Master's Thesis

MULTILINGUALISM AND INCLUSION

An Explorative Study of Virtual Linguistic Landscape in Tokyo

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Abstract

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The purpose of this research is to explore the development of multilingualism in the virtual linguistic landscape of Tokyo in relation to linguistic items in the real-world landscape and related policies laid out by the national and local governments, particularly since 2000. Quantitative and qualitative approaches are applied through (1) website research to investigate multilingual feature and content in various social domains, and (2) document review consisting of policy papers, population statistics, governmental surveys and reports, previous linguistic landscape studies, and other scholarly sources. The study has significant implications for understanding how multilingualism in real-world and virtual spaces are interconnected as well as the potential of institutions in advancing diversity and inclusion.

The findings demonstrate that Tokyo has been gradually opening towards partial multiculturalism despite challenges. Multilingualism was first observed in a limited number of domains in the physical public space, then intensified and expanded since the 1990s. The virtual linguistic landscape emerged in the 2000s following the normalization of the internet. Provision of online information and services in the foreign languages followed their implementation in the physical linguistic landscape, albeit comparatively inferior in terms of scale and quality. Since the 2010s, however, technological advancement has significantly improved and diversified the virtual linguistic landscape. Digital transformation and innovation are now also being used to aid multilingualization of the physical linguistic landscape. Findings of the virtual linguistic landscape study show that Japanese-English bilingualization was the most prevalent, followed by the four-language standardization of Japanese, English, Chinese, and Korean. The increase in multilingual information provision could be attributed to the growth of international tourists and workers. Meanwhile, multilingual signs targeting the Japanese public were mainly symbolic in nature. Variations of the multilingual information function were observed by sector and by municipality. Throughout history, institutional contexts and attitudes towards certain culture and language play a significant role in the development of linguistic landscape in Tokyo. Policy implications suggest support instruments and solutions to translation issues, education and training focusing on communication opportunities and skills, and promotion of proactive role by foreign residents and the host society in establishing multicultural competency and intercultural understanding.

Keywords: multilingualism, linguistic landscape, sociolinguistics, Tokyo, Japan, multicultural society, diversity and inclusion, virtual, information and communications technology

Preface

This master's thesis was completed between November 2020 and June 2021 as part of the Erasmus Mundus Joint Master's Degree Program in Global Markets, Local Creativities (GLOCAL) between the University of Glasgow, University of Barcelona, and Erasmus University Rotterdam. Guidance was provided through the research workshop, Urban Transformations in a Globalizing World, led by Prof. Dr. Paul van de Laar and Dr. Maarten van Dijck of the Erasmus School of History, Culture and Communication. Presentation of the thesis took place at the Master's Thesis Conference on June 10, 2021 via the Zoom online meeting platform.

The inspiration of this thesis came from my personal experience as a foreign resident in Japan from 2012 until 2019. During the course of my stay as an international student and a full-time corporate employee, I had an opportunity to live in the three largest cities of Japan including the capital city Tokyo. Having been able to experience first-hand the communication barrier and later assist a number of people around me to gain access to information and services in workplace and in everyday life, I became interested in observing the uses of languages and its social implications. The writing process of this thesis had been equally challenging and eye-opening: challenging, as the mobility restrictions imposed under the ongoing pandemic had fundamentally impacted the research design and data collection; eye-opening, because the restrictions had opened up possibilities to innovate from limitations and approach the research from a virtual space-based perspective.

As this research centres around the linguistic landscape in Tokyo, Japan, a number of concepts and terms may come across as unfamiliar to some readers. I do my best to keep the use of these terms as compact and easy to understand as possible without losing the core values necessary for the development of the thesis. Terms originally in Japanese are transliterated into the Roman script, accompanied by their meaning in English and, where appropriate for readers who understand the language, their original appearance in Japanese. Transliteration will follow the Hepburn system with slight modifications as it will be more convenient to pronounce for those without knowledge of the Japanese language. Furthermore, the variations of Chinese (Traditional and Simplified writing) and Korean (North Korean and South Korean) should be noted. The variation was sometimes explicitly stated in the sources during the research; at other times it was unclear. I try to convey them as stated in the sources and clarify the variation as much as possible when it is crucial to the context. In case of English, it was almost always never distinguished.

I am deeply thankful to many people who had dedicated their time and effort to help me in the development of my thesis. First of all, I would like to thank my main thesis supervisor, Prof. van de Laar for his insightful feedback and flexible support in making sure I was on track academically and mentally throughout the course. I would also like to thank Dr. Mariano Martín Zamorano for agreeing to be my second reader, as well as my third reader Dr. Sean Vanatta for his constructive comments which added much value to my research. I also very much appreciate Dr. van Dijck for his advice on research methodology and proactive support throughout the research workshop, Prof. Jeffrey Fear for his suggestions of several key theoretical concepts which constitute a crucial part of this thesis, Raúl van Dijk Escoriza of Leiden-Delft-Erasmus Centre for Global Heritage Development for kindly helping me access research material at Leiden University, and Prof. Yasuhiro Doi of Nagoya University for providing past guidance and opportunities to gain a better understanding on the topics that inspired this research, i.e. internationalization and multiculturalism.

This thesis would have been incomplete without the invaluable support from my friends and family. I would like to extend my gratitude to my research workshop peers and fellow GLOCALs, in particular Yichao Zhang (Lilac) and Prajna Unikkumarath for countless review, feedback and discussion sessions as well as for much-needed laugh and comfort, Neeracha Niemcharoen and Manassavee Issarathamrong for access to research material that otherwise would have been difficult to acquire online, and last but not least, my significant other, my little sister Lily (who also drew the illustrations and helped with the visual design of this thesis), mom and dad for being my home as they have always been.

Rotterdam, June 2021

Ninnet Ongartthaworn (Jinny)

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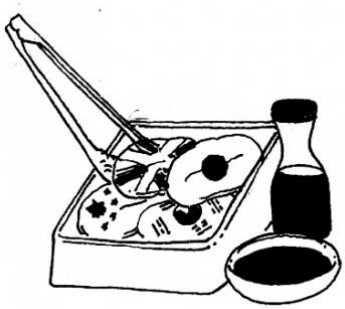

List of Abbreviations

ICT	Information and Communications Technology
JNTO	Japan National Tourism Organization
METI	Ministry of Economy, Trade and Industry
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MIC	Ministry of Internal Affairs and Communications
MLIT	Ministry of Land, Infrastructure, Transport and Tourism
NICT	National Institute of Information and Communications Technology
TMG	Tokyo Metropolitan Government

Chapter 1 | Introduction

> 'Human space has always been a signifying space (…) The city is a discourse, and this discourse is actually a language.'[1]
>
> Roland Barthes

As one of the most critical cultural signifiers, observing the use of languages offer powerful insights into our society both in the past and the present. Language is a vital part of expression, communication, and identity construction, and is closely connected to user, time and place. Constantly, simultaneously, and dynamically, languages also shape and are shaped by the culture and identity of their users.

As the process of globalization and digitalization intensifies, the alignment of geographical boundaries and cultural ones have become more complex than ever.[2] The contact, exchange and clash of cultures as a result of the migration of ideas, goods and people have resulted in diverse and geographically distributed human identities, particularly in urban areas which are now home to more than half of the world population.[3] These identities attach new meaning, interpretations and applications to spaces and places, effectively altering their appearance. Communication

[1] Roland Barthes, 'Semiology and Urbanism', in *The Semiotic Challenge*, 1988, 191–201.
[2] Brenda Danet and Susan C. Herring, *The Multilingual Internet: Language, Culture, and Communication Online* (Oxford University Press, 2007).
[3] Katharina Buchholz, 'UN: How Has the World's Urban Population Changed from 1950 to 2020?', World Economic Forum, 4 November 2020, https://www.weforum.org/agenda/2020/11/global-continent-urban-population-urbanisation-percent/.

patterns have also become highly varied and creative. Characteristics such as multilingualism, code-switching, and different receptive and productive language (or dialect) competencies help translate the new meanings into multiple or locally hybrid expressions.[4]

The relationship between diversity, communication, and identity construction amid the complexities of contemporary societies has been gaining attention for its contribution to promote economic, security and 'global city' narratives. Many cities have embraced diversity and inclusion as an important agenda as foreign-born residents and tourists have become a vital source of labour and consumption as well as a risk for conflicts. Nonetheless, it has also become apparent that there remains in the city 'a discrepancy between an official rhetoric embracing on one hand cultural diversity as cultural capital for the city and social capital for its inhabitants, and on the other hand the everyday experience of exclusion and racism.'[5]

In the context of globalization, multilingualism or linguistic diversity has become an essential feature of many contemporary societies around the world. The landscape of what and how languages are used or displayed across the city, also known as linguistic landscape, constitutes an indispensable part of the city's identity as well as visual. Research in this emerging field has been disproportionately large in English and European-American cities. On the other side of the world, Japan is an archipelago country in East Asia with comparatively contrasting culture and language. The country has also been subject to the impact of globalization, gradually opening up towards multiculturalization and multilingualism. Its capital city, Tokyo, is situated in an interesting position: the city has been regarded by many urban theorists as a top tier 'global city' while the Japanese society in general is still seen as very much homogenous and monolingual.[6] In addition, intercultural communication has long been a major challenge for Japanese organizations at both domestic and international levels. Hence, a study on Tokyo's multilingualism and the factors at play will add a valuable contribution to the linguistic landscape scholarship. Specifically, this

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[4] Joseph Lo Bianco, 'The Importance of Language Policies and Multilingualism for Cultural Diversity', *International Social Science Journal* 61, no. 199 (2010): 39–40, https://doi.org/10.1111/j.1468-2451.2010.01747.x.
[5] Cordula Gdaniec, 'Cultural Diversity between Staging and the Everyday: Experiences from Moscow, St. Petersburg and Other Russian Cities. An Introduction.', in *Cultural Diversity in Russian Cities: The Urban Landscape in the Post-Soviet Era*, 1st ed. (Berghahn Books, 2010), https://www.jstor.org/stable/j.ctt9qd2ph.
[6] Saskia Sassen, *The Global City: New York, London, Tokyo* (Princeton University Press, 1991), http://www.jstor.org/stable/j.ctt2jc93q; J. V Beaverstock, R. G Smith, and P. J Taylor, 'A Roster of World Cities', *Cities* 16, no. 6 (1 December 1999): 445–58, https://doi.org/10.1016/S0264-2751(99)00042-6; Jessica Taylor, 'The Challenge of Social Isolation and Loneliness', Melbourne School of Population and Global Health, 16 May 2019, https://mspgh.unimelb.edu.au/ageing-industry-network/newsletter-issue-12-may-2019/the-challenge-of-social-isolation-and-loneliness.

thesis will explore the linguistic landscape from a fresh perspective of the 'virtual' online spaces whose impact and potential have become paramount in contemporary society.

2.1. Research Question

This master's thesis contains a main research question and three sub-questions. The main research question concerns how multilingualism in Tokyo's virtual linguistic landscape has developed in relation to the real world and the national and local government policy, especially during 2000-2021. The three sub-questions are:

1. What are the patterns of multilingualism in Tokyo's virtual linguistic landscape?
2. What kind of socio-economic or cultural contexts underlie the variations of multilingualism in Tokyo's virtual linguistic landscape?
3. What is the relationship between the dynamics of the virtual linguistic landscape, the physical linguistic landscape, and the national and local government policy? What are the challenges and policy implications?

2.2. Innovative Aspects of Research

Diversity and inclusion have become an important agenda for cities in the wake of globalization. Language deserves more attention for its potential to contribute towards a more inclusive society as well as its symbolic role in city branding. Considerable work has been done about sociolinguistics in Japan, including studies on the physical linguistic landscape and multilingualism. However, research on the digital, virtual landscape is still very limited despite the normalization of internet in the last few decades and its impact, both in the meantime and in the future, on people's lives.

This research aims to provide a fresh perspective in Tokyo's virtual linguistic landscape, capturing a wide range of social domains to represent the multidimensional quality of the Japanese urban society. Furthermore, the findings will update and complement the research on the physical linguistic landscape, including the similarities, differences, and potential relationship between the two. It also aims to establish the underlying contexts of the development by examining related statistical and policy papers.

The interdisciplinary nature of this research should be of value to researchers and enthusiasts in the field of linguistics, social sciences and history who are interested in the transformation and maintenance of social and symbolic order with language as a medium and an instrument, especially against the backdrop of intensifying urbanization and globalization processes. It applies socio-economic, political, and anthropological aspects to the already extensive scholarship on the structural transformation of language. Moreover, it does so in a less researched setting of non-English native and non-alphabetical orientation, which will contribute to a more diverse representation in academia and cross-cultural comparisons.

2.3. Structure and Methodology

This master's thesis consists of four main chapters. In this introductory chapter, the research question, innovative aspects, methodology and structure of this thesis are clarified. Chapter 2 then lays the groundwork for further research by reviewing the main theoretical concepts and literature. The following topics are introduced: relevance of language in the diversity and inclusion discourse, linguistic landscape, multilingualism and its signification, multilingualism in the context of Japan, and existing literature on the linguistic landscape of Tokyo. Chapter 3 discusses the main findings and implications of the study according to the methodology provided in this section. Finally, Chapter 4 provides conclusions, limitations and future research directions.

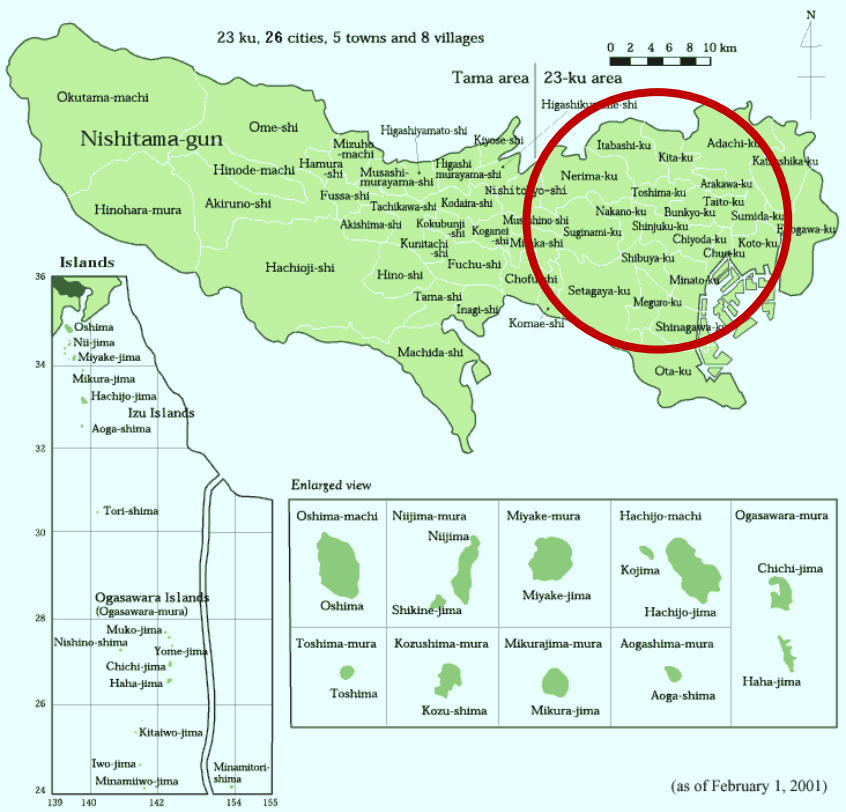
The research combines a quantitative approach based on website analysis and a qualitative approach based on literature and document review. Three core aspects of Tokyo's linguistic landscape are studied: the virtual linguistic landscape, the physical linguistic landscape, and the policy.

As a landscape study, first the scope of this research should be clarified. Tokyo is the capital city of Japan which covers an area of over 2,194 square kilometres and an estimated population of nearly 14 million. As shown in Figure 1, the administrative division of Tokyo consists of 23 special wards (*ku*), 26 cities (*shi*), 5 towns (*chō*), and 8 villages (*son*) including groups of islands in the Pacific Ocean.[7] However, Tokyo in the meaning of this research specifically focuses on the 23

[7] Tokyo Metropolitan Government, 'Administrative Districts of Tokyo Metropolis', Tokyo Metropolitan Government, accessed 27 June 2021, https://www.metro.tokyo.lg.jp/ENGLISH/ABOUT/LINKS/municipalities_map.htm.

special wards. The reason is mainly based on the relevance of research: they comprise the urban area where most population resides and most economic activities occur, and therefore often represent Tokyo in previous studies, media, and public perception.

Figure 1. *Map of Tokyo municipalities.*



Source: Tokyo Metropolitan Government. 'Administrative Districts of Tokyo Metropolis'. Tokyo Metropolitan Government. Accessed 27 June 2021. https://www.metro.tokyo.lg.jp/ENGLISH/ABOUT/LINKS/municipalities_map.htm.

The website analysis involves an investigation of websites of places and facilities in Tokyo in selected social domains or sectors. These websites represent the 'virtual' version of places in Tokyo which are selected to cover the essential aspects of the residents and visitors' everyday life. As it is impossible to cover every location, the research was conducted on a number of representative places or providers frequented by residents and visitors. Table 1 shows the list of sectors, sample size, and a description as to why the following samples were selected. The full list of facility names and website addresses can be found in Appendix.

Table 1. *List of sample sectors used in the website research.*

Sector	**Sample size (Total: 317)**	**Website description**
Administrative services	24	Homepages of Tokyo Metropolitan Government and municipalities of 23 wards in Tokyo
Emergency services	3	Tokyo Fire Department (Fire and emergency services) Disaster Prevention Information Metropolitan Police Department
Healthcare	163	Tokyo Metropolitan Health & Medical Information Center 'Himawari' Japan Hospital Association members* * Main hospital association of Japan participated by all national hospital management organizations. There are currently 2,487 member hospitals (as of June 2021) from both public and private sector, mostly large-scale hospitals.
Public transport	20	Airports Railway operators (including East Japan Railway, subway, private railways and monorail) Bus operators Taxi operators and associations
Banking	32	City banks, Trust banks, and Others** in the list of licensed financial institutions by the Financial Services Agency ** E.g., internet banks and Japan Post Bank.
Retail	24	Members of Japan Department Store Association located in the 23 wards of Tokyo Convenience store (CVS) chains Note: According to the Ministry of Economy, Trade and Commerce's Report on the Statistical Survey of Commerce, department stores have the highest percentage of annual sales per establishment, whereas CVS have the highest number of establishments among all retail sectors.
Tourism	26	Official Tokyo travel guide Official area (ward) travel guides or travel associations
Community services	25	Tokyo Voluntary Action Center Local volunteer offices within the 23 wards of Tokyo

Source: Own elaboration, see Appendix.

Data was collected from the homepage of each website between March 3 and May 3, 2021. Whenever possible, the data of the websites in the same sector were collected on the same or consecutive days. Furthermore, data regarding the previous appearances of the websites were collected using web archive from two sources: Wayback Machine Initiative by Internet Archive and WARP Web Archiving Project by National Diet Library of Japan.[8] In order to identify trends

[8] Internet Archive, 'Wayback Machine', accessed 3 May 2021, http://web.archive.org/; National Diet Library of Japan, 'WARP Web Archiving Project', accessed 3 May 2021, https://warp.da.ndl.go.jp/.

and variations in the virtual linguistic landscape, the data were then aggregated and analyzed by sector as well as by the area (ward) of the facility's real-world location. Comparison with past statistics of foreign residents and visitors was also attempted to examine possible relations between the results and the situation of ethnolinguistic diversity. Attributes observed include the availability and form of multilingual functions (i.e., language change button and documents), languages available and their placement order, means of translation (i.e., automated translation, non-automated translation, or mixed), translation service provider, and implementation period. In addition to foreign language websites, the research also studied the availability of 'Easy Japanese' -- a plain form of Japanese designed for people who are not fluent in the language -- as well as Romanized Japanese and foreign language elements in Japanese language websites. Qualitatively, the study explores the topics of texts translated, accuracy and readability (especially when automated translation is adopted), and intended function (informative or symbolic). As it is impossible to examine all foreign languages, this research will focus on English -- the most widely adopted among foreign languages.

While a field research on the real-world linguistic landscape should also be conducted in Tokyo, it was not possible due the current travel restrictions imposed as a measure against the COVID-19 pandemic. While there are some online tools that collect digital street views, limitations of image quality and point of view made them unable to serve the research purposes. Instead, comparison will be done with findings of existing studies over the past two decades, some of which contained information on the facilities used in the website research. Nonetheless, the gap in terms of time and location should be noted.

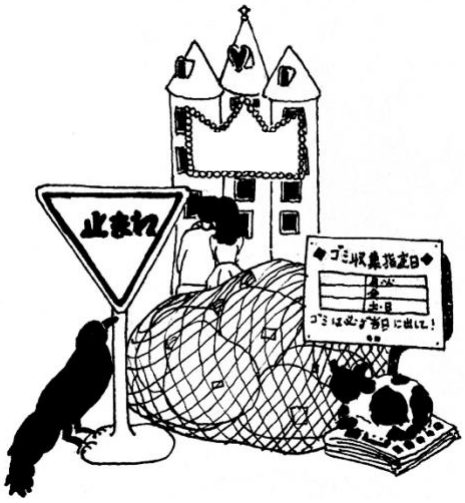
Along with the findings of the virtual and physical linguistic landscape, the study reviews related policies by national and local governments during 2001-2020. The purpose of this policy research is to understand better who the services are intended for, when and how the efforts have culminated, prioritized sectors and measures, and progress and challenges in implementation. Table 2 shows the list of policy papers, reports, and statistical surveys studied. Additionally, secondary literature was used to complement the findings from the primary sources.

Table 2. *List of materials used in the policy research.*

Level	Publisher	Publication	Published year
National	Ministry of Land, Infrastructure, Transport and Tourism (MLIT)	White Papers on Tourism	2001-2020
		Multilingual Support Services for Local Tourism Resources	2018-present
		Manuals on public signages	1985-2020
		Operational Manual on Web Accessibility	2010, 2016
	Ministry of Internal Affairs and Communication (MIC)	White Papers on Information and Communications	2001-2020
		Guideline for the Promotion of Intercultural Cohesion	2006
		Global Communication Plan	2014, 2020
	Ministry of Education, Culture, Sports, Science and Technology (MEXT)	Foreign language education policy (website section)	(Present)
		'Current Situation, Achievement and Issues of Foreign Language Activities'	2014
		'Public Opinion Surveys About the National Language'	2020
Local	Tokyo Metropolitan Government	Guidelines for the Promotion of Intercultural Cohesion	2016
	Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation	'Basic Idea of Multilingual Support' Information and sources on website Multilingual Localization Forum	2014 2014-2020 2014-2020
	Municipalities	Policy on public signages, disaster prevention and information provision of administrative services	1985-2020
	Tokyo International Communication Committee	Tokyo Intercultural Portal Site	(Present)

Source: Own elaboration, see Bibliography for full list of referenced works.

Chapter 2 | Theoretical Concepts and Literature Review



2.1. Language in the Diversity and Inclusion Discourse

With the resurgence of neoliberalism and the progressing of globalization since the late twentieth century, diversity and inclusion have become a central agenda in national and international policies. They are also a major source of debate among policymakers, academics, and the population, not least due to their fuzzy definition and complex relation; an inclusive society is in general preferrable, however, there is no consensus on how to achieve it. At the same time, increased mobility, in forms of physical migration and virtual (digital) networks, has encouraged linguistic diversity to become an essential feature of many contemporary societies around the world; one that requires attention and consideration of those who are 'explicitly committed to furthering the social inclusion of the disadvantaged in their midst'.[9]

Piller and Takahashi distinguish two opposing viewpoints with regards to language in the 'ideologically mediated' social inclusion agenda. The first viewpoint sees linguistic diversity as 'inherently connected' with social exclusion. This view is said to have taken root since the Great Transatlantic Migrations period at the turn of the nineteenth to the twentieth century, where migrants are seen as marginalized because of their lack of proficiency in the host country's native language (a prominent example was the United States and English proficiency). Some media and reports go as far as framing multilingualism and multiculturalism 'expressions of social

[9] Ingrid Piller and Kimie Takahashi, 'Linguistic Diversity and Social Inclusion', *International Journal of Bilingual Education and Bilingualism* 14, no. 4 (1 July 2011): 374, https://doi.org/10.1080/13670050.2011.573062.

segregation, the breakdown of social cohesion, and threats to national security and identity'.[10] Holders of this view argue that linguistic assimilation (usually with English monolingualism) will lead to greater social inclusion and cohesion. However, Piller and Takahashi prove against this viewpoint, citing evidence that economic convergence fails to occur despite the improvement in the migrants' education and English language proficiency. The authors argue that language assimilation and language proficiency are sometimes used as 'a smokescreen of racial discrimination' rather than an indicator of individual qualification, for example towards accents and non-standard varieties of English, and thus become a means of social exclusion and isolation.[11]

In contrast to the first viewpoint, the second 'sees the monolingual bias of institutions as the key agent in the exclusion of linguistically diverse populations and therefore argues for linguistic recognition and multilingual provision as ways to promote social inclusion'.[12] According to the authors, this view has emerged in the American context of the Civil Rights Movement, the Second Wave Feminist Movement, and the development of sociolinguistics discipline during the 1960s and 1970s. In this view, social spaces, many of which are fundamental citizen rights such as employment, education, healthcare, justice and administrative services should embrace the society's linguistic diversity because their access largely depends on language proficiency. As French sociologist Pierre Bourdieu once wrote about language and symbolic power, 'Speakers lacking the legitimate competence are de facto excluded from the social domains in which this competence is required, or are condemned to silence.'[13] More recently, Marácz and Adamo further expand the view that not only the linguistic diversity, but the 'awareness' for linguistic diversity is also crucial for a more inclusive society.[14] While these works focus on middle- and long-term migrants rather than short-term visitors, some policies (as will be seen later in this research in Japan's case) also view tourists as contributing to the diversity, calling for the facilitation of 'multicultural coexistence'. Still, Piller and Takahashi caution against the simple conceptualization of multilingual institutions as unitary and socially inclusive; they argue that the valorisation of

[10] Piller and Takahashi, 375.
[11] Piller and Takahashi, 375.
[12] Piller and Takahashi, 374.
[13] Pierre Bourdieu, *Language and Symbolic Power*, ed. John B. Thompson, trans. Gino Raymond and Matthew Adamson (Cambridge, Massachusetts: Harvard University Press, 1991), 55.
[14] László Marácz and Silvia Adamo, 'Multilingualism and Social Inclusion', *Social Inclusion* 5, no. 4 (22 December 2017): 1–4, https://doi.org/10.17645/si.v5i4.1286.

multilingualism must be accompanied 'by a shift in our understanding of what inclusive linguistic diversity means'.[15]

Expanding on this second view, Rubdy takes on the linguistic landscape as 'an arena of contestation and negotiation' where conflict, exclusion, and dissent can be found.[16] The author explains that language-based exclusion can be a consequence of various factors. It can be intentional in the form discriminatory and gatekeeping practices, often acted on the ideology of language purity and linguistic insecurity ('vis-à-vis other dominant ideologies, languages, or coercive socio-political practices'[17]). On the other hand, failure to implement diversity and inclusion policy can also unintentionally lead to specific languages being excluded. The book raises a number of critical issues as consequences of language-based exclusion, for instances information asymmetry in disaster prevention and inequality of educational opportunity. In other words, language can be an issue as well as a solution to the insecurities and inequalities which are amplifying in global cities. It is the aim of this research to analyze how multilingualism, in all its complexity, contribute to social inclusion or exclusion through studying the landscape of language in the city. In the following sections, the concept of linguistic landscape and multilingualism will be discussed.

2.2. Defining the Linguistic Landscape

Along with the growing body of research in various *-scape*s (e.g., cityscape, pleasurescape, soundscape), the study of landscape has become multimodal and interdisciplinary. In sociolinguistics, linguistic landscape has emerged as a fascinating research field, touching a wide range of disciplines such as semiotics, geography, sociology, urban planning, architecture, politics, economics, history, environmental studies, literacy and education.[18] Key questions to be discussed here include: (1) what is linguistic landscape and why is it important; (2) what are the main trends

[15] Piller and Takahashi, 'Linguistic Diversity and Social Inclusion', 378.
[16] Rani Rubdy, 'Conflict and Exclusion: The Linguistic Landscape as an Arena of Contestation', in *Conflict, Exclusion and Dissent in the Linguistic Landscape*, ed. Rani Rubdy and Selim Ben Said, Language and Globalization (London: Palgrave Macmillan UK, 2015), 1–24, https://doi.org/10.1057/9781137426284_1.
[17] Rubdy, 3–4.
[18] Elana Shohamy and Durk Gorter, 'Linguistic Landscape: Expanding the Scenery', *Book Publication*, 1 January 2009; Adam Jaworski et al., *Semiotic Landscapes: Language, Image, Space* (London: Bloomsbury Publishing Plc, 2011).

in linguistic landscape research, and; (3) why is linguistic landscape related to inclusion and exclusion of identities in urban spaces.

