

52nd Asia Pacific Privacy Authorities Forum 2019:
CIPL and TTC Labs Mini Design Jam on AI
Explainability

AI Explainability – Sharing by Hong Kong Privacy Commissioner

3 December 2019, Ocean Pavilion, Shangri-La Mactan, Cebu,
Philippines

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Privacy Commissioner for Personal Data,
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Transparency

Personal Data
Protection

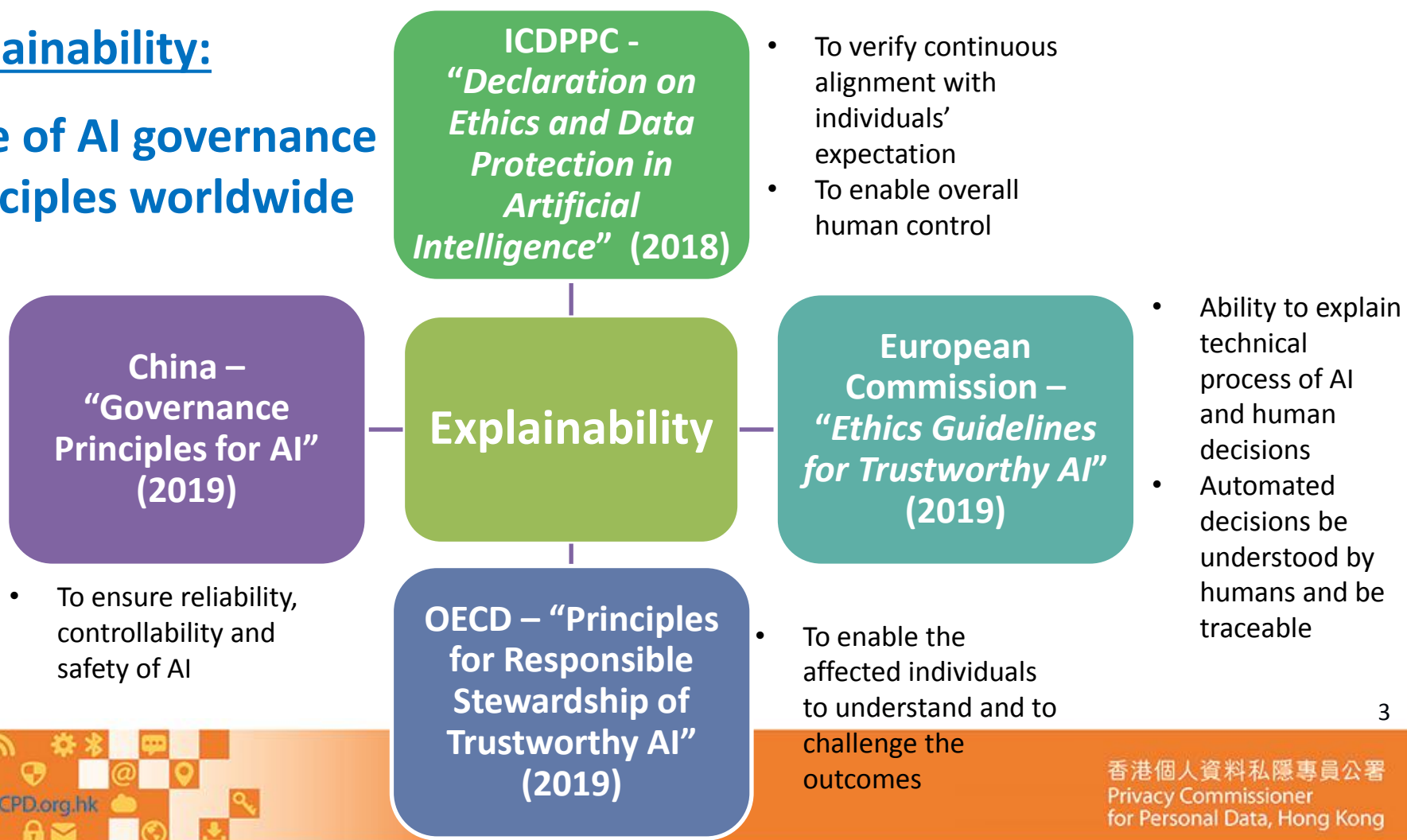
Explainability

Importance of Explainability

- Part and parcel of personal data protection and transparency
- Avoid distrust of and grievance against organisations
- Respect human dignity
- Ensure fairness

