

JSSTS 2021 and Beyond
20th Anniversary Conference of the
Japanese Society for Science and Technology Studies

September 23, 2021
9:00 am through 12:40 (Japan Time)
Webinar

This conference celebrates the 20th Anniversary of the Japanese Society for Science and Technology Studies. The conference showcases the field's dynamic evolution: both the past and the present. Of particular note are the activities of scholars in Japan over the past twenty years, which have enabled the creation of a knowledge base that connects the diverse fields in biophysical sciences to fields in the humanities and social sciences. These activities in Japan have gone further still, by engaging diverse actors such as citizens, policy-makers and businesspeople.

Founded in 2001, the JSSTS is entering a new era in which the knowledge base for STS is sufficiently mature that it is time to take stock of what has been done, to revisit our scholarship and to identify gaps in the accumulated knowledge. Discussions of the present activities of scholars are also important to carve out ideas for our activities in the coming years as a thought collective.

As part of such efforts, the conference will include panels from around the globe. The speakers for the first panel will help us revisit the present state of STS scholarship in various regions in the world by looking into such questions as the place of STS scholarship within society, what this scholarship has achieved and how it has done so. In a subsequent round of lightning talks, speakers are asked to sketch out the contours of STS scholarship over the next two decades, with the aim of exploring future directions for the JSSTS.

PROGRAM

9:00-9:05 Greetings
Masashi Shirabe - President of JSSTS

CONSTRUCTING A MAP OF STS KEYNOTE

9:05-9:20 STS Past and Present – Japan’s Experience
Yuko Fujigaki – 2015-2018 President of JSSTS

9:20-9:35 STS Past and Present – Perspectives from the US
Joan Fujimura – 2020-2021 President of 4S

9:35-9:50 On European STS Geographies in a Global World
Ulrike Felt – 2017-2021 President EASST

9:50-10:20 Q&A
- Break -

CONSTRUCTING A MAP OF THE NEW HORIZONS FOR STS Lightning Talks (8 minutes each)

10:30-11:20
Hee-Je Bak, Kyung Hee University
Mitsuru Kudo, Osaka University
Wei Hong, Tsinghua University
Mai Suzuki, The University of Tokyo

Provocateur: Emma Kowal, Deakin University

- Break -

11:25-12:05
Wen-Hua Kuo, National Yang Ming Chiao Tung University
Shannon N. Conley, James Madison University (pre-recorded)
Ryuma Shineha, Osaka University

Provocateur: Kohta Juraku, Tokyo Denki University

12:05-12:35
Responses by Panelists

12:35-12:40 Concluding Remarks
Tomiko Yamaguchi, International Christian University

ABSTRACTS

STS Past and Present – Japan’s Experience

Yuko Fujigaki, The University of Tokyo

The Japanese Society for Science and Technology Studies was founded in 2001. On March 2002, for the first issue of Journal of Science and Technology Studies, we received congratulations message from Wiebe Bijker, the President of 4S and from Sally Wyatt, the EASST President. It is a noteworthy fact that JSSTS had a joint meeting with 4S in 2010 at Tokyo. This 4S was the first one held outside of North America and of Europe, and 938 members gathered at the campus of the University of Tokyo. It is said that this is one of the triggers for the internationalization and di-centralization of 4S. In fact, 4S was held in Buenos-Aires, in Latin America, in 2014 and was held in Sydney in 2017.

In these 20 years history of JSSTS, the greatest topic was the Great East Earthquake and nuclear power plants accident in Fukushima on March 2011. Many scientists and engineers reflected themselves reflexively, and STS had their own role to consider about “responsibility of knowledge”. Several Japanese STS researchers published “Lessons from Fukushima: Japanese Case Studies on Science, Technology and Society” by Springer, in 2015. Now the total member of JSSTS is 438, and we will publish 20th issue of Journal of STS. In addition, we published three STS book on “The Challenge of STS” as a series by the University of Tokyo Press in 2020, which includes 29 chapters and 29 authors.

