# Data as Shared Goods: How can we contribute to sustainable shared values

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# **CO**vid-19: **O**peration for **P**ersonalized **E**mpowerment to **R**ender smart prevention **A**nd care seeking [COOPERA]

**Project summary** 

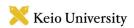


identical with WhatsApp 83 million users in Japan

This project uses the social networking service "LINE" to efficiently screen and follow up high-risk groups of new coronaviruses (COVID-19) and patients with potential coronaviruses, as well as to support patients with mild symptoms.

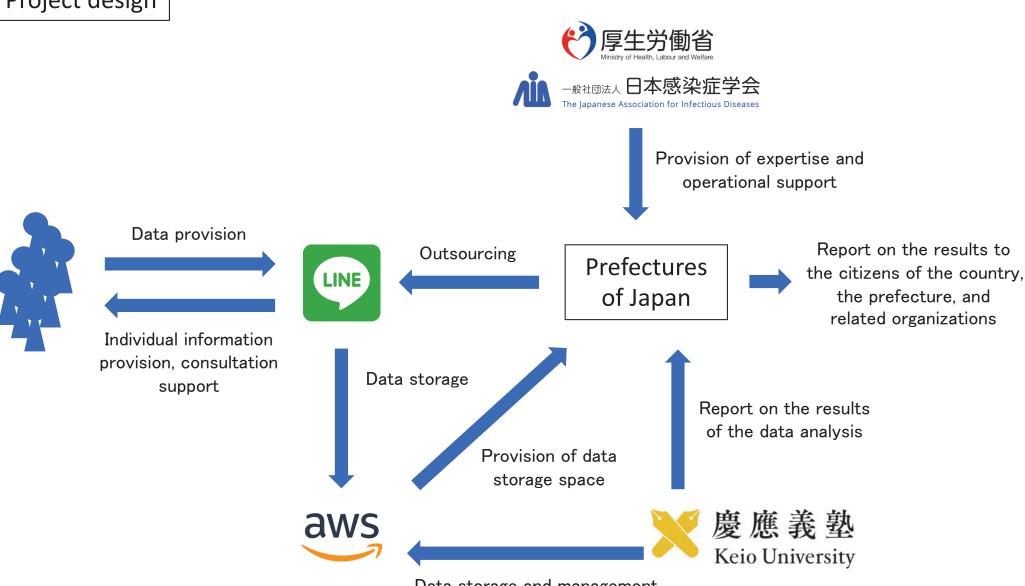
The system specifically implements the following three points:

- Support for personalized self-care and prevention of secondary infections
- Real-time follow-up
- Population-level feedback and rapid identification of actions (For more details, see the supplementary material)



## **CO**vid-19: Operation for Personalized Empowerment to Render smart prevention And care seeking [COOPERA]

Project design





Data storage and management oversight, and data access

# **CO**vid-19: **O**peration for **P**ersonalized **E**mpowerment to **R**ender smart prevention **A**nd care seeking [COOPERA]

### Questionnaire summary

There are two main questions on LINE:

- Basic questions: whether the user have a current fever (>37.5°C) or a strong feeling of weariness (fatigue) or shortness of breath (difficulty breathing), and their durations, those in the past month, gender, age, medical history, and recent overseas travel history, etc.
- Detailed questions: body temperature, symptoms, medications, risk-avoide behavior, history of medical consultations, diagnostic results, stress assessment with K6, information on contact with infected persons in the vicinity, etc.
  - O According to the results of the responses, we recommend that the user should consult with the local government's counselors, based on the guidelines set by the Ministry of Health, Labour and Welfare (MHLW), and provide information such as Q&A on COVID-19 from the MHLW.
  - Follow up with detailed questions sent daily to those with symptoms and periodically to those without