Explainability:

Core of AI governance principles worldwide



China's National AI Standardization Group:

Indicators of algorithmic ethics

Transparency

- Disclose source code or operation rules of AI (provided that IP rights are not compromised)

Reliability

- Produce results without errors within specified timeframe

Explicability

- Be able to explain the reasons for certain results

Verifiability

- Be able to reproduce the same results under specified conditions

Source: Report on Risk Analysis of AI Ethics (April 2019)

What is Explainability of AI ?

Model-centric explainability

Good for consistency and procedural regularity of decision-making

Disclose information about an AI model in general, e.g.:

- process of development
- logics involved
- training data used

Subject-centric explainability

Provide more meaningful explanation to individuals

Disclose about specific cases, e.g.:

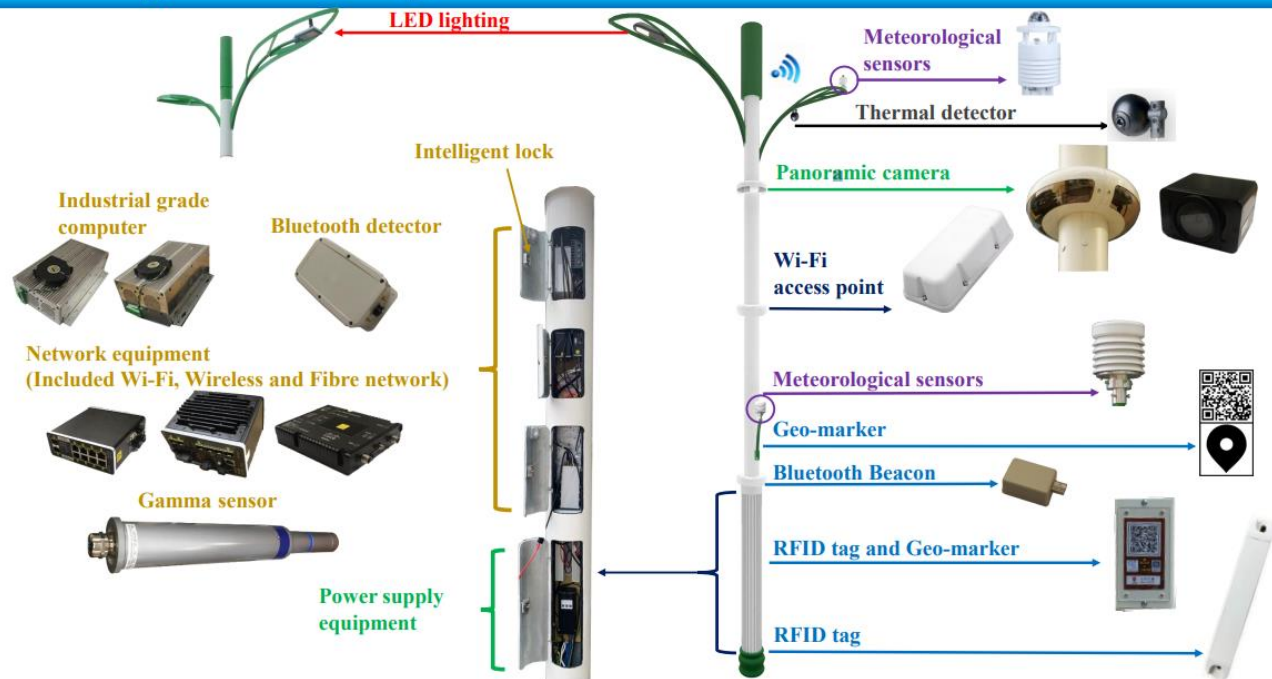
- What changes in input data would affect the decision about me?
- What are the characteristics of individuals who receive similar treatment as me?

