AI governance at the national level: A framework for action

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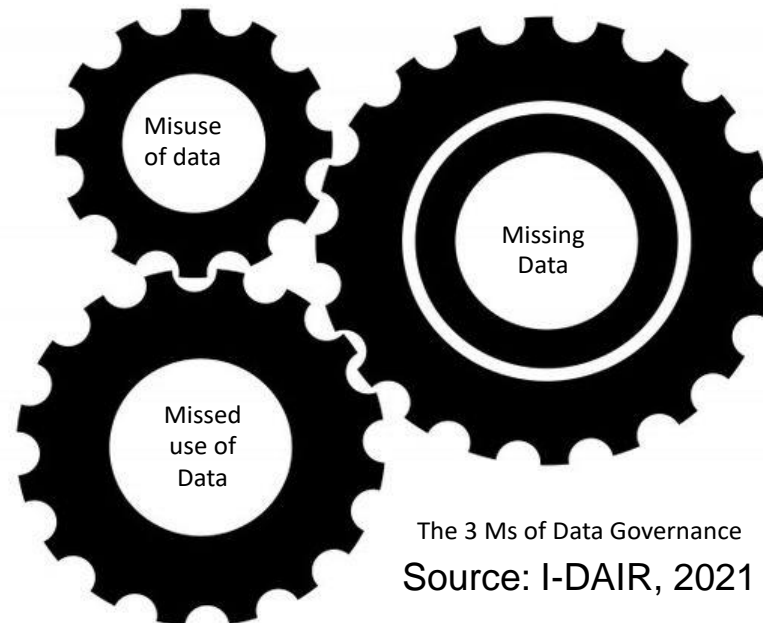
22 June 2021

Digital Health & AI opportunity…   … challenges

- Digital offers patient-centric and cost-effective ways to reinvent delivery of health services;
- Process/workflow/incentive redesign;
- AI: Confluence of machine learning, large datasets and computing power for precision, preventive and predictive health;
- COVID-19 crisis has refocused attention on health system investments, resilience and the digital opportunity.

- Lack of data for health/on impact (missing data/evidence);
- Poor quality, fragmented datasets, lack of interoperability, zero-sum views of data, insufficient trust (missed use);
- Public concerns on data security, ownership, privacy & informed consent (misuse);
- Gaps in Infrastructure, human capacity, and governance

Misuse of data

Missing Data

Missed use of Data

The 3 Ms of Data Governance
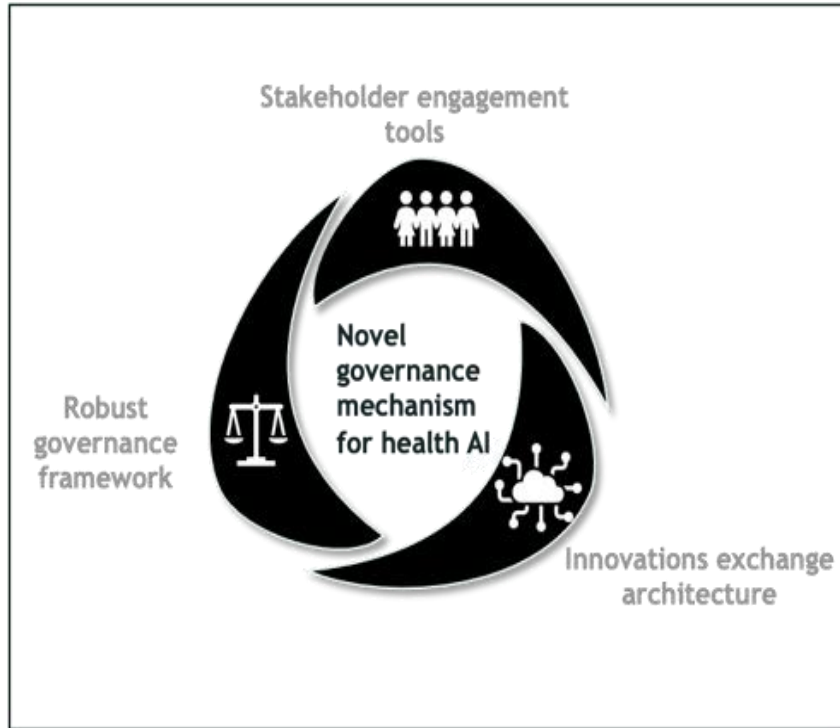Source: I-DAIR, 2021

