Deutsches Institut für Japanstudien
German Institute for Japanese Studies Tokyo (DIJ)
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GERMAN INSTITUTE FOR JAPANESE STUDIES (DIJ)
THE GERMAN CENTER FOR RESEARCH AND INNOVATION (DWIH)

A b s t r a c t s

for the Workshop

"Imagined Futures in Japan & Beyond"

October 09 – October 11, 2024

at DIJ, Jochi Kioizaka Bldg. 2F
7-1 Kioicho, Chiyoda-ku, Tokyo 102-0094

Language: English

The future begins with imagination. One example for this are the Sci-Fi prototyping initiatives of Japanese tech giants like Sony and NTT, which purposefully utilize storytelling to foster public acceptance of emerging technologies. Focusing on this connection between narratives, culture, technological innovation, and marketing, the interdisciplinary workshop delves into both fictional and non-fictional portrayals of Japan's technological future. Our keynote speakers, Fritz Breithaupt (Indiana University Bloomington) and Ōsawa Hirotaka (Keiō University), numerous scholars, as well as practitioners from Japan's tech industry, will join us to analyze visions of emerging technologies, of their environmental and societal impact, and of Japan as a "futuristic" nation through the lens of "narrative" and "sociotechnical imaginary" theoretical frameworks.

Thursday, October 10, 2024

10:30 AM – 12:00 PM   **Imaginations of Futuristic Japan**
Chair: Celia SPODEN (German Institute for Japanese Studies, DIJ)

Imagining Japanese Technofutures
– The Role of Futurology and Science Fiction in Shaping the Information Society

Volker ELIS (University of Erlangen-Nuremberg)

The original roots of the concept of the information society (jōhō-ka shakai or jōhō shakai) are clearly Japanese and date back to the year 1963. It was developed in the context of a Kyōto-based private study group spearheaded by the anthropologist Umesao Tadao. Members of this group were the government official Hayashi Yūjirō, who should later become a leading proponent of the futurologist movement, and Komatsu Sakyō, one of the most well-known Japanese science fiction writers. Renamed into "Thinking about EXPO group" (bankokuhaku wo kangaeru kai), it was entrusted with the design of the EXPO 1970 in Ōsaka, where it exerted an important influence on the way the nation presented itself to the international public.

In contrast to what was generally believed to be a consistent narrative of a group of like-minded individuals, the contributions of the group members to the concept of the first EXPO hosted by an Asian country were surprisingly heterogeneous in its focus and objectives. In my talk, I will try to show how Umesao's original theory, Hayashi's

futurological vision and the more apocalyptic undercurrent of Komatsu's imagination left their mark on the minds of the artists, architects and government officials involved in the project and influenced the final design of the exhibition.

The paper argues that the notion of Japanese information society since the late 1960s constitutes a socio-technical imaginary showing inherent inconsistencies and considerable ambiguity. Despite these shortcomings, it proved to have an important impact on technology-related narratives and the way Japanese technofutures were imagined. The paper also discusses how the imaginary has entered the mainstream discourse of technology-based societal development to this day, and how it has shaped the general direction of concrete plans and government programmes for years to come.

Progress as Decline: Future Imaginaries in Contemporary Japanese Literature

Kristina IWATA-WEICKGENANNT (Nagoya University)

Taking the surge in dystopian novels published after the Fukushima meltdowns of 2011 as a starting point, my presentation examines future imaginaries in contemporary Japanese literature. These novels, set either in the near or distant future, invariably portray a contaminated and frequently authoritarian environment. While some of these texts make explicit reference to the nuclear crisis, most can be seen as more indirect responses. What they share, however, is a view of the future no longer defined by hopeful expectation, but by fear of economic crisis, political illiberalization, ecological collapse, and technological overstretch. This gloomy outlook on the "future as catastrophe," as aptly described by Eva Horn (2014), fits into a larger picture. Aleida Assmann, for instance, observes that the expectation of a "brighter future"—a key element of capitalist modernity—peaked in the late 1960s and subsequently went into decline, becoming a thing of the past by the 1990s. Time, Assmann argues, has since not only lost its linearity but also the association with progress.

Given the workshop's focus on technological futures, my presentation contrasts two seemingly opposite literary scenarios: the complete receding of technology in Tawada Yōko's Kentōshi (2014), and the replacement of Homo sapiens by human-AI cyborgs in Ookina tori ni sarawarenai yōni (2016) by Kawakami Hiromi. Tawada portrays a society in the not so far future that no longer relies on electricity, reverted to straw sandals and has cut itself off from international relations, purging its culture from foreign influences. The seeming regression to an earlier state is reflected in human bodies: while the elderly are becoming immortal, the young are frail and require care. Their dietary preferences are closer to that of birds, their bones soft enough to resemble octopi: children's bodies are backtracking the original rise of life from water to land.