The definition of linguistic landscape has evolved over time. Landry and Bourhis were apparently one of the first to adopt the term, leading to many subsequent studies in the field (at least in the English language). In their 1997 seminal article *Linguistic Landscape and Ethnolinguistic Vitality: An Empirical Study*, linguistic landscape is defined as 'the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration.'[19] As explored in later works, however, this cataloguing use of the term does not sufficiently capture the complex and dynamic nature of sociolinguistics in contemporary societies. Raising the question 'What is LL, really?', Shohamy and Gorter refer to 'linguistic items in the public space'; the broader framing highlights the work's emphasis on 'expanding the scenery' for a more encompassing linguistic landscape.[20] This includes re-examining the concept and contextualization of public space, multimodality (e.g., mobile texts such as #wordswewear, images, graffiti, and sounds), multilingualism, and activism. Some have ventured beyond the term 'linguistic'. Scollon and Scollon introduced *geosemiotics* as an approach to analyze discourses of places in the physical world, classifying them as regulatory and infrastructural (e.g., signs by municipalities and other official organs), commercial (e.g., shop signs), or transgressive (e.g., graffiti).[21] In a similar sense, Jaworski et al.'s use of the term *semiotic landscape* emphasizes 'the way written discourse interacts with other discursive modalities: visual images, non-verbal communication, architecture and the built environment' and 'the use of space as a semiotic resource in its own right, thus broadening our understanding of what constitutes a landscape beyond physical signs, towards symbolic practices'.[22] Empirical studies, once focused on sociological analysis of city signs in a rather static and monolinguistic fashion, have also extended to cover urban and rural areas in different areas and contexts, multilingualism, minority languages,

[19] Rodrigue Landry and Richard Y. Bourhis, 'Linguistic Landscape and Ethnolinguistic Vitality: An Empirical Study', *Journal of Language and Social Psychology* 16, no. 1 (1 March 1997): 23–49, https://doi.org/10.1177/0261927X970161002.
[20] Shohamy and Gorter, 'Linguistic Landscape'.
[21] Ron Scollon and Suzie Wong Scollon, *Discourses in Place: Language in the Material World* (London: Taylor & Francis Group, 2003); Rubdy, 'Conflict and Exclusion'.
[22] Jaworski et al., *Semiotic Landscapes*, 2; Rubdy, 'Conflict and Exclusion'.

and multimodalities.[23] Reflecting on further possibilities for linguistic landscape research, Gorter uses the term *multilingual cityscape*, implying tendencies of more than one language use and of urban setting.[24] While these active discussions have opened up new and important areas of investigation, this research will focus on multilingualism in the linguistic landscape which has become an essential feature and a contested area in global megalopolis.

2.3. Multilingualism: A Reflection of Globalization?

Multilingualism is the use of multiple languages, either by an individual or by a group of users.[25] While mass migration and globalization are not entirely new phenomena, multilingual signs have become increasingly visible in cities around the globe particularly in more recent years. Producers of these signs either belong to the foreign community (e.g., commercial, community) or the host society (e.g., commercial, regulatory, road and transport, non-governmental organizations).[26]

What, then, does multilingualism signify about the society? The answer to this question can be approached in multiple ways. In their 1997 article, Landry and Bourhis have defined two functions of language use: informative and symbolic.[27] On the one hand, language use is informative when it is used to communicate information. In this sense, the implication of multilingual signs is quite straightforward: it indicates diversity in the society's language group composition. On the other hand, language use is symbolic when it acts beyond the literary meaning and represents specific values and status of different groups. Examples are the presence of English as 'a marker of modernity, internationalization, and globalization' and of minority languages as 'a marker of authenticity, heritage and localization… to gain symbolic and economic value, visibility, and vitality.'[28] Similar research has been done to examine the symbolic image of 'native' versus

[23] Shohamy and Gorter, 'Linguistic Landscape'; Durk Gorter, *Linguistic Landscape: A New Approach to Multilingualism* (Clevedon, United Kingdom: Channel View Publications, 2006); Adam Jaworski and Jackie Jia Lou, '#wordswewear: Mobile Texts, Expressive Persons, and Conviviality in Urban Spaces', *Social Semiotics* 0, no. 0 (28 August 2020): 1–28, https://doi.org/10.1080/10350330.2020.1810545.
[24] Gorter, *Linguistic Landscape*.
[25] Some researchers distinguish bilingualism as the use of *two* languages and multilingualism as the use of *three or more* languages. However, this research adopts the meaning of multilingualism as any use of more than one language, which also covers bilingualism.
[26] Hiroshi Shōji, Florian Coulmas, and Peter Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]* (Tokyo: Sangensha, 2009), 26–31.
[27] Rubdy, 'Conflict and Exclusion', 6.
[28] Adam Jaworski, 'Globalese: A New Visual-Linguistic Register', *Social Semiotics* 25, no. 2 (4 April 2015): 232, https://doi.org/10.1080/10350330.2015.1010317.

'foreign' languages. Although their images vary in detail, these languages which connote Western culture usually enjoy high status and positive perception, particularly in the commercial and advertising field.[29] Besides traditional languages, Jaworski makes an observation on what he calls 'Globalese': a language of text-poor, sleek, modern-looking visual commonly found in high-end commercial spaces around the world.[30] This symbolic construction of language for economic values is also known as the commodification of language.[31] The language's symbolic function is also important because it strongly relates to identity, power relations, and cultural globalization. This notion is supported by study findings that the linguistic landscape often fails to offer a true reflection of urban ethnolinguistic diversity; rather, it is an intricate symbolic construction of public space.[32]

Even in the rapid progress of multiculturalism, no language has ever reached, or is likely to reach in the near future, the privileged status that English has. Despite a vast majority being non-native speakers, English dominates across the business world, a majority of the academic world and many other fields, exclusively earning the title of *lingua franca* or 'global language'. However, the use of English has been far from monolingual ideology. A considerable amount of literature now focuses on the plural form of 'Englishes' and their 'glocalization' process. In Balasubramanian's words, for example, globalization is a movement away from the ideology 'that has, at its centre, the idea that language (English) has a single standard which native speakers are responsible for setting.'[33] This view coincides with the growing call to 'decolonize' English and to break away from the native/non-native dichotomy, for instance movements to promote the teaching of localized 'Englishes' as a norm.[34] Also of significance is how English and other foreign languages have influenced the local language. These questions will be explored in later sections through the case study of Tokyo's linguistic landscape.

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[29] Harald Haarmann, 'Multiple foreign languages choices in response to varied economic needs', *Sociolinguistica* 19, no. 1 (22 November 2005): 50–57, https://doi.org/10.1515/9783484604766.50; Jos Hornikx, Frank van Meurs, and Anja de Boer, 'English or a Local Language in Advertising?', *Journal of Business Communication* 47, no. 2 (April 2010): 169–88, https://doi.org/10.1177/0021943610364524.
[30] Jaworski, 'Globalese'.
[31] Jaworski, 232; Helena Grinshpun, 'Deconstructing a Global Commodity: Coffee, Culture, and Consumption in Japan', *Journal of Consumer Culture* 14, no. 3 (1 November 2014): 343–64, https://doi.org/10.1177/1469540513488405.
[32] Rubdy, 'Conflict and Exclusion', 2.
[33] Chandrika Balasubramanian, 'Language in a Glocalized World', in *Language and Literature in a Glocal World*, ed. Sandhya Rao Mehta (Singapore: Springer, 2018), 15–27, https://doi.org/10.1007/978-981-10-8468-3_2.
[34] Balasubramanian.

2.4. Multilingualism in Japan: Japanese and Other languages

A popular depiction of Japanese society, including by some Japanese for ideological purposes, is one that is homogenous and monolinguistic.[35] Thus, one might be surprised to find ample influence of foreign culture and language contact throughout a 2,000-year-long history. The result is two-fold: the development of multilingualism and multiculturalism in Japan, and the evolution of the Japanese language. This section examines precisely these two topics in order to help gain further understanding of the research.

2.4.1. Historical Overview of Multilingual Japan

In addition to extensive research to describe the Japanese language, Japanese- and English-language literature on Japan's sociolinguistic history were available since early on.[36] Building on the literature, this section provides a very brief history of foreign contact and its impact on language use in Japanese society. Special attention will be paid to the agents, motivation, and contexts promoting or impeding the influence of each language. It might be helpful to refer to Loveday's simplified and generalized outline, presented in Table 3.

Table 3. *Chronological outline of Japanese contact with other languages.*

Period	Type of cultural motivation	Donor language
Heian (8th-12th cent.)	Buddhism, Confucianism	Chinese (Sanskrit)
Late 16th-early 17th cent.	Christianity	Portuguese, Spanish, Latin
Edo (17th-19th cent.)	Early Western science	Dutch
Meiji (1868-1912)	General Western culture	English, German, French
Pre-Second World War (1912-1940)	Mass Western culture (esp. American)	English, German, French
Present day	International culture	Mainly English; others

Source: Loveday, Leo J. *Language Contact in Japan: A Sociolinguistic History*. Clarendon Press, 1996, 28.

[35] See debates on *Nihonjinron* ('Theories of the Japanese'): Yoshio Sugimoto, 'Making Sense of Nihonjinron', *Thesis Eleven* 57, no. 1 (1 May 1999): 81–96, https://doi.org/10.1177/072551369905700007.

[36] Minoru Umegaki, *Nippon Gairaigo No Kenkyū 日本外来語の研究 [The Study of Japanese Foreignisms]* (Tokyo: Kenkyūsha, 1963); Leo J. Loveday, *Language Contact in Japan: A Sociolinguistic History* (Clarendon Press, 1996).

Naturally, the first language contacts occurred between Japanese and other indigenous and Asian languages. Among these, Chinese had the most profound influence. Contact and trade with China since the first centuries were 'the medium carrying the cultural and technological innovation so crucial to the development of early Japan', including the introduction of writing system some 1,500 years ago, classical literature, legal system, and Buddhism and Confucianism culture.[37] In other words, research into Chinese contact is essential to understanding the culture, religion, politics, economy, and society of the Japanese themselves. The agents of contact included immigrants from China and Korea, monks, court nobles, expatriates, students, and merchants.[38] In fact, Chinese traders were one of the few foreign nationals allowed to remain in the port city of Nagasaki when Japan sealed off itself from the outside world (1639-1854). The extent of linguistic influence was apparent in the 1964 lexical classification by the Japanese National Language Research Institute which indicated that 48% of modern Japanese vocabularies were derived from Chinese; the percentage exceeded even that of native Japanese words (37%).[39] While studies in recent years highlight the growing Westernization and internationalization within Japanese society, the Chinese permeation remains one of the most pervasive.

Early contact with other Asian Languages included Ainu and Ryukyuan (through indigenous contacts), Korean (through invasion and colonization), and Sanskrit (through academic Buddhist study). However, unlike Chinese, their influences have been negligible up until the twentieth century.[40] Indigenous linguistic minorities of Ainu and Ryukyuan were assimilated through the mechanism of standardized Japanese education. According to Kirkpatrick and Liddicoat, this was conscious on the policy perspective to create 'a uniform Japanese identity' based on the ideal of monoethnic state.[41] Interestingly, word borrowings from Chinese and Asian languages during earlier times are usually considered as part of *kokugo* (国語 'national language lexicon') as they are written in Chinese characters.[42] There is a clear division between dictionaries of *kokugo* and *gairaigo* (外来語 'foreign loanwords') which comprises mainly European, Roman script-based

[37] Loveday, *Language Contact in Japan*, 27; Liu Ming and Washio Kiyoshi, 'Chūgokugo No Nihongo Heno Eikyō 中国語の日本語への影響 [The Influence of the Chinese Language on the Japanese Language]', *Man & Nature Bulletin of Chuo-Gakuin University*, no. 31 (December 2010): 165–76.
[38] Loveday, *Language Contact in Japan*, 39–40.
[39] Cited in Loveday, 41.
[40] Loveday, 43–46.
[41] Andy Kirkpatrick and Anthony J. Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', *Language Teaching* 50, no. 2 (April 2017): 165, https://doi.org/10.1017/S0261444817000027.
[42] Academically, there is a division between native Japanese items *(wago)* and Chinese-derived items *(kango).*

vocabulary. Later in the twentieth century, Japanese began to indirectly adopt loans from other Asian languages through its contact with English.[43] Moreover, Japan's attention to Southeast Asia during and after the Asia-Pacific War (Second World War) has prompted expectations of new influences. Still, despite a number of Asian language and culture studies being offered in universities, their role and influence remain minimal.[44]

Meanwhile, contact with European languages can be traced as far back as the sixteenth century. To a large extent, the timeline of these contacts corresponded with that of world hegemonic powers. As mentioned above, a clear distinction was made with European languages and attitudes towards these languages. In contrast to the integrative approach towards Asian-derived loans, borrowings from European languages were for a long time referred to as *bango* (蛮語 'barbarian words'), later re-coined as *hakuraigo* (舶来語 'foreign-made or imported words') after the Meiji Restoration in 1868.[45] Table 4 shows the proportion of loans derived from major European languages in modern-day Japanese according to a 1964 vocabulary survey by the Japanese National Language Research Institute.

Table 4. *Proportion of loans derived from major European languages in modern-day Japanese.*

Donor	% total Japanese lexicon
English	**7.29**
French	0.55
German	0.31
Italian	0.15
Portuguese and Spanish	0.14
Dutch	0.13
Russian	0.08

Source: Adapted from Loveday, Leo J. *Language Contact in Japan: A Sociolinguistic History*. Clarendon Press, 1996, 48.

[43] Loveday, *Language Contact in Japan*, 46.
[44] Kirkpatrick and Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', 165.
[45] Loveday, *Language Contact in Japan*, 48.

The first Western contacts occurred around 500 years ago with Portuguese, Spanish, and Latin. Portugal and Spain, then the leading maritime colonial powers, introduced Christianity to Japan along with scientific and technological discoveries from the West such as astrology, mathematics, medicine, shipbuilding and navigation, firearms, mining, metallurgy, and printing.[46] As such, the agents of the language contact were seamen, trader, and Catholic priests and monks. As initial contacts were non-restrictive, they were able to travel around the country and communicate through both oral and written channels. The use of Portuguese loans at the time was described as 'fashionable, prestigious, and widespread'.[47] On the other hand, the growing cultural, political, and religious influence posed a threat to national values and sovereignty in the eyes of conservatives and those in ruling power. Eventually in 1639, the Tokugawa government expelled the Europeans from Japan and brought the country to a 200-year isolationist policy, therefore halting the contact with these languages. The only exception was the Dutch, who were allowed to continue trading under extreme control. It was estimated that approximately 200 from thousands of Romance language loans survive in modern use, mostly cultural items such as food and clothing.[48]

The Dutch, who had established trade ties with Japan since 1609, emerged as the only Western contact Japan had when the country was closed off from most foreigners. The contact, strictly for commercial transactions at the time, was however subject to extreme control and discriminatory attitudes by the Japanese authorities. The Dutch could only reside in *Dejima*, a small artificial island in the bay of Nagasaki which was Japan's only foreign direct trading post. The only contact agents at the time were state-appointed Japanese interpreters who passed on their language skills informally within the family; the Dutch, on the other hand, were not allowed to study Japanese.[49] Any contact beyond duty or Western-oriented scholarship was strongly discouraged. The turning point which led to the increase in Dutch studies (so-called 蘭学: *rangaku*) among Japanese elites was in 1720 after the government announced the relaxation of censorship on non-Christian, Western scientific texts. The status of the Dutch language reached its peak in the following century, assisted by institutional support such as the establishment of the first official translation bureau 'for barbarian texts' (蛮書和解御用: *Banshowagegoyō*) and its use as the communication medium

[46] Loveday, 50–52.
[47] Loveday, 51.
[48] Loveday, 51–52.
[49] Loveday, 53.

between Japan and Western powers at the end of the isolationist policy.[50] Its influence was however replaced by English and other European languages in the 1870s; Dutch loanwords became scarce, having survived mostly as technical and scientific terms. Nevertheless, contact with the Dutch is thought to have laid the foundations for Japan's subsequent Western studies and modernization efforts.[51]

Apart from the aforementioned Dutch, contact with European languages resumed after Japan was forced to end its isolation in the mid-nineteenth century. The most notable influence was English, followed by German and French. Some very limited contacts in specific contexts were found in Russian (in literature and politics) and Italian (in art, music, and food), while loanwords of other European languages are estimated to be small in size and spread via English or German.[52]

The study of French began in the early eighteenth century. In the beginning, the Dutch officers were tasked to teach French to the Japanese; instructors of Japanese and French nationals emerged later in the century. The demand for French studies in the initial stage was to understand and acquire knowledge in military and technology, including shipbuilding, mining, and steel making. French was later deemed necessary for the study of law and art under the Meiji government's 'civilisation and enlightenment' modernisation movements (文明開化: *bunmei kaika*), although its influence on the Japanese legal system was in a lesser extent than that of Prussia and Britain.[53]

German contact started much later than French. It was the preferred language in the school of Western medicine and academic studies of politics and philosophy. The adoption of German in the former field was influenced in particular by Philipp Franz von Siebold, then-prominent German physician in the Japanese official circle. In the latter, it was associated with the rise of the German Empire and Prussia. The status of German until the Second World War was relatively high with

[50] Grant K. Goodman, *Japan and the Dutch 1600-1853* (Routledge, 2013), 128; Loveday, *Language Contact in Japan*, 54.
[51] Loveday, *Language Contact in Japan*, 56.
[52] Loveday, 58–59.
[53] Tōru Kitagaki, 'Honyaku No Seijigaku -- Edo-Bakumatsu Kara Meiji-Shoki Ni Okete No Furansu-Go to No Kakutō 翻訳の政治学――江戸末期から明治初期にかけてのフランス語との格闘 [Politics in Translation: The Encounter with the French Language during Late Edo until Early Meiji Period]', *Seinangakuin Daigaku Furansugo Furansu Bungaku Ronshū 西南学院大学フランス語フランス文学論集* 47, no. 107 (October 2005): 107–30.

the number of students surpassing French and rival to English, however, after the war it suffered a decline from the defeat of Nazi Germany and the rise of American English.[54]

Of all European languages, the influence of English has been overshadowing the others for the last hundreds of years, although it was not always welcomed by the Japanese authorities. Contacts with English were minimal until the 1850s, when Japan was forced under gunboat diplomacy to reopen itself to the West.[55] Following the capitulation, acquiring Western knowledge and modernization became Japan's priority, the backdrop being the threat of growing Western imperialism and China's defeat to Britain in the Opium War. Dutch, through interpreters, was initially used as the medium of Western knowledge acquisition and diplomacy during the early post-isolationist years.[56]

In the Meiji period (1868-1912) and the Taishō period (1912-1926) that followed, language contact could be described as undergoing both Westernization and internalization. The processes reflected the ambivalent attitude towards the West: of respect and desire to modernize, and of nationalist and anti-imperialist resentment. Institutional context again played a remarkable role. Pro-Western and bilingual Japanese leaders and scholars were a highlight of the 1870s. English, German and French were used as medium of instruction by foreign and native Japanese lecturers in higher education institutions, partly because those Japanese academics had attained education abroad and partly because it was still not available to express Western concepts and technical terms in Japanese.[57] There was even a proposal for English to replace Japanese as the national language, although this never materialized.[58] On the other hand, the Japanese language underwent major developments with objectives to promote literacy, meet literary needs and reduce reliance on

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[54] Sawa Mamoru, 'Nihon ni okeru furansu-go: Bakumatsu・Meiji-shonen wo chūshin toshite 日本におけるフランス語 : 幕末・明治初年を中心として [French language in Japan: A focus on late Edo and early Meiji period]', *Chiba keiai keizai daigaku kenkyūronshū 千葉敬愛経済大学研究論集*, no. 16 (15 June 1979): 256; Loveday, *Language Contact in Japan*, 58.

[55] The end of Japan's isolationist policy is often marked by the arrival of the American Perry Expedition during 1852-1854. Loveday, *Language Contact in Japan*, 61.

[56] Loveday, 64.

[57] Fumio Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', *International Journal of the Sociology of Language* 175–176 (2005 2005): 159, https://doi.org/10.1515/ijsl.2005.2005.175-176.157.

[58] The proposal was by Mori Arinori, the education minister between 1885 and 1889. Known for his liberal stance, Arinori was eventually assassinated by an ultranationalist on the very day of promulgation of Meiji Constitution in 1889. Loveday, *Language Contact in Japan*, 67; National Diet Library of Japan, 'Mori, Arinori | Portraits of Modern Japanese Historical Figures', accessed 28 June 2021, https://www.ndl.go.jp/portrait/e/datas/204.html?cat=11.

English. These efforts included written standardization,[59] calquing,[60] and Romanization of Japanese. Eventually in the 1890s, Japanese was established as the main instruction language everywhere, in effect relegating European languages to the status of external languages that are to be studied merely for translation purposes. During the Taishō period, the continuing industrialization and the rising influence of American popular culture further led to mass borrowings and symbolic use of English in advertising. Nonetheless, lack of proper education and interaction was thought to have prevented the development of bilingualism in Japanese society.[61]

In the period leading up to and during the Second World War (1930-1945), English was seen as the enemy language under the Pan-Asian policy. This resulted in extreme prohibition and purification attempts such as the removal of English and Romanized Japanese words from signs and labels all over the country, Japanized coinages of former Western loanwords, and reduction and suspension of English education.[62] Ironically, the hostility reverted to further enthusiasm in Westernization following Japan's defeat and occupation by the United States and its allies. The intensification was reflected in a sharp increase in revived and new loanwords, and the symbolism of English as a marker of prestige, social advantage, democratization, freedom and liberalism. Furthermore, multilingual signboards were introduced. Initially to accommodate the practical needs of the occupation forces, these signs later gained a symbolic feature as part of marketing strategies towards the general public especially among youth culture.[63] The momentum continues through the turn of the century to the present day.

In addition to Westernization, the emergence of internationalization since the 1980s has also attracted the attention of sociolinguistic studies in Japan. Provision of multilingual services began in key administrative domains (e.g., road signs, municipal services, emergency and disaster prevention) as the number of foreign visitors surged and the ethnolinguistic composition shifted from the US towards Asia.[64] Contemporary developments in media, economy, and politics have

[59] Nanette Twine, 'Standardizing Written Japanese. A Factor in Modernization', *Monumenta Nipponica* 43, no. 4 (1988): 429–54, https://doi.org/10.2307/2384796.
[60] The practice of literal, word-for-word translation from one language into another. Also known as loan translation.
[61] Loveday, *Language Contact in Japan*, 67–74.
[62] Loveday, 74–75.
[63] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', 163.
[64] Loveday, *Language Contact in Japan*, 93; Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*, 10.

raised expectations for more use of English in the (host) Japanese society.[65] However, critical views remain sceptical; they have cited Japan's non-integrative translation-based approach, institutional conservatism, and ethnocentrism as major roadblocks to foreign language education.[66]

2.4.2. Changes in Japan's Writing System

Japanese is the national and most widely spoken language of Japan. Other than Japanese, the country is also home to a small number of indigenous, mostly now-endangered languages such as Ainu and Ryukyuan.[67] Modern-day standard Japanese writing uses a combination of several writing systems, namely *kanji, kana* and *rōmaji*. Most texts use *kanji* (漢字 'Han characters') Chinese characters combined with a pair of syllabic *kana* character sets called *hiragana* (ひらがな) and *katakana* (カタカナ). To a lesser extent, Latin alphabets are also used for *rōmaji* (Romanized Japanese) and some acronyms.[68] An interesting feature is that each writing system is intended for different purposes and possess different images when written. Many words have specific writing systems that they are normally written in (e.g., *kanji* for native or naturalized Japanese words, *katakana* for non-Chinese foreign loanwords), although sometimes the writing systems are interchangeable. Inoue summarizes the image of each writing system: *kanji* is 'neutral, formal, administrative'; *hiragana* gives a soft, accessible feel; *katakana* gives a foreign feel as it is primarily used for loanwords and seldomly for emphasis purposes; *rōmaji* conveys a 'modern, cool, cosmopolitan' image.[69] The author gives a very illustrative example: 'Drinking beer from a bottle with labels written in *kanji* or *kana* would have been awkward, making people feel that the beer tastes like soy sauce.'[70] As such, it is natural to see Latin alphabets on products associated with Western culture such as beer and tobacco, even though they are domestic brands.

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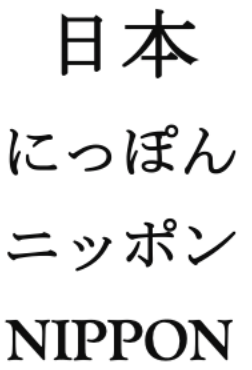
[65] Loveday, *Language Contact in Japan*, 76; Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', 174–76.
[66] Kirkpatrick and Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', 164–67.
[67] Christopher Moseley, ed., *Atlas of the World's Languages in Danger*, 3rd ed. (Paris: UNESCO Publishing, 2010), http://www.unesco.org/languages-atlas/index.php?hl=en&page=atlasmap.
[68] For a fuller guide into the Japanese language and its writing system, see Masayoshi Shibatani, 'Japanese Language | Origin, History, Grammar, & Writing', Encyclopedia Britannica, accessed 28 June 2021, https://www.britannica.com/topic/Japanese-language; Christopher Seeley, *A History of Writing in Japan* (Leiden: E.J. Brill, 1991); Masayoshi Shibatani, *The Languages of Japan* (Cambridge University Press, 1990); Yaeko Sato Habein, *The History of the Japanese Written Language* (Tokyo: University of Tokyo Press, 1984); Roy Andrew Miller, *The Japanese Language* (Chicago: University of Chicago Press, 1967).
[69] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', 158.
[70] Inoue, 159.

Figure 2. *Japanese word for 'Japan' written in kanji, hiragana, katakana and rōmaji.*



Source: Author's elaboration.

Inoue's study provides a number of important insights and contextualization on the languages used in Japan's writing system through perspectives of linguistic landscape and economics of language.[71] The author classified Japan's linguistic landscape into four notation-based types: (1) *kanji-dominant,* influenced by the introduction of writing system from China; (2) *katakana-dominant,* popularized for introducing foreign loanwords in their phonetic forms (instead of translating into *kanji*); (3) *alphabet-dominant*, the affective use of foreign languages and Romanized Japanese words especially for commercial purposes; and (4) *alphabet-plus type*, the informative use of foreign languages in various areas and domains.

The use of *kanji* has a long history from Japan's exchange with China and the Korea Peninsula, not only in terms of language but also through legal system, Buddhism and Confucianism culture.[72] Chinese characters also played a central role in the early introduction of Western concepts, a process which had accelerated since the opening of ports and the modernization of Japan in the mid-nineteenth century. As the intellectuals at that time 'had a profound knowledge of classical Chinese,' foreign concepts were either calqued or phonetically substituted into Chinese characters.[73] *Kanji* remained as Japan's predominant writing system until the end of the Second World War, after which the presence of American occupation forces and massive influx of foreign

[71] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan'.
[72] Ming and Kiyoshi, 'Chūgokugo No Nihongo Heno Eikyō 中国語の日本語への影響 [The Influence of the Chinese Language on the Japanese Language]'.
[73] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', 159.

concepts demanded the adoption of alphabets and 'influx-friendly' *katakana* in previous all-*kanji* signs. All notations now co-exist within Japan's linguistic landscape, although the composition varies by area: the appearance of *katakana* and alphabets is significantly higher in 'young, cosmopolitan, fashionable' areas. This applies to locations and neighbourhoods in cities as well as to media genre (e.g., female, youth, and music related).[74] Similar observations were also made by Loveday, who suggested 'a strong correlation between the level of formality and the presence of Chinese elements' in contemporary Japanese language usage.[75] While Roman alphabets (both Romanized Japanese and foreign languages) are used mostly for symbolic function, there certainly is a progress in multilingualization efforts for informative function. In his conclusion, Inoue remarks that the status of English in Japan has shifted from 'corpus planning' to 'status planning' and predicts more 'authentic Japanese and authentic English' to replace Japanized loanwords. [76]

While this classification is helpful and well-supported in most areas, there are several issues with the prediction and the concept of authenticity mentioned in the conclusion. While the influx of foreign-born population and tourists drove the demand for multilingual information, multilingual proficiency among the Japanese public is low.[77] Quite contrasting to 'authentic Japanese and authentic English', Japan's current linguistic landscape can be characterized by extensive, upward usage of *katakana* loanwords in mass media, internet and everyday conversations. The trend has caused a debate among the Japanese public who question about the comprehensibility of contemporary Japanese language among older population vis-à-vis the desired direction of Japanese culture,[78] as well as among researchers who study about Japanized loanwords and their 'adverse effects'. One widely-studied phenomenon is *wasei-eigo* (和製英語) or made-in-Japan English, which 'takes English or other foreign words and creates new combinations and meanings which are used as a form of Japanese'.[79] For instance, Harada, Morishita and Hiramatsu are

[74] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan'.
[75] Loveday, *Language Contact in Japan*, 41.
[76] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan'.
[77] 'Japan's English Proficiency Drops Among Non-English-Speaking Countries', nippon.com, 4 December 2019, https://www.nippon.com/en/japan-data/h00594/japan's-english-proficiency-drops-among-non-english-speaking-countries.html.
[78] The Huffington Post, 'NHK gairai-go tsukai-sugi teiso ni "nihongo ni iikaerubeki" "gairai-go no mamade yoi" to sanpi ryōron NHK 外来語使いすぎ提訴に「日本語に言い換えるべき」「外来語のままでよい」と賛否両論 [Varied opinions on NHK's overuse of foreign words lawsuit]', ハフポスト, 28 June 2013, https://www.huffingtonpost.jp/2013/06/27/nhk_n_3513859.html.
[79] Laura Macgregor, 'The Language of Shop Signs in Tokyo', *English Today* 19 (1 January 2003): 18–23, https://doi.org/10.1017/S0266078403001020.

concerned how these loanwords, combined with the general public's low English proficiency, may go beyond direct borrowing in a way that 'mislead, disrupt and confuse communication among native speakers of Japanese'.[80] On the other hand, *wasei-eigo* also poses a problem for speakers of English and other foreign languages. Despite making little sense or having a different meaning in the original language, these words are wrongly perceived as authentic by Japanese speakers who then adopt them in foreign language speeches and signs, causing confusion and misunderstanding between both parties. For instance, the English-sounding 'free drink (フリードリンク: *furī dorinku*)' in restaurant menus stands for a fixed-fee, all-you-can-drink option, while an all-you-can-eat option is, strangely, called 'viking (バイキング: *baikingu*)'.