I-DAIR

Obstacles specific to AI Governance:

- *Lack of governance* *capacity*, *and digital literacy.*

- *Pace of technology change; uncertainty* regarding impact & governance failures; absence of human-centered benchmarks.

- *Insufficient* *coordination* *among ministries, and across stakeholders.*

- *Centralisation* *that stifles governance innovation at the edge.*

Ubuntu picture courtesy Shingai Njeri Kagunda

- *Confusion between digital, data and AI governance; growing data/AI nationalism.*

Accordingly, AI governance has to be *values-based*, *collaborative*, *agile*, *distributed* *and* *end-to-end*: *context > data > AI > assessments and redressal.*

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A novel governance mechanism for health AI:
Source: I-DAIR, 2021

1. Robust governance framework with:
3. Solutions exchange architecture that enable:

- Mandate protection and data security roles
- Applying stakeholder and governance assets in innovatively
  - the sharing of best practices, data protection
- A data process to ensure responsible and
  - promoting and regulatory mechanisms to AI
  fair use of data;
  - solutions and their governance;
- Monitoring which allows stakeholders to
  - A risk-based classification of sensitivity to
  - common problem definition and research
  avoid misuse of data;
  - design without aggregating data;
- Communication strategies to demonstrate bottom-up problem solving and trustworthiness of AI, and
  - Promotes governance learning from diverse
  practice of AI for health, and a shared stake in
  global governance principles, mechanisms and
  norms.

Nine core values to drive AI governance in health

Human-centredness & human agency
Considering the benefits of DH and AI for all populations

Diversity
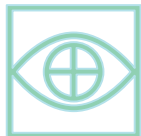Ensure diversity across actors, geographies, at all stages

Trustworthiness
Promote trust with transparent processes and communication; ensure data safety and protection

Fairness
Act with integrity and promote fairness

Collaboration
Promote clear roles and responsibilities in an agile way of working

Independence and Neutrality
Stay neutral and promote independence regarding involved parties and activities

