Event Report:
GPAI Future of Work: Future of Work Survey Report 2022
Date: Thursday, March 16, 2023
Time: 16:00-18:00 (JST)
Venue: Online webinar
Host: Institute for Future Initiatives, The University of Tokyo

The Global Partnership on AI (GPAI), established in June 2020, is an international initiative dedicated to the responsible development and use of AI based on a "human-centric" approach. The GPAI has several working groups, including the "Future of Work" working group. As part of its project, the "Observation Platform of AI at the Workplace," the GPAI is conducting interviews around the world on how our ways of working are changing. One of the unique aspects of the interviews was that students who will be responsible for the future conducted interviews with companies.

At this event, we presented an overview of the survey conducted this year, following the 2021 survey, and invited the students and faculty who participated in the actual interviews to discuss the "future of work" and the possibilities and challenges of the survey methodology as revealed by the survey.

The first topic was presented by Dr. Yuko Harayama of Tohoku University, who introduced the GPAI and the "Future of Work" working group. She co-chaired the "Future of Work" working group in 2020–2021. The GPAI is an activity initiated by the leadership of Canada and France within the framework of the G7 discussions on the responsible use of AI. In October 2019, France and Canada jointly hosted a global forum that was officially launched in June 2020 with the agreement of the G7 member countries. In addition to the G7 countries, the European Union and seven other countries joined at its inception, and 29 member countries are now participating (as of November 2022). The GPAI is characterized by multi-stakeholder discussions among experts from various fields in industry, government, and academia based on the OECD's AI principles and its role in incorporating AI into practice and providing feedback on the results.

One of the working groups of the GPAI is the "Future of Work," which discusses how the introduction of AI will affect workers and the working environment, how the quality, inclusiveness, health, and safety of work can be protected, and how better work can be designed in the relationship between workers and employers. How can we design better jobs in the context of worker–employer relationships? As current priority projects, the "Observation Platform of AI at the workplace," a project to collect case studies, which is also the subject of today's report, and the Living Lab initiative were introduced.

Mr. Takashi Matsumoto, a visiting researcher at the University of Tokyo's Institute for Future Initiatives, provided an overview of the Japanese team's research structure and results. The "Future of Work" Japan team includes students from a variety of universities. A total of 36 students from four universities (Doshisha University, Tohoku University, Toyo University, and Hong Kong University of Science and Technology) participated in this year's survey, with the support of faculty advisors from their respective university teams to conduct interviews. The students also actively participated in the November GPAI Summit and other opportunities that allowed them to interact with each other

across countries and teams. The questions asked in the survey were based on the common GPAI questions with additional items. Students took the lead in the actual interview process, from the survey to the interview requests and the preparation of questions. Dividing these cases into "Servant Proxy," "Digital Coworkers (in collaboration with workers)," "Autonomous Operation Platform," "Virtualization and Management of Assets and Processes" and "Common Tools and Platforms," which are the axes of analysis set by the GPAI, we got the impression that many of the cases fell under "Servant Proxy" and "Digital Coworkers (in collaboration with workers). However, in the cases surveyed by the Hong Kong University of Science and Technology, there were cases that corresponded to the "Autonomous Operation Platform" in the infrastructure field, indicating that social implementation is being promoted in Asia.

In the student panel discussion facilitated by Mr. Matsumoto, students representing the five teams from the four universities that participated in the survey exchanged opinions on their experiences and insights gained through their participation in the GPAI survey.

First, each student commented on the impact of AI implementation in the areas they conducted interviews in. Mr. Takahiro Saito, a fourth-year student at Doshisha University's Faculty of Sociology who surveyed the nursing care field, said that while AI assists care managers, there is a gap between the actual situation on the ground and the need for local and individual services. Ms. Jingyu Wang, a doctoral student at the Graduate School of Sociology at Doshisha University, who surveyed the design and production field, stated that the design of communication between AI and humans will become very important, and that she had the impression that the boundary between the fields of work and entertainment will blur more in the future.