Figure 3. *Examples of wasei-eigo usage.*

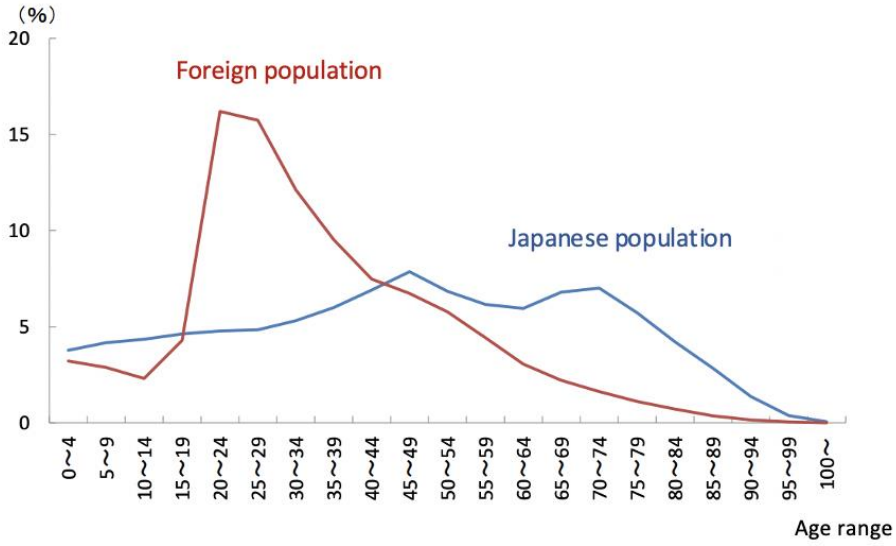
Sources: Karaoke Bar Friends. '飲み放題 ドリンクメニュー | カラオケ酒 BAR フレンズ（Friends） 鹿児島市吉野町', 28 September 2016. http://let-friends.com/menu/free_drink/;
Hotel Sunshine Aoyama. '新春バイキング｜姫路のホテルならホテルサンシャイン青山'. Accessed 28 June 2021. https://www.hotel-sunshineaoyama.co.jp/event/shinsyunvkg/index.html.

The pressure for improvement is immense as Japan needs to accommodate unprecedented influx of immigrants and tourists from overseas as well as conducting business in international markets. According to official reports, foreign-born population indicated a record-high 2.3% of the country's total population as of 1 January 2020 (although the number decreased later in 2020 due to the impact of coronavirus and related restrictions).[81] The increasing trend of foreign-born

[80] Yasunari Harada, Miwa Morishita, and Yuko Hiramatsu, 'カタカナ語の英語学習に対する影響 (Adverse Effects of Katakana Words in Japanese for Japanese Learners of English)', 2019, 1, https://www.jcss.gr.jp/meetings/jcss2019/proceedings/pdf/JCSS2019_P2-2.pdf.
[81] Yutaka Okada, '2019-Nen no gaikokujin jinkō wa kako saikō - 2020-nen ikō wa koronaka deno genshō heno taiō ga kyūmu 2019 年の外国人人口は過去最高 2020 年以降はコロナ禍での減少への対応が急務 [Foreign

population contrasts with the decreasing trend of rapidly aging Japanese population. The age distribution of foreign-born population and Japanese population is shown in Figure 4; it is apparent that the former has become indispensable in sustaining Japan's economy.

Figure 4. *Age distribution of Japan-born and foreign-born population (as of January 1, 2020).*



Source: Okada, Yutaka. '2019-Nen no gaikokujin jinkō wa kako saikō - 2020-nen ikō wa koronaka deno genshō heno taiō ga kyūmu 2019 年の外国人人口は過去最高 2020 年以降はコロナ禍での減少への対応が急務 [Foreign population in 2019 was all-time high, quick response is need for projected decrease in 2020 due to coronavirus]'. Tokyo: Mizuho Research Institute, 9 September 2020. https://www.mizuho-ri.co.jp/publication/research/pdf/insight/pl200909.pdf.

Before proceeding further, it should also be pointed out that the solution to language-based exclusion need not always breaking away from the Japanese language; in fact, the use of Japanese may as well be a key to inclusion. More recent studies pointed out the issues of Tokyo's linguistic landscape from the perspective of foreign residents; one of the common findings stated that a majority of foreign residents actually understand better in Japanese than in English -- the dominant foreign language in multilingualization efforts.[82] One statistical survey found that some 62.4% of

population in 2019 was all-time high, quick response is need for projected decrease in 2020 due to coronavirus]' (Tokyo: Mizuho Research Institute, 9 September 2020), https://www.mizuho-ri.co.jp/publication/research/pdf/insight/pl200909.pdf.

[82] Jiro Nishigori et al., 'Tokyo's Linguistic Landscape and the State of Multilingual Preparedness for the 2020 Tokyo Olympic/Paralympic Games from the View Point of International Students', *Jinbungakuhō 人文学報 [The Journal of Social Sciences and Humanities]*, no. 512 (March 2016): 95–111; Naoki Hagimoto, 'Tagengo taiō no

the (foreign resident) respondents have some understanding in Japanese, exceeding 44.0% in English and 38.3% in Chinese.[83] This is also supported by the fact that a majority of foreign-born population came from non-English speaking countries; take an example of Tokyo, where the top five countries of origin of foreign-born population are China (231,196 residents), Republic of Korea (93,595), Vietnam (38,227), Philippines (33,818) and Nepal (26,150).[84] Instead of focusing on increasing the use of foreign languages, these studies pay attention into making expressions in Japanese simple enough for non-fluent speakers to understand. This concept, known as *yasashii nihongo* (やさしい日本語 'Easy Japanese') emerged after the Kobe Earthquake in 1995 to aid foreign residents who did not have access to necessary information due to language barriers.[85] Although this thesis will adopt the English term for ease of understanding, the word *yasashii* means 'easy, plain' (using the character 易しい) as well as 'kind, gentle' (using the character 優しい) in Japanese, both suiting the purpose of the concept. Studies that support Easy Japanese argue that the concept has crucial implications for multicultural understanding as well as for improving the accuracy of multilingual translation technology services.[86]

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regashī ~ yasashī nihongo to ta gengo onsei hon'yaku ~
多言語対応のレガシー～やさしい日本語と多言語音声翻訳～ [The legacy of multilingual support: Easy Japanese and multilingual speech translation]' (2020 Multilingual Localization Forum, Online, 23 December 2020), https://www.youtube.com/watch?v=pbZBmt4o1HU&feature=youtu.be.

[83] Kazunari Iwata, 'The Preference for English in Linguistic Services : "Japanese for Living: Countrywide Survey" and Hiroshima(<Special Issue>Changing Japanese Society and Language Issues)', *The Japanese Journal of Language in Society* 13, no. 1 (2010): 81–94, https://doi.org/10.19024/jajls.13.1_81.

[84] Tokyo Metropolitan Government Bureau of General Affairs, 'Gaikokujin Jinkō Reiwa 2-Nen 外国人人口 令和２年 [Foreign Population 2020]', Statistics of Tokyo, 2020, https://www.toukei.metro.tokyo.lg.jp/gaikoku/2020/ga20010000.htm.

[85] Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games, 'Yasashii Nihongo Ni Tsuite「やさしい日本語」について [About 'Yasashii Nihongo']', accessed 28 June 2021, https://www.2020games.metro.tokyo.lg.jp/multilingual/references/easyjpn.html.

[86] Nishigori et al., 'Tokyo's Linguistic Landscape and the State of Multilingual Preparedness for the 2020 Tokyo Olympic/Paralympic Games from the View Point of International Students'; Hagimoto, 'Tagengo taiō no regashī ~ yasashī nihongo to ta gengo onsei hon'yaku ~ 多言語対応のレガシー～やさしい日本語と多言語音声翻訳～ [The legacy of multilingual support: Easy Japanese and multilingual speech translation]'.

Figure 5. *Comparison of texts in standard Japanese and 'Easy Japanese'.*

Source: Adachi City Office. 'Yasashii Nihongo やさしい日本語'. Accessed 25 June 2021. https://www.city.adachi.tokyo.jp/hodo/tsukaikata/yasashii.html.

2.5. Introduction to the Linguistic Landscape of Tokyo

As one of the world's hotspots for headquarters of transnational corporations, expatriates, and international tourists, there is no denying the apparent impact of globalization on the Japanese capital city and its surrounding metropolitan area. Research on Japan's linguistics landscape also focuses on Tokyo, although in relatively limited settings. Meanwhile, very few studies had been done on the 'virtual' linguistic landscape of Tokyo.

One of the most extensive surveys of multilingualism in Tokyo's physical linguistic landscape was conducted by Backhaus in 2003.[87] A quantitative analysis was performed on a collection of over 11,000 signs photographed around the train stations of Yamanote Line, a loop service that serves as one of the capital's busiest and most important lines. According to Backhaus' findings, multilingualism in Tokyo was 'for the most part Japanese-English bilingualism': English appeared on 92.7% of all 2,444 multilingual signs, followed by Chinese (2.5%) and Korean (1.6%).[88] The distribution of multilingual signs vis-à-vis monolingual signs was uneven, ranging from a mere

[87] Peter Backhaus, *Linguistic Landscapes: A Comparative Study of Urban Multilingualism in Tokyo* (Clevedon, United Kingdom: Channel View Publications, 2006).
[88] Backhaus.

10% around Meguro station to almost 50% around Tokyo (central) station. Language composition also varied, with some languages disproportionately concentrated in specific areas (e.g., the 'Koreatown' around Shin-Ōkubo station). The concentration potentially signifies the diaspora community clusters and certain images or values attached to the area. Whereas Japanese predominantly appeared in 'top-down' regulatory and infrastructural signs, foreign languages were more frequently or exclusively visible in 'bottom-up' commercial signs. Similar to Inoue's study, Backhaus also found relatively high frequency of Romanized Japanese which implies the landscape's symbolic construction. It should be noted that the study was done before the city's enactment of multilingual localization policy and preparation for the Olympic and Paralympic games, therefore it is probable that the linguistic landscape has changed significantly in more recent years.

Besides Backhaus, other studies focus on more specific domains and areas. Examples are Masai (Shinjuku), Tanaka et al. (in one study on Akihabara area and another on department stores in Tokyo) and Macgregor.[89] In particular, Macgregor analyzed shop signs in the affluent neighbourhood of Seijō Gakuen-mae train station, located west of Central Tokyo. Again, the findings showed that the majority of multilingual signs found were in Japanese and English. In most cases, they appeared as either Romanized transliteration or translation of each other, a pattern which might relate to the translation-based practice in Japan's foreign language education. The study also identified the presence of some European languages (or those sounding so), such as Danish in bakeries and French in patisseries and fashion-related shops. Several naming choices were either incomprehensible, peculiar or unnatural in the intended original language. Macgregor concluded that the use of English and European languages serves as a 'status enhancing

[89] Yasuo Masai, 'Shinjuku No Kissaten-Mei -Gengo Keikan No Bunka Chiri- 新宿の喫茶店名-言語景観の文化地理- [Names of Coffee Shops in Shinjuku,Tokyo-A Cultural Geography of the Linguistic Townscape-]', *Area Studies Tsukuba* 1 (1983): 49–61; Tanaka Yukari et al., 'Machi no nari-tachi to gengo keikan — Tōkyō Akihabara o jirei to shite — 街のなりたちと言語景観 — 東京・秋葉原を事例として— [Linguistic Landscape of Akihabara Based on Fieldwork in 2010: A Test Case for Establishing Regional Typology]', *Gengo Kenkyū 言語研究*, no. 142 (2012): 155–70; Yukari Tanaka et al., 'Tōkyō-ken no gengo-teki tayō-sei: Tōkyō-ken depāto gengo keikan chōsa kara 東京圏の言語的多様性: 東京圏デパート言語景観調査から [Linguistic Variability in the Tokyo Metropolitan Area : A Survey of the Linguistic Environment of Department Stores]', *Shakai Gengo Kagaku 社会言語科学* 10, no. 1 (2007): 5–17, https://doi.org/10.19024/jajls.10.1_5; Macgregor, 'The Language of Shop Signs in Tokyo'.

embellishment' symbolizing sophistication and cosmopolitanism even though the shops are domestically established and owned.[90]

In contrast to the positive image associated with Western culture, languages which are deemed to come from 'inferior' culture are likely subject to rejection and backlash. An example is the case study of Shin-Ōkubo's Koreatown. Inoue described how many Korean shop owners in the area initially got into disputes with other local residents who feared that putting up Korean signs would harm the image of the neighbourhood.[91] The sentiment towards Korean culture began to improve in the 2000s with the joint host of soccer World Cup by Japan and South Korea. Another major factor was the 'Korean wave' (韓流： *hanryū*) that kicked off since the 2003 airing of the South Korean television series *Winter Sonata*.[92] Now full with symbolically displayed Korean signs, Shin-Ōkubo has since been growing rapidly,[93] attracting not only K-culture fans but also foreign-born residents who makes Shin-Ōkubo their new home due to relatively cheap rent and availability of ethnic products. Furthermore, Inoue noted the relatively rare appearance of other Asian (excluding Korean and Chinese) and Arabic writing systems in Tokyo; where they were found, they were almost exclusively on 'signboards of ethnic restaurants, as well as on public signs warning against criminal activities.'[94]

Very few studies have been done on the 'virtual' linguistic landscape of Tokyo. One of them is Tanaka et al.[95] on the availability of language change function and multilingual documents on department store, local municipality, and tourism websites in the Tokyo Metropolitan area.[96] Findings showed that administrative service websites were the most progressive in providing

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[90] Macgregor, 'The Language of Shop Signs in Tokyo'.

[91] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan'.

[92] Inoue; NEWS POST SEVEN, 'Kimu・yonja kara NiziU made… Nihon de no hanryū būmu no rekishi nenpyō キム・ヨンジャから NiziU まで…日本での韓流ブームの歴史年表 [From Kim Yeon-ja to NiziU...A chronological timeline of Korean wave boom in Japan]', Yahoo! JAPAN News, 19 August 2020, https://news.yahoo.co.jp/articles/769ce96459f6795fab6251d5df880192b1cd4b1a.

[93] 'JR Higashinihon 17-nendo ni mottomo nobita eki Shin-ōkubo no Naze? JR 東日本 17 年度に最も伸びた駅 新大久保のナゼ？ [Station with the highest growth in FY17 of JR East: Why Shin-Ōkubo?]', AERA dot. (アエラドット), 10 July 2018, https://dot.asahi.com/wa/2018070900061.html.

[94] Inoue, 'Econolinguistic Aspects of Multilingual Signs in Japan', 173.

[95] Yukari Tanaka, Tomomi Akiyama, and Makiko Kamikura, 'Netto Jō No "Gengo Keikan"--Tōkyōken No Depāto・jichitai・kankō Saito Kara ネット上の"言語景観"--東京圏のデパート・自治体・観光サイトから ["Language Landscape" in the Internet -- From Websites of Department Stores, Local Governments, and Tourist in Tokyo Metropolitan Area]', *Gengo 言語* 36, no. 7 (July 2007): 74–83.

[96] Also includes Saitama, Chiba, and Kanagawa prefectures.

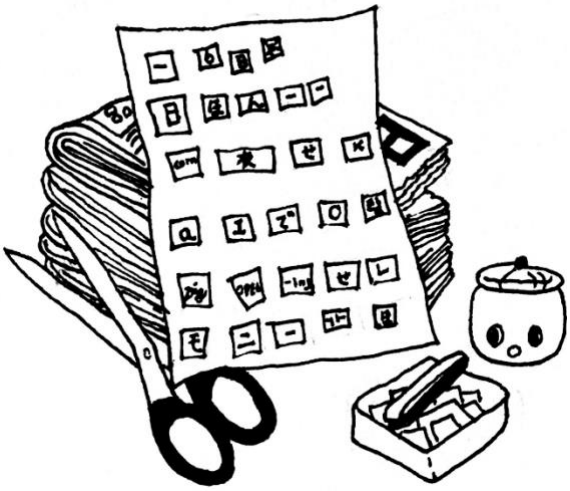
multilingual support, following by tourism websites; ‘English-Chinese-Korean’ options were becoming standardized in line with the government’s policy. Meanwhile most of the department store websites were only in Japanese even though multilingual signs and pamphlets are available at their physical stores, indicating a gap between the physical and virtual linguistic landscape. Some trends are similar throughout both landscapes, such as the dominance of English regardless of the ethnolinguistic composition of the area. According to the study, the presence of other languages correlates with the language groups of visitors and the relationship that the city formed with international ‘sister cities.’ The insights are an important step into the research of Tokyo’s emerging digital space, raising further questions such as what kind of multilingual functions are available, which texts are deemed important to be translated, where automated translation is applied and how it is faring in different languages, and comparison with linguistic landscape in corresponding physical spaces, among others.

2.6. Conclusion

The above sections have explored the main theoretical concepts and existing literature on language in the diversity and inclusion discourse, development of linguistic landscape studies and language functions (informative and symbolic), development of multilingualism in relation to globalization and power relations, and language-based exclusion issues. In Japan’s context, the foreign influence in the transition of Japan’s writing system has been examined in addition to future signs of change towards multilingualism in the linguistic landscape. Considerable work has been done on Tokyo’s physical linguistic landscape including studies on multilingualism but has remained very limited on the emerging virtual and digital landscape.

Therefore, the ambition of this thesis is to address the literature gap through a sampling study on multilingualism in Tokyo’s virtual linguistic landscape, capturing a wide range of social domains to represent the multidimensional quality of the Japanese metropolitan society. Some aspects are similar to the observations in the physical linguistic landscape, whereas others are unique to the virtual space. The underlying contexts and policy may also have contributed to the development of both landscapes and thus are worth investigating.

Chapter 3 | Findings and Discussion



3.1. Website Research

Having discussed the gap of existing literature, this section focuses on multilingualism in Tokyo's virtual linguistic landscape. Building on previous studies with particular inspiration from Tanaka et al.'s study, this research has expanded the scope of websites to cover regulatory, infrastructural and commercial facilities that are frequented by residents and visitors. The sample websites are intended to be represent the virtual aspect of real-world facilities. In addition to the data collected in Tanaka et al., this research attempts to explore the websites based on their informative and symbolic functions. The aim is to analyze the current trends in Tokyo's virtual public space along with the current context of physical linguistic landscape and policy development. In each website, the following aspects were examined: availability and form of multilingual service (language change) button, the languages being offered and their placement, means of translation (automated, non-automated, or mixed), time of implementation, foreign language elements and Romanized words on the Japanese homepage, and the languages of the web logo. Detailed results including the list of facilities and their web addresses can be found in Appendix.

3.1.1. Availability, Form and Language Order

Regarding the availability, just over half of the websites collected offered some form of multilingual service on their homepage (168 out of 317; 53%). Table 5 shows by sector how many websites were searched and how many websites featured a language change function. Availability rates were 100% in websites by authorities such as administrative and emergency services, followed by websites of public transport providers, retailers, and tourism guides. Meanwhile, the multilingual option was significantly lacking in websites of banks, hospitals, and community services. Concerning the time of implementation, the early adopters of multilingual function are administrative services, emergency services, public transport, and tourism sectors. Information in foreign language became available on many websites in these sectors since early 2000s, although the option was usually limited to English at the beginning. In case that the facility had a main website and several branch location websites, information in foreign language was usually available in the main website first. Examples are websites of community services and department stores. In particular, many department store websites only began implementing multilingual feature in the 2010s. The availability also varied by municipality, as will be explored in the later section.

Table 5. *Availability of multilingual function by sector.*

Sector	Total no. of websites searched	Multilingual function available	Availability rate
Administrative services	24	24	100%
Emergency	3	3	100%
Public transport	20	19	95%
Retail	24	21	88%
Tourism	26	21	81%
Banking	32	21	66%
Community services	25	9	36%
Healthcare	163	50	31%
Grand Total	**317**	**168**	**53%**

Source: Own calculations.

The appearance of the language change button was also examined. English was used in most instances (124 out of 168 websites) to indicate the multilingual option; examples of the words used were ‘Language’, ‘Multilingual’, ‘Global’, ‘Translation’, ‘English and other languages’, ‘For foreigners’, and ‘For tourists.’ Another pattern was when the name of the languages available were stated, either written in their respective languages (e.g., ‘中文’ for Chinese and ‘한글’ for Korean), while in the others were in English (e.g., ‘Chinese’ and ‘Korean’). The design of the language change button seems to be based on an assumption that non-Japanese speakers understand at least some English. In a few instances, the button or the default option was written in Japanese (e.g., ‘日本語’ for Japanese and ‘中国語’ for Chinese), which could be problematic for non-speakers to detect the multilingual function they need. In addition, around 30% of the buttons were accompanied with symbols such as the world icon and the flag icon.

Figure 6. *Variation of language change button.*

Source: Own compilation from websites observed in the study.

The data collected show twenty-six different written languages being offered. They are (in availability order): English, Chinese (Simplified), Korean, Chinese (Traditional), Thai, French, Spanish, Filipino (Tagalog), Vietnamese, Indonesian, Malay, Russian, Portuguese, German, Burmese, Nepalese, Hindi, Italian, Bengali, Arabic, Dutch, Mongolian (Khalkan), Mongolian (Inner Mongolia), Persian, Swedish, and Urdu. Table 6 shows the number of websites offering contents in each language and its average placement order. English was always offered at least in every website where multilingual service was available, and it was almost always placed as the first, default option. Simplified Chinese was offered second both in terms of availability and placement, followed by Korean and Traditional Chinese. Other languages seemed to be significantly less prioritized. Some languages were placed in a more prioritized order despite being offered less. An example is the option of Traditional Chinese, which was often placed before Korean although Korean was being more standardized. This was done perhaps in order to group together both the Chinese variations (Simplified and Traditional). Other languages with relatively low availability but prioritized placement were French (compared to Thai) and German (compared to Spanish, Tagalog and Vietnamese).

Table 6. *Availability by language and average placement order among language options.*

Rank	Language	No. of websites offered	Average placement order	Rank	Language	No. of websites offered	Average placement order
1	**English**	**168**	**1.01**	14	Russian	6	12.67
2	**Chinese (Simplified)**	**122**	**2.20**	15	Nepalese	5	9.00
3	**Korean**	**104**	**3.47**	16	Burmese	5	10.40
4	Chinese (Traditional)	75	3.17	17	Hindi	4	8.75
5	Thai	27	6.37	18	Italian	4	9.00
6	French	20	6.20	19	Bengali	2	10.50
7	Spanish	11	8.18	20	Arabic	1	5.00
8	Filipino (Tagalog)	10	8.30	21	Dutch	1	11.00
9	Vietnamese	9	9.22	22	Mongolian (Khalkan)	1	12.00
10	German	6	7.67	23	Mongolian (Inner Mongolia)	1	13.00
11	Indonesian	6	8.00	24	Swedish	1	14.00
12	Malay	6	10.00	25	Persian	1	16.00
13	Portuguese	6	10.67	26	Urdu	1	22.00

Source: Own calculations.

The number of languages available also varied by sector. Table 7 shows the composition of languages offered in the websites of each sector up to the eleventh rank. The widest varieties of foreign language options were offered by administrative services and emergency services websites. The English-Chinese (both Simplified and Traditional)-Korean standardization practice could be observed in many sectors, although interestingly, the availability of Traditional Chinese – mainly used by Taiwanese people -- was low in the municipality websites offering administrative services. Exceptions of the standardization were the banking sector, where multilingual option was almost exclusively English, and the healthcare sector, where only English and some Simplified Chinese were offered apart from Japanese. Other notable figures include the availability of Thai in public transport (42%) and retail (33%), and French in administrative services (38%) and banking (33%). Meanwhile, implementation of Easy Japanese was currently very limited to administrative services websites; even then, the availability rate was below 30%.

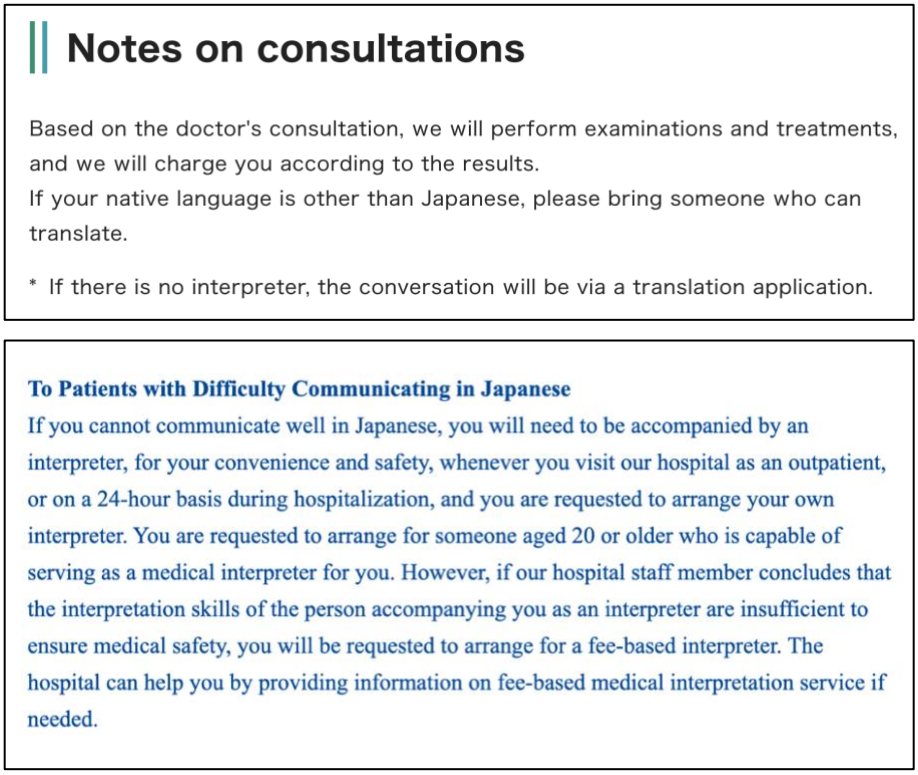
Table 7. *Availability rate by language and sector.*

	Ranking:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Sector	**Multilingual available**	**English**	**Chinese (Simplified)**	**Korean**	**Chinese (Traditional)**	**Thai**	**French**	**Spanish**	**Tagalog (Filipino)**	**Vietnamese**
Administrative Services	24	100%	100%	100%	33%	29%	38%	17%	25%	25%
Emergency	3	100%	100%	100%	100%	100%	33%	33%	100%	67%
Public Transport	19	100%	89%	89%	89%	42%	26%	16%	0%	0%
Retail	21	100%	100%	90%	100%	33%	0%	0%	0%	0%
Tourism	21	100%	100%	90%	81%	10%	10%	5%	0%	0%
Banking	21	100%	10%	10%	5%	0%	0%	0%	0%	5%
Community Services	9	100%	100%	100%	89%	0%	22%	11%	0%	0%
Healthcare	50	100%	50%	22%	0%	0%	2%	2%	2%	0%
Grand Total	**168**	**100%**	**73%**	**62%**	**45%**	**16%**	**12%**	**7%**	**6%**	**5%**

	Ranking:	10th					11th		
Sector	**Multilingual available**	**Indonesian**	**Malay**	**Russian**	**Portuguese**	**German**	**Burmese**	**Nepalese**	**Easy Japanese**
Administrative Services	24	17%	17%	17%	17%	13%	17%	17%	29%
Emergency	3	67%	67%	33%	33%	33%	33%	33%	0%
Public Transport	19	0%	0%	0%	0%	0%	0%	0%	0%
Retail	21	0%	0%	0%	0%	0%	0%	0%	0%
Tourism	21	0%	0%	0%	0%	5%	0%	0%	0%
Banking	21	0%	0%	0%	0%	0%	0%	0%	0%
Community Services	9	0%	0%	0%	11%	11%	0%	0%	11%
Healthcare	50	0%	0%	2%	0%	0%	0%	0%	0%
Grand Total	**168**	**4%**	**4%**	**4%**	**4%**	**4%**	**3%**	**3%**	**5%**

Source: Own calculations.