# Google COVID-19 Community Mobility Reports

## Île-de-France

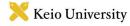
#### Retail & recreation **Parks** Grocery & pharmacy -91% compared to baseline -69% compared to baseline -89% compared to baseline +80% +80% +80% +40% +40% +40% Baseline Baseline Baseline -40% -40% -40% -80% -80% -80% Sun Feb 16 Sun Mar 8 Sun Mar 29 Sun Feb 16 Sun Mar 8 Sun Mar 29 Sun Feb 16 Sun Mar 8 Sun Mar 29 Transit stations Workplace Residential -87% compared to baseline -63% compared to baseline +20% compared to baseline +80% +80% +80% +40% +40% +40% Baseline Baseline Baseline -40% -40% -40%

Sun Mar 8

-80%

Sun Feb 16

Sun Mar 29



-80%

Sun Feb 16

Sun Mar 8

Sun Mar 8

Sun Mar 29

-80%

Sun Feb 16

Sun Mar 29

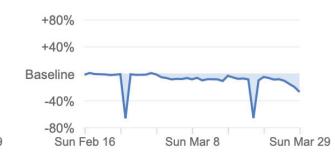
# Google COVID-19 Community Mobility Reports

# Tokyo

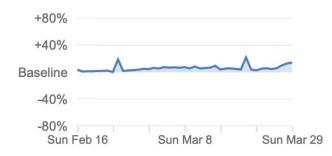
#### Retail & recreation Grocery & pharmacy **Parks** -63% compared to baseline -32% compared to baseline -66% compared to baseline +80% +80% +80% +40% +40% +40% Baseline Baseline Baseline -40% -40% -40% -80% -80% -80% Sun Mar 8 Sun Mar 29 Sun Feb 16 Sun Feb 16 Sun Mar 8 Sun Mar 29 Sun Feb 16 Sun Mar 8 Sun Mar 29 Transit stations Workplace Residential



