

Japanese data strategies, global surveillance capitalism, and the “LINE problem”

Harald Kümmerle

German Institute for Japanese Studies

DOI: <https://doi.org/10.1344/jnmr.v3i1.38966>

Abstract

This paper situates data practices in Japan in a diffractive genealogy of surveillance capitalism. It puts data conceptualized in three ways into focus: real data, data in information banks, and data of the super app LINE. While technology embodying these concepts of data is mainly used in Asia, this technology is entangled with discourses and legislation in Europe and practices of U.S. American surveillance capitalism in important aspects. This article empirically traces these entanglements and demonstrates how discourses around data sovereignty, geopolitical shifts, historical background, global political and economic trends, and international policies intermingle in contemporary accounts of data and digital sovereignty in Japanese context. Decolonial theory is consulted in order to account for Japan’s recent past as a non-Western territorial empire and the privileged position that Japanese experts on data have in the drafting of international data policies.

Keywords

Diffractive genealogy; Surveillance capitalism; Japan; geopolitics of data; Decolonial theory.

Introduction

The burgeoning field of new materialist informatics takes interest in the algorithmic condition, invoking Hannah Arendt's question of how to live an "active life" as the condition of possibility for politics (Arendt, 1958; Colman et al. 2018, p. 8). Arendt is also a central point of reference in Shoshana Zuboff's ground-breaking work *The Age of Surveillance Capitalism* (2018). (Re)constructing how practices of surveillance by giant tech companies like Google and Facebook have come to exert tremendous influence on our daily lives, she develops analytical terminology like the "behavioural surplus" and the "uncontract" that help account for the economic and political context of the said algorithmic condition and data practices. This paper aims to situate aspects of surveillance capitalism in Japan by performing a diffractive genealogy. That means it "materialize[s] ontological processes of formation at 'different scales'", "intra-actively and topologically (re)configur[ing] the genealogy" it produces (Mauthner, 2016, p. 265). The paper traces entanglements of data technology on the local, regional, and global scale, between the private and the public, as well as between empire and the economy of nation states. It draws on decolonial theory by highlighting an ambivalent position of Japan as both a recent imperial power, a global political agent, as well as a peripheral knowledge producer. The discourses, infrastructures and historical moments analysed in this paper are resonating with and being influenced by European and U.S.- American approaches to data sovereignty, privacy, and surveillance capitalism. The paper shows these resonances by analysing the cases of three types of data and the implications that arise. Overall, the goal of the paper is to draw a map that entails infrastructure, political actors, experts, nationalist/international/colonial-imperial discourses, and strategies, weaving these elements into a detailed narrative. This narrative, which is attentive to both geopolitical nuances and infrastructural materialities, performs a diffractive genealogy that contributes to a better understanding of data regimes and their interconnections with surveillance capitalism.

The structure of the paper is as follows. First, I present Zuboff's main points on surveillance capitalism and exemplify a shift towards data sovereignty in recent years as an important context for discussion of Japanese data strategies. Then, I discuss

the methodology and introduce two global designs (Mignolo, 2012) that have originated in Japan. The following main part of the paper, detects how three specific concepts of data – real data, data in information banks, and data of the super app LINE – come to matter in Japan and more generally. For this, concepts are regarded as specific material arrangements embodied in material-discursive apparatuses of production (Barad, 2007). While each of the three concepts is of interest in its own right, this paper pays special attention to the “LINE problem” as exemplary of geopolitical entanglements of data technology. The conclusion of the paper contextualizes the results more broadly.

Surveillance capitalism

In Shoshana Zuboff’s account, surveillance capitalism was born at Google in the years after the burst of the dotcom bubble in 2000. User data had, until then, already been used for improving the quality of search results. But it also came to be used for better targeted advertising, opening a new economy of scale (Zuboff, 2018, pp. 96–99). New streams for the extraction of behavioural surplus were added incrementally, despite the occasional public outcry. This is congruent with Arendt’s understanding that accumulation happens as part of a cycle, not merely because of a one-time explosion in the past that brought about capitalism (Zuboff, 2018, p. 124). Surveillance capitalism first spread to Facebook, then also to other giant tech companies like Microsoft; as they offer their services to smaller companies, surveillance capitalism now streamlines into many parts of our lives. Through the revelations by whistleblower Edward Snowden in 2013, it became public knowledge that American intelligence agencies were complicit in this streamlining. That surveillance capitalism could emerge in the U.S. and that it is allowed to persist, is, importantly, due to “surveillance exceptionalism”: the claim that the U.S. has no alternative but to continue its fight against terrorism after the attack on the World Trade Center on 11 September 2001. In order to fight “terrorist content”, the sources for behavioural surplus are now also used to create algorithms that detect “radicalization” (Zuboff, 2018, pp. 448–449). Surveillance capitalists today provide stability for the political and economic order in many countries. For instance, at the height of the European migrant crisis in

2015, the German government urged Facebook to immediately draft a policy to protect migrants from hate speech. The company had to comply swiftly, skipping internal approval processes that would have taken months (York, 2021, pp. 19–20).

Reflecting fears of overreach from abroad – such as through U.S. surveillance activities and through Chinese economic espionage – has led to European countermeasures. With GAIA-X, the German government in October 2019 launched an initiative for developing a high-performance, competitive, secure, and trustworthy data infrastructure for Europe that enjoys strong support by the French government. In November 2019, it was reported that German chancellor Angela Merkel called for the EU to pursue “digital sovereignty”, especially through a reduction of the reliance on cloud services by Amazon, Microsoft, and Google (Chazan, 2019). As American and Chinese tech companies are part of the GAIA-X initiative, some argue that it “will neither undermine the hegemonic position of U.S. cloud services nor keep Chinese digital tech at bay” (Mayer, 2021, p. 3). Authors at American think tanks consider the rhetoric of digital sovereignty that accompanies the initiative as dangerous, as it could legitimate oppressive practices in countries that have less concern for human rights than the EU (Hillman, 2021, p. 225). Nonetheless, even though there are different terms for understanding sovereignty as it relates to data (Hummel et al., 2021), this discourse plays an important role in the concepts of data discussed in this paper.

Observing data and its traces using Japanese-language sources

In agential realism, phenomena are understood to be sedimented out of the process of the world’s ongoing articulation, through which part of the world makes itself intelligible to some other part (Barad, 2007). Humans take part in the process of data coming to matter, and how they make sense of this process can be, at least partially, inferred from traces they leave. (Re)constructing a more or less coherent strategy concerning a concept of data over a certain time, then, can be done by identifying and interpreting relevant sources that contain such traces. As most of the sources I use are literature written by experts, it begs the question how to counteract an implicit replication of hegemonic discourses at least to some degree. For this, I take hints from decolonial theory.

