# The Path to AI Ethics

HOW THE GLOBAL FORUM CAN CONTRIBUTE

Paul Wormeli Wormeli Consulting "Our future is a race between the growing power of technology and the wisdom with which we use it." Stephen Hawking

#### Global Initiatives on AI Ethics

- World Health Organization Guidance for Ethics and Governance of AI for Health
- OECD Council on Artificial Intelligence
- Council of Europe Commissioner for Human Rights
- ▶ The European Commission Ethics Guidelines for Trustworthy AI
- ▶ Japan guidelines on the use of AI, including on research and development and utilization
- China National Governance Principles for the New Generation Artificial Intelligence
- Beijing Artificial Intelligence Principles
- Asia's first Model AI governance framework
- Singapore: international industry-led Advisory Council on the Ethical Use of AI and Data
- The African Union's High-level Panel on Emerging Technologies broad guidance on the use of AI to promote economic development and its use in various sectors, including health care
- ▶ U.S. Department of Defense Innovation Unit Responsible AI Guidelines

#### Is it too late?

Global Market for Al in 2025 will be \$190.61 billion

Forecasted AI annual growth rate between 2020 and 2027 is 33.2%. By 2030, China will be the world leader in Al technology, with 26.1% of the global market share.

In 2019, the machine learning application industry received \$37 billion of funding in the U.S. By 2030, AI will lead to an estimated \$15.7 trillion, or 26% increase in global GDP. A whopping 93% of automation technologists feel little prepared for upcoming challenges regarding smart machine technologies.

#### What We Fear

## Misidentification

- Misinformation
- Misuse of personal data

### WHO Ethical Principles

#### Protect human autonomy

- Promote human well-being and safety and the public interest
- Ensure transparency, explainability and intelligibility
- Foster responsibility and accountability
- Ensure inclusiveness and equity
- Promote AI that is responsive and sustainable

### Global Forum Contribution

- Acknowledge international scope
- Address cross-boundary issues
- Reflect divergent and convergent views of industry, academia and government
- Raise critical questions from varying perspectives

 $\begin{cases} x_n \\ n \\ n \rightarrow \infty \end{cases} \xrightarrow{n^2 - x}{3}$  ${x_n}$ lim (1+ R  $n \in N, A > 0, \Longrightarrow / \lim_{n \to \infty} \sqrt{A} = 1$ n/4  $\sum_{n=1}^{\infty} x_{n}^{2} \sqrt[n]{0+0+0} < \frac{1}{13^{n}} < \frac{1}{2}$  $\begin{cases} x_{n}^{2} \cdot \{y_{n}\}_{df}^{2} = \{x_{n} + y_{n}\}^{2} \cdot \{y_{n}\}_{df}^{2} = \{x_{n} + y_{n}\}^{2} \cdot \{y_{n}\}_{df}^{2} = \{y_{n} + y_{n}\}_{df}^{2} \cdot \{y_{n}\}_{df}^{2} + \{y_{n}\}_{df}^{2} \cdot \{y_{n}\}_{df}^{2} + \{y_{n}\}_{df}^{2}$ lim min .00  ${x_n}, {y_n}_{df}, {x_n, y_n}; 13$ 5 ... 1 Fx 3 F. 7 g

Our ambitions at the Global Forum 8

#### Make AI Systems Ethical By Design







Build a set of Build a set of Internationally questions that are thical values recognized internationally internationally Al

The Road Map

- Now: Review the draft set of questions
- At the Global Forum: discuss the issues and frame the final questions
- After the Forum: Distribute a document through all resources to influence companies and governments to include the questions in their consideration of the use, development and deployment of Al

#### Universal Questions

- How to protect human rights?
- How to structure governance?
- How to ensure equity and accuracy?
- How to enforce ethical policies in the use of AI?
- How to prevent abuses and misuses?
- How to ensure informed consent on the use of personal data?
- How to prohibit secondary uses of personal data?

#### Developer Questions

#### How to prevent algorithmic bias?

- How to limit or prevent unauthorized usage of outcomes?
- How to protect against intrusion and misappropriation?
- How to positively identify people?
- How to anonymize outcomes?
- Who owns the results?
- How to reflect the views of all stakeholders?

#### Government Questions

- What constraints on the use of personal information will be enforced?
- How will secondary use of results be prohibited?
- What privacy rights will be protected and how?
- How will AI applications prohibit discrimination based on race, ethnic origin, gender, age or other class characteristics?
- Where, how and by whom can meaningful international ethics norms be developed, and how can they be put to use and be defended?
- What do democratic countries do to maintain and advance their competitive and innovative capabilities in AI?

### **Topical Questions**

#### Algorithm transparency

- Impact on employment and training
- Support for responding to climate change
- Revolutionizing public health
- Gender manipulation
- Controlling disinformation

## Action

- Review draft questions
- Read preconference materials
- Think about issues
- Prepare to contribute