Figure 7. *Notes on hospital websites requiring patients to bring a Japanese interpreter.*



Notes on consultations

Based on the doctor's consultation, we will perform examinations and treatments, and we will charge you according to the results.
If your native language is other than Japanese, please bring someone who can translate.

* If there is no interpreter, the conversation will be via a translation application.

To Patients with Difficulty Communicating in Japanese

If you cannot communicate well in Japanese, you will need to be accompanied by an interpreter, for your convenience and safety, whenever you visit our hospital as an outpatient, or on a 24-hour basis during hospitalization, and you are requested to arrange your own interpreter. You are requested to arrange for someone aged 20 or older who is capable of serving as a medical interpreter for you. However, if our hospital staff member concludes that the interpretation skills of the person accompanying you as an interpreter are insufficient to ensure medical safety, you will be requested to arrange for a fee-based interpreter. The hospital can help you by providing information on fee-based medical interpretation service if needed.

Sources: JR Tokyo General Hospital. 'For Foreigners Who Wish to Have a Consultation'. Accessed 28 June 2021. https://www.jreast.co.jp/hospital/info/forforeigners.html; Mitsui Memorial Hospital. 'To Patients with Difficulty Communicating in Japanese'. Accessed 28 June 2021. https://www.mitsuihosp.or.jp/english/.

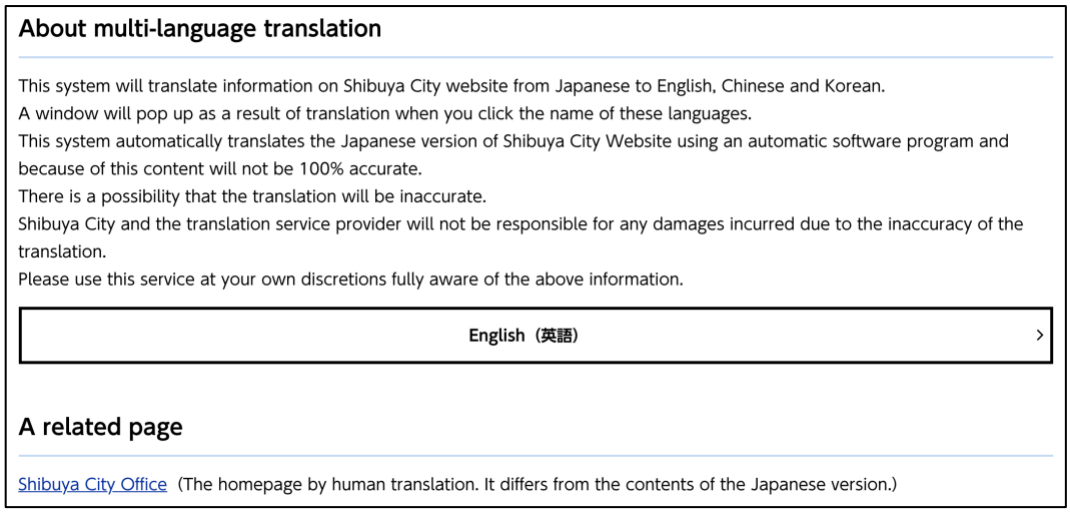
It is worth noting that not all contents were equally translated into each foreign language. In other words, there was an information asymmetry between people who browsed the website in Japanese, in English, and in other languages. Therefore, the services in different languages might not fully be comparable in terms of accessibility, quality, and practicality. The Japanese version of the website was usually the most comprehensive, followed by the English version. Some websites offered only a page or two of translated content when clicking the language change option. In websites that offer online services such as internet banking, operation was available only in Japanese. In another example, a number of hospital websites explicitly stated that the patient is expected to bring a Japanese interpreter, otherwise communication will be through translation application or a fee-based interpreter (Figure 7). This implies that the human resources at the physical location, in this case the hospital, are not capable of providing services in any foreign languages. When combined with the result that healthcare websites have low availability of

multilingual information, it is also possible that the language barrier might have been intentional to avoid non-Japanese speaking patients. In contrast, there was a considerable amount of multilingual information dedicated to warnings about household waste separation (administrative services) and money laundering (banking), implying the authorities' priority on preventing tension and conflicts to maintain social cohesion.

3.1.2. Means of Translation

Regarding the means of translation, three categories are identified: automated (machine translation), non-automated (manual translation), and mixed. In the mixed category, some documents and webpages were translated using the conventional method while the rest of the contents were machine-translated. Whether a website used automated or non-automated translation can be identified by a notification window after the multilingual option is clicked. In case of automated translation, the websites often put a disclaimer that they do not guarantee the accuracy of the translation and therefore 'will not be responsible for any damages incurred due to the inaccuracy of the translation' (Figure 8). With a few exceptions, most of the websites employed the same means of translation across all the language options they offered (e.g., non-automated translation in the English as well as other language versions of the website).

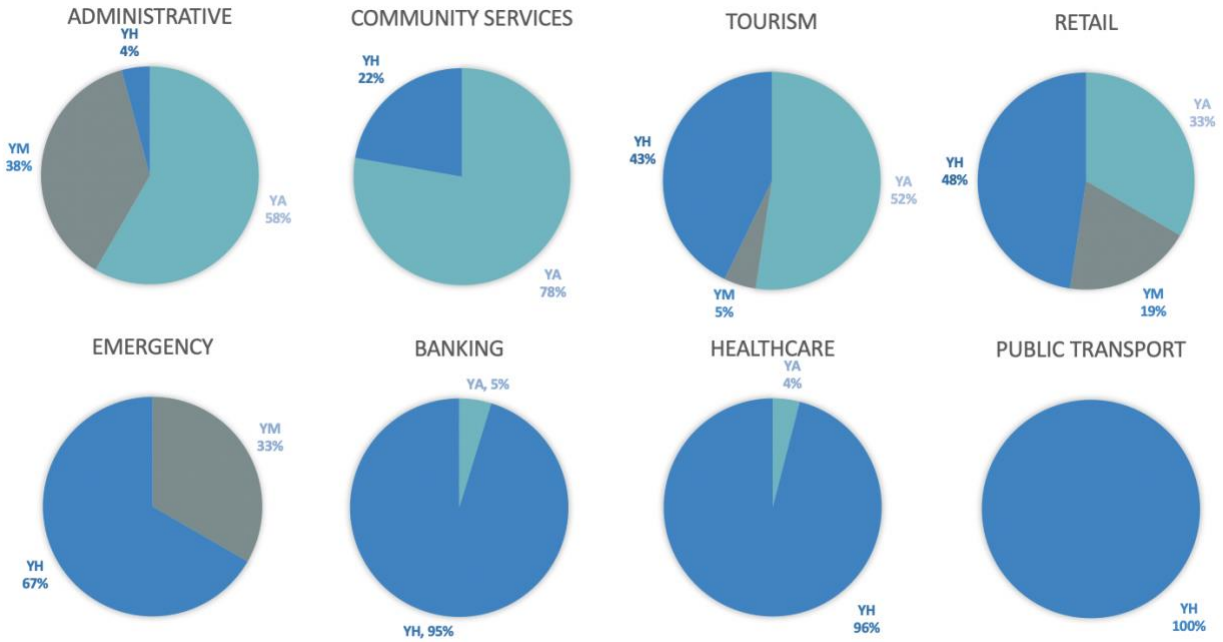
Figure 8. *Example of notification on automated translation.*



Sources: Shibuya City. 'Language（外国語翻訳について）'. 渋谷区公式サイト. Accessed 28 June 2021. https://www.city.shibuya.tokyo.jp/honyaku.html.

Figure 9 shows the ratio of the means of translation in each sector. Automated translations were employed the most in administrative services websites; 96% were either fully or partially machine translated. The ratio of automated translation was also high in community services, tourism and retail. In contrast, websites in the banking, healthcare, and public transport almost exclusively relied on non-automated translation. Out of the three emergency services websites in the sample, two employed non-automated translation, and one (disaster prevention information website) offered automated translation option in nine languages along with manually translated booklets in four languages. Automated translation service was also available in Easy Japanese, although it was observed in only one website. Most websites began providing multilingual information via manual translation before changing to machine translation since the last six or seven years. In many cases, the switch to automated translation also resulted in the increase of foreign languages available.

Figure 9. *Ratio of means of translation by sector.*



Note: YA = Automated translation/Machine translation, YH = Non-automated translation/Manual Translation, YM = Mixed

Source: Own calculations.

In most cases, the name of automated translation service provider would also be indicated in the notification window and the URL. Three names emerged as the main service providers: J-Server Professional by Kodensha Co Ltd, WEB Transer Homepage Translation Service by Cross Language Inc, and Google Translate by Google. The first two service providers are based in Japan and specialize in providing manual and machine translation. Some trends have been observed through the choice of service provider in the websites of each sector. J-Server Professional translation service was the main provider in administrative services websites; WEB Transer Homepage Translation Service was popular among retail and tourism websites; Google Translate was often used in community services and a few hospital websites that offered automated translation. Five administrative service websites use multiple machine translation providers: J-Server Professional for the most commonly used languages such as English, Chinese, and Korean, Google Translate for less common languages, and in one instance, another specialized provider for Easy Japanese. In these cases, Google Translate seemed to be positioned as a 'second option' to the homegrown translation systems. The choice of machine translation service might reflect the viability issue of generalized translation service especially in language pairs with little linguistic or cultural conformity such as Japanese and English. The current machine translation algorithm is determined by the volume and the quality of training data available in each language. Therefore, a specialized research and development is likely needed for the Japanese language and for different sectors.

Why do the means of translation matter, whether they be automated, manual, or mixed? The investigation provides some insights on the benefits, issues, and what might have motivated the decision to adopt machine translation or manual translation in each website.

Sectors that are oriented towards machine translation-oriented are the ones where accessibility to the content is prioritized. These include administrative services, community services and tourism, where various news and topics are updated on a constant basis. A major advantage of machine translation service is the ability to translate a massive amount of information. In principle, all webpages in the Japanese version can be translated to the preferred language through a single click. Machine translation can reduce manpower, time, and cost associated with content translation by a considerable amount, especially in long term. It also ensures that the foreign language contents are always available and up to date compared to the Japanese version of the website. Another advantage is the number of languages that can be offered. In the 60 websites where full or partial

automated translation was available, the average number of languages offered was 4.81, compared to 2.90 in 108 manually translated websites. Machine translation saves the organization from always having to hire translators for each language, especially for uncommon languages where manual translation services may be hard to find and expensive. On the downside, the accuracy and readability may be considerably compromised when left without proper moderation. Figure 10 is an example where the banners and images were not translated, which might lead to foreign residents missing out on the information on booking a COVID-19 vaccination appointment (‘新型コロナワクチン接種予約’ in blue banner).

On the contrary, manual translation is still widely used by websites in banking, healthcare, and public transport sectors. They are the sectors that rely on high accuracy and readability of data, tend to use specific or technical terms, and have less update frequency. Except for public transport, the availability of multilingual information in each website was very limited: only a few pages in most websites. These facilities, mainly comprising banks and hospitals, might consider that the investment cost of machine translation service does not worth implementation, especially when they are not encouraged by the government policy to multilingualize. Finally, the mixed means could be seen employed in the emergency services sector. Uses of manual translation and manual translation were differentiated: the former for important publications and guidelines, and the latter for other common updates on the website.

In summary, the choice to use automated translation, non-automated translation, or to mix the use of the two ultimately depends on the priority of each website or organization, as currently there is still no ‘best practice’. Organizations that prioritize the breadth of content, up-to-datedness, and variety of language will find automated translation beneficial. On the other hand, the conventional method of manual translation ensures accuracy and readability which can be crucial to websites and sectors that rely on these qualities. Finally, the hand-in-hand use of both means may complement the advantages and disadvantages of one another. Reflecting back on the sector-based findings, the preferred means of translation seemed to resonate with the usage characteristics in each sector. Future research and development in machine translation technology, especially with the incorporation of artificial intelligence, are expected to improve the efficiency and expand the application of the service.

Figure 10. *Comparison of homepage before and after machine translation.*

Source: Ōta City. ‘Ōta City Homepage: Top Page (Japanese and English Versions)’. Accessed 23 June 2021. http://www.city.ota.tokyo.jp/index.html.

3.1.3. Foreign Language Element and Romanization in Japanese Homepages

The next section of the research concerns foreign language and Romanized words in the Japanese homepages. Two components were observed: the logo, and the content of the website.

The website logos observed can be divided into three categories based on the language(s) featured: Japanese only, Japanese and English bilingualism, and English only. Table 8 shows the ratio of each category by the website sector. It should be stressed that the logos were observed from the Japanese homepages; the English homepage, for instance, might feature a different one.

Around half of the websites featured bilingual logos, followed by 40% of Japanese only logos. While the ratio of English only logos was 8% overall, it was a whopping 75% in the retail sector. Other sectors also indicated a variation in their language choice of logo. For further visualization, the ratios of Bilingual and English only logos were added up in the 'Contains English (B+E)' column. The trend of the ratios largely matched with the availability rate of multilingual services in each sector from the earlier discussion, shown in the last column.

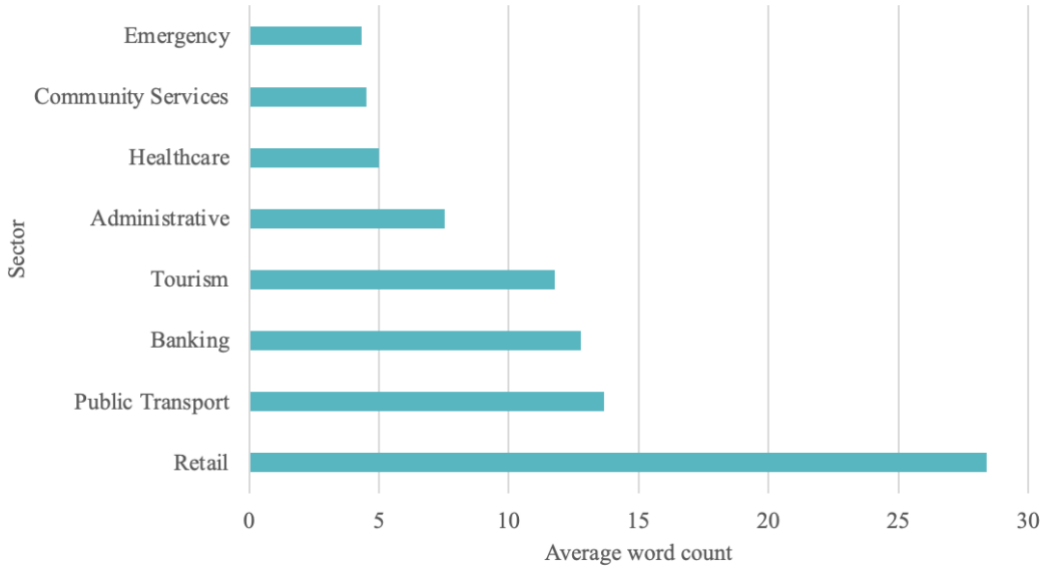
Table 8. *Language(s) featured in website logos by sector.*

Sector	Japanese only	Bilingual	English only	Contains English (B+E)	Multilingual Availability
Emergency Services	0%	100%	0%	100%	100%
Retail	0%	25%	75%	100%	88%
Administrative Services	25%	75%	0%	75%	100%
Tourism	31%	69%	0%	69%	81%
Banking	31%	63%	6%	69%	66%
Public Transport	40%	30%	30%	60%	95%
Healthcare	47%	53%	0%	53%	31%
Community Services	80%	20%	0%	20%	36%
Grand Total	40%	51%	8%	60%	53%

Source: Own calculations.

Regarding the website content, Figure 11 shows the average count of non-Japanese alphabetical vocabulary in Japanese homepages in each sector. While the highest average count of 28 words in the retail sector may not be considered as rampant, it is significantly higher than the average of 413 words in other sectors. Tourism, banking, and public transport websites ranked in the middle, while administrative services, healthcare, community services, and emergency services had an average of below 10 foreign language words in their Japanese homepages.

Figure 11. *Average count of Romanized Japanese and foreign words in Japanese homepages.*



Source: Own calculations.

Words that appeared with the highest frequency are shown in Figure 12. Most of the words appeared were either English or Romanized Japanese. Retail was the only sector where languages other than English were observed, others being French and Italian in fashion and cuisine-related content. It was also the sector with the broadest word variety. In other sectors, the majority of words belong to one or multiple following categories: (1) abbreviations and units (e.g., ATM, CSR, RSS); (2) section title (e.g., about us, news, topics); (3) brand name of product, social media or application (e.g., Google, Visa, JR, PASMO); (4) words indicating contact information (e.g., tel, fax, web, access, map); (5) other basic vocabulary (e.g., new, now, stop, more, shop). It is worth noting that these foreign language words were used out of choice and not out of necessity; apart from certain abbreviations, all the words have existing Japanese alternatives in either *kanji* or

katakana being widely used in other websites. Another trend was the mixed use of Japanese syllabaries and Roman alphabets in the commercial sectors such as 'e デパート (*e-depāto:* online department store)' and '電話 de コスメ (*denwa de kosume:* telephone order service for cosmetic products)'.

Figure 12. *Most common foreign and Romanized words in Japanese language homepages.*

Source: Own elaboration.

3.2. Document Review

3.2.1. National Government Policy

National government policies concerning the development of linguistic landscape and multilingualism were observed by the main responsible body, three of which are focused here: Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Ministry of Internal Affairs and Communication (MIC), and Ministry of Education, Culture, Sports, Science and Technology (MEXT).

The earliest policies regarding multilingualization in the linguistic landscape were those of signs for public transport, tourism and disaster prevention. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) oversees the policies in these domains at the national level.

Research estimated that public signs in Japan were almost exclusively in Japanese until the 1980s. A study by Backhaus cited a 1982 traffic accident involving a foreigner in the Minato ward of

Tokyo and the 1986 Tokyo Summit as the starting point for multilingual public signs.[97] In 1985, the Ministry rolled out a long-term plan to replace road signs around the country, beginning with national expressways and some parts of freeways in central Tokyo. The legal groundwork soon followed in the revision of the Order on Road Sign, Road Line, and Road Surface Marking[98]; the signs are to 'include both (Japanese and Romanized) displays as a general rule' instead of the previous 'on an as-needed basis.'[99] Policies, manuals, and guidelines in the municipal and local levels then followed, as will be elaborated in the next section.

In tourism, related measures taken by the government are summarized in the White Papers on Tourism, published every year by the MLIT.[100] Table 9 summarizes key implementations and policies found in the White Papers from 1997 until 2020. The measures have been targeted towards the development of both the physical and the virtual linguistic landscape. In short, they suggest a focus of the national government on data standardization and centralization while facilitating cooperation among the local actors (e.g., municipalities and businesses) who usually carry out the multilingualization process. In addition, the MLIT has been running the Project for Multilingual Support for Local Tourism Resources since 2018. The project emerged from the feedback that existing explanation signs (usually directly translated or Romanized from Japanese) at tourist attractions were often insufficient or confusing from the perspective of non-Japanese visitors. It attempts to resolve the issue by dispatching native English-speaking specialists to rewrite the signs from a perspective that acknowledges the differences in knowledge and interest between the Japanese and the non-Japanese visitors. Based on the English explanation signs created through the project, similar implementation efforts in Traditional and Simplified Chinese have begun since 2020.[101]

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[97] Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*, 156.

[98] *Dōrohyōji, kukaku-sen oyobi dōro hyōji ni kansuru meirei:* 道路標識、区画線及び道路標示に関する命令

[99] Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*, 156–57.

[100] English version became available since 2007, whereas earlier versions are available in Japanese. Full list of referenced papers is available in the bibliography. Japan Tourism Agency Ministry of Land, Infrastructure, Transport and Tourism, 'White Paper on Tourism | Statistics/White Paper', accessed 28 June 2021, https://www.mlit.go.jp/kankocho/en/siryou/whitepaper.html; Ministry of Land, Infrastructure, Transport and Tourism, 'Kankōhakusho 観光白書 [White Papers on Tourism]', accessed 28 June 2021, https://www.mlit.go.jp/statistics/file000008.html.

[101] Japan Tourism Agency Ministry of Land, Infrastructure, Transport and Tourism, 'Chiiki Kankō Shigen No Ta Gengo Kaisetsu Seibi Shien Jigyō 地域観光資源の多言語解説整備支援事業 [Project for Multilingual Support for

Table 9. *Key findings of tourism-related multilingualization measures.*

Year	Measures
1998	- Training of Chinese and Korean licensed guides in limited parts of Kyushu region
1999-2001	- Directions for the development of next-generation tourism information infrastructure, including provision of multilingual information on the internet, travel information signs and pamphlets
2002-2003	- Preparation towards the 2002 FIFA World Cup football competition, including the launch of Japan Travel Support multilingual call centre service aimed at resolving language problems - Publication of guidelines for multilingual signs and pictograms at airports and train stations - Provision of support to local municipalities in creating multilingual displays - Establishment of Japan National Tourism Organization (JNTO) and launch of travel information portal site in 6 languages
2004-2005	- Training of human resources for multilingual support at tourist information centres - Expansion of internet content in foreign languages
2006	- Act on Promoting International Tourism by Encouraging the Development of Travel Destinations for Foreign Tourists, etc. (Foreign Tourist Visit Promotion Act) came into effect, requiring public transport operators to make efforts in the provision of multilingual guidance information
2007	- Tourism Nation Promotion Act came into effect, demanding mutual links to be forged between the administration, residents and tourism operators - Publication of and online promotion 'Regional Iki-Iki Tourism District Development 100' in Japanese, English, Chinese and Korean
2008-2009	- JNTO portal website provided support in 9 languages - Expansion and design improvement of labels in foreign languages at public transport and other public establishments
2010	- Directions to enhance foreign language services at hotels through provision of information and training of human resources in response to a further expansion in the number of foreign tourists
2011-2012	- Measures centred at responding to the 2011 Tōhoku Earthquake and Tsunami, including provision of online multilingual information regarding the disaster and the state of transportation infrastructure, and temporary 24-hour multilingual call centre support on the operation situation of airports and railways - JNTO portal website provided support in 11 languages - Publication of Guidelines for Signboards to Revitalize Tourism - Implementation of multilingual support between transport bases and destinations, including digital signboards, on-board announcements, and numbering of bus stops
2013-2014	- Establishment of multilingual guidelines common to museums, natural parks, tourist areas, roads and public transport, etc. from the perspective of foreigners
2015	- Launch of website for tax-free shops with support in English, Traditional and Simplified Chinese, and Korean - Promotion of multilingualization in various facilities such as banks and restaurants

Local Tourism Resources]', 28 April 2021, https://www.mlit.go.jp/kankocho/shisaku/kankochi/multilingual-kaisetsu.html.

2016-2017	- Provision of multilingual support to regional tourism, including establishment of websites and navigation system, and formulation of foreign language notation guidelines
2018-2020	- Directions for speedy provision of multilingual information on various platforms (e.g., smartphone), universal design, and supporting environment (e.g., Wi-Fi) in preparation towards the 2020 Tokyo Olympics and Paralympics - Establishment of 365-day, 24-hour 'Japan Visitor Hotline' aimed at providing emergency support for foreign tourists - Enhancement of healthcare system to accept international patients and emergency patients - Provision of multilingualization-related subsidies to hotels - Promotion of ICT (e.g., voice-assisted translation system, AI chatbot) in major tourist attractions and related facilities such as restaurants and retail shops

Source: Selected and summarized from the White Papers on Tourism from 1997-2020 by MLIT Japan Tourism Agency. A full list of referenced papers is available in the bibliography.

Since the 2000s, the emerging role of information and communications technology (ICT) has been highlighted in policy implementations, often in the form of collaborative efforts between multiple agencies. An example is the organization of the annual Liaison Conference for Language Barrier-Free-Related Ministries and Agencies since 2018. Participants have consisted of the following: Cabinet Secretariat; Cabinet Office; National Police Agency; Fire and Disaster Management Agency; Ministry of Justice; Immigration Services Agency; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; Japan Tourism Agency; and Ministry of the Environment. In addition, the National Institute of Information and Communications Technology (NICT) participates as an observer and the Ministry of Internal Affairs and Communications acts as the secretariat.[102]

The Ministry of Internal Affairs and Communications (MIC) is the main body responsible for the promotion of research and development, and application of ICT in a wide variety of fields. As part of internal affairs, it also oversees policies advocating intercultural cohesion within Japanese society. The following elaborates some of the key initiatives led by the MIC since the 2000s.

Japan is constantly progressing towards a multicultural society as foreign residents continue to increase in the last few decades, following the 1990 revision of Immigration Control Law. Under

[102] Ministry of Internal Affairs and Communications, 'Gengo Baria-furī Kankei Fushō Renraku Kaigi 言語バリアフリー関係府省連絡会議 [Liaison Conference for Language Barrier-Free-Related Ministries and Agencies]', accessed 28 June 2021, https://www.soumu.go.jp/main_sosiki/kenkyu/language_barrier_free/index.html.

these circumstances, the government is aware of foreigners being excluded from receiving public services and bad working conditions due to language and cultural barriers. In 2006, the government agreed on The Comprehensive Measures for Foreigners Living in Japan[103] with an intention to 'create an environment where foreigners who work and live in Japan can enjoy the same public services as Japanese people and live as members of society.'[104] In the same year, the MIC formulated the Plan for the Promotion of Multicultural Coexistence at a Local Level. The guidelines have been revised in 2020 to promote the role of ICT in the multilingualization of public services and living information as well as the Japanese language education. The new guidelines also expand the sectors subject to governmental support, recognized the role of foreign residents and international students in regional revitalization and globalization.[105]

The MIC annually publishes its ICT policy directions in the White Papers on Information and Communications in Japan.[106] Early directions in the 2000s stressed the issue of digital divide with a focus on geographical area, age, and disabilities. In 2005, the MIC issued the Operational Model for Public Websites for Everyone aimed at 'maintaining and improving web accessibility, enabling all people including the elderly and disabled to use public websites and web-systems.'[107] Since then, the Model had two revisions in 2010 and 2016. The latest revision was developed in line with international standards, namely the Web Content Accessibility Guidelines (WCAG) 2.0, and was the first to include language barrier in its definition of factors concerning accessibility. Furthermore, the revised Manual emphasized the need to improve the accuracy of automated translation 'particularly for foreigners' to gain a better understanding of the information posted.[108]

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[103] *'Seikatsu toshite no gaikoku-jin' ni kansuru sōgōteki taiōsaku:*「生活者としての外国人」に関する総合的対応策

[104] Ministry of Internal Affairs and Communications, Council for the Promotion of Multicultural Coexistence, 'Tabunkakyōsei No Suishin Ni Kansuru Kenkyūkai Hōkoku-Sho 多文化共生の推進に関する研究会報告書 [Council for the Promotion of Multicultural Coexistence Report]', August 2020, 12–13, https://www.soumu.go.jp/main_content/000718726.pdf.

[105] Ministry of Internal Affairs and Communications, '"Chiiki ni okeru tabunkakyōsei suishin puran" no kaitei「地域における多文化共生推進プラン」の改訂 [Revision of 'Plan for the Promotion of Multicultural Coexistence at a Local Level']', 総務省, 10 September 2020, https://www.soumu.go.jp/menu_news/s-news/01gyosei05_02000138.html.

[106] A full list of the White Papers is provided in Bibliography. Ministry of Internal Affairs and Communications, 'White Paper | MIC ICT Policy', accessed 28 June 2021, https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/whitepaper/index.html.

[107] Ministry of Internal Affairs and Communications, 'Minna No Kōkyō Saito Unyō Gaidorain (2016-Nenban) みんなの公共サイト運用ガイドライン（2016 年版）[Operational Model for Public Websites for Everyone (2016 Version)]', 2016, 9, https://www.soumu.go.jp/main_content/000439213.pdf.

[108] Ministry of Internal Affairs and Communications, 12–13, 18, 20.

In the same year, 2016, the MIC also conducted a survey to non-Japanese visitors regarding their views on Japan's ICT and culture. The survey suggested two approaches to make the browsing experience of information more convenient and friendly for potential visitors: providing information through the media they regularly use (e.g., official guides, travel blogs) and employing designs that resonate with people from different countries and regions.[109]

In 2014, the MIC launched the Global Communication Plan 2020 'with the objective of eliminating global language barriers.'[110] It began initiatives for research and development of multilingual translation technologies such as voice translation and automated translation data bank through the National Institute of Information and Communications Technology (NICT). The research and development focused on living, disaster mitigation and prevention, and healthcare sectors in addition to the already advancing tourism sector. In particular, the devastating Kumamoto Earthquakes in 2016 prompted the Report of the Project to Eliminate People with Inadequate Access to Information aimed at constructing 'an environment necessary for providing required information in the event of a disaster to foreign nationals and elderly people, who are generally considered to have inadequate access to information, and for offering firefighting services properly to foreign nationals.'[111] The project included an action plan up to 2020; examples of the measures were the development of a smartphone application for emergencies utilizing multilingual speech translation system as well as the examination of public spaces and formulation of guidelines concerning their provision of disaster information and evacuation guidance through digital means. Building on the first plan, the new Global Communication Plan 2025 was announced in 2020 'to promote the further sophistication of multilingual translation technologies, such as the realization of concurrent interpretation by AI.'[112] The plan has set strategic targets according to main

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[109] Ministry of Internal Affairs and Communications, *White Paper on Information and Communications in Japan 2016* (Tokyo: Ministry of Internal Affairs and Communications, Japan, 2016), 38–39.