Regarding the coloniality of power in general, the mainstream of decolonial literature still portrays the contemporary situation as "North Atlantic imperial states" opposing "China, Russia and Iran" as well as other "returning civilizations" (Mignolo & Walsh, 2018, pp. 6, 10). Besides not being North Atlantic, Japan, in this perspective, is in a precarious position, as it came to fulfil the "standard of civilization" already in the beginning of the twentieth century (Mignolo, 2012) but its dominant language, Japanese, *de facto* has only been of greater relevance for scientific knowledge production inside of Asia. As Eurocentrism is still prevalent in science, Japanese is not considered a language of scientific knowledge production, unlike English, French and German, which have been dominant languages in this regard since the Enlightenment (Mignolo, 2009). Even when pointing out strengths, specialists of the academic system in Japan might still call it an "invisible academy" with regards to an English-speaking audience (Cummings, 2015). Consequently, providing information on the affiliation of authors, institutional or otherwise, is key for interpreting textual sources in Japanese. Many of the authors quoted here are teaching at Japanese elite universities and are taking part in projects carried out in cooperation between the private and the public sectors. Their statements need to be scrutinized as such.

As Japan is a member of the Group of Seven (G7)¹, it has important agency in shaping international agreements on digital technology. The initiative *Data Free Flow with Trust* (DFFT) that aims to create legislative basis for the safe international flow of data was announced by Japanese Prime Minister Shinzō Abe at the World Economic Forum in January 2019. Originally progressing as an initiative of the very diverse Group of Twenty (G20) countries, it is now also on the data governance agenda of the G7 (Goodman, 2021). It is inherently concerned with limiting data sovereignty of nation states while naturalizing power differentials through the invocation of "trust" between parties of unequal power. The concept of the Society 5.0, a "people-centric super-smart society", was introduced in the Fifth Science and Technology Basic Plan from 2016 and has gathered international attention for being broader in vision and giving

¹ The other G7 members are the U.S., United Kingdom, Canada, Germany, France and Italy.

more consideration to issues of sustainability than Germany's similar but older initiative Industrie 4.0 (Sołtysik-Piorunkiewicz & Zdonek, 2021). This is true especially in Southeast Asia, a region that is traditionally considered to be one of the most important markets for Japanese products and a major recipient of Japanese development aid. In the decolonial sense, both DFFT and Society 5.0 are very much global designs through which data practices in Japan exhibit coloniality.² Centering Japanese concepts of data, then, does not merely counterbalance a hegemonic Eurocentric perspective – a primary concern of Indigenous concepts (Smith, 2021) – but also aims to enable legitimate critique of these concepts.

Three concepts of data

While literature on imperialism through digital platforms has focused on U.S. platforms (e.g. Jin, 2015), China is now considered to be another important pole of colonial data power (Couldry & Mejias, 2019). However, each of the three concepts of data discussed below is traced back to the early 2010s, a time when the situation was different. Well into the 2000s, Japan was dominant regarding information technology in East Asia. Its post-war "economic miracle" was based on the entanglements with its former colonies in East Asia. Japan focused on private-public partnerships and on building "national champions", being a main driver of the diffusion of information technology throughout Asia (Cortada, 2012, p. 371). Referring to technology embodying concepts of data as "Japanese", then, signals that the dominant agency inside of sources is usually ascribed to Japanese persons or institutions. Thus, Japan's past as a territorial imperial power is still present in them, often in contradictory ways. A prime example for such a contradiction can be found in the identity of Son Masayoshi, founder and CEO of Softbank. Trying to hide his Korean heritage by using his Japanese family name Yasumoto in order to avoid discrimination

² "Global designs [...] are brewed [...] in the local histories of metropolitan countries; they are implemented, exported, and enacted differently in particular places" (Mignolo, 2012, p. 65).

in the past, he is now standing up against discrimination by openly carrying his old Korean family name Son (Ōnishi, 2019).³

Mobile phones already became widespread in Japan during the 1990s. With i-mode, the Japanese telephone company NTT in 1999 launched a mobile service platform that became a great commercial success inside of Japan and gathered enormous attention abroad. Although establishing i-mode in markets abroad was not successful in the long run, it laid the groundwork for the architecture of today's smartphones (Steinberg, 2019, pp. 127–128). Its model of offering services based on fees differed profoundly from the data- and advertisement-driven model of offering services “for free” prevalent in the Silicon Valley (Steinberg, 2020, p. 3). Notably, Google CEO Eric Schmidt openly told Natsuno Takeshi, one of the architects of i-mode, that he wanted to take the i-mode concept and extend it to the world (Steinberg, 2019, p. 130). What made a difference was that Google knew how to make use of the behavioural surplus using the data extracted with its operating system Android and the Google Play Store, achieving global scale and succeeding in markets where NTT had not. It was during the 2010s that the i-mode-based phones finally gave way to Android and Apple's iOS smartphones in Japan, too.

It is from a position of former strength and the acute feeling of having fallen behind that most of Japan's current expert discourse and drafting of data policy takes place. However, privacy is given significant consideration; this has increased since the General Data Protection Regulation (GDPR) became effective in the EU in May 2018 (Zuboff, 2018) and Japan's data protection legal regime was judged as adequate by the European Commission in January 2019. Increased efforts for harmonization over many years had preceded this (Van Overstraeten, 2020, pp. 138–139). Thus, the data strategies in Japan (re)constructed below have been entangled with the growing concern for data protection that developed especially in Europe.

³ Not only is Softbank today one of the major Japanese technology companies, it also maintains the world's largest technology-focused venture capital fund.

Real data

The term “real data” (*riaru dēta*) points to a particular type of big data and features in many strategic documents, including those concerning Society 5.0. Its importance is sometimes justified as arising from traditional strengths of companies in Japan. Current business literature connects real data to the practice of continuous improvement, *kaizen*.⁴ An article in the bimonthly magazine of the Ministry of Economy, Trade and Industry (METI) from 2016 mentions real data, *kaizen*, and a newly established AI research laboratory by Toyota in the Silicon Valley (Keizai Sangyōshō, 2016b). In the same issue, real data is highlighted as a keyword of interest and defined as:

Health information, movement data, operation data of factory equipment (and so on), the data gathered by sensors (and so on) from activities of individuals, companies and nature in the real world.⁵ (Keizai Sangyōshō, 2016a, p. 24)

In March 2014, Morikawa Hiroyuki, professor at the Research Centre for Advanced Science and Technology of the University of Tokyo, is interviewed in a publication by Hitachi; he explains that the data of “giant corporations who are the winners of the current IT world” have been gathered through the internet and constitute “virtual data”. However, he holds that in sensor-intensive environments with machine-to-machine communication like factories, Japan has an advantage because there is much more data in such a setting. The key to using real data lies in having people go into the field (*fīrudo*) and have them discover tasks which they can solve, a setting which is “the polar opposite” of the setting where people write code “at their table” (Hitachi, Ltd., 2014). The title of the article (“On the frontier (*furontīa*) of ‘real data’, there is a chance for Japan to win”) uses a metaphor known among system architects in the United States: the Internet of Things (IoT) is as inevitable as the drive to the West on the American frontier (Zuboff, 2018, p. 260). For Morikawa, Japanese can excel in settings where real data is relevant because teamwork is necessary. In contrast to the

⁴ Gathering data for making continuous improvements to the production process, a practice that has come to be known globally under the term *kaizen* (Japanese for “improvement”) has been central to the Toyota production system.

