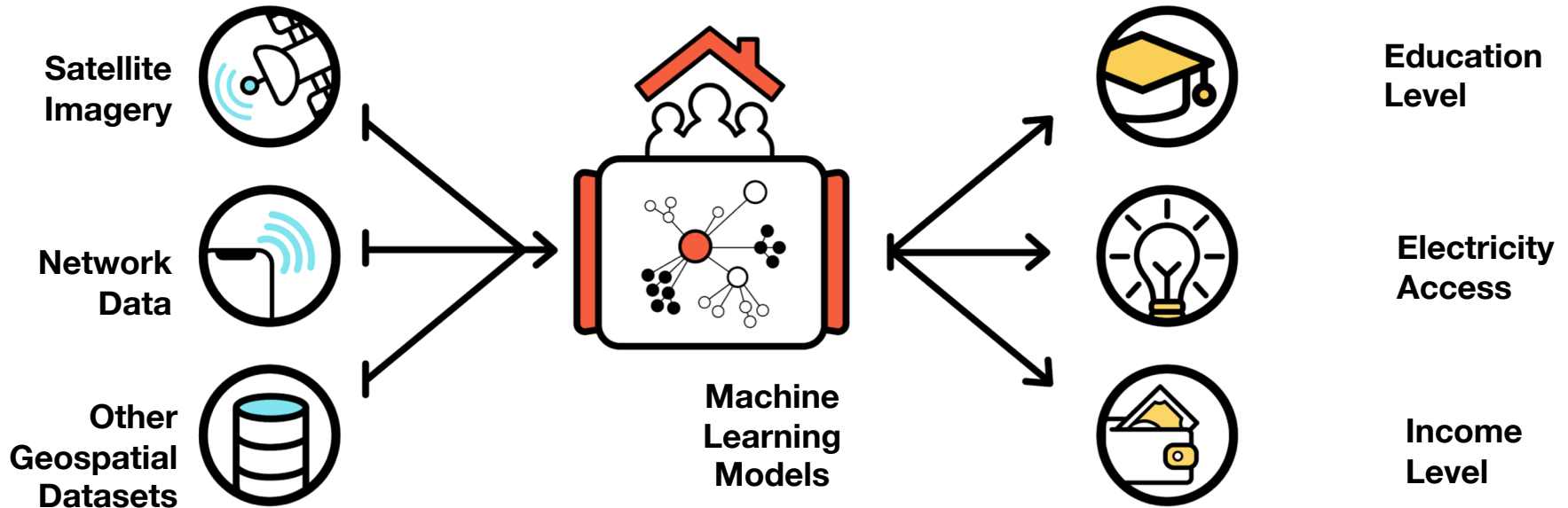
What AI Applications are ready for GovTech implementation?

Computer Vision

- Image Classification
- Scene Detection
- Object Detection



AI Computer Vision + Cheap Satellites = Exciting Advances in Geospatial Analysis



Wealth Mapping using Satellite Imagery in the Philippines



Predicted Income Class: **AB**
Households/km²: **20**
Confidence: **80%**

Predicted Income Class: **CD**
Households/km²: **100**
Confidence: **85%**

What AI Applications are ready for GovTech implementation?

Natural Language Processing

- Automated Response Generation
- Topic recognition
- Sentiment analysis

Relatively good AI generated responses from Google/Gmail



The screenshot shows an email interface with a message from 'Cara Evangelista' at 12:28 PM. The message content is: 'Hey, when can we schedule a meeting next week?' followed by 'Regards, Cara'. Below the message is a red logo for 'Thinking Machines Data Science'. Underneath the logo is the text: 'Thinking Machines Data Science Inc. cara@thinkingmachin.es || 09173112161 || 705-9999 loc. 810'. At the bottom of the email, there are three suggested response buttons: 'Tuesday?', 'Sure!', and 'I am not available next week.'.

What are the risks and mitigation strategies?

Risk	Mitigation Strategy
Large multiyear projects fail, unable show traction in reasonable time	Execute pilot projects to build momentum
Vendors don't understand your users, build the wrong thing	Build an in-house AI Team
Organization rejects change	Provide broad AI training
Scattered and haphazard project selection	Develop an AI strategy
Regulators, citizens, employees are confused and demoralized by AI hype	Develop internal and external communication plans
Biased and overfitted models	Spend significant time building training and validation datasets
Models fail at "common sense" but rare situations	Integrate humans in the loop



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