STS Past and Present – Perspectives from the US

Joan H. Fujimura, University of Wisconsin-Madison

This talk will review the history of STS in the U.S., its roots and trajectories, and then consider the future of STS in the region. The first point is that STS in the U.S. has become intricately linked with STS as it has developed around the world. Changes and movements within the Society for the Social Studies of Science are clear indications of these collaborative and comparative developments. These developments show the changing roles of science, scientists, citizens, and STSers including the growing involvement of STSers in social and scientific policy evaluative studies and policy making. Involvement in science policy making was a contentious issue for early U.S. STSers. Some were conscious of unintended consequences and more content to study the production of science. Others were intent on challenging and intervening in highly consequential technosciences (such as the Bomb, medical technologies affecting especially women and people of color, recombinant DNA techniques, and more currently human generated environmental destruction). Today, STS in the U.S. is diverse in approach and theory. Some STSers work with scientists to develop science and science policies that will hopefully benefit humans and nonhumans alike. Scientists can no longer claim to know everything, and citizens are asking them to take more responsibility for how their science is produced and for how their science is used by politicians, governments, corporations, white supremacists, and anti-vaxxers. Questions for the future include: How should STS navigate the critique of science in the face of some publics who reject science? How should STS deal with debates within our field itself, e.g. STSers who view DNA analysis of their blood as important for indigenous

identities and STSers who view DNA analysis as dangerous for indigeneous identities?

On European STS Geographies in a Global World

Ulrike Felt, University of Vienna

EASST, the European Association for the Study of Science and Technology and JSSTS, the Japanese Society for Science and Technology Studies, have beyond their passion for STS something in common: 2021 is an anniversary year. EASST has been founded in 1981, 40 years ago and I want to use my privilege to speak at JSSTS' 20th anniversary event to reflect on the ways in which the European STS geographies have developed and how they did so in relation to global developments.

My presentation will engage with three perspectives. It will start by looking at the development of EASST, reflecting the importance of associations for advancing our common research agendas and for creating shared spaces of exchange. In the second part of my talk, I will explore the role of the European Union in shaping STS through funding programs, but also how STS efforts have tried to intervene in the policy arena. Yet, while we can identify convergences towards specific matters of concern (e.g., participation and responsible research and innovation), we simultaneously encounter a rich diversity of ways of organizing STS across European countries and of addressing sociotechnical issues in locally specific ways. In the final part, I will explore the positioning of European STS in the global context. This will also allow me to reflect on our relations to Japanese STS.

The Past and Future of STS in Korea

Hee-Je Bak, Kyung Hee University

In Korea, science and technology has long been emphasized as a crucial instrument for national competitiveness and as something the central government should promote and harness for national goals. By contrast, for the last two decades, STS in Korea has tended to take a critical approach to science and technology, focusing on science-related risks, ethics of (life) science, scientific governance and so forth. In particular, public engagement in science and technology has been the most important topic in STS in Korea. In a society like Korea where the utilitarian view of science and technology is so salient, maintaining a critical approach to the social problems linked to science and technology will continue to be a valuable asset for STS. However, the STS scholarship is also asked to help direct the positive force of science and technology toward social values. Responding to such a social call, new trends began to emerge which would set the research agenda in Korean STS for next decades. First, a number of STSers in Korea are deeply involved in environmental sociology and environmental movements for sustainability transitions. Energy transition and Anthropocene are focal points for these scholars. Also, STS in Korea has increasingly become a platform to investigate and promote social problem-solving R&D and Living Labs in which citizen participation is regarded as the key to making technological innovation responsive to the needs of ordinary people rather than industries.

Science and Technology Studies and Practice-based Research of Public Engagement in Japan

Mitsuru Kudo, Osaka University

Science and technology studies (STS) is a key driving force underpinning practice-based research of public engagement in Japan. In the past twenty years, it has made a significant contribution in progressing both institutionalisation and academic study of public engagement. While such a commitment from the STS community is expected to continue and grow for coming years, it also seems equally important for us to make an extra, explicit effort to make a space to pause and reflect on what we do when we do practice-based STS research in the name of public engagement. As evident in the increasing presence of reflective account of science communication and public engagement in relevant anglophone literature, those who have played a pivotal role in increasing the profile of STS approach in practice-based research of public engagement are today calling for its re-framing, re-imagining and re-making. They encourage us to take what they would call as co-productionist approach, paying more attention to the ways in which we shape our collective ways of seeing, recognising and imagining science, publics, society and their interrelationship through our own conduct of practice and research of science communication and public engagement. Although it is not necessarily clear how the co-productionist approach may look in actual contexts of practice and research, I would think that we can extend our existing body of knowledge about public engagement by drawing on the type of STS sensibilities and sensitivities emphasised in the narratives of co-productionist approach.