⁵ *Kenkō jōhō, sōkō dēta, kōjō setsubi no kadō dēta nado, kojīn kigyō shizen no jissekai de no katsudō ni suite sensā nado ni yori shutoku sareru dēta*. Here and elsewhere all translations from Japanese are mine.

“individualism of Europe and America”, the “cultural soil of Japan” that encompasses organizational strength and the “Japanese spirit” (*wa no seishin*) is very advantageous to this (Hitachi Ltd., 2014). In his 2019 book titled *Data Driven Economy*, Morikawa explains that the value is won through “mutual cooperation of the real world and the cyberspace”: collecting data, analysing the data, and going back “into the real world” (Morikawa, 2019, p. 5) – the core aspect of *kaizen*. In this way, the amount of real data is “by far [such that] it cannot be gathered by single corporations like Google or Amazon”⁶ (Morikawa, 2019, p. 39). This is why the internet, smartphones, the cloud and sensors should function as infrastructure (Morikawa, 2019, p. 8). Claiming that certain big data is gathered in the real world while other big data is gathered in the virtual world may seem arbitrary but is relevant from a performative viewpoint.

By referring to real data, initiatives of American tech companies have been confronted from a position of (perceived) Japanese advantage. At a meeting of the governmental Intellectual Property Strategy Headquarters in late 2019, Alphabet’s Sidewalk Toronto is referred to as a project abroad gathering real data. Concerning the anxieties regarding privacy that Alphabet was met with (see also Zuboff, 2018, p. 267), the slide points out that the Japanese government has launched the Global Smart City Alliance together with the World Economic Forum and the G20 (Naikaku-fu Chiteki Zaisan Senryaku Suishin Jimukyoku, 2019, p. 13). Kitsuregawa Masaru, Director General of the National Institute of Informatics and Professor at the Institute of Industrial Science of the University of Tokyo, in that meeting heuristically explains that in cyber-physical systems (CPS), if cyber refers to a digital platform, then the physical refers to real data; moreover, “CPS + real big data” in his interpretation is the 5.0 in Society 5.0 (Naikaku-fu Chiteki Zaisan Honbu Kōsō linkai (Dainikai), 2019, p. 13). At a conference on big data in medicine, Kitsuregawa frames “real big data” a “source for business” and emphasizes that papers and patents are not sufficient anymore to effectively make use of research results in the private sector. He holds that the “design of data is key” and that Japan should be as proactive as Germany is with GAIA-X, displaying a screenshot of the above-cited article (Chazan, 2019) on a slide (Nihon Iryō Kenkyū

⁶ *Totemo Gūguru issha, Amazon issha de atsumeru koto wa dekinai.*

Kaihatsu Kikō Kōshiki Channeru, 2020). Kitsuregawa thus refers to data sovereignty in two understandings, one pertaining to the context of IT architecture and one pertaining to the context of research (Hummel et al., 2021, p. 12).

The concept of real data has proved to be productive enough to feature in the name of a prominent international project. Sampo Holdings, a company traditionally focusing on insurance, in 2019 set up a joint venture with the American data analysis company Palantir; the companies are now deploying a “Real Data Platform for Security, Health, and Wellbeing” (Business Wire, 2021). As Palantir has been engaged in predictive policing in the U.S. (Zuboff, 2018, p. 451), real data is relevant to a new materialist perspective on surveillance capitalism beyond Japanese context.

3.2. Information banks

“Information banks” (*jōhō ginkō*; also called Trusted Personal Data Management Services, TPDMS) are institutions that facilitate the usage of personal data in the Japanese economy. The naming reflects that their business model is similar to that of traditional financial institutions: An individual user can decide to deposit data to a trusted entity, an information bank, which in turn will provide the data to a third party; a portion of the economic gain is then returned to the individual user.⁷ In the available sources, the concept can be traced back at least until 2009 to a group around Shibasaki Ryōsuke, professor at the School of Engineering and director of the Center for Spatial Information Science at the University of Tokyo (Sakimura, 2018). A presentation at a TEDx event in Tokyo by Shibasaki from 2012 highlights potential uses for personalized medicine (TEDx, 2012). Research by Shibasaki and a group around Sunahara Hideki, professor at the Media Design Lab at Keio University, in the years that followed focuses on the necessity of anonymization, privacy and incentives for users to share data. On the relevance of the system, Sunahara in 2019 has made

⁷ For a detailed English-language explanation of the information bank system including its relation to the international MyData movement, see (Sakimura, 2020).

the judgement that “IoT security and the information banks are the foundation of the society that considers the internet a precondition” (Ōta, 2019).

Business-oriented literature now only rarely mentions these roots. The book *MyData economy: Personalization and the information banks* sets out to answer how “our lives” (*wareware no seikatsu*) will change through the birth of the MyData economy, an “economic sphere” that makes use of personal data through information banks (Sasaki, Haruyama, & Shida, 2020, pp. 2–3). While not overly prominent, the book also explains how information banks are connected to the international movement MyData on controllability of data that has been the topic of studies on data activism (e.g., Lehtiniemi & Haapoja, 2020). It was through the yearly conferences of MyData since 2016 that the system became known abroad. One of the regular participants from Japan reports that while the information bank system was, in the beginning, met with scepticism – questioning whether it had become “alienated/estranged” (*kairi*) to the “spirit” (*seishin*) of MyData – it has come to be recognized as a “third way”, differing both from the “European system” and from the “American system”. He had the impression that finally, the adoption of a more fine-grained approach in handling approval – from comprehensive agreement to “using individual agreements at its base” (*kobetsu dōi bēsu*) – brought the information bank system closer to MyData’s “vision” (Sasaki et al., 2020, pp. 167–168). A guidebook on how to make use of the information bank system makes clear that this shift happened before the background of the movement to impose stricter regulations on the protection of private information in Europe and U.S. (Morita, 2020, p. 39). As the review process of the adequacy of personal information protection in Japan – the Japanese Act on the Protection of Personal Information had been revised in 2015 – by the EU lasted between 2016 and 2018 (Van Overstraeten, 2020, p. 139), such modifications in data strategies during this time were certainly not limited to the information banks.

