# Feature Articles: Research and Development toward a Well-being Society

## Social Well-being: Connections that Allow Altruistic Coexistence of Individual Autonomy and Collective Harmony

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### **Abstract**

This article describes the concept of social well-being, which seeks to facilitate the altruistic coexistence of individual autonomy and collective harmony in a decentralized society that integrates the digital and real worlds. The article also introduces four initiatives that contribute to the accumulation of knowledge in the humanities and social sciences and a technical platform to promote behavioral change.

Keywords: well-being, decentralized society, design

### 1. Social well-being research overview

### 1.1 Problem recognition

In a recent international comparative study of well-being in the workplace [1], Japan ranked 5th out of 116 countries in terms of the number of people who responded that their work significantly improves the lives of others but came very low, 95th, in terms of the number of people who responded that they enjoyed their jobs. These results suggest that the Japanese tend to sacrifice their happiness for the benefit of the group (e.g., society or the workplace). In other words, there is a dichotomy between the interests of the individual and those of the group.

Although the digitalization of society, such as the rapid spread of teleworking caused by the novel coronavirus (COVID-19) pandemic, presents new choices to individuals, it can also increase the above dichotomy due to the effect of filter bubbles\*1 or echo chambers.\*2

As the social environment undergoes drastic changes such as population decline due to falling birthrates

and aging society, people are being expected to become more mobile in their employment, and women and the elderly are being expected to play a greater role in society. However, employment and promotion practices have hardly changed, and the fixed nature of roles and relationships in groups is starting to reach its limit. This is true not only in the workplace but also in schools and families.

### 1.2 Goal of initiatives

We define social well-being as connections that allow altruistic coexistence of individual autonomy and collective harmony and aim for a society that

- \*1 Filter bubble: A situation in which someone only hears or sees news and information that supports what they already believe and like, especially a situation created on the Internet as a result of algorithms (= sets of rules) that choose the results of someone's searches (https://dictionary.cambridge.org/ja/dictionary/english/filter-bubble).
- \*2 Echo chamber: An environment in which somebody encounters only opinions and beliefs similar to their own and does not have to consider alternatives (https://www.oxfordlearnersdictionaries. com/definition/english/echo-chamber).

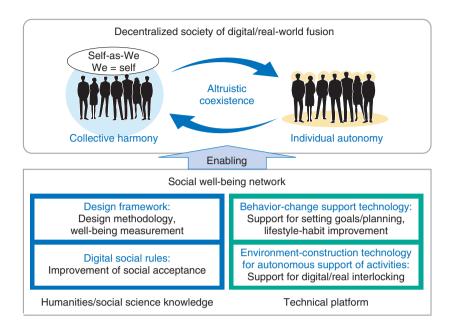


Fig. 1. Social well-being research overview.

enables social well-being. To overcome the dichotomy between individual and groups, it is important that people (individuals) take care of themselves while also being considerate toward and caring for the people and things around them.

### 1.3 Overview of initiatives

To facilitate such a society, we are developing a social well-being network that consists of a technical platform to promote behavioral change by supporting behavior in the digital and real worlds and the accumulation of knowledge in the humanities and social sciences through practical designs on the basis of theories such as philosophy and sociology. This network is introduced below (**Fig. 1**).

## 2. Initiatives that contribute to the accumulation of knowledge in the humanities and social sciences

### 2.1 A design framework for co-creating a wellbeing society

To achieve a social well-being network, we are researching a well-being design framework. This framework is a design methodology for co-creating services and social mechanisms on the basis of well-being as a new means of measuring value as a replacement for economic growth while sharing values with diverse partners. On the basis of the knowl-

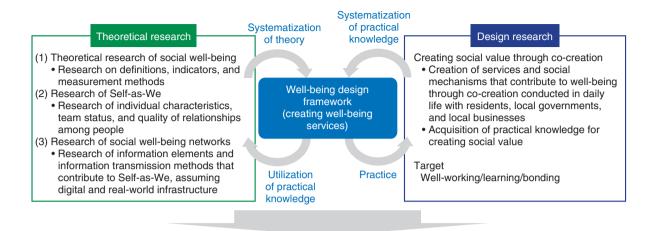
edge from the humanities and social sciences, especially the concept of Self-as-We [2], we are promoting not only theoretical research but also practical research on the design of a social well-being society conducted in daily life. We aim to contribute to the actualization of a social well-being society by establishing a well-being design framework and increasing the availability of opportunities and human resources (**Fig. 2**).

