For COVID-19 QUARANTINE & TRACING

Release and Utilization of Open Data

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01 Intro: What is Open Data?

**Open Data**
Data created and retained by the government, municipal organization, and public organization available to the public.

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### Open Data Governance Framework of Korea

**ODSC (deliberating body under the prime minister and co-chaired by private representatives)**
- Deliberate, coordinate, monitor and evaluate government’s major open gov’t data policies, plans and their implementation

**MOIS (leading ministry)**
- Open gov’t data master planning & evaluate implementation, create a data infrastructure, release datasets, etc.

**NIA (policy and technical supports)**
- Operate an open data center, support the release and re-use of open gov’t data

**ODMC (mediation of disputes)**
- Mediate disputes for release of open gov’t data refused or suspended by public institutions
**02 Release of COVID-19 Open Data through Data Portal**

Government of Korea has released key datasets as issue data through national data portal for its re-use and analysis by private sector.

**Data Portal**

**Key Datasets**

- **Overall status**: Status of COVID-19 by location, age, sex. list of screening centers and national security hospital.
- **Mask data**: API format of mask sales data.
- **Public welfare support data**: Central/local supporting policies for economic recovery.
- **Daily life**: E-learning materials, public open lectures, security issues of countries.

“Providing information as **DATA** is a crucial role for Gov., then private use the data to develop useful services quickly”
Civic hackers suggested the idea of releasing open data related to COVID-19 through Gwanghwamun 1st Avenue (March.4) and public-private TF was established (March.5)

Gwanghwamun 1st Avenue

Stages

1st Stage (Mar.2 – Mar.9)
Series of meeting with private sector/public, developing ideas, created online community

2nd Stage (Mar.10 – Mar.12)
Release of Mask sales data, operation of help desk, distribution of developing guide

3rd Stage (Mar.13 – Mar.16)
Development and distribution of vulnerable group (elders, disabled) user guide

“Government immediately responded to ideas suggested by private and established P-P-P TF”
To solve social problems arising from purchase of masks in Korea, Government of Korea has released mask data (Code of sellers, time and quantity of warehousing, number of mask sales) and hit 571,013,946 calls.

**Process for Releasing Sales of Mask Data(2)**

**Process**

- **Sellers**
  - Pharmacy
  - Post Office
  - Mart

- **Data of Mask Information**

- **Conversion of DATA**

- **Management of DATA**

- **Private portal and Developers**
  - Naver, Kakao Map API
  - Data.go.kr Mask API
  - Development of apps / webs

- **Cloud support for API and web/app Operating environment**

**Roles**

- **HIRA**
  - Relays mask sales data (Code of sellers, quantity of warehousing) to NIA

- **NIA**
  - Repackages data with adding inventory segmentation, address-based latitude and longitude coordinate conversion

- **Cloud Business**
  - Providing data API server and environment for programming

- **Civic hackers, developers**
  - Quickly develops web/app service

“Successful cases of PPP where all stakeholders have participated utilizing capacity of private sector and professional solutions“
Utilizing mask data (location of seller and quantity of warehousing displayed in 4 different colors), apps/webs providing real-time quantity of mask left in nearby sellers (150 apps/web services)

Increase in the % of pharmacies sold out all masks
- Before: 67.9%
- After: 92.5%

Decrease in civil complaints
- Day 1: 480
- Day 7: 10
04 Apps and Web Services Developed to Responding to COVID-19

**Self-diagnosis**
Utilizing symptom data of confirmed patient, app provides patient’s severity based on basic information, symptoms, medical history users put

**Screening Center**
Utilizing data of screening centers (including drive-thru), app/web provides information (operation time, telephone number) of nearby screening centers

Self-diagnosis app
Finding nearby screening center (NAVER)
04 Apps and Web Services Developed to Responding to COVID-19

Overall status
Utilizing data of confirmed cases, developers and IT companies repackaged the data by adding geographic information, sharing on global platform Kaggle for AI research.

Movement path
Utilizing data of movement paths of infected patients, apps providing visit record whether confirmed patients visited or not, or notifying the area where confirmed patients visited.

COVID-19 data on Kaggle

Checking path of confirmed cases app (Corona 100m)
05 Role of Public Sector as Enabler

Release and share on the basis of IT Infrastructure

- **(Data portal)** Utilize the portal where citizens and developers use easily
- **(Cloud-based sharing Platform)**
  Inauguration of consultative group of local cloud business named ‘PaaS-TA’

Collaborating process within Gov.

- **(Systematic process of Data release)**
  Selection and release of high-demand, high-value core data for new industry
- **(Community of data skilled human resources)**
  Consists of data skilled workers of central government

Collaborating process within Gov.

- **(ODF)** Communication platform for public-private-partnership
- **(Join project for starting biz)** Supporting data business
- **(Open community for open data)**
  Consists of 5 groups (Government, Public organization, Private sector, Civil Society, Students)
Thank You