In contrast, in Kawakami's vision of a very distant future, artificial intelligence has taken over human bodies while the original humans went extinct. Although these new life forms are sustained by technology, Ookina tori is far from imagining a world dominated by it; rather, with humans gone, a natural balance seems to return, allowing wilderness to reclaim its place. Both novels, therefore, can be read as iterations of the Earth Without (original) Humans motif, as histories of the Anthropocene that describe "catastrophes without event", to quote Eva Horn again. Analyzing these texts from a posthumanist perspective, especially in terms of their representation of "future bodies," I argue that despite their differences, both novels offer narratives of collapse that critique capitalist models of endless progress and question the future of humanity itself. My overarching objective is to demonstrate how these texts illuminate the ways in which what was formerly regarded as "progress" increasingly comes to be seen as its opposite—a harbinger of looming catastrophe—and to identify specific narrative patterns of instability.

The Future of Emotion as Zen:
Meditation Apps, Android Bodhisattvas, and Mood-Regulating Tech in Japanese Wellness Spaces

Daniel WHITE (Leverhulme Centre for the Future of Intelligence, University of Cambridge)

Emerging technologies of artificial emotional intelligence in Japan are inspiring evocative new stories about what emotional wellness can be in the future when combined with machines. Indeed, for the past decade, government and research organizations in Japan have been investing heavily in Human-Centered Artificial Intelligence (HCAI) to balance the benefits of economic development with the technological costs to wellbeing (shiawase). Many of these technologies are called "human-centered" (ningen chūshin) because they focus specifically on emotion recognition in order to improve attentiveness and care for their human users. For example, companion robots from Sony and SoftBank can purportedly recognize emotions from facial expressions and voice inflections; and some cameras from Panasonic can detect anxiety through heart-rate visible in light variations of blood vessels in

skin. These technological advances raise a question of concern to both HCAI technology users and social scientists: If emerging emotion-focused AI technologies are "human-centered," how do engineers imagine human wellness through technological platforms of mediation?

Until recently, engineers modeling emotion in machine systems have answered this question by drawing primarily from Western theories of human psychology. However, in several new collaborations between technologists and Buddhist scholar-practitioners in Japan, researchers are reimagining the future of emotional wellness in distinctively Japanese terms. This presentation draws on ethnographic research among Buddhist-inspired technologists to evaluate how narratives of emotional wellbeing and (non)-self from Buddhist traditions are contributing to new stories about health in more-than-human terms. Among the projects considered are a team of Zen Buddhists building a meditation and mental health app; a Zen temple sponsoring the construction of an android bodhisattva to offer teachings to temple patrons, and a team of Buddhist researchers who are building a suite of wearable technologies and mood-regulating implants to realize a "mentally healthy and dynamic society by 2050."

In contrast to research on human-centered AI technologies consistent with global AI ethics protocol, these projects align more radically with ambitious national calls for research that imagines grand transformations in Japanese society, such as of Japan's 2019 Moonshot program solicitation which advocated to applicants, "This is our new future. A future inspired by science, but shaped by human spirit. Don't think it's impossible. Don't be afraid to fail. Don't feel constrained by prior expectations." This presentation showcases researchers who adopt Buddhist narratives of wellness to craft non-Western and distinctively Japanese models for building ambitious new digital health technologies. It argues that these Buddhist approaches present an integrated "more-than-human" model of emotional health, rooted in Zen ideology, that productively and playfully challenges not only conventional ideals of human-centered AI but also "all-too-human" approaches to narrative technologies that attempt to purposefully design new futures into being.

02:00 – 03:30 PM	**Imagined Futures of the Augmented Self** Chair: Heiko STOFF (Medizinische Hochschule Hannover)

Hoshi Shin'ichi and Artificial Intelligence

Michaela OBERWINKLER (Heinrich Heine University Düsseldorf)

Hoshi Shin'ichi (1926 – 1997), esteemed as one of Japan's three great science fiction writers, is renowned for his extremely short stories that often conclude with unexpected twists. Many of his over 1000 narratives not only describe the development of human society on Earth, as exemplified by "The Age of Speed," but also explore the existence of alien worlds and extraterrestrial life on distant planets, as seen in "Greetings from Outer Space." A prominent theme in his work is the interaction between humans and robots, where he critically examines both the benefits and the complexities of robotic integration, as illustrated in "The Whimsical Robot."

Hoshi Shin'ichi's stories have been meticulously analyzed and utilized as data sets for computational linguistics software. This endeavor, part of the "Kimagure Artificial Intelligence Project" (https://www.fun.ac.jp/~kimagure_ai/index.html), aims to develop algorithms capable of generating narratives indistinguishable from those crafted by humans. Consequently, both the thematic visions and the distinctive writing techniques found in Hoshi's work are invaluable for advancing AI research. They contribute significantly to the methodologies for training artificial intelligence systems to autonomously produce short stories with characteristic twists akin to those created by Hoshi Shin'ichi.

