

# Digital Health in Korea

- Highly digitized society
- Large digital medical records in both state (National Health Insurance System) and hospitals (high EMR rate ~90%) : estimated 6 trillion data
- Heavy government involvement in R&D and utilization of digital health : Building data platform -> utilization of big data for digital technology (e.g. A.I) -> commercialization
- Strong drive from both state and private sector to foster the digital health industry and ease the restriction : relaxation of data protection act

# Impact of COVID-19

- Relaxation of rules : restriction on tele-medicine is temporally lifted
- Integration of non-medical (everyday life) data to medical data : KCDC can access GPS tracking/credit card usage for contact tracing of COVID-19 patients
- For economic boost in post-pandemic era, state sees health as a major industry for market revitalization

# State, or platform provider?

- Korean government provides substantial budget for building data platform
- New data protection law (Data 3 law : Personal Information Protection Act, Credit Information Act, Information and Communications Network Act) allowed use of pseudonym information
- Private companies now has more flexible access and utilization to public health records from personal health records in public sector

# Key examples (public-funded)

- **My Health Way** : Health data collection platform allows patient to integrate data from public, private and personal health records. Government only provide means of transmitting the data.
  - Concerns : privacy, data protection, democratic control of personal data, commercialization of personal data
- **Dr. Answer** : Diagnostic A.I. to in introduced in clinical setting 2022. Involves 25 major hospitals and two largest IT company(Naver/Kakao) for data collection, storage, and processing.
  - Concerns : Validity and effectiveness of technology, collection methods and further utilization of data fed into A.I., centralization of digital health resources into few large hospitals

# Key Issues in Korea

- **Democratic control over personal data** : Rapid expansion and centralization of personal data collection - health, financial and administrative records into single platform
- **Allocation of digital health resources** : Largely centered around big hospitals - risk of further distorting the medical system, and targeted to those who already have access to technology and data
- **Data ownership** : No clear guidelines of third-party use of data provided by government
- **Sharing benefit** : No guidelines on benefit sharing from public-funded digital health program, or utilizing developed technology in primary health/public health improvement
- **Governance** : Lack of system to allow participation of civil society in decision making process

# Response from Civil Society

- Reactive rather than proactive response due to rapid technological transformation
- Mostly concerned with privacy and data protection – but is it enough?
- Growing needs for robust framework to analyse upcoming issues

# Evaluation criteria

- **Validity** (reproducibility and effectiveness) : does it promote health?
- **Safety**: Is there any risk, such as errors, using the service, technology, platform?
- **Affordability**: (basis that it's effective and safe) Does it have enough supply?
- **Accessbilty**: (basis that it's effective and safe) How is the economic, physical, informational **accessibility**
- **Acceptability**: (basis that it's effective and safe) is this culturally acceptable?

# Evaluation criteria

- **Equity**: Is there any inequality in service, technology, platform access, use, and outcome?
- **Participation, autonomy**: Does it assure participation and autonomy?
- **Commercialization** : Is service, technology, platform traded goods? If so, who gets the economic gain?
- **Governance, ownership** : who owns the service, technology, platform ?
- **Perspectives from global south** : technology/data/brain drain, become testbeds for unproven technologies, priorities in resource allocation