Comparative Analysis of AI Regulations and Policy Harmonizations

Dasom Lee, PhD

Graduate School of Science and Technology Policy
KAIST

Graduate School of Science
and Technology Policy, KAIST

Regulating AI

- How can we regulate AI without hindering technological development?

Responsible Innovation

- Responsible research innovation (RRI), Responsible innovation (RI)

  - "transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society" (von Shomberg 2011)

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Responsible Innovation

- Why do it? (What is the purpose?)
- What are the intentions and motivations?
- Who might benefit and who might not
- What should the targets for innovation be?
- What are the "right" impacts?
- Whose values should we base the technology on?
- What are the risks?
- Is the technology development iterative and interactive?

Responsible Innovation

- Social and technological issues to consider for new and emerging technologies
  - Safety
  - Privacy
  - Security
  - Sustainability
  - Resilience
  - Liability
  - Equity/Accessibility
  - Democracy

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  - The goal is not to *solve* everything – but to *balance* them

Responsible Innovation

- EU approach to new and emerging tech: proactive
- US approach to new and emerging tech: reactive

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US Regulations

- (the basis of the GDPR) Health Insurance Portability and Accountability Act of 1996 (HIPPA)
- US The National AI Advisory Committee
  - Executive Order Further Advancing Racial Equity and Support for Underserved Communities: "algorithmic discrimination in automated technology"

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US Regulations

- Federal recommendations and guidelines available
  - 2018: Framework for Improving Critical Infrastructure Cybersecurity
  - 2022: AI Bill of Rights
  - 2023: Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence
  - 2023: AI Risk Management Framework
  - State level regulations

2023 AI Risk Management

- Foundation: identification of potential harms of AI
  - Harm to people
  - Harm to organizations (business operations)
  - Harm to an ecosystem
- Development of risk metrics
- Risk tolerance procedures
- Risk prioritization by organizations

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President Biden's Executive Order

- Share safety test results
- Develop standards, tools, tests for AI safety and security
- Protection from AI based fraud
- Advanced cybersecurity program needed
- In depth discussion around privacy, equity, and workers/employment

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EU Regulations

- EU AI Act
- EU Digital Services Act (DSA) – online intermediaries and platforms
- EU Digital Markets Act (DMA) internal online market function regulation
- EU General Data Protection Regulation (GDPR)

EU AI Act

- First proposed in April 2021 by the European Commission

- Adopted in March 13th, 2024

- Still needs to go through some lawyer linguist check

- Still needs to be formally endorsed the Council

- 24 months leeway

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EU AI Act

- Main Goal
  - "To make sure tat AI systems used int eh EU are safe, transparent, traceable, non-discriminatory and environmentally friendly. Ai systems should be overseen by people, rather than by automation to prevent harmful outcomes" (European Parliament 2023)

EU AI Act

- Prohibited/cautionary practices
  - Real time remote biometric identification systems in publicly accessible spaces
  - Post remote biometric identification system (can only be used for law enforcement in specific situations or prosecution of serious crimes)
  - Biometric categorization systems using sensitive characteristics (race, gender, ethnicity, citizenship status, religion, political orientation)

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EU AI Act

- Prohibited/cautionary practices
  - Predictive policing systems
  - Emotion recognition systems in professional settings (e.g., school/workplace)
  - Untargeted scraping of facial images from the internet
  - Use of CCTV footage to create facial recognition databases

EU AI Act

- Obligations
  - Companies must register their AI systems to the EU database before the release on the EU market
  - GAI must comply with transparency requirements (distinguishing deep fakes, AI generated contents)
  - Use of copyright data for AI training □ must provide detailed summaries and should be made publicly available

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Korea's AI Act

Act on the Promotion of Artificial Intelligence and the Establishment of Trust-Based Infrastructure

> [2111261] 인공지능 육성 및 신뢰 기반 조성 등에 관한 법률안(정필모의원 등 23인)

- 심사진행단계

접수 > 위원회 심사 > 임기만료폐기

Document submission □   Committee Review □   Expired and Disposed

Korea's AI Act

Artificial Intelligence Responsibility and Regulation Act

> [2123709] 인공지능 책임 및 규제법안(안철수의원 등 10인)

· 심사진행단계

접수 > 위원회 심사 > 임기만료폐기

TOP

Document submission ☐   Committee Review ☐   Expired and Disposed

Korea's AI Act

- 정보통신망법 개정안: Amendment to the Act on Information and Communications Network Utilization and Information Protection
- 개인정보보호법 개정안: Personal Information Protection Act Amendment
- 저작권법 개정안: Copyright Act Amendment

Policy Harmonization

- AI MUST benefit society
- Highlights the importance of privacy
- Continuing support for the development of AI
- AI must be regulated (although the extent of regulation tends to differ)

Policy Harmonization

Table 1. Fairness in information practices principles and the GDPR.

Fairness in Information Practices Principles (FIPPs)	EU General Data Privacy Protection Act (GDPR) (Selected Sources)
Transparency: Organizations should provide notice to individuals about their policies and practices	Transparency (Ch. 3, Art. 12)
Individual participation and consent	Consent (Ch. 2, Art. 6, 7)
Purpose specification by organizations prior to gathering data	Purpose minimization (Ch. 2, Art. 5)
Data minimization: collect the minimal amount of data necessary	Data minimization (Ch. 2, Art. 5)
Use limitation: data used only for the purposes	Right to restrict the use of data (Ch. 2, Art. 5,6)
Data quality and integrity: accuracy with provisions to contest inaccurate data	Right to access data and to rectification and erasure (Ch. 3, Art. 15, 16)
Data security	Various security provisions (Ch. 4, Art. 32)
Accountability and Auditing	Independent supervising authority (Ch. 6, Art. 51, 52)

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For me

- Policy harmonization 🔲 Responsible innovation

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