Therefore, my presentation analyzes selected short stories by Hoshi Shin'ichi to explore his perspectives on the support provided by artificial intelligence, particularly in linguistic capabilities, as exemplified in "A Secretary on Your Shoulder." In this story, a parrot-shaped robot translates short prompts from humans into elaborate sentences and condenses long explanations into simple messages—functions similar to those of ChatGPT. The second example is Hoshi Shin'ichi's depiction of the limitations of machine knowledge, as exemplified in "Miss Bokko," where a female robot possesses communication skills akin to one of the earliest chatbots, ELIZA, which could extract keywords from conversations and rephrase appropriate responses. Finally, the presentation addresses Hoshi's views regarding the potential dangers of delegating responsibility to artificial intelligence, as illustrated in "The Department of Sustainable Living," where a computational machine decides who has the right to live and who must die.

In this way, Hoshi Shin'ichi offers a vision of perilous developments in his narratives, such as those in "Voice Net," which foretells the ethical quandaries plaguing today's information society. This stands in sharp contrast to the prevailing belief in Japanese society that new technologies inherently enhance human lives. Thus, Hoshi emerges as a prescient visionary, highlighting both the promises and potential perils of technological advancement.

Japan's Dawn of a „New Extended Reality Era" through the Lens of Future Imaginaries

Nicole M. MUELLER (German Institute for Japanese Studies, DIJ)

When NTT's XR subsidiary QONOQ was founded in October 2022 – one year after Facebook's rebrand to Meta – this was announced as „XR shinjidai hajimari no aizu", as the „start signal of a new era of XR" (Extended Reality). Since then, the push for XR from Japan's technology corporations has been considerable, giving rise to specific XR imaginaries, i. e., particular expectations and attitudes directed at this set of emerging technologies. This paper focuses on the potential cultural characteristics of these imaginaries, analyzed through a digital topic modeling of online tech news corpora.

The umbrella term Extended Reality envisions an amalgamation of Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR): Whereas fully immersive VR has been popular with Japan's otaku and gaming scene for decades, AR and MR, a more permeable, real-time interactive mesh of physical reality and digital content, gained traction more recently. Through synergies with generative AI, Internet of Things (IoT), digital twins, and new network technologies, XR technologies potentially provide a new type of User Interface for a forthcoming cyberphysical digital ecosystem.

Building from this, my paper investigates XR imaginaries that, while naturally also subject to global trends, might in some aspects be culturally specific to Japan. Examples for the latter are the influence of manga and anime aesthetics on XR visuals as well as the multi-platform consumption of popcultural franchises, spanning from manga, anime, and live-action adaptations to merchandise, collectibles, and themed locations and events. This ties in with a remarkable fondness of Japanese audiences for imaginative spaces and experiences such as collaboration cafés, pop-up stores, digital exhibitions, and projection mappings. Sophisticated XR applications, making beloved manga and anime characters appear seemingly out of thin air or creatively transforming public spaces, could facilitate similar services more seamlessly and dynamically and thus engender a heightened receptiveness of Japanese audiences towards XR. Other specific demands could result from specific societal challenges which are met through culturally informed technological strategies: Japan's rapidly ageing society, social struggles and loneliness, as well as a high occurence of natural disasters potentially necessitate specifically targeted XR services and products as well as specific XR imaginaries.

While being created to regulate public attitudes towards emerging technologies, those imaginaries only become relevant if they are collectively upheld, stabilized, and perpetuated. One example which allows us to retrace the creation and circulation of XR-related future imaginaries is the Japanese online news platform MoguraVR. For this paper, more than 10,000 XR-related Japanese news articles from MoguraVR were analyzed based on digital topic modeling, so that we can demonstrate the potential of digitally augmented methodology for the analysis of imaginaries, while situating the results in a broader discussion of interrelations between culture, technological innovation, and specific types of discourse established or enforced by corporate stakeholders.

'If it were real, I'd feel both fascinated and cautious.' – Reflecting on Japanese citizens' narratives about a prospective metaverse through a design-theoretical lens

Michel HOHENDANNER (TU Munich//Munich Center for Digital Sciences & AI//German Institute for Japanese Studies)
Chiara ULLSTEIN (Technical University of Munich)
Hirotaka ŌSAWA (Keiō University Tōkyō, Keiō SF Lab)
Jens GROSSKLAGS (Technical University of Munich)

※ The Paper is presented by Michel HOHENDANNER and Hirotaka ŌSAWA.

In our talk, we reflect on two years of narrative-driven research on perceptions of a prospective metaverse through a design-theoretical lens. Our investigation comprises three narrative-driven sensemaking workshops with different research designs. We discuss possible influences of local-specific factors and prevailing narrative visions of Japan's tech-driven future on participants' imagination and reflect on narrative-prompted discussions

of multi-national audiences. Our research highlights the potential that narratives carry for fostering value reflections on socio-technical developments.