In an edited volume on Society 5.0, Shibasaki et al. (2020) give the diagnosis that the information bank system has met difficulties because the leaking of personal information cannot be undone. Credit scores are a more advanced remuneration scheme than merely receiving coupons or information that is deemed to be useful; however, that credit scores have been met with some hesitancy in Japan is seen as

another reason for the slow progress of the information bank system (Nomura Sōgō Kenkyūjo, 2020, pp. 196–198). Still, an article in a research journal published by the Ministry of Internal Affairs and Communications concludes that while the unwanted emergence of a uniform “social credit score” like that envisioned in China poses the biggest problem (see also Zuboff, 2018, pp. 451–458), there is no general argument against certain credit scores on the grounds of discrimination (Ohya, 2019).

Its limited success up to now notwithstanding, the system remains relevant. Ishii Kaori, professor at the Faculty for Global Informatics of Chuo University and one of the editors of the international journal “Global Privacy Law Review”, in the economy-focused newspaper *Nihon Keizai Shinbun* in December 2020 refers to the information bank system as an issue of improving competitiveness in the digital economy. Focusing on aspects of privacy legislation and private initiatives in several countries (EU, U.K., U.S., Australia, Japan, and China), she judges that except for China, there is an international trend towards data portability that could enable users to fight the dominance of American tech companies. Describing the progress of the information bank system as “sluggish” (*teichō*) – until then, one company had received regular certification and four companies had received a more elementary certification – she emphasizes that “groping for an answer” (*mosaku*) on how to increase the mobility of data with multiple approaches globally is necessary. Asset management through the information bank system enables individuals to act as players in the market for data usage (Ishii, 2020). Making clear that information banks would not be limited to users in Japan, the authors of “MyData economy” emphasize the relevance of DFFT in the “Asian region” (*Ajia chiiki*) (Sasaki et al., 2020, p. 202). Multiple governments of those countries are, however, currently drafting data localization requirements for at least some industries. The situation is still not completely clear and has to be monitored, as the Japanese-language journal “Business Legal Affairs” informs in October 2021 (Murata, 2021, p. 48). The assertiveness of post-colonial states through legislation in this regard reflects an understanding of data sovereignty that is relevant to Indigenous peoples in former territorial empires (Hummel et al., 2021, p. 12). Notably, although much research on Society 5.0 outside of Japan has been carried out at Indonesian institutions (Shahidan, Latiff, & Wahab, 2021, pp. 97–98), it was Indonesia (alongside

India and South Africa) that had opted out of DFFT negotiations among the G20 countries in 2019 (Goodman 2021).

Emphasizing the role of “privacy tech” more generally, Tanaka Michiaki, professor at the Business School of Rikkyo University, is sceptical about the current state of the information bank system and emphasizes that one should make use of the data in a “customer-centric” fashion (Data Insight Henshūbu, 2020). Using the right approach, Japan could become the third pole (*daisankyoku*) in the world regarding the building of smart cities, the other two being North America and China – a striking divergence from the positioning of Japan inside of the MyData initiative, where the other two points of reference are Europe and North America. In addition to Toyota, it is importantly Softbank that Tanaka considers key in this (Tanaka, 2020, p. 219). However, given that Softbank has access to large pools of personal data including those of several payment and bonus point systems (Yamashita, 2021), this could enable the comprehensive profiling of users and establish Softbank as a powerful surveillance capitalist.

Softbank is currently also one of the owners of LINE, a messaging app attached to an ecosystem which is becoming part of Japan’s critical digital infrastructure.

Super app data

With the functionality of instant messaging, the app LINE can be used on smart phones worldwide. However, inside of Japan, LINE functions as a platform for other platforms and offers many features, including food delivery, online shopping, music streaming (Steinberg, 2019, p. 218) and more recently also mobile payment. In 2020, it was the dominant messaging app in Japan, Taiwan and Thailand, the second-most widespread in Indonesia after WhatsApp (Nihon Keizai Shinbunsha, 2020) and had shares in the South Korean, Malaysian and Mexican markets (Steinberg, 2020, p. 4). Its feature-richness and market dominance can be compared to that of WeChat in China and KakaoTalk in Korea; these three super apps have profited from regional scale through a co-evolution of their ecosystems (Steinberg, 2019, pp. 229–233). However, contrary to WeChat being created by the Chinese company Tencent and KakaoTalk by Korean company Daum, LINE was not created by a Japanese company.

Rather, it was created by the Korean company Naver, whose chat app for Korea did not turn out to be successful.

According to an early narrative supported by the company, LINE was created and launched immediately after the Great Tōhoku Earthquake on 11 March 2011, which was followed by a catastrophic tsunami and an accident at the Fukushima Daiichi Nuclear Power Plant. Amidst the disaster, the mobile network in Japan suffered an overload and people had to communicate with their families using low bandwidth, data-based communication tools like Twitter, which LINE wanted to provide in a better and more straightforward way. Closer scrutiny shows that NHN Japan, the Japanese Naver subsidiary, had been developing the app (launched in June 2011) already before the earthquake (Steinberg, 2020, p. 4). A retrospective on the history of the internet during the Heisei era (1989-2019) by public broadcaster NHK in 2019 explains that the app had been under development before the earthquake but makes no reference to the company being owned by Korean Naver (NHK “Heisei netto shi (kari)” shuzai han, 2021, pp. 155–161). The company could publicly present LINE as a Japanese app within Japan, while it was considered a Korean app in Korea; a more accurate description would have been that it was a collaborative project between Japanese and Korean engineers and designers, influenced by both the i-mode model of platform building and the KakaoTalk chat app (Steinberg, 2020, p. 4). According to the Nihon Keizai Shinbun, it is only very recently that LINE acquired the financial power to “fight for the leadership in Asia’s IT market”⁸: a merger of Naver-owned LINE with Softbank-owned Z Holdings was announced in 2020 (Nihon Keizai Shinbunsha, 2020). The merger was carried out on 1 March 2021; the two CEOs emphasized that they wanted to pursue the “local route” (*rōkaru rosen*) in the Asian market, “hiring local engineers with a focus on Southeast Asia”⁹ (Nihon Keizai Shinbunsha, 2021a). While potential for growth on a regional scale is reduced, this strategy makes sense under requirements of data localization.