Seeing STS in 20 Years: A Perspective from China"

Wei Hong, Tsinghua University

Starting from the first special issue on STS in a Chinese sociological journal, this talk introduces the dynamic development of Chinese STS community and predicts three main approaches in conducting STS research in China. First, philosophers of science and technology will continue their theoretical reflection on artificial intelligence and ethical issues related to life sciences, engineering, and scientific research. Second, sociologists are increasingly interested in how science and technology interact with our everyday life. A few researchers have started to study how big data in food delivery sector constrain people within a digital system, and how delivery services create data and capital for the employers. When AI technologies are widely applied to transportation, production, medical, education, and entertainment sectors, new phenomena will emerge and attract sociologists who used to exclude science and technologies from the scope of their research. Scholars in organization studies are also interested in the social impacts of new technologies, especially how application of new technologies change the traditional way of social governance. Third, currently there are a few STS scholars with training in social sciences. I expect this group of scholars to grow in size as more PhD students graduate. Their areas of interest include Mertonian sociology of science, science policy, energy transition, and public understanding of science. The three groups of scholars have different backgrounds but overlapped research interests, they may merge in the future.

Development Assistance and STS

Mai Suzuki, the University of Tokyo/Keio University.

With the enormous impact of science and technology on society, there is a great deal of attention and expectation from society for Science and Technology Studies (STS), and STS researchers are increasingly involved in various science and technology projects. In recent years, STS researchers have begun to participate in development projects in developing countries, where the use of science and technology is emphasized, and to work together with scientists and local people. It has been traditionally analyzed in STS that science and technology are related to a place where they are produced and utilized. On the other hand, in an increasingly globalized world, there have been many international transfers of science and technology, and in assistance to developing countries, development projects based on transfers of science and technology have been implemented. However, it has been pointed out that there are various issues due to the relationship between science and technology and place, and the expertise of STS is utilized to deal with them. In the growth of STS, it has become more deeply involved in practice, but STS researchers are facing various problems there. In this presentation, I would like to examine the relationship between science and technology, development, and STS, based on my experience of participating in an international development project to transfer Japanese science and technology related to earthquakes to Nepal, where a major earthquake occurred in 2015.

Finding Intellectual Friends: Making STS East Asian: The Case of EASTS

Wen-Hua Kuo, National Yang Ming Chiao Tung University

As a flourishing field that has intellectual roots in East Asia and that has been incorporated into some of the research traditions of the region, the primary challenge for STS might not now be to clarify its definition but instead to show how its perspectives and approaches can enable us to offer insights into existing scholarship on science and technology. Founded in 2007 with the support of Taiwan's National Science Council (now the Ministry of Science and Technology), EASTS is the first English-language journal dedicated to East Asian STS. A collaborative undertaking currently with Routledge, the journal's editorial board includes East Asia scholars from Australia, China, Indonesia, Japan, Korea, the Philippines, Singapore, and Taiwan. While focused on East Asia, EASTS has expanded its geographical reach and actively searches for articles in various disciplines to best present East Asia as both an intellectual subject and a meaningful method. We are certain that STS is the best way to respond to these challenges. Nonetheless, we are also aware that there is no hard and fast rule in STS for achieving this. With this in mind, EASTS will continue to work closely on an expanding, interactive, and also challenging STS world in which East Asia is not an outsider but has a permanent part.

Critical STS Pedagogies: Creative Anticipatory Ethical Reasoning (CAER) at James Madison University and Beyond

Shannon N. Conley, James Madison University

In this lightning talk, I will discuss STS pedagogy, an understudied and taken-for-granted aspect of STS. I will discuss the ways in which STS pedagogy is a legitimate

space for STS research and experimentation. I will highlight takeaways from the recent National Science Foundation Workshop that Emily York and I hosted, which was focused on STS as a Critical Pedagogy. I will describe the development of STS pedagogy (a project in collaboration with Emily York) at James Madison University (JMU) and the development and history of the STS Futures Lab at the University. I will define and provide a rationale for Creative Anticipatory Ethical Reasoning (CAER), a flexible blend of scenario analysis, design fiction, and ethical reasoning, that we have iteratively developed in the STS Futures Lab. The focus of this presentation will consider the flexibility of the model. I will demonstrate various adaptations in which we have used CAER in a range of contexts, and will conclude with an overview of a very recent funded National Science Foundation Grant, Collaborative Research: RUI: Collaborative Research and Education Architecture for Transformative Engagement with STS (CRE-ATE/STS), that Emily York and I are co-PIs on and collaborating with partners from UMD College Park, Michigan State, and Colorado School of Mines. In regards to the grant, I will discuss how we are adapting Futures Lab tools and STS pedagogy in broader institutional and interdisciplinary contexts.