Source: Lilian Edwards & Michael Veale, *Slave to the Algorithm? Why a "Right to an Explanation" is probably not the remedy you are looking for*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2972855

Lighting up Hong Kong as a Smart City

Smart Lamppost Features and Applications – Smart Devices



Source: OGCIO, Hong Kong



AI applications in Smart Lampposts

Panoramic cameras with AI

- Collect real-time traffic data for sharing to the public as well as traffic monitoring and incident management. Vehicle speed and types can be analyzed.
- Collect illegal dumping data and analyze patterns of illegal dumping activities. There will be auto-detection of illegal dumping activities.

To be explainable!

- Why and how the system generates a particular output or decision? What's the logic and rationale ?
- What is the process of machine learning? What combination of input factors contributed to the decision?
- Avoid “Black Box” algorithms that are opaque and complicated
- Explainability is crucial for building and maintaining the public's trust in the AI system

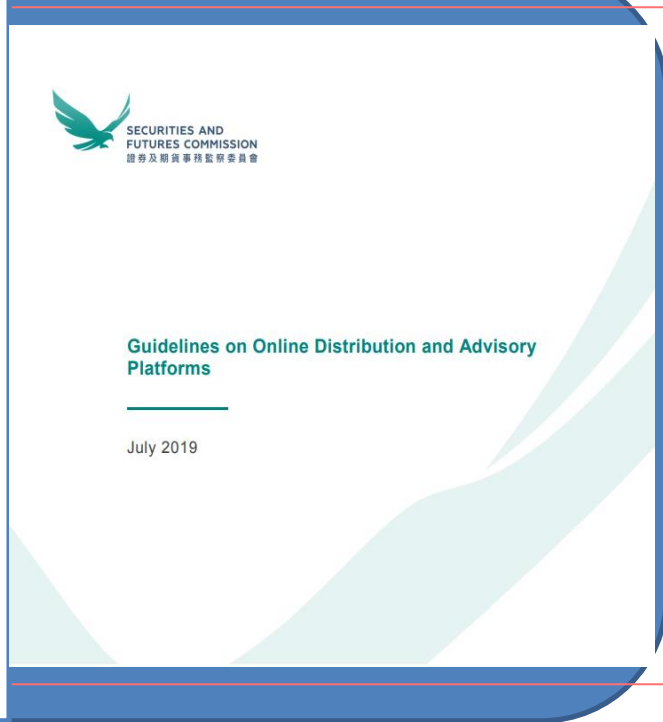
Proceed with caution: Regulation for AI explainability ?

- Not yet a standalone regulation in Hong Kong
- The idea of explainability is embedded in data ethics and accountability and reflected in the some industry.
- E.g. **“Guidelines on Online Distribution and Advisory Platforms”** by the Securities and Futures Commission, Hong Kong, July 2019
- E.g. **Ethical Accountability Framework for AI (Draft)**, to be published by PCPD

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Guidelines on Online Distribution and Advisory Platforms

- The Guideline applies to:
 - Provision of financial advice in an online environment using algorithms and other technology tools
 - Uses of data and algorithms to profile clients and devise responses
- Requirements:
 - **Information about the algorithm and its limitations must be provided to clients**
 - Internal controls in place to supervise algorithm, prevent unauthorised access