#### -27% compared to baseline



#### +14% compared to baseline





# Retail & recreation

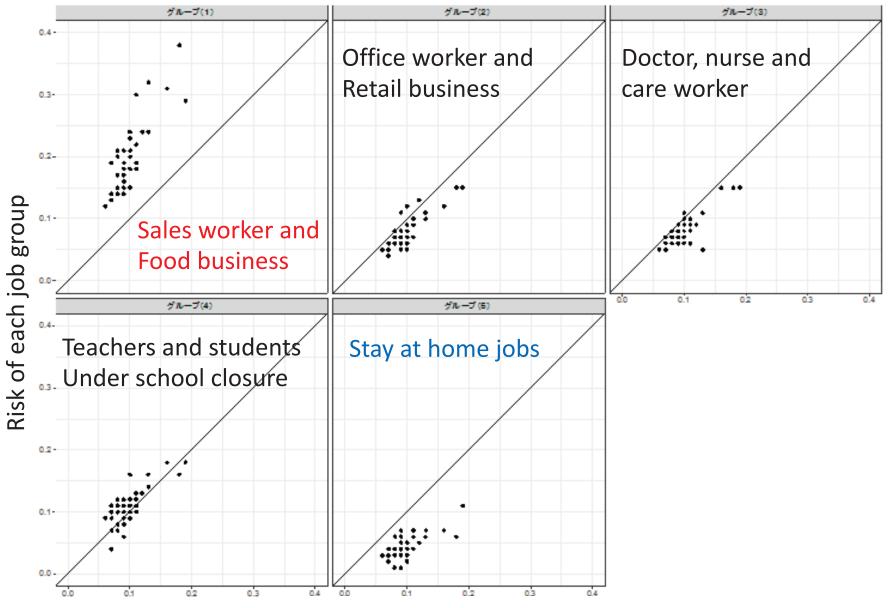
# -55% compared to baseline



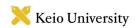


### Results of emergent survey for 25,000,000 people

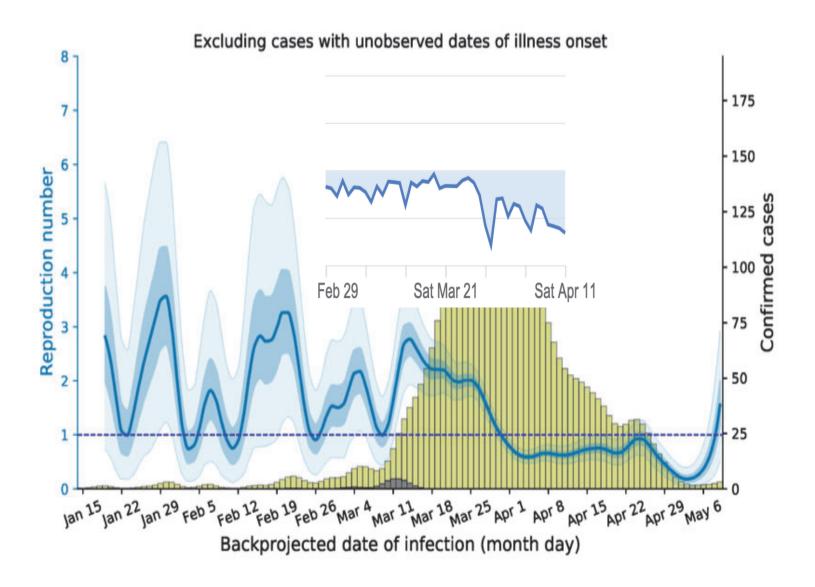








# Rt compare with google mobility report







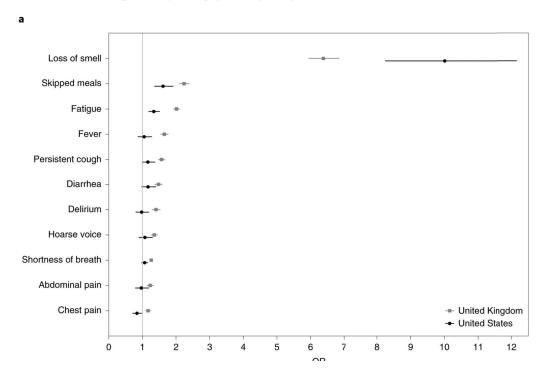




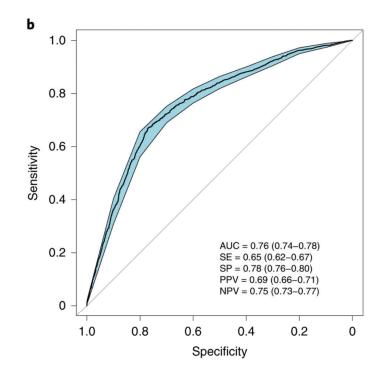
# Real-time tracking of self-reported symptoms to predict potential COVID-19

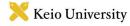
Fig. 1: Association between symptoms and SARS-CoV-2 infection, and ROCs for prediction of the risk of a positive test.

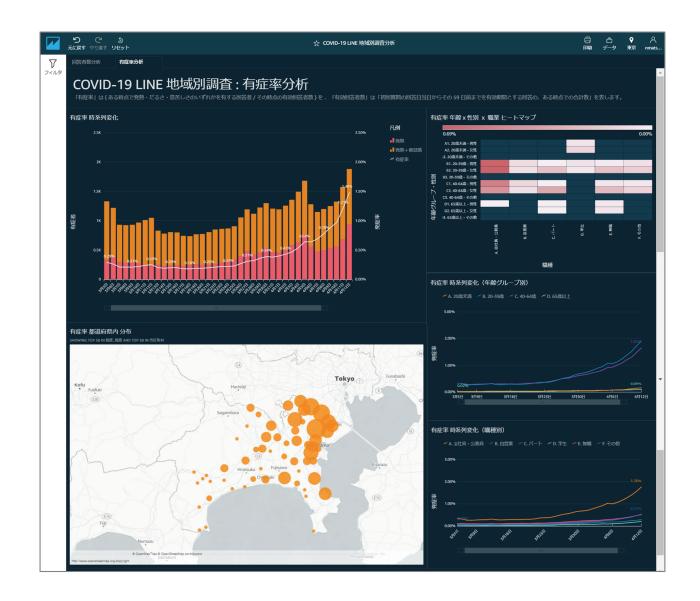
From: Real-time tracking of self-reported symptoms to predict potential COVID-19