Transparency
Ensure reliable and open processes and communication

Innovativeness
Promote innovation at all stages, e.g. in governance as well

Inclusivity
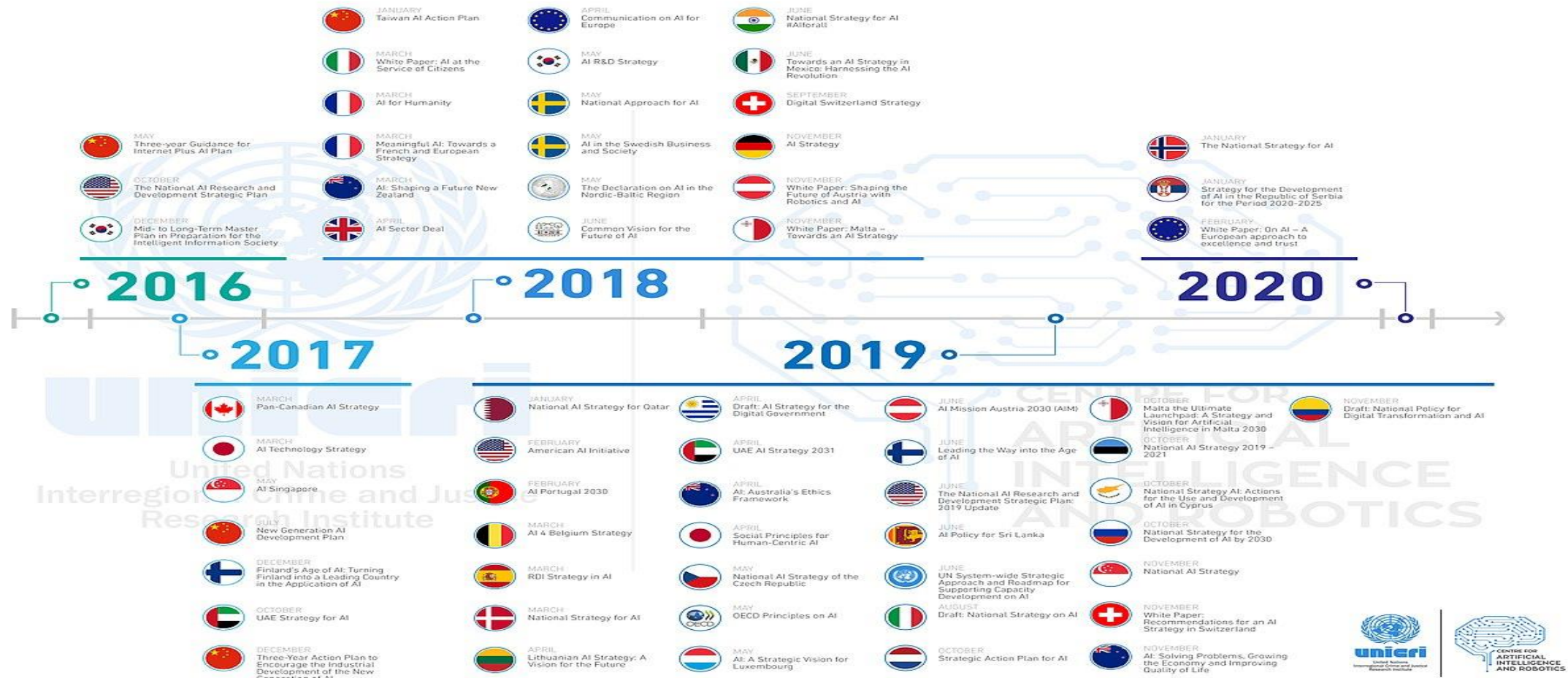Make sure that we leave no one behind

Technology reflects our human values
and hierarchy of preferences..

And…

Values and principles help build a
culture of human-centered technology
development & governance.

This can build a virtuous cycle
of values, ethical conduct and
trust in technology and its
governance.

Timeline of strategies, action plans and policy papers setting defining national, regional and international approaches to AI

Source: UN Interregional Crime & Justice Research Institute

Why Medical Data is 50 Times More Valuable Than a Credit Card

PUBLISHED IN HEALTHCARE BUSINESS | OCTOBER 15, 2019 | 11:09 PM

As the healthcare company lurches into embracing cloud-based technology, protecting medical data has become even more essential. While banks and other financial organizations have long been data security experts, the healthcare field has been a bit slower to protect its data, which can often be more valuable than credit cards and bank account numbers.

REUTERS

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HEALTHCARE & PHARMA   SEPTEMBER 24, 2014 / 8:25 PM / UPDATED 7 YEARS AGO

Your medical record is worth more to hackers than your credit card

By C...

Why Are Medical Records So Valuable to Data Thieves?

When you think of a data breach, what's the first thing that springs to mind? The theft of credit card information? Other financial data falling into the wrong hands? While protecting confidential financial data is very important, it's actually health data and medical records at the highest risk of a breach.

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AI is already here, and will grow

Huge potential, many risks

Good national governance & regulation must:
(1) Encourage innovation
(2) Manage risks

KPMG
The shape of AI governance to come

Introduction to AI Governance
FUTURISTS SOCIETY BARCELONA

Question:
Who will profit from the systems?

Question:
Who will profit from the systems?

Those who own the systems,
and those who own the data

"The future is already here – it's just not very evenly distributed."

William Gibson

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