Aside from rising corporate interest, technical factors, institutional agendas and the interest of the public have been identified as key drivers for a viable metaverse. These factors are strongly pronounced in Japan, as illustrated, e.g., by the popularity of avatar culture and applications like VRChat as well as VTubers. They also tie in with Japan's official government vision of Society 5.0 where cyberspace and the physical realm are envisioned to be closely intertwined for the purpose of solving important societal challenges.

Seeing a lack of research on public perceptions of a prospective metaverse and on the influence of narratives around its development, we explored citizens' perspectives in Japan in late 2022. We investigated how Japanese citizens (n=16) make sense of the technology put forward in public (governmental and industry-driven) narratives and how local-specific themes influenced their sensemaking process. We applied participatory speculative design (PSD) in a workshop format. PSD uses narratives about future developments embedded in the design of a concept, prototype or other medium to foster discourse about how future living environments may look like. This way, PSD is a means to explore the influence of prevailing narratives on technology through a design-theoretical lens and at the same time an opportunity to suggest new narratives. Our workshop resulted in four narrative use cases of a prospective metaverse, in the form of magazine articles, designed by our participants. These narratives depict a prospective metaverse as an open virtual space for social interaction and community building, identity and virtual presence, political practice and participation as well as a space for virtual training and sense enhancement. They also discuss these aspects in relation to local-specific themes like problems of an aging population, the wish for preservation of local-cultural practices amidst globalization as well as the need for natural disaster preparedness training.

In mid-2023, we exposed a multi-national audience (n=276) to the narratives and explored their perceptions and emotional attitudes. In groups, participants reflected on the narratives and discussed the impact of immersive technology on human social interaction and on conviviality and sociability as well as on what use cases can be perceived as meaningful. In mid-2024, we repeated these group discussions with another multi-national audience (n=180). In our talk, we compare the data collections and look back at 2 years of research on citizens' perceptions of a metaverse and the role narratives around its development play from a design-theoretical perspective.

Friday, October 11, 2024

| 10:00 – 11:30 AM | **Imagined Societies in the Data & Information Age**
Chair: Harald KÜMMERLE (German Institute for Japanese Studies, DIJ) |

Imagining a Cashless Future for Japan: Digital Payments, Data Monetization, and Customer Experience

Christian OBERLÄNDER (Martin Luther University Halle-Wittenberg)

This paper explores the evolving sociotechnical imaginaries surrounding Japan's transition to a cashless society between 2019 and 2023, with a focus on three key dimensions: digital payments, data monetization, and customer experience. Driven by both governmental initiatives and global technological trends, visions of Japan's cashless economy have been characterized by complex narratives that reflect the country's social, technological, and regulatory context. Through a detailed analysis of five consecutive reports from the Cashless Promotion Council of Japan, this study investigates how these imaginaries have been constructed and contested, drawing attention to their evolution across three core areas:

First, the imaginary of data monetization evolved from a business-centric vision of competitive advantage to one that emphasizes public value, regulatory governance, and privacy. In the early stages, data was positioned as a key resource for business growth, but by 2022, a broader discussion emerged about the need for standardized APIs, universal IDs, and data governance frameworks to ensure secure and inclusive data utilization.

Second, the imaginary of the growth of digital payments was significantly influenced by China, which served as both a model and a dystopian counterpoint. China's super-app ecosystem highlighted the potential of a highly digitized payment system, while also raising concerns in Japan about surveillance, personal data privacy, and the exclusion of non-digital users. Japan's response was to emphasize ethical data practices and inclusivity, particularly as cashless payments surged in the wake of the COVID-19 pandemic.

Third, the imaginary of payment experience saw a significant shift from simple convenience to a seamless, frictionless process integrated into everyday life. Initial efforts focused on expanding QR-code payments and mobile wallets, but by 2022, the emphasis was on creating a fully interconnected, touch-free payment experience, enhanced by biometric authentication and the adoption of contactless technologies. The customer experience became increasingly framed as not only a matter of convenience but as a necessity for safety and efficiency, particularly in light of the pandemic.

This paper argues that Japan's approach to a cashless society is characterized by a careful negotiation of global trends, domestic regulatory frameworks, and the need to maintain social cohesion. By focusing on the interplay between technological innovation and societal values, this study highlights how Japan's digital payment landscape has been influenced by broader concerns of inclusivity, data protection, and consumer trust.