Science & Technology Policies and RRI Practices by Japanese STS Communities Ryuma Shineha, Osaka University

In this presentation, I will introduce the current trends on science policies and funding system concerning STS research. According to the increase of interests in ethical and social aspects of emerging science in the innovation policies, research programs concerning responsible research and innovation (RRI) has been rising. For example, in 2020, JST-RISTEX, one of the funding agencies of Japan, started new program entitled “Responsible Innovation with Conscience and Agility (RInCA)”. However, its Japanese title of RInCA program does not have keywords “RRI,” but expressed as “ELSI”. The difference of keywords between Japanese and English titles expressed the politics and reality in the context of Japanese science and technology policies. Under this context, several STS scholars, including myself, started new challenges to bridge STS researches and practices. I would like to introduce our project “Implementation and systematization of RRI assessment model on emerging science and technology” as a case, and examine the relationship between future issues of the project and the current contexts of policies in Japan.

BIOGRAPHIES OF SPEAKERS AND PROVOCATEURS **(In the order of appearance)**

Yuko Fujigaki is an Executive Vice President, and a Professor of the University of Tokyo. She served as the President of JSSTS (2013-2017) and was the Program Chair of the joint international conference of 4S and JSSTS in 2010. She edited numerous books including “Lessons from Fukushima - Japanese Case Studies on Science, Technology and Society” (Springer, 2015) and a book series on “Challenge of STS: I - III” (Univ. of Tokyo Press, 2020).

Joan Fujimura is the Martindale-Bascom Professor of Sociology at the University of Wisconsin-Madison and was the Founding Director of the Science and Technology Studies Program and the Holtz Center for Research in Science, Technology, Medicine, and Environment at UW-Madison. She is the 2019-2021 President of the Society for the Social Studies of Science. Fujimura has taught in Sociology at Harvard and was the Henry R. Luce Professor of Biotechnology and Society at Stanford. She has held fellowships at the Princeton Institute for Advanced Study, the Abe Foundation, the Russell Sage Foundation, and Stanford University’s Center for Advanced Study in the Behavioral Sciences. She has also won major research grants from the National Science Foundation (NSF) and the National Institutes of Health (NIH). Fujimura’s research is in the sociology of science, technology, and medicine; medical sociology; race and ethnicity; social theory; gender and science; and qualitative methods. She has studied research practices in cancer research, molecular genetics, bioinformatics, genomics, epigenetics and systems biology. Through ethnographic research in these arenas, Fujimura has developed theoretical concepts that include doable problems, standardization, bandwagons, theory-methods packages, socio-material analysis, awkward surpluses, authorizing knowledge, future imaginaries, postgenomic futures, and genome geography. She is interested in issues that arise when epistemologies of science collide with social and political issues--as in her research on race and genomics and on sex determination gene research. Her books include *Crafting Science* (Harvard 1996) and *The Right Tools for the Job: At Work in Twentieth Century Life Sciences* (Princeton 1992), and she has published numerous journal research articles.

Fujimura’s recent research has examined how socio-historical race concepts have become embedded in genomic data infrastructures used in biomedical research and especially in large scale genome-wide disease risk research and in sociogenomics. She also works on developing theory in the social studies of science.

Ulrike Felt is Professor of Science and Technology Studies (STS) at the University of Vienna. She is head of the STS Department and of the interfaculty research platform ‘Responsible research and innovation in academic practice’. Her research centers on issues related to governance, democracy and public engagement around technoscientific developments as well as changing research cultures. Across both areas she is specifically interested in the role of temporalities, in valuation practices as well as, more recently, in the changes due to the growing importance of digital practices. She is mainly working with qualitative methods and actively engages in developing

participatory and more inclusive methodological approaches. She has published widely in both areas.

From 2002-2007 she has been editor of the journal *Science, Technology and Human Values*. Her most recent books include the “*Handbook of Science and Technology Studies*” (2017, MIT Press) and “*Exploring Science Communication. A Science and Technology Studies Approach*” (together with Sarah Davies, 2020, SAGE). Since 2017 she is president of the European Association for the Study of Science and Technology (EASST). She is elected member of the Academia Europaea since 2019.

Hee-Je Bak is Professor of Sociology and Dean of College of Politics and Economics, Kyung Hee University in Seoul, Korea. Currently, he serves as the president of the Korean Association of Science and Technology Studies. His recent publications in English include “Reconciliation between monetary incentives and motivation crowding-out: the influence of perceptions of incentives on research performance” (*Public Performance & Management Review*, 2020), “The unintended consequences of performance-based incentives on inequality in scientists’ research performance” (*Science and Public Policy*, 2019), “Between scandal and promise: South Korean stem cell research after the Hwang affair” (*EASTS*, 2018), “Incentivizing research collaboration using performance-based reward systems” (*Science and Public Policy*, 2017), “Media cultures and the representation of science in Korea and the US: the BSE case in 2008” (*EASTS*, 2017), “How do scientists respond to performance-based incentives? Evidence from South Korea” (*International Public Management Journal*, 2016), and “Too much emphasis on research? An empirical examination of the relation between research and teaching in multitasking environment” (*Research in Higher Education*, 2015). He is (co-)author of *Korean Scientific Community: History, Structure, and Socialization*, *Science, Technology and Social Innovations for Social Problem-solving*, and *Routledge Handbook of Science, Technology and Society*.
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Mitsuru Kudo is a researcher and a practitioner of science communication, with a focus on public engagement. He currently teaches science communication in the Program for Education and Research on Science and Technology in Public Sphere, a postgraduate certificate program delivered at the Center for the Study of Co* Design, Osaka University.