### 2.1.1 Theoretical research based on the Self-as-We concept

Based on the holistic Self-as-We concept espousing traditional East Asian ideas as advocated by Kyoto University philosopher Yasuo Deguchi, we are conducting research into the definition, standardization, and measurement of social well-being focused on individual characteristics and the quality of relationships between people in groups (fellowship). We are also researching information components and transmission methods for enabling human-to-human connections in digital and real spaces that take the Self-as-We concept into account.

### 2.1.2 Research on the design of a social well-being society

By focusing on the three aspects of well-being at work (well-working), in the classroom (well-learning), and at home and in local communities (wellbonding), we are working to create new social mechanisms that are free of existing constraints by



Horizontal development of a social-value/well-being design framework

Fig. 2. Design-framework research overview.

engaging in co-creation with partners such as residents, local governments, and local businesses. We are also working on the practical development of tools and processes for building relationships with partners and generating ideas.

### 2.2 Digital social rules that support well-being

The growth of remote working caused by the COVID-19 pandemic has changed the stereotypical value of working at the office. The value of work-in-life is now widely recognized, and the technology involved in web-conferencing systems makes this value realistic. As described above, various technologies and services that meet the environmental and situational requirements of society are delivering new values and creating a complex society where people can hold diverse values. However, the rapid spread of new technologies and services can create new problems. For example, the lack of company rules that apply to remote working has given rise to a certain amount of confusion.

However, it is difficult to anticipate issues that might arise when the diverse values of a society and its citizens are updated and to formulate a complete set of rules to address these issues. Therefore, to keep up with changes in the social environment and the emergence of new technologies and services, the ability to repeatedly update these rules within a short timescale while rapidly forming consensus among various stakeholders will be necessary for ensuring the well-being of the forthcoming digital society and its citizens, which is why we are studying how to

build consensus for the utilization of data in smart cities.

Smart cities host residents and visitors with diverse values. By acquiring, storing, and analyzing data from various sensing means, it should be possible to provide new value and facilitate better urban development. However, this could give rise to issues with privacy and data rights that are not anticipated by conventional laws and guidelines. Assuming that conflicts may occur among the constituent stakeholders of cities, we are researching how cities, companies, and people with diverse values should cooperate and agree on rules for data use to preserve the respective well-being of groups and individuals.

### 3. Initiatives that contribute to a technical platform

## 3.1 Technology to support intrinsic behavior change to contribute to sustainable well-being

To provide long-term maintenance and improve physical and mental health, which is a basic condition of well-being, we are conducting research to support behavioral goal setting and the continuation of behaviors that lead to desirable health habits for each person (**Fig. 3**). By observing people's behaviors and interactions to understand the individual characteristics and conditions that make up each person's personality and carrying out interventions that are tailored for each individual, we are researching means of promoting behavior change through intrinsic

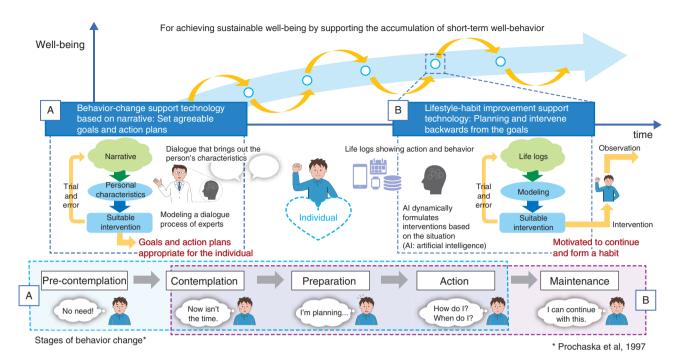


Fig. 3. Overview of behavior-change support technology.

motivation.