[110] Ministry of Internal Affairs and Communications, 'Announcement of Global Communication Plan 2025 | Press Release', MIC ICT Policy, 31 March 2020, https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/pressrelease/2020/3/31_1.html; Ministry of Internal Affairs and Communications, 'Gurōbarukomyunikēshon keikaku グローバルコミュニケーション計画 [Global Communication Plan]', April 2014.

[111] Known in Japanese as *Jōhō-nanmin zero purojekuto hōkoku:* 情報難民ゼロプロジェクト報告. Ministry of Internal Affairs and Communications, *White Paper on Information and Communications in Japan 2017* (Tokyo: Ministry of Internal Affairs and Communications, Japan, 2017), 52.

[112] Ministry of Internal Affairs and Communications, 'Announcement of Global Communication Plan 2025 | Press Release'; Ministry of Internal Affairs and Communications, 'Gurōbarukomyunikēshon Keikaku グローバルコミュニケーション計画 2025 [Global Communication Plan 2025]', March 2020, https://www.soumu.go.jp/main_content/000678485.pdf.

international events that are to be held in Japan: to realize translation at the conversational level by 2020 for Tokyo 2020 Olympics and Paralympics, concurrent interpretation at the discussion level by 2025 for World Expo 2025 in Osaka, and concurrent interpretation at the negotiation level by 2030. The 2025 plan has also added new languages to the focus, bringing the current total to twelve languages (Japanese, English, Chinese, Korean, Thai, Indonesia, Vietnamese, Burmese, French, Spanish, Brazilian Portuguese, and Tagalog).

So far, the policies by the MLIT and the MIC have been focusing on providing multilingual services; in the design, municipalities and businesses are the provider and non-Japanese speakers are the recipient. Of equal importance to building a multicultural society, however, is the language education policy led by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) which targets both the children of native Japanese and of immigrants. The policy is examined from two perspectives: national language education and foreign language education.

Education of *kokugo* (国語), the 'national language', refers to the standardized Japanese language which can be largely characterized as that of middle-class Tokyo dialect. After a brief period in the late nineteenth century which saw university lectures being taught in a number of European languages, the government began imposing limitations in favour of Japanese (see also 2.4.1. in Chapter 2). The practice, then seen as a counteractive measure to pro-Western ideologies, maintained even in Japan's post-war education; Japanese in the form of *kokugo* is the only recognized and required medium of instruction in all state-accredited schools. Meanwhile, speakers of other indigenous and minority languages have been ignored from official educational provision on the basis of assimilation to Japanese norms, despite the existence of the former (e.g., Ainu and Ryukyuan) and the mass immigration of the latter (e.g., Koreans and Chinese who had been in Japan since the colonial period). Instead, the teaching and learning of these languages have to be done in unaccredited schools outside the official education system. According to Kirkpatrick and Liddicoat, the education policy highlighted how the Japanese government used education as 'a mechanism to create a uniform Japanese identity' based on the monoethnic ideology.[113]

The Agency for Cultural Affairs has been conducting Public Opinion Surveys About the National Language which include questions regarding the attitudes of Japanese people upon contact and

[113] Kirkpatrick and Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', 165.

communication with foreigners in Japan.[114] In the latest 2020 survey, 28.9% of the respondents said they have had opportunities to interact with foreigners. Interestingly, the most commonly used means of communication upon the interactions were body language and gestures (51.3%), followed by foreign languages (44.7%), simple Japanese (43.7%), normal Japanese (23.4%), and translation tools and applications (20.3%). 68.1% of the respondents were not aware of the development and implementation of Easy Japanese to aid foreign residents in the provision of information regarding emergency and administrative services. When asked about how the information should be provided in such fields, 58.1% and 46.3% suggested offering services in foreign languages and Easy Japanese respectively. Additionally, a majority of the respondents thought that foreigners should be able to converse, read and write in Japanese to the level that 'they would not struggle in their daily lives.'[115]

On the other hand, foreign language education in contemporary Japan is developed around the internationalization discourse. However, as seen in its exclusion of indigenous and minority languages, it is not about any foreign language. Specifically, policy papers focus on English as the main foreign language. Mentions of other languages are very limited and when available, they are offered as a second foreign language in high schools and universities. Examples are French, German, Spanish and Chinese. With the exception of Chinese, Asian languages receive little attention in Japan's foreign language education. Various efforts have been carried out by the Japanese government to improve English proficiency and communication among its population. English became part of compulsory education in junior and senior high schools in 2002. In 2008, English education was introduced further to primary schools in the form of 'foreign language activities' to familiarize students with the language since early on. The schools also employ foreign nationals to serve as Assistant Language Teachers (ALT) as part of the government's Japan Exchange and Teaching initiative. The increasing presence of ALTs in English classes correspond with the 2013 high school curriculum revision which states that English should be the medium of instruction in English language education. There have also been recent movements to

[114] Ministry of Education, Culture, Sports, Science and Technology, Agency for Cultural Affairs, 'Kokugo Ni Kansuru Yoron Chōsa 国語に関する世論調査 [Public Opinion Surveys About the National Language]', 文化庁, accessed 28 June 2021, https://www.bunka.go.jp/tokei_hakusho_shuppan/tokeichosa/kokugo_yoronchosa/index.html.

[115] Ministry of Education, Culture, Sports, Science and Technology, Agency for Cultural Affairs, 'Reiwagannendo `Kokugo Ni Kansuru Yoronchōsa' No Kekka No Gaiyō 令和元年度「国語に関する世論調査」の結果の概要 [Summary of Findings from FY2019 'Public Opinion Survey About the National Language']', 2020, https://www.bunka.go.jp/tokei_hakusho_shuppan/tokeichosa/kokugo_yoronchosa/pdf/92531901_01.pdf.

internationalize higher education. Examples are the Global 30 Project and the Super Global Universities Project which establish degree programs taught in English targeting international students and Japanese students who had lived abroad.[116]

Regardless of these developments, it must be concerned that the English proficiency among Japanese students has remained questionable at best. Among non-English-speaking countries, the overall population's English proficiency is evaluated as 'low' and has been continuously dropping in international rankings.[117] A number of studies has identified issues persisting in the current situation of foreign language education in Japan. Despite having secured teachers and ALTs, many teachers felt that the teaching skills and training of personnel were insufficient.[118] The issue was also partially elaborated in Kirkpatrick and Liddicoat's analysis. The authors argued that the assignment of English as medium of instruction in the high school curriculum 'is predicated on a communicative approach' with an emphasis on fluency, while the assessment system is constructed around the 'declarative knowledge about language' such as grammar, vocabulary and translation.[119] The conflict can be further linked to the Japanese context of internationalization. The international objectives, under which the foreign language education policy is developed, are ultimately directed to fulfil the need for exhibiting Japanese identity and viewpoints in international contexts.[120] The assertion of monoethnic and monolinguistic ideology in national language education, combined with the selective and non-integrative approach in foreign language education seem to create a challenging context for a policy discussion towards developing multilingual proficiency, encompassing linguistic diversity and global mindset.

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[116] Ministry of Education, Culture, Sports, Science and Technology, 'Gaikokugo kyōiku 外国語教育 [Foreign language education]', 文部科学省ホームページ, accessed 28 June 2021, https://www.mext.go.jp/a_menu/kokusai/gaikokugo/index.htm; Ministry of Education, Culture, Sports, Science and Technology, *Reiwa 3-Nendo Gaisan Yōkyū Ni Okeru Gaikokugokyōiku Kankei Jigyō Ni Tsuite 令和３年度概算要求における外国語教育関係事業について [Works Related to Foreign Language Education within FY2021 Budget Request]* (文部科学省/mextchannel, 2020), https://www.youtube.com/watch?v=_2olDt8XYrs; Kirkpatrick and Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', 164–67.

[117] 'Japan's English Proficiency Drops Among Non-English-Speaking Countries'.

[118] Ministry of Education, Culture, Sports, Science and Technology, 'Gaikokugokatsudō No Genjō Seika Kadai 外国語活動の現状・成果・課題 [Current Situation, Achievement and Issues of Foreign Language Activities]' (Tokyo: Ministry of Education, Culture, Sports, Science and Technology, 2014), 14, https://www.mext.go.jp/b_menu/shingi/chousa/shotou/102/shiryo/__icsFiles/afieldfile/2014/05/01/1347389_01.pdf.

[119] Kirkpatrick and Liddicoat, 'Language Education Policy and Practice in East and Southeast Asia', 166.

[120] Kirkpatrick and Liddicoat, 166.

3.2.2. Local Government Policy

With encouragement from the national government, the Tokyo Metropolitan Government and the municipalities comprise the main policy body at the local level.

As a regional government, the Tokyo Metropolitan Government (hereafter TMG) has been advancing measures on its own as well as for municipalities, businesses and other non-governmental organizations. Since 1989, the TMG has been publishing its internationalization policy in various aspects, including linguistic landscape planning and foreign resident support.[121] Although it is not possible to cover every measure here, two main categories can be distinguished: linguistic landscape planning in urban development, and provision of multilingual information.

The first category, linguistic landscape planning in urban development, concerns the multilingualization of information and direction signboards. Already at the time of the first policy report in 1989, the addition of *rōmaji* displays in road signs, evacuation signs and subway system, as well as the installation of bilingual pedestrian push buttons were mentioned. *Rōmaji* and English displays in administrative signs have significantly expanded since the 1990s to include, among others, trash disposal areas, no-smoking areas, area guide boards and police booths. The display of foreign languages other than English emerged in 1997 as Chinese and Korean explanation in trash disposal signs.[122] The Japanese-English-Chinese-Korean standardization became part of the TMG policy around 2004; the practice has since been adopted for various uses. Furthermore, a numbering system was introduced to the Tokyo Metro subway in 2004. Along with the station name, an alphabet representing the line and a number were assigned and displayed on signboards to make it easier for non-Japanese speakers to memorize the desirable location. Developments in more recent years included creation of display manuals, provision of multilingualization subsidies, multilingualization of ticket vending machines, installation of ticket vending machines (2016) and tablet devices (2017) specifically designed for overseas tourists, foreigner-friendly bus stop

[121] Tokyo Metropolitan Government Office of the Governor for Policy Planning, 'Tōkyōto-ku shichōson no kokusai seisaku 東京都・区市町村の国際政策 [International policy of Tokyo and its municipalities]', 東京都政策企画局, accessed 28 June 2021, https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/other-diplomacy/kokusaiseisaku.html.

[122] Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*, 157–61.

displays (approximately 1,200 locations as of 2020), and introduction of pictogram and 'Uni-Voice' QR code for multilingual support (2020).[123]

Figure 13. '*KOBAN' or police booth in Tokyo.*

Source: Penguins. 'KOBAN - a Unique Feature of Japan's National Security System'. Waku Waku, 17 April 2021. https://wakuwaku.today/story/koban-a-unique-feature-of-japan-s-national-security-system-A7g1AH3P.

Figure 14. *Example of subway station signboard with bilingual display and numbering system.*

Source: Tokyo Metro. 'Tokyo Metro | Subway Map'. Accessed 16 June 2021. https://www.tokyometro.jp/en/subwaymap/index.html.
(Note: The station in this example accompanies multiple symbols as it is a major interchange station located on multiple lines.)

[123] Tokyo Metropolitan Government Office of the Governor for Policy Planning, 'Reiwa 2-Nendo Tōkyōto Kakukyoku-Tō Toshi Gaikō Kanren Shisaku Chōsa 令和 2 年度 東京都各局等都市外交関連施策調査 [FY2020 Survey of Measures Related to Urban Diplomacy on the Bureaus of Tokyo Metropolitan Government]' (Tokyo: Tokyo Metropolitan Government, November 2020), https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/2020/11/R2_tmg.pdf; Tokyo Metropolitan Government Office of the Governor for Policy Planning, 'Reiwa 2-Nendo Tōkyotokushichōson No Kokusai Seisaku No Jōkyō 令和 2 年度 東京都区市町村の国際政策の状況 [FY2020 Situation of International Policy in Tokyo and Its Municipalities]', November 2020, https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/2020/11/images/R2city.pdf.

Regarding the second category, provision of multilingual information, the TMG provides a number of websites with foreign language pages as well as special portal sites for international residents. Its official website features information on metropolitan affairs in English, Chinese, Korean, and Easy Japanese.[124] Affiliated websites offer multilingual contents regarding emergency services, public health, medical institutions offering foreign language assistance, disaster prevention, and so on. Information in everyday life for foreign residents is made available through the Tokyo International Communication Committee, which also acts as a facilitator between foreign residents and those who wish to support foreigners or who are interested in interculturalism.[125] Other services by the Tokyo Metropolitan Government include a consultation system for foreign residents, multilingual information call centre, and interpretation service for emergencies.[126]

In 2016, the Tokyo Metropolitan Government published its own version of Guidelines for the Promotion of Intercultural Cohesion following the national government's similar initiative Plan for the Promotion of Multicultural Coexistence at a Local Level. The key objective of the guidelines is to 'embrace diversity and build a city where all residents can participate and play an active role in its development and can feel safe.'[127] A committee was established to study the situation of foreign residents in Tokyo. According to the study, some issues faced by Tokyo include lack of an active role for foreign residents in the community and lack of impact assessment on the information provision measures (for instance, whether the information is delivered to the foreign residents and how it is being used).[128] The guidelines therefore set policy goals to prepare an environment to enable active participation for all residents, to enhance support needed for foreign residents, and to raise awareness and mutual support for diversity.[129] However, it is less

[124] 'Foreign Language', Tokyo Metropolitan Government, accessed 17 June 2021, https://www.metro.tokyo.lg.jp/english/foreignlanguage.html.
[125] Site Tokyo Intercultural Portal, 'Tokyo Intercultural Portal Site', Tokyo Intercultural Portal Site, accessed 17 June 2021, https://tabunka-test.mediatv.ne.jp/english.
[126] Tokyo Metropolitan Government, 'Consultation Service', Tokyo Metropolitan Government | Guide For Residents, accessed 28 June 2021, https://www.metro.tokyo.lg.jp/english/guide/guide01.html; Tokyo Fire Department, 'Guidelines for Emergency Calls to 119 and Important Points for Filing Reports', accessed 28 June 2021, https://www.tfd.metro.tokyo.lg.jp/eng/eng_pamph_p2.html.
[127] Tokyo Metropolitan Government, 'Tokyo Guidelines for the Promotion of Intercultural Cohesion', February 2016, 2, https://www.seikatubunka.metro.tokyo.lg.jp/chiiki_tabunka/tabunka/tabunkasuishin/files/0000000755/shishin_all_eng.pdf.
[128] Tokyo Metropolitan Government, 25–30.
[129] Tokyo Metropolitan Government, 'Tokyo Guidelines for the Promotion of Intercultural Cohesion: Making Tokyo a Leading Global City [Overview]', February 2016, https://www.seikatubunka.metro.tokyo.lg.jp/chiiki_tabunka/tabunka/tabunkasuishin/files/0000000755/shishingaiyou_EN2.pdf.

clear to which extent these goals are being met, especially the ones concerning the active role of international population and the awareness for diversity.

Promoting further the potential of Tokyo as a global city, the 2020 Olympic and Paralympic Games was considered as a grand occasion to welcome overseas visitors and attract international businesses. Ahead of the event, the TMG established the Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation. Concerning multilingual support, the Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games was formed with three sub-councils to oversee issues related to public transport, roads and signage, and tourism and services.[130] Following the establishment, the TMG has expressed expectations that the initiatives 'will remain in place as a legacy of the Tokyo Olympics, and culminate in a linguistically barrier-free environment accessible to all.'[131] According to the Council's principal statement, multilingual support would be aimed at foreign tourists and business visitors through various media such as conventional and digital signage, pamphlet, voice guide, and mobile application. Surveys of existing facilities had been carried out during 2013 to 2015, after which measures to expand and improve multilingual support were planned and implemented. The measures were explicitly envisaged in Japanese-English bilingual design (including converting *rōmaji* to communicable English) with an aid of pictogram; Chinese, Korean and other languages were suggested on as needed basis. At the same time, the utilization of ICT was emphasized as an effective tool to complement support by human and signage.[132] The Council launched a portal site in 2014 to host a collection of reports, guidelines, case studies and sources to facilitate the implementation of multilingualization and Easy Japanese.[133] In addition, the Council has been organizing annual Multilingual Localization Forums to introduce and discuss innovations and trends in the field.

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[130] Tokyo Metropolitan Government, Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation, 'Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games', *Journal of Japanese Language Teaching* 165 (2016): 19–25, https://doi.org/10.20721/nihongokyoiku.165.0_18.

[131] Tokyo Metropolitan Government, Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation, 29.

[132] Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games, 'Tagengo Taiō No Kihonteki Na Kangaekata 多言語対応の基本的な考え方 [Basic Idea of Multilingual Support]', 2015, https://www.2020games.metro.tokyo.lg.jp/multilingual/council/pdf/kangaekatah2712.pdf.

[133] Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games, '2020-Nen Orinpikku Pararinpikku Taikai Ni Muketa Tagengotaiō Kyōgi-Kai Pōtarusaito 2020年オリンピック・パラリンピック大会に向けた　多言語対応協議会ポータルサイト [Portal Site of Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games]', accessed 16 June 2021, https://www.2020games.metro.tokyo.lg.jp/multilingual/index.html; Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games, 'Sankō Shiryō-Tō 参考資料等 [Related Documents]', accessed 16 June 2021, https://www.2020games.metro.tokyo.lg.jp/multilingual/references/index.html.

While the first forums were mainly instructed by municipalities and industrial associations, more recent ones have expanded in terms of both participants (e.g., businesses, universities, foreign experts), format (e.g., lectures, workshops, panel exhibition, technology demonstration), and content (e.g., public transport, disaster prevention, tourism, retail, artificial intelligence, Easy Japanese).[134] An assessment conducted by the Metropolitan Government in 2019 reported the increase in quantity of multilingual services, improvement in quality of content, and 'remarkable' application of multilingual translation technology.[135]

At the municipality level, the TMG also features the current situation of internationalization policy carried out by municipalities in its reports.[136] Similar to those carried out by the TMG itself, the measures in each municipality are examined from the perspectives of urban development and information provision.

In urban development, measures affecting the linguistic landscape consist mostly of road and pedestrian signs, evacuation signs, and signs at the city offices. One of the earliest observations of *rōmaji* displays at the municipality level was in 1985. By the mid-1990s, at least one display of English or *rōmaji* was available in every ward.[137] Around 1988 and 1989, several wards began to install displays in Chinese and Korean, a decade earlier than the first ones implemented by the TMG. However, it was not before the 2000s that the four-language standardization kicked off in the majority of Tokyo's 23 special wards. It is important to note that the implementation of multilingual signs often took longer time than originally planned, and the pace at which they were implemented was uneven across different municipalities. This was due to the extensive installation

[134] Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games, 'Kyōgi-Kai Ni Tsuite 協議会について [About the Council]', accessed 16 June 2021, https://www.2020games.metro.tokyo.lg.jp/multilingual/council/index.html.

[135] Tokyo Metropolitan Government, 'Reiwa Gannendo Tagengotaiō Hyōji Hyōshiki-Tō Ni Kansuru Chōsa Hōkokusho 令和元年度　多言語対応表示・標識等に関する調査報告書 [FY2019 Survey Report on Multilingual Display and Signage]' (Tokyo: Tokyo Metropolitan Government, January 2020), https://www.2020games.metro.tokyo.lg.jp/multilingual/references/pdf/other/displaysign_r1.pdf.

[136] Tokyo Metropolitan Government Office of the Governor for Policy Planning, 'Reiwa 2-Nendo Tōkyotokushichōson No Kokusai Seisaku No Jōkyō 令和２年度 東京都区市町村の国際政策の状況 [FY2020 Situation of International Policy in Tokyo and Its Municipalities]', 2.

[137] Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*, 162–65.

number required by law and the accompanied cost, estimated to be three times more expensive than the original Japanese-only signs.[138]

In order to provide information regarding administrative services and everyday living to their foreign residents, municipalities have been utilizing various communication means such as paper media, websites, and more recently, social network sites (SNS) and mobile applications.[139] The characteristics of municipality websites have already been covered in the website research under the administrative services sector. Additionally, the availability of multilingual information in the other media is demonstrated in Table 10 according to the data from the latest internationalization policy report in 2020. With a few exceptions, the Japanese-English-Chinese-Korean standardization was once again observed here across the mediums. Very few services were offered in Easy Japanese. It was not made apparent how much information was being provided in each language, although similar to the websites, it was highly likely that the amount and quality of information differed between the languages, both in comparison to Japanese and among the foreign languages themselves.

[138] Shōji, Coulmas, and Backhaus, 163.
[139] Tokyo Metropolitan Government Office of the Governor for Policy Planning, 'Reiwa 2-Nendo Tōkyotokushichōson No Kokusai Seisaku No Jōkyō 令和２年度 東京都区市町村の国際政策の状況 [FY2020 Situation of International Policy in Tokyo and Its Municipalities]', 19–21.

Table 10. *Availability of multilingual information in municipality media.*

Municipality	SNS or mobile application				Paper media			
	EN	CH	KR	Others	EN	CH	KR	Others
Chiyoda-ku	○	○	○	Thai, Spanish, Vietnamese, Portuguese, Indonesian	○	○	○	-
Chūō-ku	○	○	○	-	○	-	-	-
Minato-ku	○	○	○	-	○	○	○	-
Shinjuku-ku	○	○	○	-	○	○	○	Vietnamese, Nepali, Burmese, French, Arabic, Thai, Tagalog
Bunkyō-ku	○	○	○	-	○	○	○	Thai, Tagalog , Portuguese, Indonesian, Spanish, Vietnamese
Taitō-ku	○	○	○	Thai, Indonesian (only partially)	○	○	○	Vietnamese, French, Italian, German, Spanish, Portuguese, Thai, Indonesian, Malay (partially), Easy Japanese
Sumida-ku	-	-	-	-	○	○	○	Tagalog , Indonesian, Thai, Spanish, Portuguese, Vietnamese
Kōtō-ku	○	○	○	-	○	○	○	-
Shinagawa-ku	○	○	○	Thai, Spanish, Vietnamese, Portuguese, Indonesian	○	○	○	Thai, Vietnamese
Meguro-ku	○	○	○	-	○	○	○	-
Ōta-ku	○	-	-	-	○	○	○	Easy Japanese, Thai, Tagalog, Nepali, Vietnamese
Setagaya-ku	○	○	○	Thai, Spanish, Vietnamese, Portuguese, Indonesian, French	○	○	○	Vietnamese, Nepali, Tagalog, Spanish, Thai, Portuguese, Indonesian
Shibuya-ku	○	-	-	-	○	○	○	-
Nakano-ku	○	○	○	-	○	○	○	-
Suginami-ku	○	○	○	Nepali, Vietnamese, Tagalog	○	○	○	Vietnamese, Nepali, Tagalog, French
Toshima-ku	○	○	○	Thai, Nepali, Vietnamese, Burmese	○	○	○	Vietnamese, Nepali, Burmese, French
Kita-ku	-	-	-	-	○	○	○	Vietnamese, Nepali, French
Arakawa-ku	○	○	○	-	○	○	○	-
Itabashi-ku	○	○	○	-	○	○	○	-
Nerima-ku	○	○	○	Thai, Spanish, Vietnamese, Portuguese, Indonesian	○	○	○	Tagalog, Thai, Vietnamese, Burmese, Hindi, Nepali
Adachi-ku	○	○	○	Amharic, Italian, Indonesian, Uzbek, Khmer, Sinhalese, Spanish, Thai, Tagalog , German, Turkish, Nepali, Hindi, French, Vietnamese, Persian, Bengali, Portuguese, Malay, Burmese, Mongolian, Russian	○	○	○	Tagalog, Spanish, Portuguese, Indonesian, Thai, Vietnamese
Katsushika-ku	○	○	○	Thai, Spanish, Vietnamese, Portuguese, Indonesian	○	○	○	German, Thai, French, Tagalog, Portuguese, Indonesian, Spanish, Vietnamese
Edogawa-ku	○	○	○	-	○	○	○	Tagalog, Indonesian, Thai, Spanish, Portuguese, Vietnamese

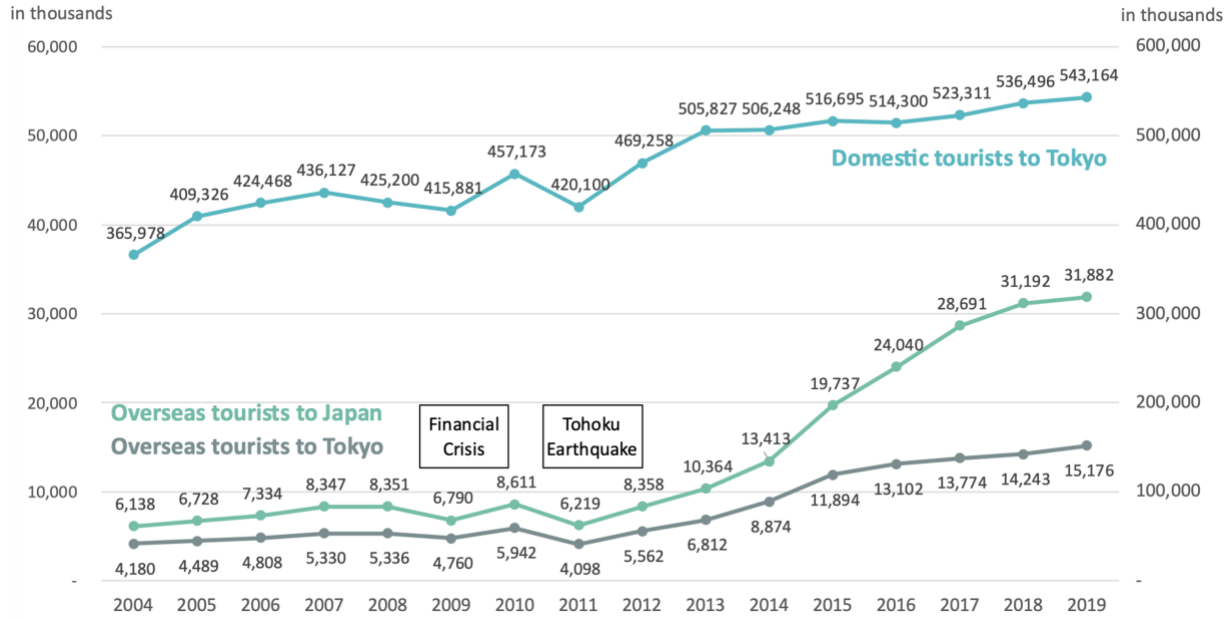
Source: Adapted from Tokyo Metropolitan Government Office of the Governor for Policy Planning. 'Reiwa 2-Nendo Tōkyotokushichōson No Kokusai Seisaku No Jōkyō 令和２年度 東京都区市町村の国際政策の状況 [FY2020 Situation of International Policy in Tokyo and Its Municipalities]', November 2020. https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/2020/11/images/R2city.pdf, 19-21.

3.2.3. Population and Visitor Statistics

This section attempts to compare the previously examined linguistic landscape and related policies with the ethnolinguistic diversity in Tokyo using statistics of foreign residents and visitors.

The first part concerns tourists and short-term visitors. Figure 15 shows, from top to bottom, the number of domestic tourists to Tokyo, overseas tourists to Japan, and overseas tourists to Tokyo from 2004 until 2019. Except the extraordinary circumstances in 2009 and 2011, the numbers have been steadily growing. The ratio of tourists who visited Tokyo during their trip to Japan ranged from 60-70% until 2015, after which the destinations became more diversified.[140] Still, Tokyo remains uncontested as the most frequented city by domestic and overseas visitors alike.