⁸ *Ajia no IT shijō no shudōken arasoi*

⁹ *Tōnan Ajia o chūshin ni enjinia no genchi saiyo*

That issues of geopolitics are relevant to data came to broad attention in Japan when the “LINE problem” (*LINE mondai*) suddenly became a topic in the Japanese mass media. On 17 March 2021, many newspapers reported that Chinese engineers involved in the development of LINE were able to view personal information of Japanese users. A front-page article in the evening edition of the *Nihon Keizai Shinbun* informs that at the “related company” (*kanren kaisha*) LINE Digital Technology Shanghai, four employees could access data of users whose data is stored inside of Japan, including their names and telephone numbers. Regarding the messaging feature “talk”, they could access dialog and pictures, whose content was reported as inappropriate. Regarding this, the company LINE stated that the related company was involved in the development of a gaming platform and had been granted access rights in the scope that is necessary for this, and that no inappropriate access has been verified. The article also mentions that LINE had already submitted a report to the “government’s Personal Information Protection Commission” (*seifu no Kojin Jōhō Hogo inkai*) (*Nihon Keizai Shinbunsha*, 2021b).

The Ministry of Internal Affairs and Communications stopped the services it offered over LINE on 19 March, and other national ministries as well as municipal governments followed over the next days. This included the service to make appointments for vaccination against COVID-19, something that LINE facilitated in coordination with the respective governments. It was also reported that data concerning LINE’s payment system and health services had been stored on servers in South Korea. Beginning on 20 March, the Chinese National Intelligence Law was regularly problematized in articles referring to the LINE problem; Article 7 of the law that had been passed already in 2017 stipulates that “any organization or citizen shall support, assist, and cooperate with state intelligence work” (Tanner, 2017). In a press conference on 23 March, LINE emphasized that it had been relocating data to Japanese servers already since February 2021 and that this process will be completed soon (*Nihon Keizai Shinbunsha*, 2021c). Those who saw the LINE problem as a phenomenon of being critically reliant on the former colony Korea may have experienced a moment of Derridean hauntology of Japan’s imperial past (on this notion in agential realism, see Barad, 2010). Some critique also targeted Softbank –

for many on the far right a dog whistle to denigrate the Korean heritage of its founder Son Masayoshi.

Experts on data in Japan seemed less concerned about the LINE problem. The timing of the reporting was hardly coincidental: exactly for 17 March 2021, the Cabinet Committee of the Japanese House of Representatives had scheduled a debate on the establishment of a Digital Agency (*Dejitaru Chō*) and on drafts of several laws relevant to information technology, including the “Basic Act on the Formation of a Digital Society”. The incident concerning LINE was already paid attention during the debate; Hirai Takuya, then Japanese Minister for Digital Affairs, stated that he had confirmed that there were reports on this matter in the newspapers that morning, but that no detailed information is available yet – and in any case, according to Hirai, it was an issue for the Personal Information Protection Commission. He emphasized that it was an administrative body independent of ministries (*sanjō iinkai*) that is able to “firmly/properly” (*shikkari*) handle the protection of personal information (Kokuritsu Kokkai Toshokan, 2021, txt/120404889X00920210317/77). The following day, the committee continued the debate. As an expert witness, the specialist on data protection law Ishii Kaori (see previous section on information banks) in her first statement gave an assessment regarding the harmonization of privacy law and the responsibilities that should decide how to proceed further with legislation. When pressed on the LINE problem later in the debate, she judged that while the issue concerned accountability and the scope of assent, it was a problem that could likely be dealt using the current legislation (*hōsei*) on data protection or at least using the usual procedures, in such a way that the Personal Information Protection Commission can exercise its supervision authority (Kokuritsu Kokkai Toshokan, 2021, txt/120404889X01020210318/6, 26). Kokuryō Jirō, a key figure in creating the Japanese platform theory behind the i-mode business model (Steinberg, 2019, pp. 109–110) who is now Professor at the Faculty of Policy Management and the Graduate School of Media and Governance of Keio University, on 23 March through Twitter gave his opinion on the problem. Among other things, he warned that a Japan-only (*hinomaru kanketsu*) strategy would be the “path to defeat” (*haisen e no michi*) and that instead DFFT should be concretized. Rather than focusing on access,

business models that structurally betray trust (*kōzōteki nishintaku o uragiru*) should be problematized. Moreover, a “witch hunt” would be dangerous (Kokuryō, 2021). The perspective Kokuryō takes tends to limit the room for data sovereignty pursued by nation states.

The question why the problem gathered much public attention while experts did not see the need for changes in legislation arises as a matter of course. A hint is provided in an interview with Amari Akira, member of the Japanese House of Peers and then head of the Parliamentary Alliance for Rulemaking and Strategy of the ruling Liberal Democratic Party, published in the online Huffington Post on 9 April 2021. Amari says that security has to receive more consideration, but that it would be “short-circuited” for Japanese companies to end business relations with China. He calls LINE’s approach, which includes being preemptive in raising security standards beyond what is currently dictated by law, a “template” for other companies that handle personal information. “It may sound weird, but I think it [noticing the LINE problem; H.K.] was good. It exposed that Japan cannot read the air”;¹⁰ “it does not take missiles to put down Japan” (*Nihon korosu nya misairu iranu*). In the case that technology and information shared by the U.S. with Japan leaked to China, there is the danger that Japan would be “decoupled” (*dekappuringu*) from the U.S. along with China (Takahashi, 2021). Implicit in this is the common assumption that a substantially worsening relation to the U.S. would threaten the national security of Japan.

While the wording is drastic, Amari’s concern for the diplomatic environment was well-founded according to the account given in “American-Chinese confrontation” (*Beichū tairitsu*), a book published in July 2021 by Sahashi Ryō, associate professor at the International Relations Institute for Advanced Studies on Asia of the University of Tokyo. According to Sahashi, the haphazard politics of the government of U.S. president Donald Trump in confronting China had provoked negative reactions and suspicion among many allies in the preceding years – giving them a reason to pursue data sovereignty, it could be added for the interest of this paper. But the government

¹⁰ In cultural anthropology, “reading the air” (*kūki o yomu*) is interpreted as the Japanese practice of adjusting one’s actions to the expectations of the surrounding.

of the new U.S. president Joe Biden, inaugurated on 20 January 2021, by March had made it clear it would further pursue or even strengthen the confrontation, this time with a believable commitment to human rights and democracy (Sahashi, 2021, p. 270). The approach to include allies in the confrontation succeeded to the degree that the U.S., the U.K., Canada, and the EU imposed parallel sanctions on several officials involved in the oppression of the Uighur Muslim population in the Chinese province of Xinjiang by 22 March (Wintour, 2021). While Japan did not possess a law appropriate for acting similarly, multi-party initiatives of members in the National Diet that already existed gained attention and further support (Nemoto, 2021).¹¹ In May 2021, the European Parliament formally froze the ratification process of the planned Comprehensive Agreement on Investment between the EU and China as some of the Chinese counter-sanctions targeted its members (Sahashi, 2021, p. 218).

