Abstracts

The Past and Future of the Japanese Workplace: Focus on the Relationship between Working Space and Working Style and its Social Background

Ryusuke Naka（Kyoto Institute of Technology）

I consider changes in the workplace and the next era in relation to social background conditions such as economic stagnation. First of all, changes in the workplace reflect changes in work style, and there are social changes behind changes in work style. I relate changes in the workplace with changes in society including modes of working, and arrange them according to the flow of "work space" to "function space" to "life space" to "management space." This theme includes the transition from space efficiency to work efficiency, comfort, intellectual productivity, and well-being. Next, I consider the intellectual productivity underlying various changes that occurred in the era of management space. The factors are organized into minimization of input and maximization of output. As a factor of maximization of output, ABW（activity-based workplace）, visualization of goals, realism of the site, interactive workplace, realism of working, unplanned joint work, and well-being are cited. Furthermore, I discuss the importance of creating a workplace as an ecosystem, and introduce programming as its methodology. Finally, I discuss the need to proactively increase productivity while having fun, in the near future where work speed will be faster and faster. To that end, we need to realize workplaces of different dimensions, which is an important issue that we must solve for Japan to be economically rich and for workers to be happy.

The Now and the Future of Telework in Japan: How Human Coexistence with ICT Should Be

Sachiko Yanagihara（Toyama University）

In this paper, I consider "telework" from the perspective of information systems and human values by attempting to address the following two questions: First, what position should be considered in a society where AI and robots will replace many workers in the future? Second, what value does telework have in terms of freedom from the workplace or working hours? To tackle these questions, I examine the value of human labor by performing telework. First, I review the transition of the definition and classification of telework, and I show that there are various types of telework. I confirm that the types of telework can be categorized by location and include "home," "satellite office," and "mobile" telework. Next, I argue that the current status of telework dissemination is low. Based on this, I consider the future of human workers as well as the position of AI and robots from the viewpoint of "labor" in a society where the status of AI and robots will continue to rise. Moreover, I suggest that the value of human emotion in telework, from the viewpoint of a society in which technology and humans are entangled, is to obtain discretion regarding the place of work. Finally, I indicate that human beings must have freedom in their place of work. Freedom is necessary to improve the satisfaction and happiness of human life within telework and to show that there is meaning in human labor, not only that of AI or robots.

Social Telepresence Technologies Create Near-Future Workplaces

Hideyuki Nakanishi（Osaka University）

When collaborating among geographically separated workplaces that are usually mediated by videoconferencing systems, the presence of remote collaborators becomes weak. Robot technologies that augment a videoconferencing system's display can relieve this problem, since robots possess a physical embodiment, the movements of which can transmit a remote person's presence by expressing his/her bodily movements. Live videos that appear on a display do not have this kind of capability. This article introduces three methods of making use of robot technologies as an enhancer of the social telepresence（a phenomenon of feeling as if being together with people who are actually separated geographically）that is produced by displays. The first robotizing method makes displays or cameras attached to them movable so that the movements of

the device provide the feeling of walking around a remote person's room, or the feeling as if a remote person were walking around your room. The second robotizing method physically embodies a part of a remote person's body and concatenates it with his/her live video in order to express body movements, such as gesturing, or to reproduce physical contact, such as handshaking. As a result, you may feel as if the person were standing and acting just in front of you. The third robotizing method attaches actuators to objects with which people make physical contact, such as tables and chairs. The actuators' movements can produce the illusion that a remote person touches and moves objects that are close to you. All of these methods of using robots aim at eliminating the impression that live videos are just pictures drawn on a display's flat plane.

Challenge to the Notion of "Working Time" with the Development of ICT: Can the "Right to Disconnect" be the Key to a Solution?
Ryo Hosokawa（Aoyama Gakuin University）
The Act on the Arrangement of Related Acts to Promote Work Style Reform（Work Style Reform Act）, which was enacted in 2018, introduced new methods of working time regulation, such as new work-hour deregulation and new limits on the extension of working hours. At the same time, discussions have been started to deal with changes in working styles due to the development of information and communications technology（ICT）, including teleworking. However, the reform of working time regulation in the Work Style Reform Act does not directly address the challenges posed by the development of ICT. Many issues remain to re-define "working hours" in labor law in light of the development of ICT. For example, how are working hours and other times divided in mobile work and satellite work? Can it be said that a situation in which one can be connected at any time by ICT is "working" or "rest?" Is it necessary to establish new working hours to be controlled to ensure health, taking into account the burden on workers by "connecting" even outside typical working hours under direct command of the employer? In this respect, the "right to disconnect" legislated in France in 2016 seems to show one possibility as a measure to deal with the change in working style due to the development of ICT. However, the idea of the right to disconnect, proposed since the 2000s, was originally discussed as a way to secure private life. There is still an issue as to whether the right to disconnect presents a complete and direct answer for the changes in working style with the development of ICT.

