The Roman Alphabet Within the Japanese Writing System: Patterns of Usages and Their Significance

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Abstract

The present study explores the usages of the Roman alphabet within the writing system of Japanese. Japanese is typically said to have three types of characters in its writing system: *hiragana*, *katakana*, and *kanji*. However, the Roman alphabet is also commonly used in Japanese for various purposes along with other types of characters in Japanese. The present study argues that with the recent surge in electronic communication, the writing practice of Japanese is transitioning from vertical writing to horizontal writing, and this transition allows more foreign words and expressions written in the Roman alphabet to be used within Japanese without being converted into *katakana* loanwords. The present study also discusses the influence of the ever-increasing international interaction to the usages of the Roman alphabet within Japanese.

Keywords: Japanese, loanwords, Roman alphabet, *katakana*, writing system

Povzetek

Članek raziskuje uporabo latiničnega zapisa v pisnem sistemu japonščine. Za japonščino običajno pravimo, da ima v pisnem sistemu tri vrste znakov: hiragano, katakano in pismenke. Hkrati se v japonščini pogosto pojavlja tudi latinica, nameni za to pa so različni. V članku ugotavljamo, da nedavni porast elektronske komunikacije, s katero pisna praksa japonščine prehaja iz navpičnega v vodoravni zapis, omogoča, da se v japonščini uporablja več tujih besed in izrazov, napisanih v latinici, ne da bi jih pretvorili v izposojenke v katakani. Članek obenem obravnava še vpliv vedno večje mednarodne interakcije na uporabo latinice v japonščini.

Ključne besede: japonščina, prevzete besede, latinični zapis, *katakana*, pisni sistem

1   Introduction

The writing system of the modern Japanese language is typically said to consist of three major types of characters; the three types are *hiragana*, *katakana*, and *kanji*. However, one set of characters that is often overlooked in the writing system of Japanese is the Roman alphabet. In addition, with the recent surge of the use of the written language on the Internet, the Roman alphabet used within Japanese has also been increasing its importance. The present paper explores the usages of the Roman alphabet within the Japanese language, with a special focus on the linguistic, communicative, and social significance resulting from the usages of the Roman alphabet within the writing system of Japanese.

Before discussing the usages of the Roman alphabet within the writing system of Japanese, first, the present study provides a brief overview of the types of characters used in Japanese.

In the writing system of Japanese*, hiragana* characters are considered to be the most basic set of characters. After Chinese characters were introduced to Japan around the late fourth and early fifth centuries, *hiragana* was first created as a reading aid for Chinese characters around the ninth century (Hasegawa, 2015). *Hiragana* went through some modifications after its initial creation, and the modern set of *hiragana* used in present-day Japanese consists of 46 characters. *Hiragana* are phonograms, each of which represents a specific syllable, and are used for words in various lexical categories such as nouns, verbs, and adjectives. *Hiragana* is also used for particles and conjugational endings.

Another set of characters used in Japanese is *katakana*. *Katakana* characters were also developed from Chinese characters around the ninth century as a reading aid. In modern Japanese, *katakana* are mostly used for loanwords from non-Japanese languages and also for onomatopoeic expressions. Another major set of characters in Japanese is *kanji* characters. The literal meaning of *kanji* (漢字) is 'characters of the Han Dynasty of ancient China' (Hasegawa, 2015), and approximately 50,000 *kanji* characters exist in modern Japanese (Morton et al., 1992; Taylor & Taylor, 1995). However, most of those 50,000 characters are not in use in everyday life in Japan. The Agency of Cultural Affairs of Japan sets 2,136 characters as *joyo kanji*, which translates to English as 'commonly used kanji' (Agency of Cultural Affairs, 2010). The *Joyo kanji* list also serves as the guideline to select *kanji* characters that are to be included in school education as part of the government-set nationally standardized curriculum. *Kanji* characters are mostly used for words that were incorporated into Japanese from Chinese as well as Japanese nouns and the non-conjugational components of various lexical items such as verbs and adjectives.

The following sentences demonstrate the typical mixture of *hiragana*, *katakana*, and *kanji* in Japanese sentences.[1]

(1) 食堂でアイスクリームを買いました。
   Shokudoo de aisukuriimu o kaimashita.
   'I bought ice cream at the cafeteria.'