Prediction model =  $-1.32 - (0.01 \times \text{age})$ +  $(0.44 \times \text{sex}) + (1.75 \times \text{loss of smell and taste})$ +  $(0.31 \times \text{severe or significant persistent cough})$ +  $(0.49 \times \text{severe fatigue}) + (0.39 \times \text{skipped meals})$ 







画面に表示されているのは ダミーデータに基づいた分 析です。実際のデータでは ありません。

本機能はIQVIAジャパンの無 償協力により作成されまし た。



# General Data Protection Regulation (2018.5-)



After four years of preparation and debate the GDPR was **finally approved** by the EU Parliament on **14 April 2016**. Enforcement date: **25 May 2018** - at which time those organizations in non-compliance may face heavy fines.

#### **Data Portability**

GDPR introduces data portability - the right for a data subject to receive the personal data concerning them, which they have previously provided in a 'commonly use and machine readable format' and have the right to transmit that data to another controller.

privacy. The key articles of the GDPR, as well as information on its business impact, can be found

### The principles of Japanese

# VALUE CO-CREATION SOCIETY

Maneuvering the strengths of American, EU, and Chinese models, CO-CREATION SOCIETY underlies the basis on which diversity and plurality of values can be accomplished with everyone.

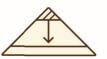
Economy-driven innovation



Data as an extension of property goods (GDPR and Data Portability)



Top-down and uniform management of Social Credit System

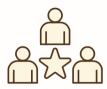


Value-driven

innovation



Data as common goods through active choice (Going beyond GDPR)



Bottom-up decision, diversity, and pluralism in value sharing and social credit system



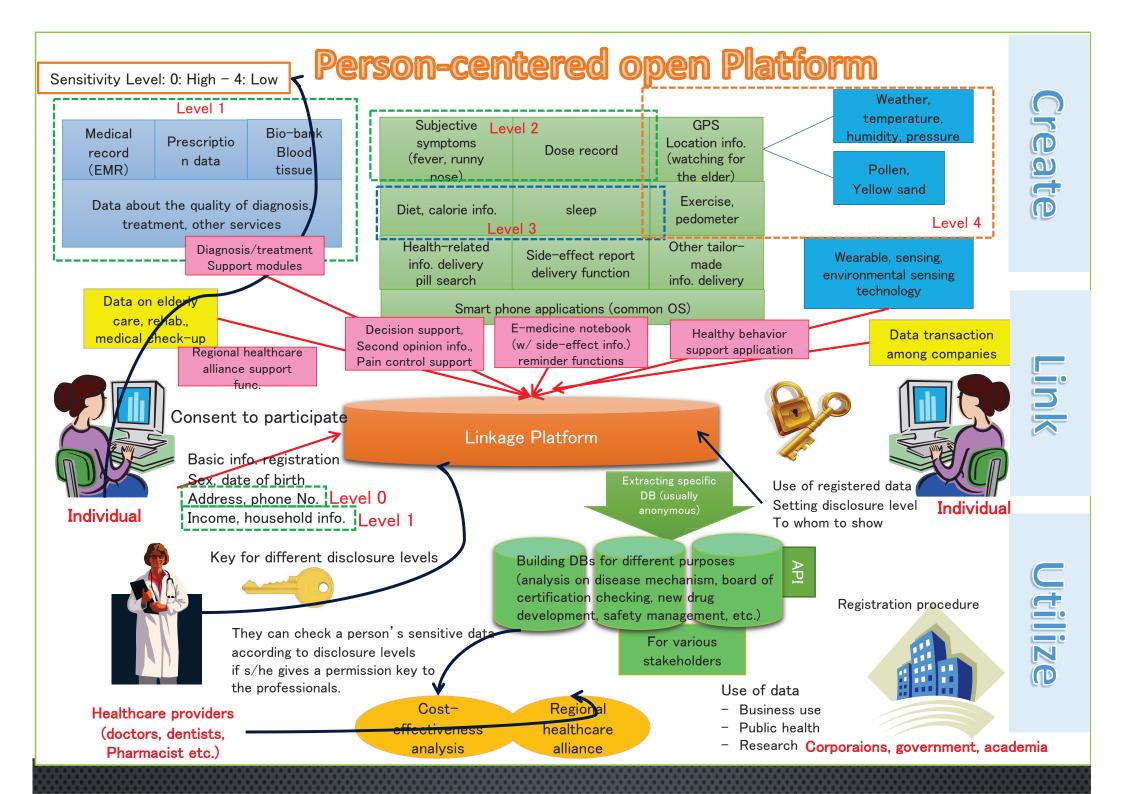
# Speeches and Statements by the Prime Minister