Keywords: Cashless Society, Digital Payments, Data Monetization, Sociotechnical Imaginaries, Japan, Customer Experience, Privacy, China, Biometric Authentication

Imagining the future global pandemic and surveillance society

Takahiro YAMAMOTO (Singapore University of Technology and Design)

Epidemiologists today are certain that in the near future we will experience another global pandemic akin to Covid-19 (Omi 2023). Based on their observation of numerous ongoing examples of regional epidemics across the world, they assert that the question is not if but when and what form it will take. It will undoubtedly be caused by a different virus and its impact on our society will not be the same as that of Covid-19. This looming prospect compels them to advocate for preparedness measures spanning government policies, scientific research, and capacity-building within hospitals and other sectors of society. But our response, constrained by financial resources and political considerations (including constitutional rights), will resemble the responses to Covid-19 in many aspects: extended closure of shops and offices, reduction of social contacts, wearing of masks, and rolling out of vaccinations as soon as they become available, to name a few.

In the realm of social preparedness, the Covid-19 pandemic experience reinforced tech firms' push toward online transactions as a means of reducing human contact and virus transmission. Consequently, the pandemic accelerated our society's shift toward the extreme datafication of social relations, where interpersonal communication increasingly occurs without physical contact, such as emails, SNS, and video conferences.

This paper is part of the aurhor's research project on the history of personal identification via ID photos in twentieth-century Japan. The overall argument of the research is that Japan's experience with personal identification—knowing who's who and verifying someone is who they claim to be—has been deeply entrenched in its imperial and post-imperial trajectory. The paper that I propose for the workshop is situated at the endpoint of this project, elucidating how tech firms today are strategically responding to the imagined scenario of a future pandemic to advance their business interests, thereby contributing to a process where imaginations shape our future. The case study used is NEC, whose world-leading facial recognition technology was used in the Tokyo 2020 Olympic Games, as well as in airport security, immigration checkpoints, and more within Japan and beyond. Through the analysis of NEC's technical journals, public statements, and overseas business operations, as well as the writings of epidemiologists and other intelectual commentaries on the next pandemic, this paper argues that the pursuit of surveillance capitalism (Zuboff 2019) is masked not just in the language of consumers' convenience—as has been obseved before 2020—but also in the language of pandemic response (kansenshō taisaku), since machine-powered communiation means the absence of human-to-human transmission. Furthermore, it suggests that ongoing efforts to advance ethically concious use of facial recognition technology fail to address the fundamental issue of surveillance capitalism, as they obscure the intensifying power imbalance between omniscient corporations like NEC and ordinary citizens treated as "dividuals" (Deleuze, 1992).

Mapping the Socio-technical Imaginaries of Dataveillance in Japan

Peter MANTELLO (Ritsumeikan Asia Pacific University)
Alin OLEANU (Käte Hamburger Kolleg, RWTH Germany & Shanghai International Studies University)

While Japan ranks amongst the safest countries in the world, like other developed nations plagued by the global economic downturn, incidents of petty crime are at an all-time high. Retail outlets, especially Japanese convenience stores known more popularly as konbini are now suffering about $4.5 billion annually in losses from shoplifting. For Japanese businesses, AI driven security systems offer cost-cutting solutions to thwart

shoplifting. Developers in Japan such as VAAK, Earth Eyes, ELSYS and tech giant Sony sell AI-powered hardware and software that can track and analyse customers' instore movements, facial micro-expressions, gait, dwell time, clothing apparel as well as assign risk scores and alert store clerks to suspicious movements or criminal behavior. And yet these technologies carry the ancillary benefit of doubling as data-driven marketing tool that draws from the same biometric and behavioral surveillance data to identify ideal customers and advise on future advertising strategies. Thus, for businesses, the appeal of this technology lies in this pluri-potentiality of actuarial insights to better discipline the potential thief but also optimize ways to monetize the repeat customer. On the surface, these surveillances practices belong to a larger trend in unmanned retail, replacing security guards (and eventually most service labor) in brick-and-mortar spaces of commodity exchange. At a deeper level, it is an interface that sutures the physical landscape of human surveillance in Japan with a computational, digitally powered socio-technical assemblage. An assemblage which is intrinsically linked to techno-nationalist discourse of Society 5.0 and post-capitalist forms of production.

Expanding and nuancing current discourse on surveillance capitalism by Zuboff (2015) and platform surveillance by Murakami-Wood and Monahan (2019), we see present-day Japanese techno-nationalism as a computational space tethered to larger digital infrastructures aligned to ongoing developments in platform capitalism. We argue: if print capitalism (aka newspapers) is historically responsible for the modern nation imaginary (Anderson, 1983) and citizenship concept, then AI surveillance, as a consequence of platform capitalism, plays a critical role in writing the socio-technical imaginaries (Jasanoff, Kim 2015) of Japanese techno-nationalism. By writing we mean forms of sociocultural representation that, by being readable by a population, constitute a literacy and render individuals capable of engaging with political discourse (i.e., citizenship since Enlightenment) not merely paper-and-pen or printing press ways of representing speech.

| 02:00 – 03:30 PM | **Imagined Futures of Our Lived Environment** |
| | Chair: Barbara HOLTHUS (German Institute for Japanese Studies, DIJ) |

Ecological narratives in the drawn visions of the future of the Tokyo metropolis

Corinne TIRY-ONO (Paris-Val de Seine National Graduate School of Architecture)

Few rebuilt metropolises have stimulated so many drawn visions from architects, creating a kind of "Parallel Tokyo". More specifically, the aim here is to identify the narratives or imaginaries that some contemporary Japanese architects nowadays convene to design the capital's future.