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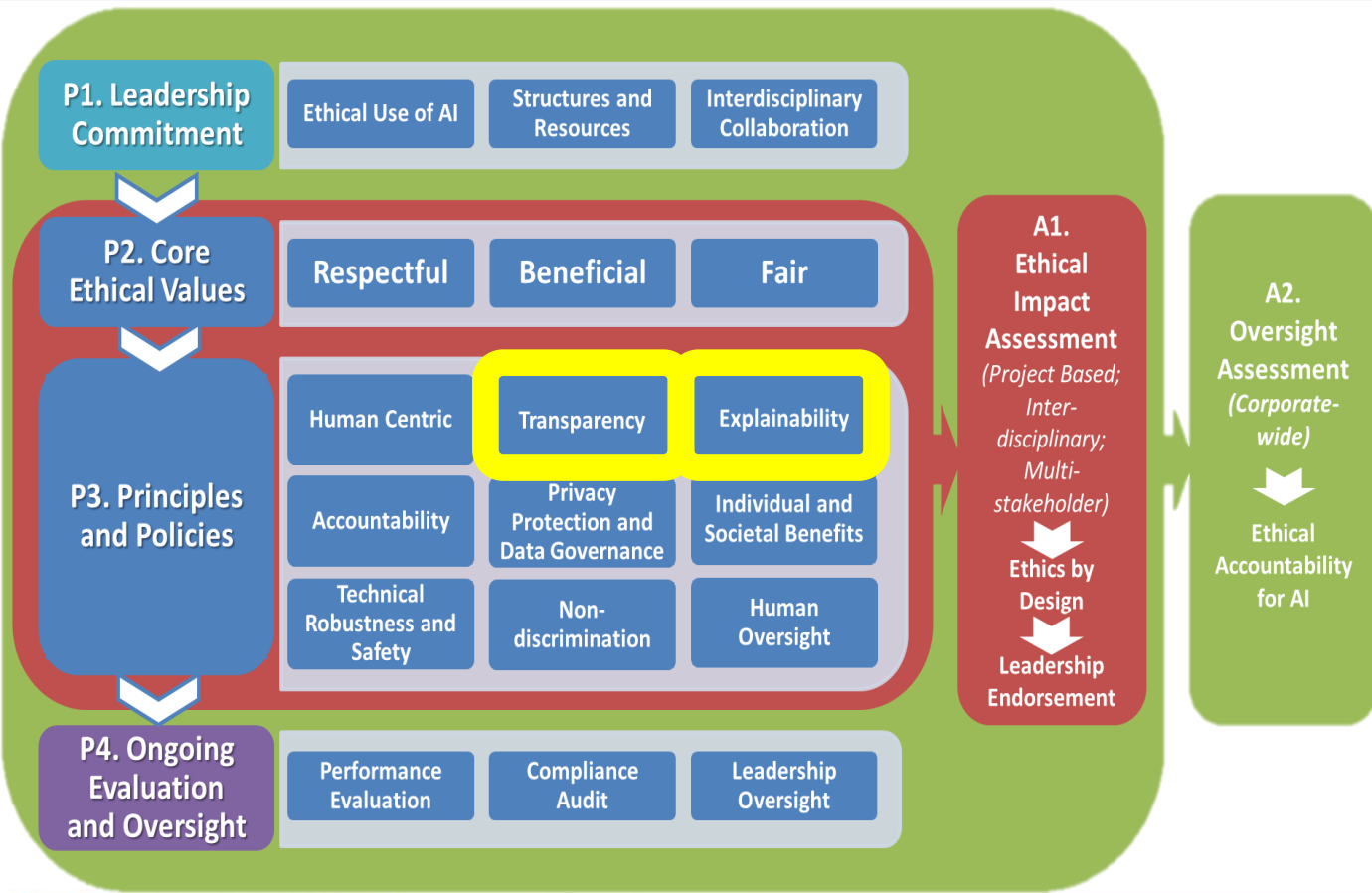
PCPD's Ethical Accountability Framework for AI (Draft)

Building upon...

- **Ethical Accountability Framework for Hong Kong, China – PCPD (2018)**
- **Declaration on Ethics and Data Protection in Artificial Intelligence – ICDPPC (2018)**
- **Ethics Guidelines for Trustworthy AI – EC (2019)**

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Thank you

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