When the U.S. government of Donald Trump threatened to ban the app TikTok on the grounds of the Chinese National Intelligence Law posing a danger, an editorial in the centrist Japanese newspaper *Mainichi Shinbun* from September 2020 considered pointing to the law a mere "excuse" (*kōjitsu*) to interfere in business activities of a company (Mainichi Shinbunsha, 2020). However, an editorial in the same newspaper from 24 March 2021 clearly warns about dangers arising from the law. It also cites LINE CEO Idezawa Takeshi admitting that the company had missed a "change in the tide" (*shiome no henka*) (Mainichi Shinbunsha, 2021). Thus, the LINE problem emerging as a topic of interest in Japanese mass media points to a perceived shift in the geopolitics of data, one that experts on data had, nevertheless, been aware of.

Conclusion

This paper has (re)constructed three different data strategies by performing diffractive genealogy and geopolitical mapping of the data strategies and discourses in Japanese context, with the decolonial perspective in mind. While the technique of border thinking (Anzaldúa, 1987; Mignolo, 2012) is not easily applicable due to Japan's recent imperial past, the fact that Japanese is not a dominant language in science

¹¹ On the deployment of surveillance technology in Xinjiang, see (Chan, 2018).

necessitates narrative innovations in order to account for the (relatively) strong agency that Japanese experts *de facto* have in influencing international policy regarding data. This hints towards and supports epistemic disobedience – delinking from the illusion of the zero-point epistemology (Mignolo, 2009) – that is inherent to Baradian onto-epistemology and appropriate to problematize surveillance capitalism more generally.

From the position of former strength and a prominent access to institutions like the G7 and the World Economic Forum, Japan tries to shape international policy according to the (perceived) interests of its information technology industry. Judging by the development of the data strategies analysed, it is often the hesitance of users in Japan and a drive towards data sovereignty in Southeast Asia that hinder a broad adoption of data technology developed in Japan. Future adoption could arise if people in Japan and abroad develop and maintain trust in institutions like the Personal Information Protection Commission. If a global “race to the bottom” regarding privacy expectations takes place and surveillance capitalism is accepted wholeheartedly, the consideration that privacy does in fact receive in this technology would turn out to be detrimental or meaningless at best. However, as data technology developed in Japan is entangled with Europe in important aspects of legislation and discourse as well as with practices of U.S. American surveillance capitalists, the underlying concepts are of interest for a more livable and sustainable future in Japan, Asia, and beyond.

To conclude, the three concepts of data are significant in understanding data naturecultures (Haraway, 2003) in the context of global surveillance capitalism and data sovereignty. While the concept of real data is entangled with more general techno-nationalist narratives in Japan, it can enrich debates on the ownership of data and point to the situated infrastructures and discourses that affect data practices. The data practices related to information bank system point to an interesting example of an ambiguous case of data management that, depending on implementation and discourses, can both support surveillance capitalism as well as counter it by providing a “third way” to address data sovereignty that depends less on the structure of nation states and large corporations. The data practices established through the LINE app and the “LINE problem” show how geopolitical considerations as well as histories of

imperialism and colonialism emerge to haunt (in a Derridean sense) contemporary data debates, material practices, and data policies. That this problem could gather substantial attention is, importantly, because the colonality underpinning data practices in China had become apparent and because the confrontation between the U.S. and China was judged to become a long-term issue. As these geopolitical conditions keep shifting, this paper hopefully shows that drawing genealogies of data practices from differently situated geographic, political, and historical contexts will remain an important tool for new materialist informatics methodologies.

Bibliography

Anzaldúa, Gloria (1987). *Borderlands/La Frontera: The New Mestiza*. San Francisco: Aunt Lute Books.

Arendt, Hannah (1958). *The Human Condition*. Chicago: University of Chicago Press.

Barad, Karen (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.

Barad, Karen (2010). Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come. *Derrida Today*, 3(2), 240–268. <https://doi.org/10.3366/drt.2010.0206>

Business Wire (2021, January 4). Palantir Technologies Expands Japan Business with New \$22.5 Million Contract. Retrieved August 24, 2021, from Business Wire website: <https://www.businesswire.com/news/home/20210104005171/en/Palantir-Technologies-Expands-Japan-Business-with-New-22.5-Million-Contract>

Chan, Tara Francis (2018, August 2). How a Chinese region that accounts for just 1.5% of the population became one of the most intrusive police states in the world. Retrieved June 18, 2021, from Business Insider Australia website: <https://www.businessinsider.com.au/xianjiang-province-china-police-state-surveillance-2018-7>

Chazan, Guy (2019, November 12). Angela Merkel urges EU to seize control of data from US tech titans. *Financial Times*. Retrieved September 6, 2021, from <https://www.ft.com/content/956ccaa6-0537-11ea-9afa-d9e2401fa7ca>

Colman, Felicity, Bühlmann, Vera, O'Donnell, Aislinn, & van der Tuin, Iris (2018). *Ethics of Coding: A Report on the Algorithmic Condition [EoC]* (No. H2020-EU.2.1.1). Brussels: European Commission. Retrieved December 28, 2021, from European Commission website: https://cordis.europa.eu/project/rcn/207025_en.html

Cortada, James W. (2012). *The Digital Flood: The Diffusion of Information Technology Across the U.S., Europe, and Asia*. Oxford: Oxford University Press.

Couldry, Nick, & Mejias, Ulises A. (2019). Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject. *Television & New Media*, 20(4), 336–349. <https://doi.org/10.1177/1527476418796632>

Cummings, William K. (2015). The Invisible Academy: A US Perspective on the Japanese Academic Profession. In Akira Arimoto, William K. Cummings, Futao Huang, & Jung Cheol Shin (Eds.), *The Changing Academic Profession in Japan* (pp. 235–241). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-09468-7_16

Data Insight Henshūbu (2020, December 21). Dēta kōshin koku no Nihon ni katsuro wa aru ka. "Jōhō ginkō" ga mezasu, daisan no michi. Retrieved April 29, 2021, from NTT DATA website: <https://www.nttdata.com/jp/ja/data-insight/2020/122102>

Fahey, Robert A., & Hino, Airo (2020). COVID-19, digital privacy, and the social limits on data-focused public health responses. *International Journal of Information Management*, 55, 102181. <https://doi.org/10.1016/j.ijinfomgt.2020.102181>

Goodman, Matthew P. (2021, February 2). *Advancing Data Governance in the G7*. Retrieved August 15, 2021, from CSIS: Center for Strategic and International Studies website: <https://www.csis.org/analysis/advancing-data-governance-g7>

Haraway, Donna (2003). *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press.