Wei Hong is an Associate Professor of Sociology at Tsinghua University. Her areas of interest include STS, social network analysis, and digital humanities. Her research papers on laboratory ethnography, knowledge transfer, and social networks of Chinese scientists have appeared in *Social Studies of Science*, *Research Policy*, and *Science, Technology & Human Values*. Since 2014, she has been engaged in building a dataset of Chinese historical inventions, introducing digital humanities into the historical, philosophical and sociological analysis of science and technology development in China. Recently, her main project is to study public understanding and perception of ambient and indoor air pollution through collaborative ethnographic research.

Mai Suzuki analyzes the interaction of science and technology, crime, and law based on fieldwork at forensic laboratories in New Zealand and qualitative research in Japan and the United States of America. Recently, she has been conducting research on the relationship between science and technology and natural disasters such as earthquakes at the University of Tokyo and Keio University.

Wen-Hua Kuo is a professor at National Yang Ming Chiao Tung University, Taiwan, where he teaches social studies of medicine. His work revolves around pharmaceutical regulation and its social impacts in the East Asian context, and later controversies in East Asian medicines' attempt to be modernized and used globally. His scholarly publications appear in a range of journals crossing several disciplines, including the Journal of Law, Medicine, and Ethics, Drug Information Journal, East Asian Science, Technology and Society: an International Journal, and Social Science & Medicine. In addition to his current research on the changing of care and caring professions, he has been served as the editor-in-chief of East Asian Science, Technology and Society: An International Journal (EASTS), one of the few journals serving as a bridge between STS studies done in and about this region, since 2016.

Shannon N. Conley earned a PhD from Arizona State University in Political Science. She is currently an Associate Professor in the School of Integrated Sciences at James Madison University. Her research focuses on responsible innovation, ethics, and the governance of new and emerging technologies in the context of reproductive technologies. She also conducts research around expertise acquisition and is a member of the Studies of Experience and Expertise (SEE) community. She has particular interest in developing a scholarly community focused on STS (Science and Technology Studies) as critical pedagogy.

Ryuma Shineha is an associate professor at Osaka University. His major is Science & Technology Studies (STS) and Science & Technology Policy Studies. He received his Ph.D from Kyoto University in 2011. His current research theme is to build the RRI assessment system with real-time understanding of framings and deliberation among various stakeholders. He also has interests in issues on science policy and research evaluation system. After the 3.11, he started research of media ecosystem and narratives concerning the 3.11 with his collaborators.

Emma Kowal is Professor of Anthropology and Deputy Director of the Alfred Deakin Institute at Deakin University. She is a cultural and medical anthropologist who previously worked as a medical doctor and public health researcher in Indigenous health before completing her PhD in 2007. Her research interests lie at the intersection of science and technology studies, Indigenous studies, and anthropology. Her research has been published in many international STS, anthropology, health social science, bioethics

and medical journals. She has authored over 80 peer-reviewed publications including her monograph, *Trapped in the Gap: Doing Good in Indigenous Australia*. She was previously an Editor of *Postcolonial Studies* and currently sits on the Editorial Boards of *Science, Technology and Human Values*, *Social Studies of Science*, *Engaging STS*, *American Ethnologist*, and *Somatosphere*. She is a member of Transnational STS Network Design Group and a co-founder of the TransAsiaSTS Network launched in 2020. In 2019 she was elected to the Fellowship of Academy of the Social Sciences in Australia, one of the youngest Fellows ever elected and she is an incoming President of 4S.

Kohta Juraku is a professor at Tokyo Denki University (TDU), Japan. He has worked on sociological studies of the governance of risky technologies and the social-learning process from major technological failures. Before joining TDU, he worked at the Department of Nuclear Engineering and Management at the University of Tokyo from 2008 to 2012, during which he spent over a year at the Department of Nuclear Engineering, UC Berkeley as a visiting scholar. He has over a decade of experience in collaborative but critical exchange with engineers and practitioners in nuclear and other fields.