Digital Gov’t System for COVID-19 QUARANTINE & TRACING

Release and Utilization of Open Data

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Course Description

This training will focus on how Korea has responded to COVID-19 by releasing and utilizing open data. Throughout the training course, participants would have an idea on which open data of Korea have been released and how private sector utilized open data developing related apps/webs accordingly.
Course Structure

1. Intro: What is Open Data?
2. Release of COVID-19 Open Data through Data Portal
3. Process for Releasing Sales of Mask Data
4. Apps/Web Services Developed to Responding to COVID-19
5. Role of Public Sector as Enabler
Course Objectives

To build knowledge on the types of open data released by Korean government in a variety of areas responding to COVID-19

To share actual cases of data-driven apps/webs services developed by private sector utilizing the open data

To build an understanding of roles of government as enabler for promoting Public-Private-Partnership (PPP) responding to COVID-19
**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**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODSC (deliberating body under the prime minister and co-chaired by private representatives)</td>
<td>Deliberate, coordinate, monitor and evaluate government’s major open gov’t data policies, plans and their implementation</td>
</tr>
<tr>
<td>MOIS (leading ministry)</td>
<td>Open gov’t data master planning &amp; evaluate implementation, create a data infrastructure, release datasets, etc.</td>
</tr>
<tr>
<td>NIA (policy and technical supports)</td>
<td>Operate an open data center, support the release and re-use of open gov’t data</td>
</tr>
<tr>
<td>ODMC (mediation of disputes)</td>
<td>Mediate disputes for release of open gov’t data refused or suspended by public institutions</td>
</tr>
</tbody>
</table>
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

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<table>
<thead>
<tr>
<th>Data Portal</th>
<th>Key Datasets</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Data Portal Image]</td>
<td>![Key Datasets Table]</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Overall status</th>
<th>Status of COVID-19 by location, age, sex. list of screening centers and national security hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mask data</td>
<td>API format of mask sales data</td>
</tr>
<tr>
<td>Public welfare support data</td>
<td>Central/local supporting policies for economic recovery</td>
</tr>
<tr>
<td>Daily life</td>
<td>E-learning materials, public open lectures, security issues of countries</td>
</tr>
</tbody>
</table>
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“Providing information as DATA is a crucial role for Gov., then private use the data to develop useful services quickly”
03 Process for Releasing Sales of Mask Data

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)

**Process**

<table>
<thead>
<tr>
<th>Sellers</th>
<th>Private portal and Developers</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy</td>
<td>NIA</td>
<td>HIRA</td>
</tr>
<tr>
<td>Post Office</td>
<td>Data of Mask Information</td>
<td>Repackages data with adding inventory segmentation, address-based latitude and longitude coordinate conversion</td>
</tr>
<tr>
<td>Mart</td>
<td>Management of DATA</td>
<td>NIA</td>
</tr>
<tr>
<td>NIA</td>
<td>Conversion of DATA</td>
<td>Cloud Business</td>
</tr>
<tr>
<td>Data.go.kr Mask API</td>
<td>Data of Mask Information</td>
<td>Providing data API server and environment for programming</td>
</tr>
<tr>
<td>Naver, Kakao Map API</td>
<td>Cloud support for API and web/app Operating environment</td>
<td>Civic hackers, developers</td>
</tr>
<tr>
<td>Development of apps / webs</td>
<td></td>
<td>Quickly develops web/app service</td>
</tr>
</tbody>
</table>

“Successful cases of PPP where all stakeholders have participated utilizing capacity of private sector and professional solutions“
04 Apps and Web Services Developed to Responding to COVID-19

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

Increase in the % of pharmacies sold out all masks

Before: 67.9%
After: 86.4%

Decrease in civil complaints

Day 1: 480
Day 3: 50
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](image1)
![Finding nearby screening center (NAVER)](image2)
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

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)

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’
Thank You