Figure 15. *Number of visitors to Japan and Tokyo, 2004-2019.*

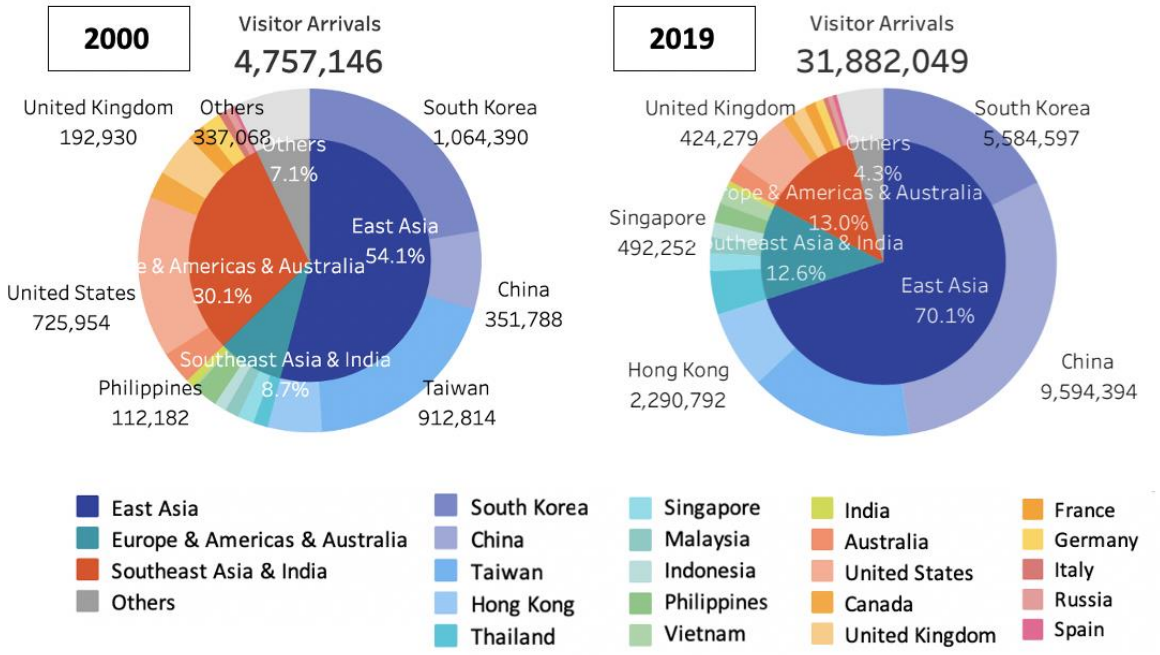


Source: Adapted from Tokyo Metropolitan Government Bureau of Industrial and Labor Affairs. 'Hōnichi・Hōto Gaikokujin Ryokōshasū Oyobi Hōto Kokunai Ryokōshasū No Suii 訪日・訪都外国人旅行者数及び訪都国内旅行者数の推移 [Changes in the Number of Foreign Tourists Visiting Japan and Tokyo and the Number of Domestic Tourists Visiting Tokyo]', 2019. https://www.sangyo-rodo.metro.tokyo.lg.jp/toukei/tourism/2019sanko.pdf.

[140] Tokyo Metropolitan Government Bureau of Industrial and Labor Affairs, 'Hōnichi・Hōto Gaikokujin Ryokōshasū Oyobi Hōto Kokunai Ryokōshasū No Suii 訪日・訪都外国人旅行者数及び訪都国内旅行者数の推移 [Changes in the Number of Foreign Tourists Visiting Japan and Tokyo and the Number of Domestic Tourists Visiting Tokyo]', 2019, https://www.sangyo-rodo.metro.tokyo.lg.jp/toukei/tourism/2019sanko.pdf.

By country and region of origin (Figure 16), Japan has been predominantly receiving visitors from East Asia. The share of visitors from the region grew from 54.1% in 2000 to over 70% in 2019. A major contribution to this is the number of Chinese visitors which rose by more than 27 times, partly due to the simplification of visa application process. Moreover, since the 2000s, Japan has made additional visa exemption arrangements with a number of East Asian and Southeast Asian countries and areas such as Hong Kong (2004), Macau (2005), Taiwan (2005), South Korea (2006), Malaysia and Thailand (2013). This has resulted in a notable surge of tourists from these areas. Meanwhile, the growth of visitors from Europe, the Americas, Australia, and other regions have been slow, although Americans and Australians are still among the largest groups visiting Japan. The top ten nationals visiting Japan in 2019 are (from the largest contributor): China, South Korea, Taiwan, Hong Kong, United States, Thailand, Australia, Philippines, Malaysia, and Vietnam. In 2000, the order was: South Korea, Taiwan, United States, China, Hong Kong, United Kingdom, Australia, Canada, Philippines, and Germany.[141]

Figure 16. *Overseas visitor arrivals by country and region in 2000 and 2019.*



Source: Japan National Tourism Organization. 'Japan Tourism Statistics | Breakdown by Country/Area'. Accessed 17 June 2021. https://statistics.jnto.go.jp/en/graph/.

[141] Japan National Tourism Organization, 'Japan Tourism Statistics | Breakdown by Country/Area', accessed 17 June 2021, https://statistics.jnto.go.jp/en/graph/.

The fact that the top five contributors to inbound tourism have been Chinese, Korean and English speakers over the last twenty years resonates with the Japanese-English-Chinese-Korean multilingual standardization. In the case of virtual linguistic research, this practice can be observed in the websites in public transport, retail, and tourism sectors. In addition, the availability of Traditional Chinese for Taiwanese tourists was high in these websites at around 80%-100%. Other languages with limited availability were Thai, French, and Spanish. While visitors from France and Spain have been relatively small, many from the 'Others' region are estimated to be from French- and Spanish-speaking countries.

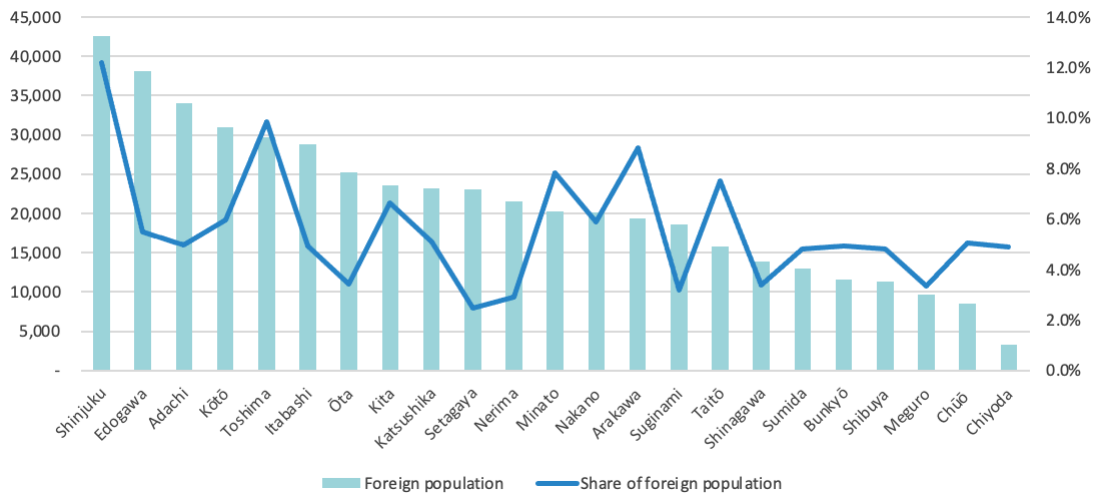
The second part concerns middle- and long-term foreign residents in Tokyo. Compared to tourists and short-term visitors, foreign residents are less in number, but require constant, long-term access to information and services. They live as well as sightsee in the city on a regular basis, making them no less important target of multilingualization in all sectors. The number of foreign residents in Tokyo continue to grow at a significant pace, from under 200,000 in 1985 to over 500,000 residents in 2020.[142] Those who are living in Tokyo currently comprise about 20% of the total foreign population in Japan, up from 16.3% in 2000.[143] As of January 2020, foreign population account for 5% of the total population in Tokyo's 23 wards, up from less than 1% in 1985.[144] The annual growth of foreign residents in the Tokyo Metropolitan Area has for the first time surpassed that of the Japanese: the former rose by 68,161 and the latter by 67,301 residents.[145] Most of the foreign residents hold one of the following statuses: Permanent Resident, Engineer/Specialist in Humanities/International Services (ESI), Technical Intern Training (TIT), and Student. Recent trends indicate a rapid growth in TIT residents as a result of a law amendment which has allowed

[142] Only legally registered residents.
[143] Tokyo Metropolitan Government Bureau of General Affairs, 'Todōfuken-Betsu Gaikokujin-Jinkō 都道府県別外国人人口 [Foreign Population by Prefecture]', Statistics of Tokyo, 31 May 2004, https://www.stat.go.jp/data/kokusei/2000/gaikoku/00/08.html.
[144] Tokyo Metropolitan Government Bureau of General Affairs, 'Gaikokujin Jinkō Reiwa 2-Nen 外国人人口 令和 2 年 [Foreign Population 2020]'.
[145] Including Tokyo and the surrounding Chiba, Saitama and Kanagawa prefectures. Nihon Keizai Shimbun 日本経済新聞, 'Tōkyō-ken no jinkō zōka-sū, gaikokujin ga nihonjin uwamawaru sōmu-shō 東京圏の人口増加数、外国人が日本人上回る 総務省 [Foreign population growth exceeded Japanese population growth in Tokyo Metropolitan area: MIC]', 日本経済新聞, 5 August 2020, https://www.nikkei.com/article/DGXMZO62324060V00C20A8L83000/.

the ‘industries experiencing extreme labor shortages to accept foreign human resources as specified skilled workers as of April 1, 2019.’[146]

Furthermore, the situation of foreign residents varies from municipality to municipality. Figure 17 demonstrates the number and share of foreign population in each of Tokyo’s 23 special wards. By municipality, Shinjuku-ku has the largest number as well as the highest ratio of foreign population, accounting for over 12.2% of the total population. Edogawa-ku and Adachi-ku also have many foreign residents, although the shares are not very high as these two wards have large numbers of population. Other wards with high foreign resident shares include Toshima-ku and Arakawa-ku, however they do not exceed 10%. In contrast, Nerima-ku and Setagaya-ku have the lowest share of foreign population at less than 3%. Chiyoda-ku and Chūo-ku have the fewest foreign population, corresponding with small numbers of total population.[147]

Figure 17. *Number and share of foreign residents by municipality (as of January 2020).*



Source: Tokyo Metropolitan Government Bureau of General Affairs. ‘Gaikokujin Jinkō 外国人人口 [Foreign Population]’. Statistics of Tokyo. Accessed 16 June 2021. https://www.toukei.metro.tokyo.lg.jp/gaikoku/ga-index.htm.

[146] Okada, ‘2019-Nen no gaikokujin jinkō wa kako saikō - 2020-nen ikō wa koronaka deno genshō heno taiō ga kyūmu 2019 年の外国人人口は過去最高 2020 年以降はコロナ禍での減少への対応が急務 [Foreign population in 2019 was all-time high, quick response is need for projected decrease in 2020 due to coronavirus]’, 5–6; Japan International Trainee & Skilled Worker Cooperation Organization (JITCO), ‘What Is a “Specified Skilled Worker” Residency Status? | Supporting the Efficient Operation of the Technical Intern Training Program’, accessed 19 June 2021, https://www.jitco.or.jp/en/skill/.

[147] Tokyo Metropolitan Government Bureau of General Affairs, ‘Gaikokujin Jinkō Reiwa 2-Nen 外国人人口 令和 2 年 [Foreign Population 2020]’.

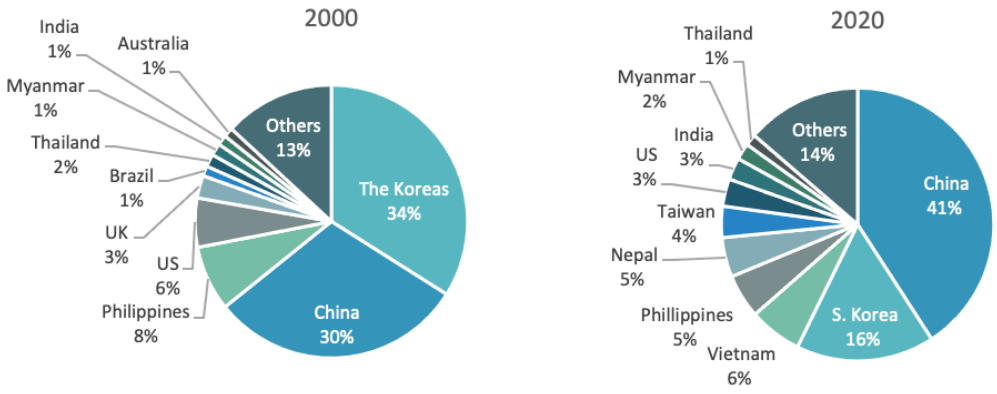
Changes in ethnic composition of foreign residents in Tokyo over the last twenty years are observed in Figure 18. The largest ethnic groups in both 2000 and 2020 are the Chinese and the Koreans, although the influx of foreign residents from China has taken over the Korean by a large margin. The mix has also become increasingly diversified, particularly because of workers from South and Southeast Asian countries such as Vietnam, Philippines, Nepal, India, Myanmar, and Thailand. Compared to Asia, the growth of foreign population from Europe, the Americas and Australia have been stagnating in recent years. While the Taiwanese comprise a large number of tourists to Japan and Tokyo, the number of foreign residents is relatively small. This might explain the lack of Traditional Chinese option in administrative websites.

The composition differs by municipality. Shinjuku-ku, where the Koreatown in Shin-Ōkubo area is located, houses not only the largest number of Koreans but also many Nepalese, Taiwanese, and Thais. The largest Chinese diasporas can be found in Edogawa-ku and the adjacent Kōtō-ku, Indians in Edogawa-ku, Burmese in Toshima-ku, and Filipinos in Adachi-ku. Meanwhile, foreign residents from Europe, North America and Australia tend to live in Minato-ku, Shibuya-ku and Setagaya-ku. In many cases, the concentration of ethnic communities has remained in the same neighbourhoods throughout the years. Minato-ku, where a lot of embassies and foreign company offices are located, had hosted four of the city's largest ethnic groups in 2000. However, with more East and Southeast Asian nationalities joining the ranks, Shinjuku-ku has become the new centre of foreign communities in Tokyo.[148]

The patterns of multilingualism in Tokyo detected in earlier findings seemed to follow the ethnolinguistic diversity only to some extent. The variety of foreign languages offered in authority-related information services might be attributed to the demand from residents of these ethnic groups; elsewhere the options were significantly limited, especially in healthcare and banking where only English was available. The dominance of Japanese-English bilingualism does not correspond with the fact that the majority of foreign residents in the past 20 years did not have English as their main language. If the ethnolinguistic composition was to be followed, there would have been a stronger presence of Korean, Chinese and Southeast Asian languages across all sectors.

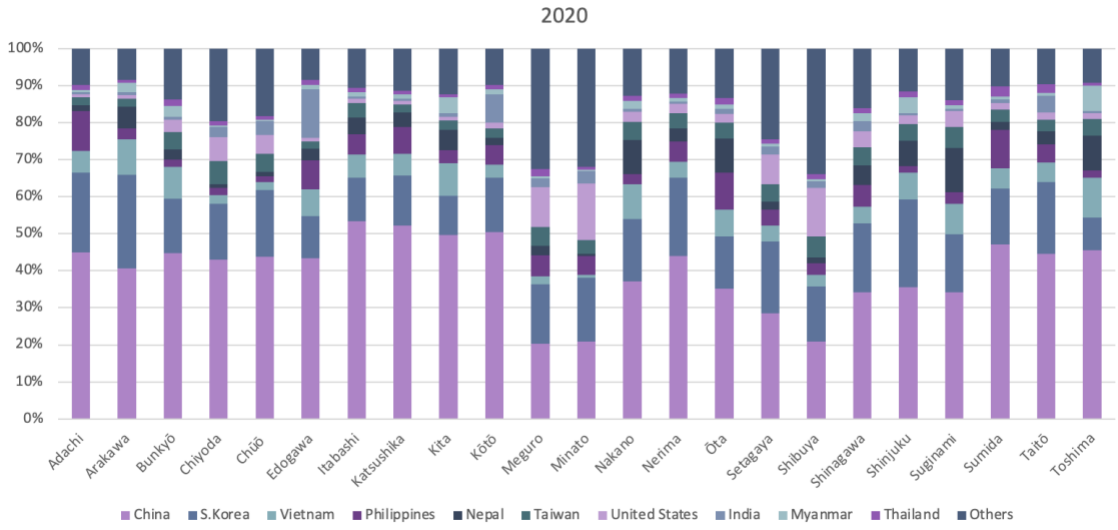
[148] Tokyo Metropolitan Government Bureau of General Affairs; Tokyo Metropolitan Government Bureau of General Affairs, 'Gaikokujintōrokujinkō Heisei 12-Nen 外国人登録人口 平成１２年 [Foreign Population 2000]', Statistics of Tokyo, accessed 28 June 2021, https://www.toukei.metro.tokyo.lg.jp/gaikoku/2000/TOB7GE00.HTM.

Figure 18. *Foreign residents in Tokyo by nationality.*



Source: Tokyo Metropolitan Government Bureau of General Affairs. 'Gaikokujin Jinkō 外国人人口 [Foreign Population]'. Statistics of Tokyo. Accessed 16 June 2021. https://www.toukei.metro.tokyo.lg.jp/gaikoku/ga-index.htm.

Figure 19. *Ethnic composition of foreign residents by municipality.*



Source: Tokyo Metropolitan Government Bureau of General Affairs. 'Gaikokujin Jinkō 外国人人口 [Foreign Population]'. Statistics of Tokyo. Accessed 16 June 2021. https://www.toukei.metro.tokyo.lg.jp/gaikoku/ga-index.htm.

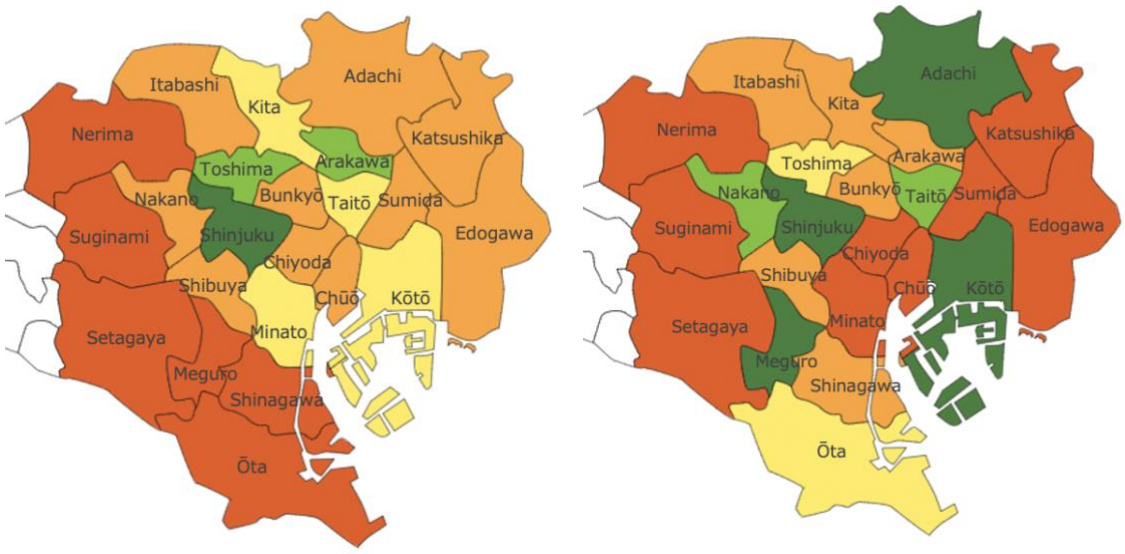
Table 11. *Nationality of foreign population and top three neighbourhoods, 2000 and 2020.*

April 2000				
	Nationality	1st	2nd	3rd
1	The Koreas	Shinjuku	Adachi	Arakawa
2	China	Toshima	Shinjuku	Itabashi
3	Philippines	Adachi	Edogawa	Ōta
4	United States	Minato	Shibuya	Setagaya
5	United Kingdom	Minato	Shibuya	Setagaya
6	Brazil	Ōta	Adachi	Setagaya
7	Thailand	Shinjuku	Adachi	Ōta
8	Myanmar	Toshima	Shinjuku	Nakano
9	India	Minato	Setagaya	Ōta
10	Australia	Minato	Shibuya	Setagaya
	Others	Minato	Setagaya	Shinjuku

January 2020				
	Nationality	1st	2nd	3rd
1	China	Edogawa	Kōtō	Itabashi
2	S. Korea	Shinjuku	Adachi	Arakawa
3	Vietnam	Toshima	Shinjuku	Edogawa
4	Philippines	Adachi	Edogawa	Ōta
5	Nepal	Shinjuku	Toshima	Ōta
6	Taiwan	Shinjuku	Toshima	Itabashi
7	United States	Minato	Setagaya	Shibuya
8	India	Edogawa	Kōtō	Taitō
9	Myanmar	Toshima	Shinjuku	Kita
10	Thailand	Shinjuku	Edogawa	Adachi
	Others	Minato	Setagaya	Shinjuku

Source: Tokyo Metropolitan Government Bureau of General Affairs. 'Gaikokujin Jinkō 外国人人口 [Foreign Population]'. Statistics of Tokyo. Accessed 16 June 2021. https://www.toukei.metro.tokyo.lg.jp/gaikoku/ga-index.htm.

Figure 20. *Heatmaps of foreign population share and number of foreign languages available.*



Source: Own elaboration.

To gain a better understanding at the municipality level, the example of municipality websites is further examined in relation to the situation of foreign residents. Figure 20 shows a heatmap of the ratio of foreign population (left) compared to the availability of foreign languages in each municipality's website (right). Except for Shinjuku-ku which is known for its diverse population

and the variety of languages offered, there seem to be no clear association between the number, the share or the composition, and the variety of foreign language options offered. In the second-most populated Edogawa-ku, only the core English, Chinese and Korean were available. Adachi-ku and Kōtō-ku, ranked third and fourth in terms of foreign population, both offered information in over ten languages. Neither of the other wards that offered eight or more languages had outstanding ratios or numbers of foreign residents.

The choice of languages in each municipality, especially the ones apart from English, Chinese and Korean, reflects not only the situation in more recent years but also in the years leading up to the multilingualization process. Adachi-ku and Ōta-ku, with a strong presence of Filipino communities since before 2000, placed a Tagalog option right behind the three major foreign languages. Similarly, a Thai language option was placed fifth in Shinjuku-ku, Ōta-ku and Adachi-ku where their largest communities were back then. Nepalese residents have since climbed up the list to exceed the number of Thais in the last decade, but still lack far behind in terms of language availability and placement order in the virtual linguistic landscape. On the other hand, nine out of twenty-three municipality websites offered information in French although French-speakers had never been one of the largest communities; the reasoning behind this remains unclear. Finally, the study did not find a conclusive evidence to support the speculation by Tanaka et al. that the 'friendship cities' status might have played a role in the appearance of certain languages in the virtual linguistic landscape.[149]

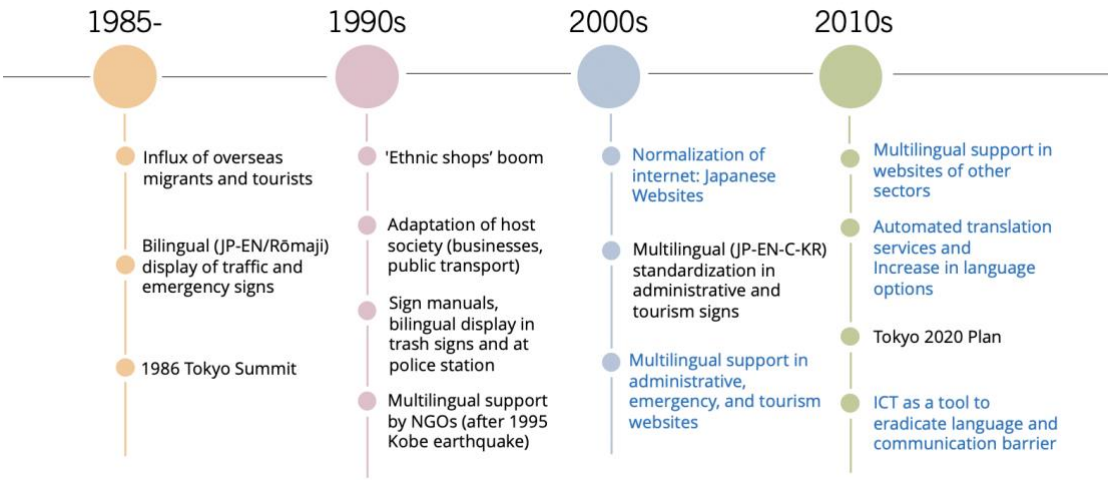
[149] Inagi City Planning and Policy Division, 'Tōkyōto Kushichōson Tō No Kaigai Shimai Toshi Yūkō Toshi Ichiran 東京都区市町村等の海外姉妹都市・友好都市一覧 [List of Overseas Sister Cities and Friendship Cities with Tokyo and Its Municipalities]', 7 December 2015, https://www.city.inagi.tokyo.jp/shisei/keikaku_hokoku/kaigai_shimaitoshi_kenntou/shiminkaigi3.files/5shiryou4.12.17.pdf; Tanaka, Akiyama, and Kamikura, 'Netto Jō No "Gengo Keikan"--Tōkyōken No Depāto・jichitai・kankō Saito Kara ネット上の"言語景観"--東京圏のデパート・自治体・観光サイトから ["Language Landscape" in the Internet -- From Websites of Department Stores, Local Governments, and Tourist in Tokyo Metropolitan Area]'.

3.3. Discussion: The Relationship, Challenges, and Implications

Having examined all of the above, the last section of the findings brings forward two main discussions. The first part concerns the relationship among the key elements comprising the linguistic landscape of Tokyo, including the physical, virtual and policy aspects. The second part identifies challenges and policy implications in the context of Tokyo and Japan.

An overall timeline is visualized in Figure 21, demonstrating the developmental milestones and contexts of multilingualism in Tokyo.

Figure 21. *Timeline of key developments of multilingualism in Tokyo's linguistic landscape.*



Source: Own elaboration.

Multilingualism was first observed in the physical linguistic landscape. The current call for multiculturalization and internationalization began in 1985. Driven by the influx of foreign tourists and residents as well as the 1986 Tokyo Summit, the city was prompted to multilingualize its landscape for both practical and branding purposes. Road and emergency signs were among the first to be implemented. This marked one of the earliest efforts by the host society to adopt multilingualism in city-wide public spaces in addition to a few services catering to foreigners and affective use of English in Japanese advertising. Authorities, as the pioneer in multilingualization efforts, placed a priority on public transport, tourism, and disaster prevention. Implementation in

these three areas would remain the most prioritized and the most advanced even after the expansion into other sectors.

Significant progress had been made during the 1990s as Japanese authorities and businesses offered multilingual services in various social domains. During the same period, the immigration wave and the curiosity on 'exotic' food and culture among the Japanese, so-called 'ethnic boom,' had led to the rise of ethnic shops and restaurants.[150] In addition, movements to provide information and support to foreign residents were pushed forward following the devastating 1995 Kobe Earthquake. Nevertheless, multilingualization in this period was almost exclusively Japanese-English bilingualization, centred around English translation and *rōmaji* transliteration.

Multilingualism in Tokyo during the 2000s could be characterized by two important developments in the linguistic landscape. The first one was the standardization of signs and labels to provide information in Japanese, English, Chinese and Korean. The inclusion of the latter two languages was significant as their native speakers formed a majority of the city's foreign residents as well as tourists. Another was the popularization of internet and web which marked the emergence of the virtual linguistic landscape. At the beginning, most websites representing facilities in Tokyo were available in Japanese only. Multilingualization efforts in the webspace occurred after implementation in the physical space and was pioneered in a top-down fashion by authorities. The first websites to provide multilingual information were the municipalities, public transport and tourism guide, all of which were promoted by the policy. Still, the extent of multilingualism in virtual linguistic landscape in the 2000s was significantly limited than the physical one.

In the last ten years, the multilingual webspace has expanded in quantity and improved in quality due to the increasing demand and the advancement in information and communications technology. One of the most notable expansion from the findings is in the retail sector, where nearly 90% of department store websites now offer information in five languages. Furthermore, automated translation feature has become widely adopted especially in municipality and tourism websites, rendering possible the conversion of almost every text into any desired language in real time. A reverse trend of the 2000s can even be observed in some facilities, where more language options are being offered on the website than in printed medium. ICT has become a key element in the

[150] In the Japanese context, this mostly indicates South Asian and Southeast Asian culture. Shōji, Coulmas, and Backhaus, *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*.

policy to eradicate language and communication barrier, with the government actively engaging in research and development of technologies such as machine translation, voice-based translation and application of artificial intelligence. Many initiatives are directed at disaster mitigation and prevention (e.g., following the 2011 Tōhoku Earthquake and Tsunami and the 2016 Kumamoto Earthquakes)[151] and major international events (e.g., the 2020 Tokyo Olympic and Paralympic Games). In other words, the virtual linguistic landscape has evolved from a limited copy of the physical linguistic landscape into a powerful information centre that extends the capability frontier to supporting multicultural society. Digital transformation and innovation are expected to fundamentally affect future developments of multilingualism in the public space.