The Impact on Individuals and Organizations of Choosing a Workplace Based on Activities: Activity-Based Working/Offices and Creativity
Nobuyuki Inamizu（The University of Tokyo）
This study explores the relationship between creativity and changes in the office environment in recent years. New forms of offices are emerging, such as free-address offices, where fixed seats are replaced by free seats, Activity-Based Working/Offices（ABW）, which allow employees to choose the right work environment depending on their activities, and co-working spaces where they can share space with others, including entrepreneurs and freelancers. In order to explore the relationship between these office environments and creativity, data for 3,000 persons were collected through an internet survey and analyzed. As a result, we were able to see to some extent the effects of office environments after controlling for the strong effects of personality and intrinsic motivation（work engagement）on creativity. In particular, the results suggest that simply increasing office flexibility（switching to free seats）may not have an effect on creativity, and in some cases may be counterproductive. In order to increase creativity, it became clear that it was necessary to increase the degree of "selectivity" in which the workplace environment, including the use of co-working spaces, can be selected according to activities. This provides useful suggestions for future office environments.

Sociological Perspectives on the Workplace
Shingo Tatsumichi（Nihon University）
 The approach that Japanese industrial sociologists have presupposed until now when they study workplaces is the method of explaining all causes by reducing them to

human factors. Industrial sociologists have used this method to study not only the structure of an organization, but also the emotions of people working in an organization and a group as a collective phenomenon. A review of studies in the three fields of, first, employment systems, second, toxic companies, and third, industrial relations from among studies related to changes in workplaces clarified the following six points. First, changes in companies' employment systems have influenced workers' consciousness. Second, a new phenomenon called "the Fissured Workplace" has come into existence. Third, the relationship between a company and its workers has become shorter than before. Fourth, there is an increase in companies' opportunistic behavior in the background of the appearance of toxic companies. Fifth, the situation in which both a labor union and a labor-management consultation system exist is favorable for communication between labor and management. Sixth, the existence of "workplace vigilantes" as new stakeholders at workplaces has been revealed. Sociologists of modern times have focused their attention on a form of social change called "development of individualization," and the increase in the speed of the migration of capital is behind it. This phenomenon is a factor that accelerates the shortening of the relationship between individuals and companies.

Workplace Studies and the Significance of Natural Observation: Analysis of a Meeting
Keiichi Yamazaki（Saitama University）
Akiko Yamazaki（Tokyo University of Technology）
This paper draws on two types of settings—technology development and meetings— to shed light on the significance of natural observation, which forms the basis of ethnomethodological studies of the workplace. Analysis of technology development revealed the significance of research in three stages—natural observation, technology development, and field trials and improvements. It was also demonstrated that natural observation may uncover problems and challenges that would otherwise remain undetected. The analysis of meetings looked at a meeting at a cooperative association to elucidate the multi-layered nature of assessments. Such analyses demonstrated the potential for ethnomethodological interaction analysis to reveal insights in the field of labor studies, as well as setting out the challenges that are common to interaction analysis and labor studies.

The Impact of MBO on Employees' Intrinsic Motivation
Akio Shiotsuki（Asahi Kasei Corporation）
Yuichi Mihara（Asahi Kasei Corporation）
Jun Furuya（Asahi Kasei Corporation）
Keiri Ton（Asahi Kasei Corporation）
Hiroya Hirakimoto（Osaka University）
In this study, we analyze the relation between management by objectives（MBO） and employees' intrinsic motivation based on a quantitative survey. While the relation between the actual condition of MBO and corporate performance has been discussed in previous researches, this study has analyzed how MBO promotes or hinders the intrinsic motivation of employees. Although MBO is one of the popular management systems in Japan today, there is little quantitative research regarding its effect on intrinsic motivation. A survey was conducted with 507 employees in company X（a general chemical maker）, and the data of the 224 respondents were analyzed in this study. The results showed that MBO has a positive influence on intrinsic motivation. In addition, it was also confirmed that the factors that promote intrinsic motivation mediate the relationship between MBO and intrinsic motivation. In particular, it was clarified that the quality of the goals in MBO systems had a strong impact on the intrinsic motivation of employees. Finally, theoretical and practical implications are presented along with some limitations.