(2) 田中さんはロンドンにいます。
   Tanaka san wa rondon ni imasu.
   'Mr./Ms. Tanaka is in London.'

In (1), *shokudoo* (食堂) 'cafeteria' and the non-conjugational part of the verb *kaimashita* (買いました) 'bought' are written in *kanji*. Particles such as the location marking *de* (で), the object-marking *o* (を), and the conjugational component of the verb *kaimashita* are written in *hiragana*. *Katakana* is used for the loanword *aisukuriimu* (アイスクリーム) 'ice cream,' in accordance with the phonological transformation from the English *ice cream* to the Japanese *aisukuriimu*. As shown in (1), the three major types of characters are used within a continuous sentence in Japanese, and the choice of the type of characters is determined at the word level depending on the property of each word. Similarly, in (2), the personal proper noun *Tanaka* (田中) is written in *kanji*, the city name *rondon* (ロンドン) 'London' in *katakana*, and other components in *hiragana*.

2   The present study

The Roman alphabet is typically not included as a major character type when the writing system of Japanese is discussed. However, close observation of the written language in Japanese shows that the Roman alphabet is frequently used as part of the Japanese writing system, and the Roman alphabet can be considered to be one of the major character types used within the Japanese writing system. The present paper explores the usages of the Roman alphabet used within Japanese, and discusses the communicative and sociolinguistic significance surrounding the usages of the Roman alphabet in Japanese.

This paper's organization is as follows; the usages of the Roman alphabet are categorized into several categories, and example sentences are listed in each category

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[1] The present study follows the convention of transliteration that is typically adopted in linguistic studies in North America for its Romanization of Japanese. In this convention, the long vowel *oo* as in *gakkoo* (がっこう) 'school' is Romanized as *oo*, not *ō* or *ou*. Similarly, *ee* as in *sensee* (せんせい) 'teacher' is Romanized as *ee*, not *ē* or *ei*.

to demonstrate the usages and illustrate the significance and implications of choosing to use the Roman alphabet instead of other types of characters in Japanese. The present study primarily focuses on qualitative analysis of examples, and example sentences are selected from various sources in Japanese from online and printed materials. Some selected examples from the *Balanced Corpus of Contemporary Written Japanese* (Maekawa, 2008) are also included in the present study.

As for the selection of data, the present paper mostly focuses on the usages of the Roman alphabet within Japanese sentences, not the Roman alphabet used at the word or the phrase level. Various studies report that English words are used with the original spelling in the Roman alphabet, especially in advertisements for commercial products and also in popular culture such as popular songs and titles of movies and TV shows (e.g., Honna, 1995; Kay, 1995; Kinjo, 1998; Kubota, 1998; Stanlaw, 2004; Daulton, 2008; Irwin, 2011; Sung & Mitsudo, 2016). However, when English words written in the Roman alphabet are used independently of other sentential components in Japanese, the examples may simply be considered as the usages of English, rather than English words in the Roman alphabet appearing within the Japanese language. For this reason, even though the increased use of English in Japan is an intriguing phenomenon and relevant to the present paper's topic, considering the abundance of existing literature on the use of English in Japan, this present paper attempts to contribute to the existing literature by focusing on the Roman alphabet used within Japanese along with other types of characters in Japanese.

3   The usage of the Roman alphabet in Japanese

Various types of usages of the Roman alphabet within the Japanese writing system are explored in this section.

3.1   Roman letters used for acronyms

One of the common types of usages of the Roman alphabet in Japanese is for abbreviated expressions originated in Western languages, most of which are from English. When loanwords from foreign languages are incorporated into the vocabulary pool of Japanese, they are conventionally written in *katakana*. However, when acronyms that are written in the Roman alphabet in foreign languages are used as loanwords in Japanese, the letter combinations in the original language are preserved when they are used in Japanese. Those acronyms in Roman letters are typically used as nouns in Japanese, both as common nouns and proper nouns. Tables 1 and 2 list some select examples of acronyms in the Roman alphabet that are used as common nouns and proper nouns in Japanese, respectively.