However, it is also likely that the signs in many social domains will *not* become truly multilingual; if any, the Japanese-English bilingualism, and to some extent the four-language standardization, will persist in the near future. Firstly, English is the most applicable choice to put besides Japanese. Its status as the international language guarantees some demand and supply for the services: on the one hand, it is assumed that most foreigners have a good command of English; on the other hand, English translation and application services are the most abundant and cost-efficient. To add more languages would increase the implementation cost, time and labour significantly. Secondly, as emphasized earlier, language is considered not only for its informative function but also for its symbolic function. As seen in its affective use in the retail sector, English is generally associated with a positive and fashionable aspect of the 'international' value. It is mostly accepted, and even favoured, in contemporary Japanese society. Meanwhile, other languages are more subject to negative aspects of 'international'. This is especially the case in the Japanese context where the ideologies of homogeneity and language purity are still highly valued, hence the preference for fewer languages on a sign.

It is also this area of contestation where the 'middle ground' is being devised. In the earlier stages of multilingualization, the display of *rōmaji* seemed to be a unique and convenient approach with its mixed quality between Japanese and English: it is simple and economical to implement as it does not require human resources with English knowledge and translation skills; it improves literacy as it can be pronounced by anyone able to read Latin scripts regardless of comprehension;

[151] Although these incidents did not occur in Tokyo, disaster mitigation and prevention policies are usually prioritized nationwide as most of the areas in Japan, located directly along the Ring of Fire, are prone to natural disasters such as earthquakes, tsunamis and volcanic eruptions. In addition, it is estimated that there is a very high possibility of all these disasters striking the metropolitan area in the near future.

symbolically, it adds a desirable modern and international visual. Moreover, technological advancement has enabled the provision of multilingual information in efficient and innovative ways. Examples are the installations of digital signboards, interactive navigation panels, tablet devices, and QR codes that link to online multilingual information. Users can select the language in which they want to receive the information.

Figure 22. *QR code installations for multilingual information in Tokyo.*

(Left: Tokyo One Piece Tower (theme park); Right: Ginza Kabukiza (theatre for traditional kabuki drama))

Source: Tokyo ONE PIECE Tower. '世界中の人が『ONE PIECE』の世界で〝アソべる〟テーマパークへインバウンドに向けた多言語対応サービスを開始'. プレスリリース・ニュースリリース配信シェア No.1 | PR TIMES, 20 November 2015. http://prtimes.jp/main/html/rd/p/000000016.000013812.html; Kabukiza. '「GINZA KABUKIZA フロアガイド」が多言語対応へ'. Accessed 17 June 2021. https://www.kabuki-za.co.jp/archive/info/1256.html.

The findings of this study have identified a number of key challenges and implications for future multilingualization practice. At the implementation level, issues on both the availability and the quality of translation need to be addressed. While the availability rate of multilingual support is already high in most tourism-related industries, there is room for improvement in areas concerning middle- and long-term living. Continued policy priority and efforts are needed to make critical infrastructural services such as healthcare and banking more accessible to foreign residents. Facilities that offer online services such as internet banking and internet shopping should make such services fully operational for non-Japanese speakers. Regarding the quality of translation, it is important to learn from user needs and feedback on translated contents; a possible action may

be to conduct a collective research in each type of facility. Similarly, machine-translated contents should be moderated to check the accuracy and reliability of data. This is also to ensure that texts in images and banners are properly translated. There already exists a technology that detects and translates texts from images. Several instruments can be employed to improve the availability as well as the quality of multilingual support, including subsidies, facilitation of cooperation between actors, and technical and information support such as the utilization of translation data bank, application of machine translation, and guidelines on information display and human resources training in different languages and areas.

Another challenge which is connected to the aforementioned issues is the lack of human resources with sufficient education and training in foreign languages. This might have led to the 'intentional' language barrier set up in the virtual linguistic landscape that reflected the capabilities of staff, as observed in the website research. While Japan has been putting efforts in foreign language teaching and internationalization of education, they have not culminated in better foreign language proficiency among the general public due to the reasons concerning age and approach explained in the policy findings. Rather than the current translation- and grammar-based approach, the priority for foreign language teaching and learning in Japan should be providing early opportunities for students to get exposed to an international environment and focusing on output communication skills (i.e., speaking and writing). This also applies to foreign language education and training in workplace.

Finally, it should be made clear that diversity and inclusion are not just about being able to speak the languages or hosting a lot of foreign nationals. Rather, it is about the overall society having an awareness and understanding of what inclusive linguistic diversity means. The policy and guidelines to promote multicultural cohesion highlight national and local government's attention to the issue. However, their efforts are still very much centred on translation and provision of Japanese language education for foreign tourists and residents as recipients of the service. At the same time, a large part of the public still has little opportunity or interest to get into contact with foreign residents, and therefore has little awareness on what constitutes an inclusive multicultural society. Easy Japanese could be instrumental in bridging the two communities. An effective approach might be to expand its implementation in the linguistic landscape together with educating the concept among Japanese speakers. It would allow most people to convey information in a simple and concise way to non-fluent speakers while still using their native language, therefore

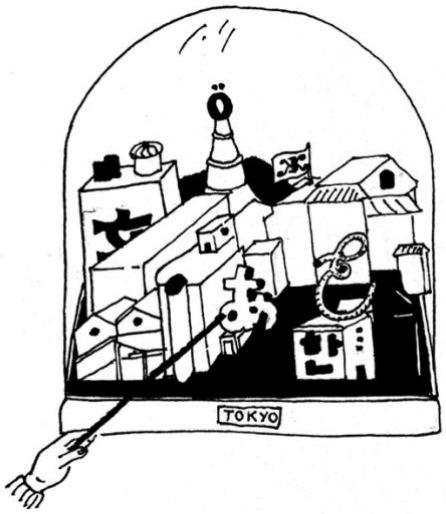
the adoption process would be easier and quicker than acquiring a new language. Furthermore, future policy planning and implementation should promote a proactive role of foreign residents in community services and foster a reciprocal, intercultural relationship among them and the host society. The expected outcome is for both parties to develop mutual understanding and intercultural competence through open dialogue.

Table 12. *Summary of key challenges and policy implications.*

Challenges	**Policy Implications**
Issues on availability and quality of translation	Support in less-progressing sectors Content moderation Collection and reflection of user feedback
Lack of human resources with sufficient foreign language education	Education and training focusing on communication opportunities and skills
Lack of awareness and understanding of inclusive linguistic diversity	Promotion of proactive role in foreign residents Implementation and education of Easy Japanese

Source: Own elaboration.

Chapter 4 | Conclusions



The purpose of this thesis was to examine the development of multilingualism in the virtual linguistic landscape of Tokyo in relation with linguistic items in the physical space and related policies laid out by the national and local governments particularly since 2000. The focus on virtual linguistic landscape was aimed at addressing the lack of literature on said field despite the growing importance of internet and ICT in the multiculturalizing Japanese metropolitan society. The setting of Tokyo, Japan would also diversify the representation of the existing body of research -- currently centred around English and European languages -- and enable cross-cultural comparisons. Specifically, the study set out to investigate patterns of multilingualism in the virtual linguistic landscape of Tokyo, to identify the key contexts underlying said patterns or variations, and to elaborate the relationship between the two spaces of linguistic landscape along with the government policy in order to clarify challenges and courses of action for future practice. In doing so, the research has combined quantitative and qualitative approaches including website research to study multilingual feature and content in various social domains, and document review consisting of policy papers, population statistics, governmental surveys and reports, previous linguistic landscape studies, and other scholarly sources.

Chapter 2 laid the groundwork for further research by reviewing main theoretical concepts and literature. The relevance of language was introduced within the diversity and inclusion discourse. Along with issues and causes of language-based exclusion, contrasting social inclusion approaches were discussed from the language planning perspective. Reflecting these developments is the

linguistic landscape. Originally defined as the observation of language use on signs in the public space, the concept has since been reconsidered to accommodate the broadening definition of public space, multimodality, and multilingualism. Multilingual signs have become increasingly noticeable in recent years, signifying not only globalization and diversity but also symbolic values in the construction of public space.

In addition to the theoretical concepts, contexts on language use in Japan and Tokyo were provided. Despite the popularized ideology of Japan being a homogenous and monolingual society, evidence suggested contacts between Japanese and other languages and cultures throughout its history. The contacts have resulted in both multilingualism and changes within the Japanese language. Various incentives, agents, and processes were identified in each language contact. Linguistic development is connected to cultural, social and political development as it is used as the medium of trade and knowledge acquisition. It is also a ground of contesting power relations and external influences, leading to periods of pro- and anti-foreigner attitudes within Japanese society. The current pro-Westernization and pro-internationalization outlook has resulted in the intensification of both affective and informative uses of foreign languages in the linguistic landscape of Japan. Specifically, the increase in multilingual information provision could be attributed to the growth of international tourists and workers. Meanwhile, multilingual signs targeting the Japanese public are mainly symbolic in nature. The lack of multilingual competence among the Japanese population stems from non-integrative or conflicting multilingualization approaches in urban planning and education. Existing studies on Tokyo's linguistic landscape have focused mainly on multilingual signs in physical public space, while research on the virtual linguistic landscape has been extremely limited and outdated. The literature gap indicates the room to further explore the virtual linguistic landscape and its possible implications.

Chapter 3 presented key findings and analysis. Firstly, results from the website research were applied to characterize the virtual linguistic landscape of Tokyo. Variations in the availability, form, and language choice of the multilingual information function were observed by sector. Possible factors affecting the availability of multilingual function include demand from target group, policy, access to translation resources, and availability of multilingual human resources at the physical location. Japanese-English bilingualization was the most prevalent, followed by the four-language standardization of Japanese, English, Chinese, and Korean as promoted by the authorities. Issues concerning problematic appearance of language change button and information

inequality were raised. The varied practices of machine translation, manual translation, or mixed depend on what each facility or sector prioritizes, as each means has its own advantages and disadvantages. Automated translation excels in terms of language range, quantity and speed of translation, and is preferred by administrative services and tourism websites. Alternatively, non-automated translation still prevails in sectors that rely on information accuracy and have less update frequency such as banking, healthcare and public transport. A mixed practice combines the benefits of both sides but requires greater investment and maintenance. Apart from foreign language pages, a study on foreign language elements in Japanese homepages revealed the highly symbolic use of multilingual texts in both the logo and the contents, in particular the retail sector.

Secondly, findings from policy research were discussed. At the national level, the most extensive policies concerning multilingualization in the linguistic landscape were those for public transport, tourism and disaster prevention signs. ICT has become a key element in facilitating multilingualization with the objectives to address digital divide, eliminate language barriers and advocate intercultural cohesion within the society. Meanwhile, foreign language education for the Japanese population has been centred around English with a goal to exhibit Japanese viewpoints in international contexts. Issues in ideological and pedagogical approaches were cited as major roadblocks against the government efforts to improve multilingual proficiency among the Japanese. At the local level, measures have been planned and implemented by the Tokyo Metropolitan Government and local municipalities as part of internationalization policy. The measures, including linguistic landscape planning in urban development and provision of multilingual information, do not only contribute to accommodating non-Japanese speakers but also to strengthening the visual of Tokyo as a global city. Statistics on foreign population and visitors indicated changes in number and ethnic composition of both groups as a result of globalization and policy revision. In the case of foreign residents, the situation of foreign population varied by municipality. The patterns of multilingualism in Tokyo detected in earlier findings seemed to follow the ethnolinguistic diversity only to some extent and largely depend on the practice of each municipality. The findings suggest that institutional contexts and attitudes towards certain culture and language play a significant role in the development of linguistic landscape in Tokyo.

The final part of the findings served as an analysis on the relationship between the elements and implications for the development of multilingualism in Tokyo's linguistic landscape. Multilingualism was first observed in a limited number of domains in the real-world public space,

then intensified and expanded in particular since the 1990s. The virtual linguistic landscape emerged in the 2000s following the popularization of internet. Provision of online information and services in foreign languages followed their implementation in the physical linguistic landscape, albeit comparatively inferior in terms of scale and quality. Since the 2010s, however, advancement in ICT including the introduction of automated translation has significantly improved and diversified the virtual linguistic landscape. Digital transformation and innovation are now also being used to aid multilingualization of the physical linguistic landscape. Through its policies and guidelines, the government plays an active role in pioneering and encouraging multilingual localization as well as facilitating cooperation among local actors. Plans and targets were strategically set according to large-scale international events and symposia. Based on the challenges, policy implications suggested support instruments and solutions to translation issues, education and training focusing on communication opportunities and skills, and promotion of proactive role by foreign residents and the host society in establishing multicultural competency and intercultural understanding.

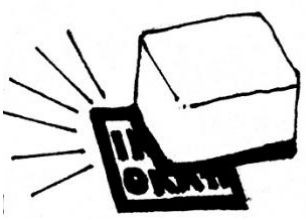
In essence, Tokyo's linguistic landscape is a combination of: (1) the ethnolinguistic diversity and its transformation, or *what the city is*; and (2) power relations and symbolism, or *values that the city attempts to portray*. Through the government policy and relations with internal and external societies, Tokyo is manoeuvring to balance between maintaining its 'Japaneseness' ideology and at the same time pursuing its envisioned internationalization rhetoric. The balance is crucial for economic, political, social, and cultural interests. Tokyo has been gradually opening towards partial multiculturalism despite challenges. Key drivers include but are not limited to policy, migration, tourism, international events, disaster mitigation and prevention, maintenance of social cohesion, and information and communications technology.

The findings of this study should be considered in light of some limitations. Due to time constraints, the study on the virtual linguistic landscape was limited to a small sample size of 317 websites over eight sectors. Although the study set the criteria for sample selection to capture the characteristics of each sector as much as possible, the availability is also subject to the nature of the facility. For instance, administrative services, tourism, and community services sectors generally had one website for each municipality, bringing to a total of 20-30 searches in each sector. Similarly, the number of main banking, retail, and public transport corporations in Tokyo also range around 20-30. Meanwhile, healthcare institutions in Tokyo are separately owned and exist

in large numbers around the city, therefore it was necessary to perform more searches (163). In addition, the generalizability of the website comparison over time is subject to the limited availability of data in the web archives. Some websites were not archived on a regular basis and some had newly established or changed their web addresses over the years; consequently, the archive could not be found. As this study was only a beginning step into the field, further explorations using a broader range of social domains, vernacular linguistic items by foreign communities, and other virtual and 'middle ground' platforms could shed more light on multilingualism in the virtual linguistic landscape.

Another limitation of this study is the absence of fieldwork on Tokyo's physical linguistic landscape due to travel restrictions and time constraints. As such, it was not possible to perform a side-by-side comparison between the websites of selected facilities and their real-world counterparts. Instead, the comparison was made with the findings of previous studies over the past two decades, some of which contained information on the facilities used in the website research. Nevertheless, the gap in terms of time and location should be noted. A comparative investigation of the virtual and the physical linguistic landscape with time- and target-controlled data is recommended to establish a greater degree of reliability. Cross-city and cross-cultural studies would also be a fruitful area for further work.

Ultimately, the study did not offer a definitive answer to the relationship among policy planning and implementation, developments in the linguistic landscape, and progress of diversity and inclusion. Attempts for such an answer would have been extremely complex and involved a myriad of factors such as the nature of industry, technological advancement, and individual and collective actions, among others. Despite its exploratory nature, this research offers new insights into the construction of linguistic landscape amid the intensification of globalization and localization processes. The findings have significant implications for understanding the interconnectedness of multilingualism in real-world and virtual spaces as well as the potential of institutions in advancing diversity and inclusion.



Bibliography

Backhaus, Peter. *Linguistic Landscapes: A Comparative Study of Urban Multilingualism in Tokyo*. Clevedon, United Kingdom: Channel View Publications, 2006.

Balasubramanian, Chandrika. 'Language in a Glocalized World'. In *Language and Literature in a Glocal World*, edited by Sandhya Rao Mehta, 15–27. Singapore: Springer, 2018. https://doi.org/10.1007/978-981-10-8468-3_2.

Barthes, Roland. 'Semiology and Urbanism'. In *The Semiotic Challenge*, 191–201, 1988.

Beaverstock, J. V, R. G Smith, and P. J Taylor. 'A Roster of World Cities'. *Cities* 16, no. 6 (1 December 1999): 445–58. https://doi.org/10.1016/S0264-2751(99)00042-6.

Bianco, Joseph Lo. 'The Importance of Language Policies and Multilingualism for Cultural Diversity'. *International Social Science Journal* 61, no. 199 (2010): 37–67. https://doi.org/10.1111/j.1468-2451.2010.01747.x.

Bourdieu, Pierre. *Language and Symbolic Power*. Edited by John B. Thompson. Translated by Gino Raymond and Matthew Adamson. Cambridge, Massachusetts: Harvard University Press, 1991.

Buchholz, Katharina. 'UN: How Has the World's Urban Population Changed from 1950 to 2020?' World Economic Forum, 4 November 2020. https://www.weforum.org/agenda/2020/11/global-continent-urban-population-urbanisation-percent/.

Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games. '2020-Nen Orinpikku Pararinpikku Taikai Ni Muketa Tagengotaiō Kyōgi-Kai Pōtarusaito 2020 年オリンピック・パラリンピック大会に向けた 多言語対応協議会ポータルサイト [Portal Site of Council for Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games]'. Accessed 16 June 2021. https://www.2020games.metro.tokyo.lg.jp/multilingual/index.html.

———. 'Kyōgi-Kai Ni Tsuite 協議会について [About the Council]'. Accessed 16 June 2021. https://www.2020games.metro.tokyo.lg.jp/multilingual/council/index.html.

———. 'Sankō Shiryō-Tō 参考資料等 [Related Documents]'. Accessed 16 June 2021. https://www.2020games.metro.tokyo.lg.jp/multilingual/references/index.html.

———. 'Tagengo Taiō No Kihonteki Na Kangaekata 多言語対応の基本的な考え方 [Basic Idea of Multilingual Support]', 2015. https://www.2020games.metro.tokyo.lg.jp/multilingual/council/pdf/kangaekatah2712.pdf .

———. ‘Yasashii Nihongo Ni Tsuite「やさしい日本語」について [About ’Yasashii Nihongo’]’. Accessed 28 June 2021. https://www.2020games.metro.tokyo.lg.jp/multilingual/references/easyjpn.html.

Danet, Brenda, and Susan C. Herring. *The Multilingual Internet: Language, Culture, and Communication Online*. Oxford University Press, 2007.

Tokyo Metropolitan Government. ‘Foreign Language’. Accessed 17 June 2021. https://www.metro.tokyo.lg.jp/english/foreignlanguage.html.

Gdaniec, Cordula. ‘Cultural Diversity between Staging and the Everyday: Experiences from Moscow, St. Petersburg and Other Russian Cities. An Introduction.’ In *Cultural Diversity in Russian Cities: The Urban Landscape in the Post-Soviet Era*, 1st ed. Berghahn Books, 2010. https://www.jstor.org/stable/j.ctt9qd2ph.

Goodman, Grant K. *Japan and the Dutch 1600-1853*. Routledge, 2013.

Gorter, Durk. *Linguistic Landscape: A New Approach to Multilingualism*. Clevedon, United Kingdom: Channel View Publications, 2006.

Grinshpun, Helena. ‘Deconstructing a Global Commodity: Coffee, Culture, and Consumption in Japan’. *Journal of Consumer Culture* 14, no. 3 (1 November 2014): 343–64. https://doi.org/10.1177/1469540513488405.

Haarmann, Harald. ‘Multiple foreign languages choices in response to varied economic needs’. *Sociolinguistica* 19, no. 1 (22 November 2005): 50–57. https://doi.org/10.1515/9783484604766.50.

Habein, Yaeko Sato. *The History of the Japanese Written Language*. Tokyo: University of Tokyo Press, 1984.

Hagimoto, Naoki. ‘Tagengo taiō no regashī ~ yasashī nihongo to ta gengo onsei hon’yaku ~ 多言語対応のレガシー～やさしい日本語と多言語音声翻訳～ [The legacy of multilingual support: Easy Japanese and multilingual speech translation]’. Presented at the 2020 Multilingual Localization Forum, Online, 23 December 2020. https://www.youtube.com/watch?v=pbZBmt4o1HU&feature=youtu.be.

Harada, Yasunari, Miwa Morishita, and Yuko Hiramatsu. ‘カタカナ語の英語学習に対する影響 (Adverse Effects of Katakana Words in Japanese for Japanese Learners of English)’, 2019. https://www.jcss.gr.jp/meetings/jcss2019/proceedings/pdf/JCSS2019_P2-2.pdf.

Hornikx, Jos, Frank van Meurs, and Anja de Boer. ‘English or a Local Language in Advertising?’ *Journal of Business Communication* 47, no. 2 (April 2010): 169–88. https://doi.org/10.1177/0021943610364524.

Inagi City Planning and Policy Division. ‘Tōkyōto Kushichōson Tō No Kaigai Shimai Toshi Yūkō Toshi Ichiran 東京都区市町村等の海外姉妹都市・友好都市一覧 [List of Overseas Sister Cities and Friendship Cities with Tokyo and Its Municipalities]’, 7 December 2015. https://www.city.inagi.tokyo.jp/shisei/keikaku_hokoku/kaigai_shimaitoshi_kenntou/shiminkaigi3.files/5shiryou4.12.17.pdf.

Inoue, Fumio. ‘Econolinguistic Aspects of Multilingual Signs in Japan’. *International Journal of the Sociology of Language* 175–176 (2005 2005): 157–77. https://doi.org/10.1515/ijsl.2005.2005.175-176.157.

Internet Archive. ‘Wayback Machine’. Accessed 3 May 2021. http://web.archive.org/.

Iwata, Kazunari. ‘The Preference for English in Linguistic Services : “Japanese for Living: Countrywide Survey” and Hiroshima(<Special Issue>Changing Japanese Society and Language Issues)’. *The Japanese Journal of Language in Society* 13, no. 1 (2010): 81–94. https://doi.org/10.19024/jajls.13.1_81.

Japan International Trainee & Skilled Worker Cooperation Organization (JITCO). ‘What Is a “Specified Skilled Worker” Residency Status? | Supporting the Efficient Operation of the Technical Intern Training Program’. Accessed 19 June 2021. https://www.jitco.or.jp/en/skill/.

Japan National Tourism Organization. ‘Japan Tourism Statistics | Breakdown by Country/Area’. Accessed 17 June 2021. https://statistics.jnto.go.jp/en/graph/.

nippon.com. ‘Japan’s English Proficiency Drops Among Non-English-Speaking Countries’, 4 December 2019. https://www.nippon.com/en/japan-data/h00594/japan’s-english-proficiency-drops-among-non-english-speaking-countries.html.

Jaworski, Adam. ‘Globalese: A New Visual-Linguistic Register’. *Social Semiotics* 25, no. 2 (4 April 2015): 217–35. https://doi.org/10.1080/10350330.2015.1010317.

Jaworski, Adam, and Jackie Jia Lou. ‘#wordswewear: Mobile Texts, Expressive Persons, and Conviviality in Urban Spaces’. *Social Semiotics* 0, no. 0 (28 August 2020): 1–28. https://doi.org/10.1080/10350330.2020.1810545.

Jaworski, Adam, Thomas D. Mitchell, Crispin Thurlow, Jeffrey L. Kallen, Mark Sebba, Nikolas Coupland, Dr Susan Dray, Ingrid Piller, Alastair Pennycook, and Rodney H Jones. *Semiotic Landscapes: Language, Image, Space*. London: Bloomsbury Publishing Plc, 2011.

AERA dot. (アエラドット). ‘JR Higashinihon 17-nendo ni mottomo nobita eki Shin-ōkubo no Naze? JR 東日本 17 年度に最も伸びた駅 新大久保のナゼ？ [Station with the highest growth in FY17 of JR East: Why Shin-Ōkubo?]’, 10 July 2018. https://dot.asahi.com/wa/2018070900061.html.

Kirkpatrick, Andy, and Anthony J. Liddicoat. ‘Language Education Policy and Practice in East and Southeast Asia’. *Language Teaching* 50, no. 2 (April 2017): 155–88. https://doi.org/10.1017/S0261444817000027.

Kitagaki, Tōru. ‘Honyaku No Seijigaku -- Edo-Bakumatsu Kara Meiji-Shoki Ni Okete No Furansu-Go to No Kakutō
翻訳の政治学――江戸末期から明治初期にかけてのフランス語との格闘 [Politics in Translation: The Encounter with the French Language during Late Edo until Early Meiji Period]’. *Seinangakuin Daigaku Furansugo Furansu Bungaku Ronshū*
西南学院大学フランス語フランス文学論集 47, no. 107 (October 2005): 107–30.

Landry, Rodrigue, and Richard Y. Bourhis. ‘Linguistic Landscape and Ethnolinguistic Vitality: An Empirical Study’. *Journal of Language and Social Psychology* 16, no. 1 (1 March 1997): 23–49. https://doi.org/10.1177/0261927X970161002.

Loveday, Leo J. *Language Contact in Japan: A Sociolinguistic History*. Clarendon Press, 1996.

Macgregor, Laura. ‘The Language of Shop Signs in Tokyo’. *English Today* 19 (1 January 2003): 18–23. https://doi.org/10.1017/S0266078403001020.

Marácz, László, and Silvia Adamo. ‘Multilingualism and Social Inclusion’. *Social Inclusion* 5, no. 4 (22 December 2017): 1–4. https://doi.org/10.17645/si.v5i4.1286.

Masai, Yasuo. ‘Shinjuku No Kissaten-Mei -Gengo Keikan No Bunka Chiri- 新宿の喫茶店名-言語景観の文化地理- [Names of Coffee Shops in Shinjuku,Tokyo-A Cultural Geography of the Linguistic Townscape-]’. *Area Studies Tsukuba* 1 (1983): 49–61.

Miller, Roy Andrew. *The Japanese Language*. Chicago: University of Chicago Press, 1967.

Ming, Liu, and Washio Kiyoshi. ‘Chūgokugo No Nihongo Heno Eikyō
中国語の日本語への影響 [The Influence of the Chinese Language on the Japanese Language]’. *Man & Nature Bulletin of Chuo-Gakuin University*, no. 31 (December 2010): 165–76.

Ministry of Education, Culture, Sports, Science and Technology. ‘Gaikokugo kyōiku
外国語教育 [Foreign language education]’. 文部科学省ホームページ. Accessed 28 June 2021. https://www.mext.go.jp/a_menu/kokusai/gaikokugo/index.htm.

———. ‘Gaikokugokatsudō No Genjō Seika Kadai 外国語活動の現状・成果・課題 [Current Situation, Achievement and Issues of Foreign Language Activities]’. Tokyo: Ministry of Education, Culture, Sports, Science and Technology, 2014. https://www.mext.go.jp/b_menu/shingi/chousa/shotou/102/shiryo/__icsFiles/afieldfile/2014/05/01/1347389_01.pdf.

———. *Reiwa 3-Nendo Gaisan Yōkyū Ni Okeru Gaikokugokyōiku Kankei Jigyō Ni Tsuite 令和３年度概算要求における外国語教育関係事業について [Works Related to Foreign Language Education within FY2021 Budget Request]*. 文部科学省/mextchannel, 2020. https://www.youtube.com/watch?v=_2olDt8XYrs.

Ministry of Education, Culture, Sports, Science and Technology, Agency for Cultural Affairs. ‘Kokugo Ni Kansuru Yoron Chōsa 国語に関する世論調査 [Public Opinion Surveys About the National Language]’. 文化庁. Accessed 28 June 2021. https://www.bunka.go.jp/tokei_hakusho_shuppan/tokeichosa/kokugo_yoronchosa/index.html.

———. ‘Reiwagannendo `Kokugo Ni Kansuru Yoronchōsa’ No Kekka No Gaiyō 令和元年度「国語に関する世論調査」の結果の概要 [Summary of Findings from FY2019 ’Public Opinion Survey About the National Language’]’, 2020. https://www.bunka.go.jp/tokei_hakusho_shuppan/tokeichosa/kokugo_yoronchosa/pdf/92531901_01.pdf.

Ministry of Internal Affairs and Communications. ‘Announcement of Global Communication Plan 2025 | Press Release’. MIC ICT Policy, 31 March 2020. https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/pressrelease/2020/3/31_1.html.

———. ‘“Chiiki ni okeru tabunkakyōsei suishin puran” no kaitei「地域における多文化共生推進プラン」の改訂 [Revision of ’Plan for the Promotion of Multicultural Coexistence at a Local Level’]’. 総務省, 10 September 2020. https://www.soumu.go.jp/menu_news/s-news/01gyosei05_02000138.html.

———. ‘Gengo Baria-furī Kankei Fushō Renraku Kaigi 言語バリアフリー関係府省連絡会議 [Liaison Conference for Language Barrier-Free-Related Ministries and Agencies]’. Accessed 28 June 2021. https://www.soumu.go.jp/main_sosiki/kenkyu/language_barrier_free/index.html.

———. ‘Gurōbarukomyunikēshon keikaku グローバルコミュニケーション計画 [Global Communication Plan]’, April 2014.

———. ‘Gurōbarukomyunikēshon Keikaku グローバルコミュニケーション計画 2025 [Global Communication Plan 2025]’, March 2020. https://www.soumu.go.jp/main_content/000678485.pdf.