Hillman, Jonathan E. (2021). *The Digital Silk Road: China's Quest to Wire the World and Win the Future*. London: Profile Books.

Hitachi, Ltd. (2014, March). Daiikkai Morikawa Hiroyuki kyōju "Riaru dēta" to iu furontia ni Nihon no shōki ari. Retrieved May 20, 2019, from Hitachi IoT Platform Magazine website: http://www.hitachi.co.jp/products/it/it-pf/mag/special/2014_03rd/index.html

Hummel, Patrik, Braun, Matthias, Tretter, Max, & Dabrock, Peter (2021). Data sovereignty: A review. *Big Data & Society*, 8(1), 205395172098201. <https://doi.org/10.1177/2053951720982012>

Ishii Kaori (2020, December 11). Kyōsō sokushin e dēta iten katsudō, kyodai IT no dokusen o kangaeru. Retrieved September 12, 2021, from Nihon Keizai Shinbun denshiban website: <https://www.nikkei.com/article/DGXKZO67192780Q0A211C2KE8000/>

Jin, Dal Yong (2015). *Digital Platforms, Imperialism and Political Culture*. New York: Routledge.

Keizai Sangyōshō (2016a). Kongō no keizai kīwādo. *METI Journal*, 2016(8–9), 24.

Keizai Sangyōshō (2016b). Sangyō kōzō wa kō kawaru: Kadai kaiketsu de juyō o kanki! *METI Journal*, 2016(8–9), 8–9.

Kokuritsu Kokkai Toshokan (2021). Kokkai kaigi roku kensaku shisutemu. Retrieved September 15, 2021, from Kokkai kaigi roku kensaku shisutemu website: <https://kokkai.ndl.go.jp/#>

Kokuryō, Jirō (2021, March 22). Enjō kagakugo de Line (to hakyū sōdō) mondai. Retrieved December 27, 2021, from @jirok (Twitter account): <https://twitter.com/jirok/status/1374130125202071553>

Lehtiniemi, Tuukka, & Haapoja, Jesse (2020). Data agency at stake: MyData activism and alternative frames of equal participation. *New Media & Society*, 22(1), 87–104. <https://doi.org/10.1177/1461444819861955>

Mainichi Shinbunsha (2020, September 26). Shasetsu: Bei no TikTok haijo, netto no jiyū ubawanai ka. *Mainichi Shinbun*, Tōkyō morning edition, p. 5.

Mainichi Shinbunsha (2021, March 24). Shasetsu: LINE no kojīn jōhō, zusan na kanri, kaimei ga hitsuyō. Mainichi Shinbun, Tōkyō morning edition, p. 5.

Mauthner, Natasha S. (2016). Un/Re-Making Method: Knowing/Enacting Posthumanist Performative Social Research Methods through “Diffractive Genealogies” and “Metaphysical Practices.” In Victoria Pitts-Taylor (Ed.), *Mattering: Feminism, Science, and Materialism* (pp. 258–283). New York: New York University Press.

Mayer, Maximilian (2020). Europe’s Digital Autonomy and Potentials of a U.S.-German Alignment toward China. Johns Hopkins University. Retrieved December 29, 2021, from Johns Hopkins University website: <https://www.aicgs.org/site/wp-content/uploads/2020/12/Europes-Digital-Autonomy-and-Potentials-of-a-U.S.-German-Alignment-toward-China.pdf>

Mignolo, Walter D. (2009). Epistemic Disobedience, Independent Thought and Decolonial Freedom. *Theory, Culture & Society*, 26(7–8), 159–181. <https://doi.org/10.1177/0263276409349275>

Mignolo, Walter D. (2012). *Local Histories/Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking* (Paperback reissue, with a new preface). Princeton: Princeton University Press.

Mignolo, Walter D., & Walsh, Catherine E. (2018). *On Decoloniality: Concepts, Analytics, Praxis*. Durham: Duke University Press.

Morikawa Hideyuki (2019). *Dēta doribun ekonomī: Dejitaru ga subete no kigyō sangyō shakai o henkaku suru*. Tōkyō: Daiyamondo Sha.

Morita Hiroaki (2020). *Jōhō ginkō bijinesu sannyū gaido: Rikatsuyō bijinesu kara jigyō sannyū made*. Shōeisha.

Murata Tomonobu (2021). Tōnan Ajia no kojīn jōhō hogo hōsei no kaisei dōkō to shuyō ronten. *Bijinesu hōmu*, 21(10), 45–48.

Naikaku-fu Chiteki Zaisan Honbu Kōsō linkai (Dainikai) (2019, December 26). Gijiroku. Retrieved October 10, 2021, from <https://www.kantei.go.jp/jp/singi/titeki2/tyousakai/kousou/2020/dai2/gijiroku.pdf>

Naikaku-fu Chiteki Zaisan Senryaku Suishin Jimukyoku. (2019, December 26). Dainikai kōsō iinkai jimukyoku setsumei shiryō. Presented at the Naikaku-fu Chiteki Zaisan Honbu Kōsō linkai (Dainikai), Tokyo. Retrieved October 10, 2021, from <https://www.kantei.go.jp/jp/singi/titeki2/tyousakai/kousou/2020/dai2/siryou1.pdf>

Nemoto, Ryo (2021, March 25). China sanctions inspire push for Japan’s own Magnitsky Act. Retrieved September 7, 2021, from Nikkei Asia website: <https://asia.nikkei.com/Politics/China-sanctions-inspire-push-for-Japan-s-own-Magnitsky-Act>

NHK “Heisei netto shi (kari)” shuzai han (2021). Heisei netto shi—Eien no bēta ban. Tōkyō: Gentōsha.

Nihon Iryō Kenkyū Kaihatsu Kikō Kōshiki Channeru (2020, December). IT/AI/ML Embedding: Gekidō suru IT. Presented at the AMED shinpo 2019. Retrieved December 28, 2021, from <https://www.youtube.com/watch?v=AbjQC4MB2qE>

Nihon Keizai Shinbunsha (2020, November 25). LINE, Ajia sai-chōsen kuni goto ni sābisu kaihatsu. Retrieved November 23, 2021, from Nihon Keizai Shinbun denshiban website: <https://www.nikkei.com/article/DGXMZO66632560V21C20A1FFE000/>

Nihon Keizai Shinbunsha (2021a, March 3). Ajia senryaku “rōkaru rosen”, ZHD, genchi de baishū ni iyoku. Nihon Keizai Shinbun, morning edition, p. 13.

