

Management of Personal Data (PD)

Progress until FY2022

1. Outline of the project

We have developed PLR (Personal Life Repository) and apps embedding it, where PLR is a software tool for each individual to aggregate and manage her own personal data (PD). We will improve PLR and the apps to develop a personal AI (PAI) that continuously obtains PD from the user and provides services to her. We will also verify the legal and social validity and acceptability of this decentralized PD management (DPDM) and PAI, as well as the robustness, security, etc. of the developed systems, revising and improving the systems and services accordingly.

2. Outcome so far

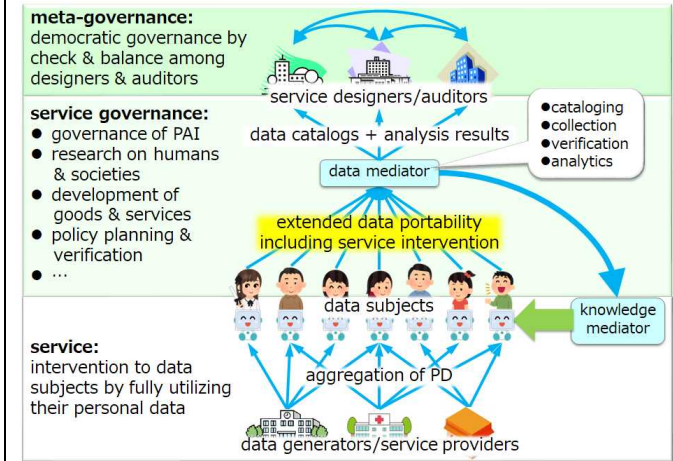
We have improved PLR and apps embedding it, and conducted a verification experiment of a decentralized service for healthcare, in which individuals manage their own PD on their own information devices and share it with service providers as needed. We explained the benefits of DPDM to PMs and other members of other research projects in Moonshot Goal 9, and obtained their understanding about the merit of DPDM reducing the cost and risk while facilitating data utilization by delegating the PD management to the data-subject individuals (their PAI).

Regarding the legal validity of DPDM, we (1) organized and selected research targets in preparation for research in the following fiscal year and beyond, and (2) organized ELSI issues, especially legal issues, regarding DPDM and PAI. As for (1), through interviews and workshops with domestic and overseas legal researchers, we were able

to generally establish the research framework necessary for the following fiscal year and beyond. Regarding point (2), we clarified issues to address in the rest of the project through workshops and conferences.

As for the social acceptability of DPDM, we (1) reviewed previous researches and carried out a qualitative survey and (2) did a preliminary quantitative survey of manufacturing companies in Japan and the Nordic countries, in order to understand the current state of awareness of companies and individuals regarding self-information control and the current gap with the ideal state of awareness. In (1), we were able to gain a better understanding of the differences between Japanese and Nordic individuals' perceptions of PD provision according to their cultural backgrounds (Japan has a high tendency toward uncertainty avoidance), as well as the Nordic success factors for digitalization and the legal system regarding PD handling. In (2), we gained insight into the differences in perceptions of the legal systems of Japanese and Nordic manufacturers.

The system shown in the figure is formulated for the governance of various services, including PAI-based services. Therefore, a system should be established in which the audit of services collects and analyzes the PD aggregated to the person by DPDM from time to time to identify the advantages and disadvantages that each service brings to the user. Since data on interventions from services to users are also needed for this analysis, the concept of data portability should be extended to encompass such data.



3. Future plans

In FY2023, we will realize actual operation of public services based on DPDM, and examine a decentralized matching scheme to search for administrative services that each individual can enjoy without disclosing her PD to others. By integrating legal and social considerations of DPDM, we will also clarify issues related to the legal and ethical validity of DPDM and PAI. Furthermore, we will launch an international standardization project on extended data portability, with the aim of achieving legalization.

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