Toward a New Era of "Hope-Driven Economy": the Prime Minister's Keynote Speeach at the World Economic Forum Annual Meeting January 23, 2019

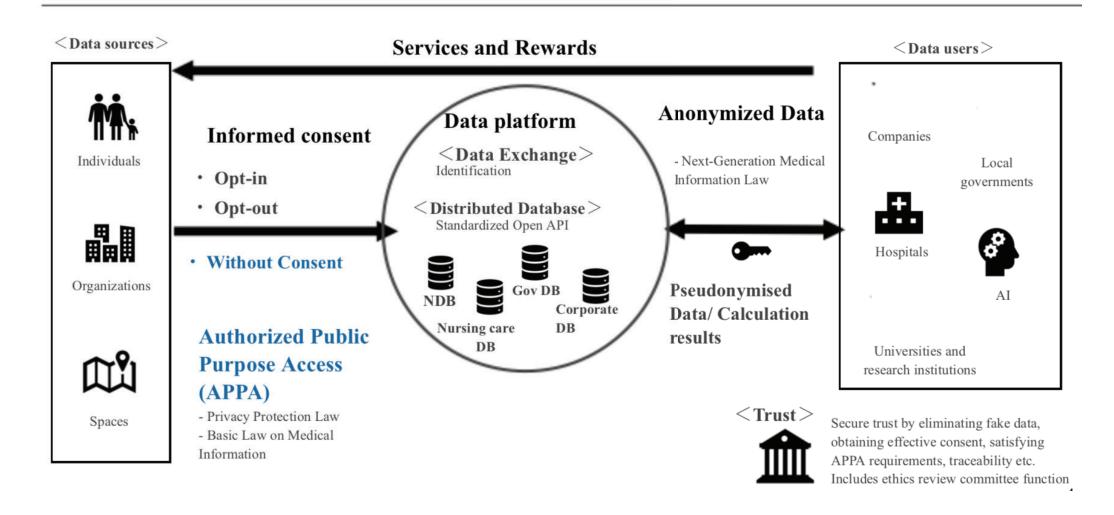


The regime we must build is one for D.F.F.T., Data Free Flow with Trust -- non-personal data, needless to say. It is not the big, capital intensive industries, but rather we individuals who will benefit from both the fourth industrial revolution and what we call "Society 5.0," which this fourth industrial revolution will bring about.