### 3.1.1 Behavior change research based on narrative: Setting goals

With a focus on human narratives, we are modeling individual understanding and intervention methods to promote goal/action planning tasks that are currently carried out by experts through, for example, interviews, and our aim is to systematize some of these models. We are currently developing models of the understanding and intervention processes by analyzing actual health-guidance interviews and subjecting them to expert reviews. As a model of a person-toperson persuasion strategy that motivates people through interventions aligned to their inner values, we plan to verify the effectiveness of this approach in the area of health guidance then consider applying it to other areas.

### 3.1.2 Lifestyle-habit improvement support technology: Planning backwards from the goals

We aim to support the improvement of individual lifestyle habits by modeling behavioral patterns from life logs and providing adaptive action plans to achieve goals. We are currently verifying the effects of interventions for use cases that support the improvement of sleep and exercise habits. We will also consider the further development of applications that help achieve a society where people have self-

control over their habits and can take on the challenge of self-realization.

## 3.2 EASE: Environmental configuration technology that autonomously supports people's diverse activities

As a technical platform for the implementation of social well-being networks, we are researching a technology called Enhanced Autonomous Supportive Environment (EASE) that enables anyone to incorporate the benefits of digital technology in their reality by supporting activities that link digital and real information and functions (**Fig. 4**).

Although each person is an independent self (individual), they also belong to various groups such as companies, schools, families, and social circles. However, when remote working came into widespread use after the outbreak of COVID-19, people ended up having to work at home, making traditional forms of communication more difficult. For example, there are more questions that people have to consider when communicating with others, such as whether this is the right time to talk to the other person, and what means should be used to contact them. This is one of the limitations of current digital technology, and one of the issues that EASE aims to address. EASE will bring diverse digital technologies closer to

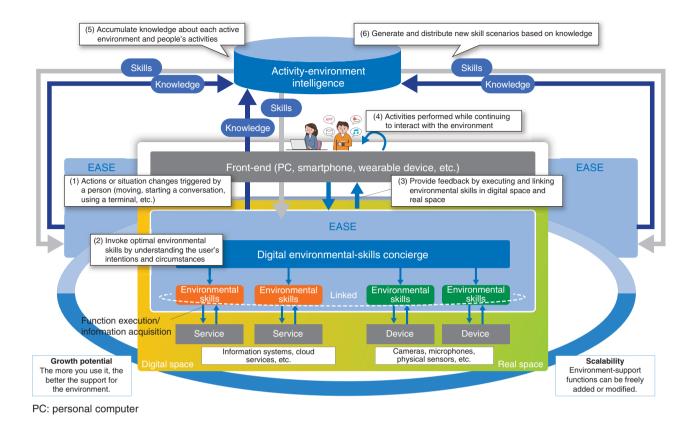


Fig. 4. EASE, an infrastructure for supporting people.

people, enabling them to communicate smoothly across digital and real spaces, even when the other person is not physically nearby.

EASE consists of three components: (i) environmental skills, (ii) digital environmental-skills concierge, and (iii) activity-environment intelligence.

Environmental skills are a set of functions that support people in using various services and devices across digital and real spaces. The digital environmental-skills concierge makes it possible to not only properly deploy environmental skills to actually support people but also receive feedback from people to improve their support capabilities. Activity-environment intelligence shares information about people in remote locations, such as their knowledge and circumstances, making it possible to provide optimal support for both individuals and groups.

By linking these components, we can, for example, display the presence information of people who are

far away, autonomously operate nearby cameras and microphones, and control them in consideration of the user's relationship to the other person (colleague, family member, friend, etc.).

### 4. Future outlook

We will first focus on work-in-life and regional revitalization and co-create new knowledge, technologies, and business co-creation models through the creation of social values and collaborate with experts in the humanities and social sciences.

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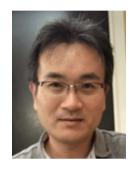
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