Ms. Nao Shiino, a first-year master's student at the Graduate School of Engineering, Tohoku University, who conducted a survey on the use of AI teaching materials, commented on the changes taking place in the field of education, saying that the skills required of teachers are changing as individualized learning becomes possible, including the ability to teach individual students. The choice to use AI teaching materials depends on the individual student. She also commented that her findings revealed that there are individual differences among students regarding whether they will actively use AI materials. Through his interview with an AI development and consulting department of an IT company, Mr. Hayato Kishita, a third-year student of Toyo University's Faculty of Information Sciences and Arts, realized that, in addition to knowledge of AI technology itself, business skills and communication in the area of implementation are more important when promoting AI projects, and that advanced personnel is required. He realized that advanced human resources were required to promote AI projects. Ms. Haiyu Li, a graduate of the Master's Program in Public Management at Hong Kong University of Science and Technology, who studied the sustainability sector, mentioned the case of an infrastructure facility inspection service and noted that the introduction of AI will be effective in addressing issues like labor shortages and hazardous work in the industry in the future. In addition, she mentioned the importance of expertise and know-how in incorporating AI into environmental technologies and workflows.

Mr. Matsumoto asked the participants how they would like to work with AI if they were to work in the near future in the fields surveyed. In response, the participants offered insightful comments that

were grounded in the practicality of the survey's findings. Several participants expressed their desire to actively engage in user communication that capitalizes on uniquely human capabilities and in responding to users in a way that respects diversity, and that they would like to acquire techniques and more advanced skills so that they are not replaced by AI. They also commented that they would like to play a necessary role as coordinators between the users and providers of AI systems. In addition, the importance of reskilling and the need for broader cross-faculty learning opportunities at universities were mentioned.

In the ensuing panel discussion that was facilitated by Associate Professor Arisa Ema of the University of Tokyo's Institute for Future Initiatives, faculty advisors from the universities that participated in the survey discussed the survey results based on the cases handled, the significance of this survey, and its future prospects. First, they exchanged opinions on the "future of work," analyzing and discussing issues through the case studies covered in the survey. Professor Masayo Fujimoto of the Faculty of Sociology at Doshisha University reviewed the survey conducted as part of the sociology seminar and said that she found that AI is causing a metabolism of jobs and that jobs will disappear as new ones are created. Furthermore, she stated that AI is being introduced in many highly specialized fields such as medicine and research. She also mentioned the concerns of middle-aged and older workers regarding the short training younger generations in knowledge-based roles receive and the existence of precarious employment conditions for women who are required to engage in DX work on a non-regular basis. Associate Professor Hirofumi Katsuno of the Faculty of Sociology at Doshisha University stated that he had the impression that AI would become not only a tool but also a compound influence on each other, with humans getting ideas from AI. He also noted that he wanted to keep a close eye on the impact of AI on the formation of human identity and the sense of fulfillment people experience through creation.

Professor Makoto Takahashi of the Graduate School of Engineering at Tohoku University said that, while the influence of rapidly evolving AI is still uncertain, based on the results of a survey of the education sector, he was strongly impressed by the fact that the environment in the field is changing drastically. However, he noted that the situation is very varied. Professor Masafumi Nakano of the Faculty of Information Sciences and Arts at Toyo University reviewed a survey of the auditing industry and emphasized that, although there was concern about the loss of jobs in the industry, the use of AI has led to the scaling up and upgrading of auditing services and a trend toward job growth. Associate Professor Masaru Yarime of the Division of Public Policy at the Hong Kong University of Science and Technology reviewed a survey on the environment, energy, and sustainability sectors. He noted that, while there is a trend toward the active adoption of AI, the gap between the expectations of developers and users, and the lack of skills on the part of users are still issues. He also mentioned that measures for addressing these issues are also attracting attention. Professor Kosei Miyazaki of the Faculty of Business at the University of Hyogo, who introduced the companies and assisted in coordinating the survey, emphasized that the view of work is changing based on the responses of the students who participated in the survey. He also emphasized that it is very important to think about what we should do as human beings, as AI and human work are separate, and the relationship between management and staff is changing in the future.