Nihon Keizai Shinbunsha (2021b, March 17). LINE jōhō hogo fubi, Chūgoku kanren kaisha de kan’etsu ka, shimei ya ID. Nihon Keizai Shinbun, evening edition, p. 1.

Nihon Keizai Shinbunsha (2021c, March 23). Kenkō jōhō, Kankoku de hokan, LINE, hoken-shō gazō nado. Nihon Keizai Shinbun, evening edition, p. 3.

Nomura Sōgō Kenkyūjo (2020). IT rōdomappu 2020 nen ban: Jōhō tsūshin gijutsu wa 5 nengo kō kawaru! Tokyo: Tōyō Keizai Shinpōsha.

Ohya Takehiro (2019). Kojin shin’yō sukoa no shakaiteki igi. Jōhō tsūshin seisaku kenkyū, 2(2), 15–26.

Ōnishi Takahiro (2019, May 28). Son Masayoshi-shi “Jisatsu shiyō ka to omou gurai nayanda. Sabetsu wa tsurai.” Retrieved September 22, 2021, from Nikkei Bujinesu

denshiban website:
<https://business.nikkei.com/atcl/seminar/19/00059/052400004/>

Ōta Tomomi (2019, August 6). "IoT sekyūriti to jōhō ginkō ga 'intānetto zentei shakai' no kiban" Keiō-dai Sunahara Hideki kyōju. Retrieved April 20, 2021, from Businessnetwork.jp website:
<https://businessnetwork.jp/Detail/tabid/65/artid/6884/Default.aspx>

Sahashi Ryō (2021). *Beichū tairitsu*. Tokyo: Chūō Kōron Shinsha.

Sakimura Nat (2018, December 27). "Jōhō ginkō" no kigen wa? Retrieved September 14, 2021, from @_Nat Zone: Identity, Privacy, and Music website:
<https://www.sakimura.org/2018/12/4331/>

Sakimura, Nat (2020, December 11). "Trusted Personal Data Management Service (TPDMS)" Certification Program. Retrieved December 29, 2021, from <https://www.tpdms.jp/file/20201211presentation.pdf>

Sasaki Takamasa, Haruyama Yō, & Shida Daisuke (2020). *MyData ekonomī: Pāsonaraizu to jōhō ginkō*. Tōkyō: Nikkei BP.

Shahidan, Noor Hidayah, Latiff, Ahmad Shaharudin Abdul, & Wahab, Sazali Abdul (2021). Moving Towards Society 5.0: A Bibliometric and Visualization Analysis. In Aurna Gerber & Knut Hinkelmann (Eds.), *Society 5.0: First International Conference, Society 5.0 2021, Virtual Event, June 22–24, 2021, Revised Selected Papers* (pp. 93–104). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-86761-4_8

Shibasaki, Ryōsuke, Hori, Satoru, Kawamura, Shunji, & Tani, Shigeyuki (2020). Integrating Urban Data with Urban Services. In Hitachi-UTokyo Laboratory (Ed.), *Society 5.0: A People-centric Super-smart Society* (pp. 67–83). Singapore: Springer. <https://doi.org/10.1007/978-981-15-2989-4>

Smith, Linda Tuhiwai (2021). *Decolonizing Methodologies: Research and Indigenous Peoples* (Third edition). London: Zed.

Softysik-Piorunkiewicz, Anna, & Zdonek, Iwona (2021). How Society 5.0 and Industry 4.0 Ideas Shape the Open Data Performance Expectancy. *Sustainability*, 13(2), 917. <https://doi.org/10.3390/su13020917>

Steinberg, Marc (2019). *The Platform Economy: How Japan Transformed the Consumer Internet*. Minneapolis: University of Minnesota Press.

Steinberg, Marc (2020). LINE as Super App: Platformization in East Asia. *Social Media + Society*, 6(2), 205630512093328. <https://doi.org/10.1177/2056305120933285>

Takahashi Fumiya (2021, April 9). “Kyō wa Amerika shutchō, Ashita wa Pekin” no kaisha wa tsubureru. Amari Akira giin ga egaku “Afutā LINE mondai” no chūgoku bijinesu. Retrieved September 11, 2021, from Huff Post Nihon edishon website: https://www.huffingtonpost.jp/entry/story_jp_6067c654c5b66c4ab6b2b693

Tanaka Michiaki (2020). 2025 nen no dejitaru shihon shugi: “dēta no jidai” kara “puraibashī no jidai” e. Tōkyō: NHK Shuppan.

Tanner, Murray Scot (2017, July 20). Beijing’s New National Intelligence Law: From Defense to Offense. Retrieved September 15, 2021, from Lawfare website: <https://www.lawfareblog.com/beijings-new-national-intelligence-law-defense-offense>

TEDx (2012, June). Information bank—[English]: Ryosuke Shibasaki at TEDxTokyo. Presented at the TEDx Talks. Retrieved September 14, 2021, from <https://www.youtube.com/watch?v=AbjQC4MB2qE>

Van Overstraeten, Tanguy (2020). Japan and Data Protection: A Brief Introduction. *Global Privacy Law Review*, 1(3), 138–142.

Wintour, Patrick (2021, March 22). US and Canada follow EU and UK in sanctioning Chinese officials over Xinjiang. *The Guardian*. Retrieved December 30, 2021, from <https://www.theguardian.com/world/2021/mar/22/china-responds-to-eu-uk-sanctions-over-uighurs-human-rights>

Yamashita Satoshi (2021). “O-toku na pointo” to kojīn jōhō purofairingu. *Tōkei Sūri Kenkyūjo nyūsu*, (153), 14.

York, Jillian C. (2021). *Silicon Values: The Future of Free Speech under Surveillance Capitalism*. London: Verso.

Zuboff, Shoshana (2018). *Das Zeitalter des Überwachungskapitalismus* (Bernhard Schmid, Trans.). Frankfurt am Main: Campus Verlag.

Author Information

Harald Kümmerle (kuemmerle@dijtokyo.org)

Harald Kümmerle is senior research fellow at the German Institute for Japanese Studies (DIJ) in Tokyo. He studied mathematics and computer science at the Technical University of Munich (TUM), Japanese Studies at the Martin Luther University Halle-Wittenberg (MLU), and Japanese as a Foreign Language at Keio University in Tokyo. His doctoral thesis (Japanese Studies; defended in 2019) concerned the institutionalization of mathematics as a science in Meiji- and Taishō-era Japan. During the time as a doctoral researcher, he was junior visiting research fellow at Keio University, visiting research fellow at the Centre for Science Studies at the German National Academy of Sciences Leopoldina and research fellow at the MLU Halle-Wittenberg. His interests include the history of mathematics, digital humanities, new materialism, and critical data studies. He also is an associated researcher at the Graduate University for Advanced Studies, SOKENDAI.