We will focus on two Japanese architects working on a large scale, in support of conceptually speculative projects for the future of Tokyo:

- "Tokyo 2050 Fiber City" in 2004 by Ohno Hidetoshi 大野秀敏 (b. 1949),

- "*Chiiki shakai-ken* 地域社会圏 (Local Community Area)" in 2012 by Yamamoto Riken 山本理顕 (b. 1945).

The representations of the capital city's future that they produce belong to one or other of these categories (Besse, 2020): the fiction, the scenario, and sometimes even to both categories at the same time.

The aim is to examine the conceptual relationships these two architects have with both Tokyo's present and its past. Indeed, to project a future, on what present and what past can we rely?

The recognition and manipulation of inherited architectural and urban motifs are design principles shared by both architects as they propose a narrative for the Tokyo of tomorrow.

At the beginning of the 21st century, in parallel with the Urban Renaissance policy and in the wake of the triple disaster in Tōhoku (2011), the central issue of building (de)densification and risks led architects to draw on the discreet qualities of the metropolis to reveal an image that is rooted yet plural, even timeless. They draw on the intrinsic spatial and structural values of Edo and Tokyo to (re)animate another image of the capital.

For these post-war architects, Tokyo's "urban ecology" (Banham, 1971) is one way of constructing a new narrative. Digging into its spatial resources, hidden or marginalized by modernity, determines the potential for writing the future of the Japanese capital, and offers the opportunity to (re)construct an image that is familiar locally, singular yet shareable across borders. A cohabitation of global (the vertical city) and local (the urban village) figures draws a new narrative in the form of scenarios.

On the contrary, with the Environment, Social, Governance (ESG) project for Tokyo Bay, published in 2021, the Metropolitan Government reactivates architectural fiction to develop a laboratory for a 21st-century model city

in Japan, supported by a globalized technophile ecological narrative. Together, these parallel representations play a narrative role in the construction of the Japanese capital's image, both locally and abroad.

Fraught Narratives, Contrived Futures: Connection and the Unhoused across Tokyo

Paul CHRISTENSEN (Rose-Hulman Institute of Technology, Indiana)

Mirai—future—is ubiquitously written into Tokyo's cityscape. Yet, the paucity, desperation, and deception of such future-referencing declarations are increasingly evident. My project, *Fraught Narratives, Contrived Futures: Connection and the Unhoused across Tokyo*, argues that the visions for Japan's future, promoted through large-scale initiatives like Innovation 25, Society 5.0, and the SDGs, advance a reliance on techno-utopian and consumerist-oriented solutions for pressing social issues. By contrast, I report on how advocacy organizations for the unhoused offer a template for a more humane future. I show how advocacy groups for Tokyo's unhoused offer a meaningful demonstration of a dignity-oriented future, which I contrast with the techno-utopianism at the root of official initiatives. The significance of this contrast extends beyond Japan to debates in the Global North about what the future holds and the untenability of the austerity that afflicts so many. Rooted in Tokyo, I draw from ethnographic fieldwork with three groups that aid and assist the unhoused and impoverished: Nojiren, Tenohasi, and Sanyukai. I set this ethnographic work in dialogue with observation and analysis of visual artifacts, policy, and other official declarations intended to shape interpretations of the future, including the Ministry of Foreign Affairs' SDG related material and the various outputs from the H-UTokyo Lab. Combining these conflicting perspectives demonstrates how the future, including alternative visions of what is possible, is a contested terrain and necessary site of inquiry.

'Austerity' ideology has shaped Japan in undeniable ways; it has created an insipid setting of overstimulated numbness where many feel tangible uncertainty about their contemporary existence and their future prospects (Mattei 2022: 12). Top-down efforts—most recently Society 5.0 and the SDGs—created or promoted by the national government and large corporate and bureaucratic entities, put forward carefully-crafted iterations of ideas, proposals, and initiatives intended to shape how the citizenry imagines their future and that of Japan. At each stage, these initiatives have been widely promoted as the mechanism by which Japan's future will be made meaningful and societal concerns will be overcome. I suggest these initiatives capture a 'future past,' where nostalgia for the past and promises of forthcoming technical solutions are amalgamated into a weakening panacea tasked with addressing contemporary woes (Robertson 2017: 78). They become the offered roadmap for meaning and purpose in the lives of citizens anxious about an aging and shrinking population and other areas of economic and social concern. Prominently embedded in all these initiatives is future-oriented language that aims to calm and reassure. But there is a clear disjuncture between the future people are told to anticipate and the realities encountered in their daily lives. My analysis reveals how smaller-scale work to restore community, dignity, and hope to those who have been systematically denied such necessities, is obscured in these fantastical plans for the future, but may in fact offer a more humane path toward an inclusive future.