The group then discussed perspectives on the surveys and analyses that will be required in the future.

It was emphasized that the ethical perspective will continue to be an important analytical viewpoint in the future, as a lack of ethical understanding on the part of users was observed during the course of the survey. He also raised the issue of conducting a comprehensive survey that includes users. In addition, as interactions with AI increase in the future, there is a suggestion that the discussion should not be technology-driven, but rather should be directed toward a future vision of what kind of society we would like to realize first, and then consider how AI can be used. To this end, there has been interest in a survey on the mindset that enables flexible thinking to change organizations and systems, as well as a survey focusing on the viewpoints and awareness of an organization's management. It was also pointed out that, while guidelines and principles are being developed internationally, they have yet to be incorporated into actual workplaces, and it would be meaningful to discuss how to implement them in light of national and cultural differences, and make the necessary international adjustments through a forum such as the GPAI.

At the end of the panel session, we exchanged opinions on the significance of participating in the survey from the perspective of supervising students. The panelists also commented on the significance of the survey as an opportunity to learn business-oriented communication skills by communicating with the companies interviewed. Students studying policy are currently working in the field of technology. They also commented that the program was meaningful in that it provided an opportunity for policy students to learn and take an approach that transcended the boundaries of their field of expertise, such as conducting research in the field of technology, and also provided an opportunity to think flexibly about their future career paths. They also mentioned that this framework is meaningful for both parties in that it provides an opportunity for companies to learn about the attitudes and interests of younger generations.

Finally, Professor Yann Ferguson (Toulouse Institute of Technology), who oversees the "Observation Platform of AI at the workplace" project of the "Future of Work" working group, gave an overview of the project and made comments on the Japan survey. For humans, "work" is deeply connected to our individuality and outlook on life. He recognized that we are living in a new era in relation to technology and ecology, and indicated the importance of conducting a study in line with the OECD principles and imagining a specific scenario for the relationship between AI and work. These scenarios could include "workers being replaced by AI," "workers being dominated by AI," "divided workers," "augmented workers," "re-humanized workers," etc. We need to consider the type of future that we want to build. A survey on the Observation Platform of AI in the workplace began in 2020 and currently comprises 140 use cases. He praised the contribution of Japanese students, who he heralded as an important driving force behind the project, which continues to improve questions each year and is creating student communities in Europe, Canada, Japan, and the United States.

Closing remarks were provided by Mr. Yoichi Iida, Director for Information and Communication Policy, International Strategy Bureau, Ministry of Internal Affairs and Communications (MIC). The Japanese government has considered AI principles since 2015, in line with the third AI boom, and has advocated for and led discussions on AI principles internationally. To use AI to create innovation and enrich human society, it is necessary to build trust in AI as a precondition for awareness of issues. While there are various country- and cultural-specific approaches to implementing the principles, such as the legal regulations discussed in the EU and soft-law approaches in Japan, AI and data can

transcend national boundaries on their own. Therefore, it is necessary to consider how to ensure that AI governance mechanisms are mutually understandable, even across national borders, and this is an important agenda item at this year's G7 meeting. He also commented that it was valuable to conduct this survey to identify similarities and differences between Japan and other countries. He also mentioned that AI is one of the important agenda items at the UN Internet Governance Forum that will be hosted by the government, and concluded the event by expressing his hope that Japanese students will actively disseminate information internationally at such forums.

(Top row from left to right) Dr.Ema, Dr.Yarime, Dr.Harayama, Ms.Li
(Middle row from left to right) Ms.Wang, Mr.Saito, Mr.Kishita, Dr.Nakano
(Bottom row from left to right) Dr.Takahashi, Dr.Katsuno, Dr.Fujimoto