———. ‘Minna No Kōkyō Saito Unyō Gaidorain (2016-Nenban) みんなの公共サイト運用ガイドライン（2016 年版）[Operational Model for Public

Websites for Everyone (2016 Version)]', 2016. https://www.soumu.go.jp/main_content/000439213.pdf.

———. 'White Paper | MIC ICT Policy'. Accessed 28 June 2021. https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/whitepaper/index.html.

———. *White Paper on Information and Communications in Japan 2001*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2001.

———. *White Paper on Information and Communications in Japan 2002*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2002.

———. *White Paper on Information and Communications in Japan 2003*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2003.

———. *White Paper on Information and Communications in Japan 2004*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2004.

———. *White Paper on Information and Communications in Japan 2005*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2005.

———. *White Paper on Information and Communications in Japan 2006*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2006.

———. *White Paper on Information and Communications in Japan 2007*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2007.

———. *White Paper on Information and Communications in Japan 2008*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2008.

———. *White Paper on Information and Communications in Japan 2009*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2009.

———. *White Paper on Information and Communications in Japan 2010*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2010.

———. *White Paper on Information and Communications in Japan 2011*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2011.

———. *White Paper on Information and Communications in Japan 2012*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2012.

———. *White Paper on Information and Communications in Japan 2013*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2013.

———. *White Paper on Information and Communications in Japan 2014*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2014.

———. *White Paper on Information and Communications in Japan 2015*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2015.

———. *White Paper on Information and Communications in Japan 2016*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2016.

———. *White Paper on Information and Communications in Japan 2017*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2017.

———. *White Paper on Information and Communications in Japan 2018*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2018.

———. *White Paper on Information and Communications in Japan 2019*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2019.

———. *White Paper on Information and Communications in Japan 2020*. Tokyo: Ministry of Internal Affairs and Communications, Japan, 2020.

Ministry of Internal Affairs and Communications, Council for the Promotion of Multicultural Coexistence. 'Tabunkakyōsei No Suishin Ni Kansuru Kenkyūkai Hōkoku-Sho 多文化共生の推進に関する研究会報告書 [Council for the Promotion of Multicultural Coexistence Report]', August 2020. https://www.soumu.go.jp/main_content/000718726.pdf.

Ministry of Land, Infrastructure, Transport and Tourism. *Heisei 13-nenban Kankō Hakusho 平成 13 年版 観光白書 [White Paper on Tourism in Japan 2001]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2001.

———. *Heisei 14-nenban Kankō Hakusho 平成 14 年版 観光白書 [White Paper on Tourism in Japan 2002]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2002.

———. *Heisei 15-nenban Kankō Hakusho 平成 15 年版 観光白書 [White Paper on Tourism in Japan 2003]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2003.

———. *Heisei 16-nenban Kankō Hakusho 平成 16 年版 観光白書 [White Paper on Tourism in Japan 2004]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2004.

———. *Heisei 17-nenban Kankō Hakusho 平成 17 年版 観光白書 [White Paper on Tourism in Japan 2005]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2005.

———. *Heisei 18-nenban Kankō Hakusho 平成 18 年版 観光白書 [White Paper on Tourism in Japan 2006]*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2006.

———. ‘Kankōhakusho 観光白書 [White Papers on Tourism]’. Accessed 28 June 2021. https://www.mlit.go.jp/statistics/file000008.html.

Ministry of Land, Infrastructure, Transport and Tourism, Japan Tourism Agency. ‘Chiiki Kankō Shigen No Ta Gengo Kaisetsu Seibi Shien Jigyō 地域観光資源の多言語解説整備支援事業 [Project for Multilingual Support for Local Tourism Resources]’, 28 April 2021. https://www.mlit.go.jp/kankocho/shisaku/kankochi/multilingual-kaisetsu.html.

———. ‘White Paper on Tourism | Statistics/White Paper’. Accessed 28 June 2021. https://www.mlit.go.jp/kankocho/en/siryou/whitepaper.html.

———. *White Paper on Tourism in Japan 2007*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2007.

———. *White Paper on Tourism in Japan 2008*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2008.

———. *White Paper on Tourism in Japan 2009*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2009.

———. *White Paper on Tourism in Japan 2010*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2010.

———. *White Paper on Tourism in Japan 2011*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2011.

———. *White Paper on Tourism in Japan 2012*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2012.

———. *White Paper on Tourism in Japan 2013*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2013.

———. *White Paper on Tourism in Japan 2014*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2014.

———. *White Paper on Tourism in Japan 2015*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2015.

———. *White Paper on Tourism in Japan 2016*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2016.

———. *White Paper on Tourism in Japan 2017*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2017.

———. *White Paper on Tourism in Japan 2018 (Summary)*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2018.

———. *White Paper on Tourism in Japan 2019 (Summary)*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2019.

———. *White Paper on Tourism in Japan 2020 (Summary)*. Tokyo: Ministry of Land, Infrastructure, Transport and Tourism, Japan, 2020.

Moseley, Christopher, ed. *Atlas of the World's Languages in Danger*. 3rd ed. Paris: UNESCO Publishing, 2010. http://www.unesco.org/languages-atlas/index.php?hl=en&page=atlasmap.

National Diet Library of Japan. 'Mori, Arinori | Portraits of Modern Japanese Historical Figures'. Accessed 28 June 2021. https://www.ndl.go.jp/portrait/e/datas/204.html?cat=11.

———. 'WARP Web Archiving Project'. Accessed 3 May 2021. https://warp.da.ndl.go.jp/.

NEWS POST SEVEN. 'Kimu・yonja kara NiziU made… Nihon de no hanryū būmu no rekishi nenpyō キム・ヨンジャから NiziU まで…日本での韓流ブームの歴史年表 [From Kim Yeon-ja to NiziU...A chronological timeline of Korean wave boom in Japan]'. Yahoo! JAPAN News, 19 August 2020. https://news.yahoo.co.jp/articles/769ce96459f6795fab6251d5df880192b1cd4b1a.

Nihon Keizai Shimbun 日本経済新聞. 'Tōkyō-ken no jinkō zōka-sū, gaikokujin ga nihonjin uwamawaru sōmu-shō 東京圏の人口増加数、外国人が日本人上回る 総務省 [Foreign population growth exceeded Japanese population growth in Tokyo Metropolitan area: MIC]'. 日本経済新聞, 5 August 2020. https://www.nikkei.com/article/DGXMZO62324060V00C20A8L83000/.

Nishigori, Jiro, Fumihiko Kuroda, Ajisa Fukudenji, and Hiroko Ichikawa. 'Tokyo's Linguistic Landscape and the State of Multilingual Preparedness for the 2020 Tokyo Olympic/Paralympic Games from the View Point of International Students'. *Jinbungakuhō 人文学報 [The Journal of Social Sciences and Humanities]*, no. 512 (March 2016): 95–111.

Okada, Yutaka. '2019-Nen no gaikokujin jinkō wa kako saikō - 2020-nen ikō wa koronaka deno genshō heno taiō ga kyūmu 2019 年の外国人人口は過去最高 2020 年以降はコロナ禍での減少への対応が急務 [Foreign population in 2019 was all-time high, quick response is need for projected decrease in 2020 due to coronavirus]'. Tokyo: Mizuho Research Institute, 9 September 2020. https://www.mizuho-ri.co.jp/publication/research/pdf/insight/pl200909.pdf.

Piller, Ingrid, and Kimie Takahashi. 'Linguistic Diversity and Social Inclusion'. *International Journal of Bilingual Education and Bilingualism* 14, no. 4 (1 July 2011): 371–81. https://doi.org/10.1080/13670050.2011.573062.

Rubdy, Rani. ‘Conflict and Exclusion: The Linguistic Landscape as an Arena of Contestation’. In *Conflict, Exclusion and Dissent in the Linguistic Landscape*, edited by Rani Rubdy and Selim Ben Said, 1–24. Language and Globalization. London: Palgrave Macmillan UK, 2015. https://doi.org/10.1057/9781137426284_1.

Sassen, Saskia. *The Global City: New York, London, Tokyo*. Princeton University Press, 1991. http://www.jstor.org/stable/j.ctt2jc93q.

Sawa Mamoru. ‘Nihon ni okeru furansu-go: Bakumatsu・Meiji-shonen wo chūshin toshite 日本におけるフランス語 : 幕末・明治初年を中心として [French language in Japan: A focus on late Edo and early Meiji period]’. *Chiba keiai keizai daigaku kenkyūronshū 千葉敬愛経済大学研究論集*, no. 16 (15 June 1979): 243–65.

Scollon, Ron, and Suzie Wong Scollon. *Discourses in Place: Language in the Material World*. London: Taylor & Francis Group, 2003.

Seeley, Christopher. *A History of Writing in Japan*. Leiden: E.J. Brill, 1991.

Shibatani, Masayoshi. ‘Japanese Language | Origin, History, Grammar, & Writing’. Encyclopedia Britannica. Accessed 28 June 2021. https://www.britannica.com/topic/Japanese-language.

———. *The Languages of Japan*. Cambridge University Press, 1990.

Shohamy, Elana, and Durk Gorter. ‘Linguistic Landscape: Expanding the Scenery’. *Book Publication*, 1 January 2009.

Shōji, Hiroshi, Florian Coulmas, and Peter Backhaus. *Nihon no Gengo Keikan 日本の言語景観 [The Linguistic Landscape of Japan]*. Tokyo: Sangensha, 2009.

Site Tokyo Intercultural Portal. ‘Tokyo Intercultural Portal Site’. Tokyo Intercultural Portal Site. Accessed 17 June 2021. https://tabunka-test.mediatv.ne.jp/english.

Sugimoto, Yoshio. ‘Making Sense of Nihonjinron’. *Thesis Eleven* 57, no. 1 (1 May 1999): 81–96. https://doi.org/10.1177/072551369905700007.

Tanaka, Yukari, Tomomi Akiyama, and Makiko Kamikura. ‘Netto Jō No “Gengo Keikan”-- Tōkyōken No Depāto・jichitai・kankō Saito Kara ネット上の"言語景観"-- 東京圏のデパート・自治体・観光サイトから ["Language Landscape" in the Internet -- From Websites of Department Stores, Local Governments, and Tourist in Tokyo Metropolitan Area]’. *Gengo 言語* 36, no. 7 (July 2007): 74–83.

Tanaka Yukari, Hayakawa Youhei, Tomita Haruka, and Hayashi Naoki. ‘Machi no nari-tachi to gengo keikan — Tōkyō Akihabara o jirei to shite — 街のなりたちと言語景観 —

東京・秋葉原を事例として― [Linguistic Landscape of Akihabara Based on Fieldwork in 2010: A Test Case for Establishing Regional Typology]'. *Gengo Kenkyū 言語研究*, no. 142 (2012): 155–70.

Tanaka, Yukari, Kamikura Makiko, Akiyama Satomi, and Sudo Hiromu. 'Tōkyō-ken no gengo-teki tayō-sei: Tōkyō-ken depāto gengo keikan chōsa kara 東京圏の言語的多様性: 東京圏デパート言語景観調査から [Linguistic Variability in the Tokyo Metropolitan Area : A Survey of the Linguistic Environment of Department Stores]'. *Shakai Gengo Kagaku 社会言語科学* 10, no. 1 (2007): 5–17. https://doi.org/10.19024/jajls.10.1_5.

Taylor, Jessica. 'The Challenge of Social Isolation and Loneliness'. Melbourne School of Population and Global Health, 16 May 2019. https://mspgh.unimelb.edu.au/ageing-industry-network/newsletter-issue-12-may-2019/the-challenge-of-social-isolation-and-loneliness.

The Huffington Post. 'NHK gairai-go tsukai-sugi teiso ni "nihongo ni iikaerubeki" "gairai-go no mamade yoi" to sanpi ryōron
NHK 外来語使いすぎ提訴に「日本語に言い換えるべき」「外来語のままでよい」と賛否両論 [Varied opinions on NHK's overuse of foreign words lawsuit]'. ハフポスト, 28 June 2013.
https://www.huffingtonpost.jp/2013/06/27/nhk_n_3513859.html.

Tokyo Fire Department. 'Guidelines for Emergency Calls to 119 and Important Points for Filing Reports'. Accessed 28 June 2021.
https://www.tfd.metro.tokyo.lg.jp/eng/eng_pamph_p2.html.

Tokyo Metropolitan Government. 'Consultation Service'. Tokyo Metropolitan Government | Guide For Residents. Accessed 28 June 2021.
https://www.metro.tokyo.lg.jp/english/guide/guide01.html.

———. 'Reiwa Gannendo Tagengotaiō Hyōji Hyōshiki-Tō Ni Kansuru Chōsa Hōkokusho 令和元年度　多言語対応表示・標識等に関する調査報告書 [FY2019 Survey Report on Multilingual Display and Signage]'. Tokyo: Tokyo Metropolitan Government, January 2020.
https://www.2020games.metro.tokyo.lg.jp/multilingual/references/pdf/other/displaysign_r1.pdf.

———. 'Tokyo Guidelines for the Promotion of Intercultural Cohesion', February 2016.
https://www.seikatubunka.metro.tokyo.lg.jp/chiiki_tabunka/tabunka/tabunkasuishin/files/0000000755/shishin_all_eng.pdf.

———. ‘Tokyo Guidelines for the Promotion of Intercultural Cohesion: Making Tokyo a Leading Global City [Overview]’, February 2016. https://www.seikatubunka.metro.tokyo.lg.jp/chiiki_tabunka/tabunka/tabunkasuishin/files/0000000755/shishingaiyou_EN2.pdf.

Tokyo Metropolitan Government Bureau of General Affairs. ‘Gaikokujin Jinkō Reiwa 2-Nen 外国人人口 令和２年 [Foreign Population 2020]’. Statistics of Tokyo, 2020. https://www.toukei.metro.tokyo.lg.jp/gaikoku/2020/ga20010000.htm.

———. ‘Gaikokujintōrokujinkō Heisei 12-Nen 外国人登録人口 平成１２年 [Foreign Population 2000]’. Statistics of Tokyo. Accessed 28 June 2021. https://www.toukei.metro.tokyo.lg.jp/gaikoku/2000/TOB7GE00.HTM.

———. ‘Todōfuken-Betsu Gaikokujin-Jinkō 都道府県別外国人人口 [Foreign Population by Prefecture]’. Statistics of Tokyo, 31 May 2004. https://www.stat.go.jp/data/kokusei/2000/gaikoku/00/08.html.

Tokyo Metropolitan Government Bureau of Industrial and Labor Affairs. ‘Hōnichi・Hōto Gaikokujin Ryokōshasū Oyobi Hōto Kokunai Ryokōshasū No Suii 訪日・訪都外国人旅行者数及び訪都国内旅行者数の推移 [Changes in the Number of Foreign Tourists Visiting Japan and Tokyo and the Number of Domestic Tourists Visiting Tokyo]’, 2019. https://www.sangyo-rodo.metro.tokyo.lg.jp/toukei/tourism/2019sanko.pdf.

Tokyo Metropolitan Government, Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation. ‘Multilingual Measures in Preparation for the 2020 Olympic and Paralympic Games’. *Journal of Japanese Language Teaching* 165 (2016): 18–29. https://doi.org/10.20721/nihongokyoiku.165.0_18.

Tokyo Metropolitan Government Office of the Governor for Policy Planning. ‘Reiwa 2-Nendo Tōkyōto Kakukyoku-Tō Toshi Gaikō Kanren Shisaku Chōsa 令和２年度 東京都各局等都市外交関連施策調査 [FY2020 Survey of Measures Related to Urban Diplomacy on the Bureaus of Tokyo Metropolitan Government]’. Tokyo: Tokyo Metropolitan Government, November 2020. https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/2020/11/R2_tmg.pdf.

———. ‘Reiwa 2-Nendo Tōkyotokushichōson No Kokusai Seisaku No Jōkyō 令和２年度 東京都区市町村の国際政策の状況 [FY2020 Situation of International Policy in Tokyo and Its Municipalities]’, November 2020. https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/2020/11/images/R2city.pdf.

———. ‘Tōkyōto-ku shichōson no kokusai seisaku 東京都・区市町村の国際政策 [International policy of Tokyo and its municipalities]’. 東京都政策企画局. Accessed 28 June 2021. https://www.seisakukikaku.metro.tokyo.lg.jp/diplomacy/other-diplomacy/kokusaiseisaku.html.

Twine, Nanette. ‘Standardizing Written Japanese. A Factor in Modernization’. *Monumenta Nipponica* 43, no. 4 (1988): 429–54. https://doi.org/10.2307/2384796.

Umegaki, Minoru. *Nippon Gairaigo No Kenkyū 日本外来語の研究 [The Study of Japanese Foreignisms]*. Tokyo: Kenkyūsha, 1963.

Appendix

The names (in English) of all facilities used in the virtual linguistic landscape study are listed below. The website address (Uniform Resource Locator: URL) is linked in each name. Most websites are in the Japanese language by default.

Full results of website research can be accessed in a worksheet format here.

Administrative Services

1. Tokyo Metropolitan Government
2. Chiyoda Ward Office
3. Chuo Ward Office
4. Minato Ward Office
5. Shinjuku Ward Office
6. Bunkyo Ward Office
7. Taito Ward Office
8. Sumida Ward Office
9. Koto Ward Office
10. Shinagawa Ward Office
11. Meguro Ward Office
12. Ota Ward Office
13. Setagaya Ward Office
14. Shibuya Ward Office
15. Nakano Ward Office
16. Suginami Ward Office
17. Toshima Ward Office
18. Kita Ward Office
19. Arakawa Ward Office
20. Itabashi Ward Office
21. Nerima Ward Office
22. Adachi Ward Office
23. Katsushika Ward Office
24. Edogawa Ward Office

Emergency Services

1. Tokyo Fire Department
2. Tokyo Metropolitan Disaster Prevention Information
3. Metropolitan Police Department

Healthcare

1. Tokyo Metropolitan Health & Medical Information Center "Himawari"
2. Tokyo Metropolitan Matsuzawa Hospital
3. Kanto Central Hospital
4. Shiseikai Daini Hospital
5. Setagaya Chuo Hospital
6. Kumagaya Hospital
7. National Center for Child Health and Development
8. Self-Defence Forces Central Hospital
9. Nissan Tamagawa Hospital
10. Yurin Hospital
11. Komazawa Hospital
12. Ishikawajima Memorial Hospital
13. St. Luke's International Hospital
14. National Cancer Center Hospital
15. Nitobe Memorial Nakano General Hospital
16. Tokyo Metropolitan Police Hospital
17. Tokyo General Hospital
18. Kanaji Hospital
19. Fuji Hospital
20. Ouji Coop Hospital
21. Ukima Central Hospital
22. Akabane Central General Hospital
23. Tokyo-Kita Medical Center
24. Akabane Rehabilitation Hospital
25. Kudanzaka Hospital
26. Tokyo Teishin Hospital
27. Nippon Dental University Hospital
28. Mitsui Memorial Hospital
29. Kamio Memorial Hospital
30. Nihon University Hospital
31. Kyoundo Hospital
32. Sanraku Hospital
33. Hamada Hospital

34. Hanzomon Hospital
35. Eiju General Hospital
36. Eiju General Hospital, Yanagibashi Branch
37. Daisan Kitashinagawa Hospital
38. Isuzu Hospital
39. Showa University Hospital
40. NTT Medical Center Tokyo
41. Tokyo Shinagawa Hospital
42. Gotanda Rehabilitation Hospital
43. Japanese Red Cross Omori Hospital
44. Tokyu Hospital
45. Tokyo Kamata Medical Center
46. Koujiya Hospital
47. Makita General Hospital
48. Tokyo Rosai Hospital
49. Ohta Hospital
50. Kamata Rehabilitation Hospital
51. Toho University Omori Medical Center
52. Ebara Hospital
53. Ikegami General Hospital
54. Makita Rehabilitation Hospital
55. Tokyo Kamata Hospital
56. Nippon Medical School Hospital
57. Tokyo Kensei Hospital
58. Juntendo University Hospital
59. The University of Tokyo Hospital
60. Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital
61. Tokyo Medical And Dental University Medical Hospital
62. Tohto Bunkyo Hospital
63. Mejiro Hospital
64. Seibo Hospital
65. Keio University Hospital
66. Clinical Research Hospital Tokyo
67. National Center for Global Health and Medicine
68. Ohkubo Hospital
69. Tokyo Women's Medical University Hospital
70. Tokyo Shinjuku Medical Center
71. Tokyo Yamate Medical Center
72. Tokyo Medical University Hospital
73. Johsai Hospital
74. Royal Hospital

75. Ogikubo Hospital
76. The Salvation Army Booth Memorial Hospital
77. Kosei Hospital
78. Tokyo Adventist Hospital
79. Kawakita Maeda Hospital
80. Newheart Watanabe Institute
81. Suginami Rehabilitation Hospital
82. Kawakita General Hospital
83. Narimasu Kosei Hospital
84. Aisei Hospital
85. Teikyo University Hospital
86. Keiai Hospital
87. Seisikai Hospital
88. Fujimi Hospital
89. Nihon University Itabashi Hospital
90. National Rehabilitation Center for Children with Disabilities
91. Tokyo Musashino Hospital
92. Azusawa Hospital
93. Itabashi Central General Hospital
94. Tokiwadai Surgical Hospital
95. Kami Itabashi Hospital
96. Yasuda Hospital
97. Kobayashi Hospital
98. Sho Hospital
99. Toshima Hospital
100. Tokyo Metropolitan Geriatrics Hospital
101. Takekawa Hospital
102. Itabashi Medical Association Hospital
103. Moriyama Memorial Hospital
104. Iwai Orthopaedic Medical Hospital
105. Edogawa Hospital
106. Edogawa Medicare Hospital
107. Douaikai Hospital
108. Keiyo Hospital
109. Kasai Central Hospital
110. Tokyo Joto Hospital
111. Asoka Hospital
112. Fujisaki Hospital
113. Juntendo Tokyo Koto Geriatric Medical Center
114. Cancer Institute Hospital
115. JR Tokyo General Hospital

116. Yoyogi Hospital
117. Japanese Red Cross Medical Center
118. Tokyo Metropolitan Hiroo Hospital
119. Central Hospital
120. Harajuku Rehabilitation Hospital
121. Tokyo Saiseikai Central Hospital
122. IUHW Mita Hospital
123. Kitasato University Kitasato Institute Hospital
124. Aiiku Hospital
125. Toranomon Hospital
126. The Jikei University Hospital
127. The Cardiovascular Institute
128. Sanno Hospital
129. Tokyo Takanawa Hospital
130. Kohsei Chuo General Hospital
131. Mishuku Hospital
132. Meguro Hospital
133. Tokyo Kyosai Hospital
134. Tokyo Medical Center
135. Nerima General Hospital
136. Suzuki Hospital
137. Sakuradai Hospital
138. Tanaka Neurosurgical Hospital
139. Juntendo University Nerima Hospital
140. Nippori Jogu Hospital
141. Kameari Hospital
142. Tobu Chiiki Hospital
143. Kisen Hospital
144. Daiichi Hospital
145. Heisei Tateishi Hospital
146. Japanese Red Cross Tokyo Katsushika Perinatal Center
147. Touritsu Hospital
148. Edogawa Hospital Takasago Branch
149. Takayama Seikeigeka Hospital
150. Isshin Hospital
151. Tokyo Metropolitan Ohtsuka hospital
152. Toshima Showa Hospital
153. Ikebukuro Hospital
154. Nagashio Hospital
155. Hiratsuka Gastroenterological Hospital
156. Kanamecho Hospital

157. Ougioohashi Hospital
158. Izumi Memorial Hospital
159. Towa Hospital
160. Shimoi Hospital
161. Tokyo Saiseikai Mukojima Hospital
162. The Fraternity Memorial Hospital
163. Tokyo Metropolitan Bokutoh Hospital

Public Transport

1. Haneda Airport (Tokyo International Airport)
2. Narita Airport
3. East Japan Railway Company
4. Seibu Railway
5. Tokyo Metro (Subway)
6. Keio Railway
7. Tokyu Railway & Bus
8. TMG Bureau of Transportation (Toei subway and bus)
9. Tobu Railway
10. Keisei Railway
11. Odakyu Railway
12. Keikyu Railway
13. Hokuso Railway
14. Tokyo Monorail
15. Yurikamome Train Line
16. Tsukuba Express Railway
17. Tokyo Waterfront Area Rapid Transit
18. Toei Bus Real-Time Information Service
19. Tokyo Hire-Taxi Association
20. Tokyo Kojin Taxi Association

Banking

1. Mizuho Bank,Ltd.
2. Sumitomo Mitsui Banking Corporation
3. MUFG Bank,Ltd.
4. Resona Bank, Ltd
5. ORIX Bank Corporation
6. Custody Bank of Japan, Ltd.
7. Shinsei Trust & Banking Co.,Ltd.
8. State Street Trust & Banking Co., Ltd

9. Sumitomo Mitsui Trust Bank,Limited
10. SMBC Trust Bank Ltd.
11. JSF Trust and Banking Co.,Ltd.
12. The Master Trust Bank of Japan, Ltd
13. The Bank of New York Mellon Trust Japan,Ltd.
14. The Norinchukin Trust & Banking Co.,Ltd.
15. The Nomura Trust and Banking Co.,Ltd.
16. Mizuho Trust & Banking Co.,Ltd.
17. Mitsubishi UFJ Trust and Banking Corporation
18. Aozora Bank, Ltd.
19. AEON BANK, LTD.
20. Shinhan Bank Japan
21. au Jibun Bank Corporation
22. GMO Aozora Net Bank, Ltd.
23. The Japan Net Bank,Limited
24. Shinsei Bank, Ltd.
25. SBI Sumishin Net Bank, Ltd.
26. The Resolution and Collection Corporation
27. Seven Bank, Ltd.
28. Sony Bank Incorporated
29. Daiwa Next Bank, Ltd.
30. Rakuten Bank, Ltd.
31. Lawson Bank, Inc.
32. JAPAN POST BANK Co, Ltd

Retail

1. Lawson, Inc.
2. Seven-Eleven Japan Co., Ltd.
3. FamilyMart Co.,Ltd
4. Odakyu Department Store Shinjuku
5. Keio Department Store Shinjuku
6. Granduo Kamata
7. Seibu Ikebukuro
8. Seibu Shibuya
9. Matsuzakaya Ueno Store
10. Daimaru Tokyo
11. Nihombashi Takashimaya
12. Shinjuku Takashimaya
13. Tamagawa Takashimaya

14. Tokyu Department Store Shibuya Main Store
15. Tokyu Department Store Shibuya Tokyu Food Show
16. Tokyu Department Store Shibuya Hikarie ShinQs
17. Tokyu Department Store Futago Tamagawa Tokyu Food Show
18. Tobu Department Store Ikebukuro
19. Hankyu Men's Tokyo
20. Matsuya Ginza
21. Matsuya Asakusa
22. Isetan Shinjuku
23. Nihombashi Mitsukoshi Main Store
24. Ginza Mitsukoshi

Tourism

1. GO TOKYO Official Tourism Website
2. VISIT CHIYODA
3. Shinagawa Tourism Association
4. Chuo City Tourism Association
5. Central Tokyo for Tourism
6. Meguro Tourism Association
7. VISIT MINATO CITY (Minato Travel & Tourism Association)
8. OTA CITY (Ota Tourist Association)
9. Shinjuku Convention & Visitors Bureau
10. Play! Diversity Shibuya (Shibuya City Tourism Association)
11. Bunkyo City Tourism Association
12. Nakano-ku Kankou Association
13. MARUTTO NAKANO
14. Ueno Tourism Alliance
15. Nami-janai Suginami (Chuosen Aruaru Project)
16. 365ASAKUSA
17. Toshima City Tourism Association
18. Asakusa Minami Tourism Alliance
19. Itabashi City Tourism Association
20. Sumida Tourism Association
21. Nerima Tourism Center
22. Koto Travel Information Bureau
23. Adachi Kanko Net
24. Fukagawa Tourism Information
25. Katsushika Tourism Association Offical Website),
26. Katsu-Maru Guide (Katsushika City Travel Site)

Community Services

1. Tokyo Voluntary Action Center (TVAC)
2. Chiyoda Volunteer Center
3. Chuo Ward Social Welfare Council
4. Shinjuku Social Welfare Conference
5. Bunkyo Council of Social Welfare
6. Taito Council of Social Welfare
7. Sumida Volunteer Center
8. Koto Council of Social Welfare
9. Shinagawa Volunteer Center
10. Meguro Council of Social Welfare
11. Minato Council of Social Welfare
12. Ota Council of Social Welfare
13. Setagaya Volunteer Association
14. Shibuya Volunteer Center
15. Nakano Volunteer Center
16. Suginami Social Welfare Council
17. Toshima Ward Residents Council of Social Welfare
18. Kita-ku NPO Volunteer Plaza
19. Arakawa Volunteer Center
20. Nerima Council of Social Welfare
21. Nerima City Resident Cooperative Exchange Center
22. Adachi General Volunteer Center
23. Adachi City Support Center for NPO's Activities
24. Katsushika Council of Social Welfare
25. Edogawa Volunteer Center