Fukushima Futures: The Politics of Nuclear Energy in Japan after 3/11

Kyle CLEVELAND (Temple University Tokyo)

In the aftermath of the 2011 Fukushima nuclear disaster, nuclear energy has become a point of contention not only for the immediate victims affected by this disaster, but for Japan's position in the Geo-political space of East Asia. With three nuclear reactors in meltdown and the first total station blackout in the history of nuclear energy, the Fukushima nuclear disaster was one of the most significant events in Japanese history, and it will continue to resonate as it has become a symbol of institutional incompetence and governmental hubris, where the dysfunctional disaster response revealed a lack foresight that could have lessened the damage or even prevented the disaster from having taken place.

Japan was granted recognition as host country of the Olympics under the branding of the Reconstruction Olympics, an ode to the suffering of those who endured the events of March 2011, and an attempted celebration of the resiliency of Japan having persevered through the unlikely 3/11 conjoined Tohoku disasters. Having comprised 30% of Japan's energy supply before the Fukushima disaster, nuclear power now generates 6% is of Japan's energy and the restarts of the closed reactors remains a bitter source of contention. While Japan's domestic nuclear energy has undergone regulatory reform, it continues to pose a perceived threat not only to citizens living in the shadow of the nuclear plants but in the geopolitics of Asia. This presentation will discuss the political narratives that have assembled around the nuclear disaster as it has affected Japan's energy policy, its

evolving military priorities, and its legitimacy of being a genuinely democratic state, as public sentiment runs up against state-level policy priorities. These issues will be addressed based upon ethnographic fieldwork in Fukushima since 2011 with comprehensive interviews across the range of actors (nuclear industry officials, local, prefectural and state level politicians, Japanese and U.S. government and military officials, nuclear refugees and activists) who are invested in the future of nuclear energy in Japan.

As Japan attempts to keep pace with North Korea and China while officially remaining a non-nuclear (weapons) state, its embrace with the U.S. military and American priorities has led to devoting more resources to the military and accepting nuclear weapons on its territory as a necessary compromise despite widespread public opposition to a Nuclear Japan. Hiroshima and Nagasaki from WWII onward, and now Fukushima, cast a long shadow on Japan's history, and yet the nuclear village remains dedicated to restarting reactors and re-establishing commercial nuclear energy as a necessary resource for its economy. Given Japan's unique and tragic experience with nuclear energy, discourses of victimhood and resiliency have competed for legitimacy in the domestic marketplace of ideas and has posed a dilemma for reconciling past grievances with its Asian neighbors, who carry the legacy of Japanese imperialism in their experience and nationalist narratives. Post-Fukushima: how can Japan solve the equation of needing a nuclear umbrella to ward off existential threats to its survival, and commercial nuclear energy to solve its energy needs, while carrying deeply symbolic resentment against nuclear energy that is burned into the nation's memory, and continues to generate simmering resentment in Fukushima, where the nuclear accident is ongoing (and will be for at least a generation).

04:00 – 05:30 PM	**Futures in the Making - Practices, Methods, Mechanisms** Chair: Michel HOHENDANNER (Technical University of Munich & Munich Center for Digital Sciences and AI [HM])

Techno-nationalism and the Land of the Rising Robots. The Japanese government's co-construction of policy and technoscience

Amanda BRØDSGAARD (University of Copenhagen)

In 2021, Japan's government presented the sixth Basic Plan for Science, Technology and Innovation in order to boost innovation and break the economic stagnation of the Japanese economy. This plan is also an attempt to position Japan as a leader in the global robotics race, drawing upon narratives of the technological affinity of the Japanese. The aim of this PhD project is to explore how this policy is engaged in the co-creation of technoscientific artefacts and Japanese techno-nationalism through communicative and material praxes. Through the theoretical lens of Science and Technology Studies, a variety of empirical material will be scrutinized to elucidate the effect these policies and discourses have had on Japanese robot laboratories, startups and companies, which will be used as one example of the many actors in the Japanese technoscientific communities.This project seeks to nuance the academic debate on Japanese robotics within both Japan Studies and STS research, as well as to contribute to the considerable body of works within STS by using Japan as a case.

