Response to COVID-19 with ICT

April 28, 2020

Ministry of Science and ICT
COVID-19 Situation in Korea

- Korea’s COVID-19 cases per day reached a peak of 909 on Feb. 29
- The number of new cases per day dropped to around 10 as of now
Test Kits Development

Seegene started focusing on coronavirus.

The first version of test kit was made available.

The test kit was approved by the KCDC.

An artificial intelligence-based big data system made possible to develop a test kit quickly. It would have taken 2-3 months without the AI system.

The normal process for approval would take a year and a half.

Companies obtained emergency approval

Test kit development using AI (Seegene)
AI-Assisted Diagnosis

- Detect abnormal lung conditions of COVID-19 patients in just a few seconds
- Connected to portable X-ray equipment in COVID-19 screening centers or ambulances
Self-quarantine Safety APP

[Installation]
- Voluntary-based for residents in Korea
- Required at entry since April 1

[Registration]
- personal information and location data

[Self-diagnosis]
- Submit self-diagnosis reports twice a day

[Case Officers Notified]
- When subjects become symptomatic or leave the designated location
Epidemiological Investigation Support System

COVID-19 SMS
※ Paperwork and contacts needed amongst 28 organisations supporting KCDC have been replaced with the automatic system

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<thead>
<tr>
<th>Analysis on the movement of confirmed cases</th>
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<tbody>
<tr>
<td>Before application</td>
<td>After application</td>
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<td>Manual analysis by officials (taking 24 hours)</td>
<td>Automatic analysis via system (less than 10 minutes)</td>
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<th>Management of access to personal information</th>
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<tbody>
<tr>
<td>Inefficient management by hand-written records</td>
<td>Efficient management by computerised records</td>
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<th>Coordination between organisations</th>
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<td>Overloaded work and delayed contact</td>
<td>Real-time information interchange</td>
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<Privacy Protection>

- Access control
- Minimum data collection
- Activities of each user under strict surveillance
- Temporary operation
- All data to be deleted after COVID-19 is over
ICT Infrastructure Emergency Response

• Communications infrastructure
  • Staggered shifts for key facility management staff
  • Emergency backup team in case of a workforce shortage
  • Remote network operations in case of shutting down

• Preparation for traffic surge
  • Call capacity of KCDC’s COVID-19 hotline increased
  • Call capacity of home shopping channels increased
  • EBS servers and IXP capacity increased
Support for Remote Learning/Working

- **Remote Learning**
  - 8.4 million students (elementary, middle, high school and university)
  - EDISON (Online simulation platform)
  - Zero-rating for educational web sites

- **Remote Working**
  - A website providing information about remote working solution companies

The Prime Minister holding a COVID-19 video conference
Publicly Distributed Mask Info Service

1. Sales Store
   - Pharmacy
   - Post Office
   - Hanaro Mart

2. Public Mask Data
   - Release Open Data
   - DATA .GO.KR

3. Mask Sales Information API
   - Prompt Technology

4. Private Portal and Service Developers
   - Web
   - App Service Development

5. Citizens
   - Provide Cloud Services
Response To Telecom Scams

- Alert SMS to prevent smishing on a regular basis
- Phishing prevention app; mobile antivirus software
- Phone numbers used for phishing will be immediately suspended upon the report of the scam cases
Putting best efforts together...

- **COVID-19**, a **big threat** to all humanity

- **ICT**, an **effective tool** to fight against pandemic

- **With ICT** and **international collaboration**, hope to overcome the pandemic shortly

For more information, visit
https://www.msit.go.kr/english/msipContents/contentsView.do?cateId=tst60&artId=2832048
(How Korea responded to a pandemic using ICT, Flattening the curve on COVID-19)
Thank You