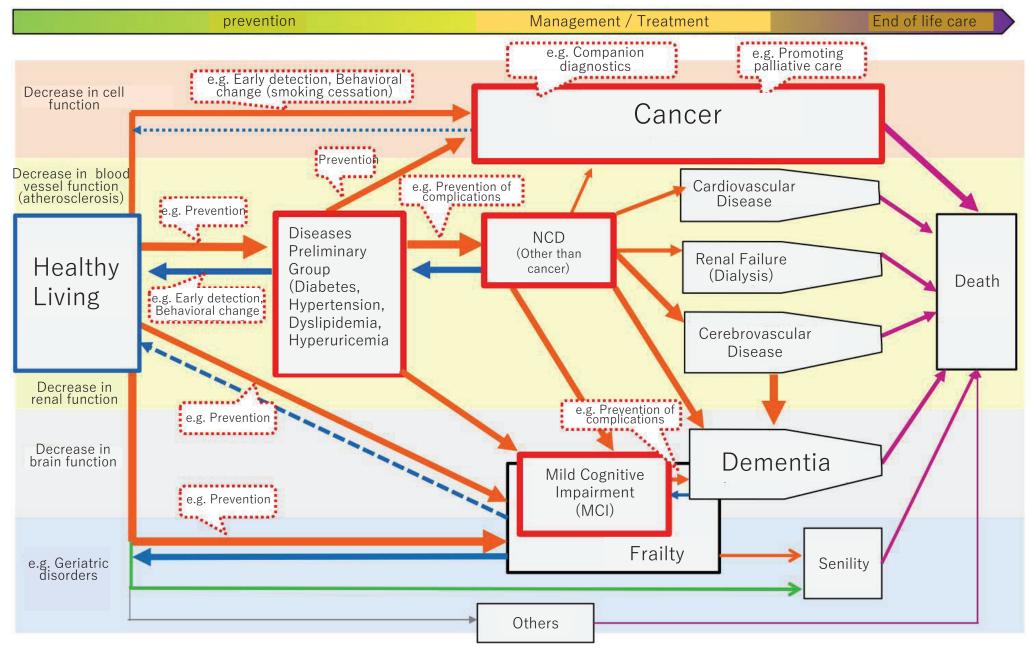
In Society 5.0, it is no longer capital but data that connects and drives everything, helping to fill the gap between the rich and the less privileged. Services of medicine and education, from elementary to tertiary, will reach small villages in the Sub Saharan region. Girls who have given up going to school will see, beyond their own village, a wider horizon where the sky is the limit.



## **Healthcare Data Governance framework**

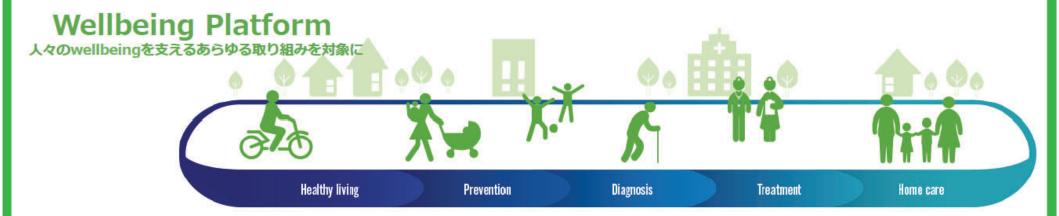


# Course of Disease



## Re-invent our Lives

Not only disease management, but also wellbeing empowerment



#### Empower everyone

Pursue an active way of living and which lead to healthy life.

Inequity or illness does not always mean a burden on life

#### Community support

Possible to receive appropriate support based on scientific basis under a familiar environment

Rapidly cooperate to the best organization when a difficult judgment and advanced response is required

#### Value-based care

To provide the world's best treatment/diagnosis and care by having good cooperation among organizations

To provide customized treatment and care to individuals by combining global evidence and local real world data



# The era of human co-being: Upgrade Our Society

The principles of Japanese

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Economy-driven innovation



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Top-down and uniform management of Social Credit System



 $\downarrow$ 

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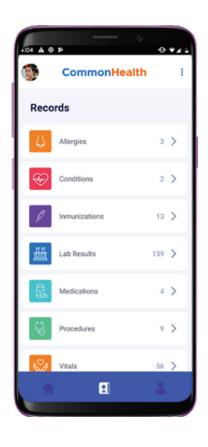
Bottom-up decision, diversity, and pluralism in value sharing and social credit system







### **Independent Nonprofit Public Trust**



- CommmonHealth is the Android platform that lets people collect and store their personal health data and share it securely with the health partners they trust
- Data is only shared with clear, informed consent



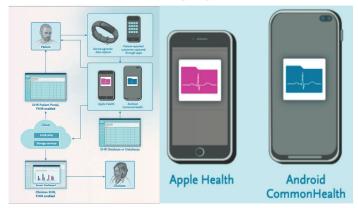




#### FRONTIERS IN MEDICINE

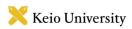
#### Mobile Devices and Health

Ida Sim, M.D., Ph.D.



The CommonHealth model was recently featured in the <u>New England Journal of Medicine</u>.





## CommonHealth

### A Privacy Preserving Model to Enable Societal Re-Engagement