Science and Technology Studies, or STS, is a highly interdisciplinary field, in which the main focus is examining the ways in which science, technology and society interact, influence and reproduce one another. This project draws on the theoretical framework of Sheila Jasanoff's 'sociotechnical imaginaries', as well as Annemarie Mol's 'praxiography' to uncover the power relations at work in techno-nationalist narratives in Japan and how these are represented in the multiplicity of the robot as a representation of advanced technoscience. While Mol and Jasanoff's theories disagree on the ontological status of non-human actors, I hope to synthesize the two conceptual frameworks, as I am convinced the project will benefit from the use of both.I will also be using theories from East Asian and Japanese STS.

The empirical material consists of two different types of data. First, I will use archival material, such the Basic Law and Basic Plans for Science and Technology 1-6, other governmental texts, whitebooks, press material, memos from i.e. Keidanren, newspaper articles etc. Secondly, I intend to analyze ethnographic observations and in-depth interviews with actors in the aforementioned technoscientific communities in Japan, collected during a research stay in Japan in 2023. The data will be examined to elucidate the effect these policies and discourses have had on the Japanese robotics community as an example of the many technoscientific actors in Japan.

"Let's think together": Scattered narratives in NHK's #BeyondGender project

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This paper examines an initiative by NHK, Japan's public broadcaster, to disseminate a vision of Japan's future as revised through media technologies. Since 2020, NHK has hosted a media project entitled #BeyondGender, which includes a loosely connected series of documentaries, fictional works, articles and public service announcements focused on feminism and LGBTQ+ issues. The content of #BeyondGender is scattered across online, television, and radio platforms, several of which encourage sharing and debate. #BeyondGender promotional content frames the project as a nationwide forum encouraging "thinking" ("kangaeru") about the creation of a more equal society.

#BeyondGender is comprised of a constellation of media works that overtly aim to develop sympathy for gender equality and LGBTQ+ rights in contemporary Japan. Many also deploy QR codes, embedded content, and exclusive online content to link the project's scattered narratives of equality. In this sense, the authority of Japan's public broadcaster is reinforced through a transmedia network in which constituent parts stress the validity and relevance of other constituent parts. #BeyondGender positions societal reimagining as achievable only through engagement with multiple media technologies.

Using the case studies of two short videos from #BeyondGender, this paper analyzes how the project develops authoritative blueprints for a revised future. One of the project's introductory videos, "Sorezore no chiiki de, 'Minna de Purasu' de, tenkai shiteimasu" (2022), disputes traditional gender hierarchies while highlighting NHK's unity over digital and broadcast platforms. In an episode of the children's series Sukuru!, "Onna no ko-rashisa tte?" (2022), characters use digital tools to engage in onscreen interpretation of embedded NHK content. As stereotypes are refuted through the resulting interpretations, gender norms are positioned as rewritable by guided digital participation.

#BeyondGender represents a coordinated usage of media technologies to transmit a revised vision of Japanese society at the national level. It does so, however, with constant reminders that engagement with Japan's public broadcaster is needed to access that vision. In the logic of #BeyondGender, participants' collection of scattered media imaginings—when guided by NHK—carries the promise of a remade society.

Posting the Future in the Present: Imagination as Manifest Destiny

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"It's a scary story that happened recently," my friend who is a teacher said with a serious face. "If you ask them to write an essay titled 'Future Dreams' in language class, they will all say YouTubers, game commentators, and e-sports players," "That's scary" #140characternovel April 12, 2020

If our wildest dreams about the future—the very dreams that condition the possibility for development of sustainable technologies and policy directions—are themselves conditioned by a kind of thinking that operates only in response to fears and hopes presented in narrative form, then understanding how such narratives function is key to understanding the development of human society and the future of the planet. Fritz Breithaupt's theories of a narrative brain explain how the stories we tell ourselves can become the framing justifications for real world actions and behaviors. As such the narratives, we imagine for ourselves and our societies about the near and distant futures are particularly telling and constructing of those very futures of which they wax whimsical. As hypercontextual, multiversioned "concrete minimal narratives," microblog fictions offer a unique case study of Breithaupt's narrative brains at work. They can show us in clear and tangible ways not only the potentials and risks of our decisions to construct technologies today for the future, but also the ways in which such decisions are imbedded in a broader social discourses and discussions (in the plural narratives of our imagined futures).

This paper examines an archive of over 8,000 fictional tweets about the future written in Japanese, Spanish, and English suggesting the ways that the possibilities and limitations for our future directions are grounded in narrative whims, technological anxieties, and deterministic thinking. By comparing multiple versions of similar stories of the future, by examining their reposts, quotes, and likes, we can see in tangible terms the conditions of future possibilities for the world even in such limited forms. Drawing on my book The New Real which theorizes that an emerging reality stems—not from the closer and faster connections to reality brought to us by our new media, but rather— from the repetition of daily use of those media in mimetic ways, this paper argues that imaginative literary posts about the future are perhaps the clearest manifestation of the truth of Breithaupt's notion that "narratives always come in the plural."