Table 1: Acronyms in Roman Letters used in Japanese [Common Nouns]

Acronyms	Original Forms
AED	automated external defibrillator
ATM	automated teller machine
CD	compact disc
DNA	deoxyribonucleic acid
DVD	digital video disc
LPG	liquefied petroleum gas
PR	public relations

Table 2: Acronyms in Roman Letters used in Japanese [Proper Nouns]

Acronyms	Original Forms
FBI	Federal Bureau of Investigation
IMF	International Monetary Fund
NHK	*Nippon Hoosoo Kyookai* 'Japan Broadcasting Corporation'
NTT	Nippon Telegraph and Telephone
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
USJ	Universal Studios Japan
WHO	World Health Organization

The following example demonstrates how acronyms in Roman letters are used mixed with other types of characters in Japanese.

(3) 現在では、オンライン・リアルタイム処理は鉄道や航空機の座席予約、銀行の ATM、工場での機械制御などで利用されている。

Genzai de wa, onrain-riarutaimu shori wa tetsudoo ya kookuuki no zaseki yoyaku, ginkoo no ATM, koojoo deno kikai seigyo nado de riyoo sarete iru.

'Currently, online real-time processing is used in reservation systems for trains and airplanes, bank ATMs, and machine control systems in factories.'

([BCCWJ: PB43_00081] *Gendai keeee to nettowaaku*, Kishikawa & Hoshino, 2004)

In (3), the acronym *ATM* 'ATM' is written in Roman letters and used with other components in characters that are unique to the Japanese language such as *hiragana*, *katakana*, and *kanji*. Also, since *ATM* is a commonly-known word among speakers of Japanese, no further explanations are provided in the text.

When acronyms in the Roman alphabet are used in Japanese sentences, the full Japanese translation of the form before abbreviation is often written in parenthesis

after the acronym. The following example demonstrates such listing of translation in Japanese. Translations for acronyms in Japanese tend to be provided when the acronym is a proper noun, or a less commonly known phrase.

(4) 当時の占領軍に該当する外圧といえば、いまなら IMF(国際通貨基金)である。

Tooji no senryoogun ni gaitoo suru gaiatsu to ie ba, ima nara IMF (kokusai tsuuka kikin) de aru.

'What is equivalent to the occupying force back then is the IMF (International Monetary Fund) in modern times.'

([BCCWJ: PB53_00657] *Shisan hookai*, Ota, 2005)

In (4), after *IMF* in Roman letters, *kokusai tsuuka kikin* (国際通貨基金) 'International Monetary Fund' is listed to provide further information about the acronym, and when the acronym reappears in later parts of the text, the full translation in parenthesis is not repeated.

Similarly, the translation in Japanese occasionally precedes the acronym and the acronym in parenthesis follows the Japanese translation.

(5) 健康とは「単に病気あるいは虚弱でないということではなく，身体的にも精神的にも社会的にも完全に良好な状態であること」と世界保健機関(WHO)は定義している。

Kenkoo to wa "tan ni byooki aruiwa kyojaku de nai to iu koto de wa naku, shintaiteki ni mo seeshinteki nimo shakaiteki ni mo kanzen ni ryookoo na jootai de aru koto" to sekai hoken kikan (WHO) wa teegi shite iru.

'The World Health Organization (WHO) defines health as "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."'

([BCCWJ: LBt4_00058] *Wakari yasui kaigo no tame no eeyoo to choori*, Yoshida & Sumii, 2005)

In (5), *WHO* in parenthesis follows its translation in Japanese *sekai hoken kikan* 'World Health Organization.' In later parts of the text, the acronym *WHO* is repeated in the main body of the text without being accompanied with the translation in Japanese. Examples (4) and (5) demonstrate typical ways of introducing acronyms in the Roman alphabet when they first appear in a written text in Japanese. When the acronym may not be familiar to the potential readers, the acronym is accompanied with its Japanese translation, and when it reappears in the text, it is used without being accompanied with the translation.

As for the way acronyms in the Roman alphabet are read with other components in the sentence in Japanese, the pronunciation is based on the way in which Roman letters are pronounced within the Japanese sound system, which can be written using *katakana*. For example, when the word *CD* 'compact disc' is pronounced in a Japanese sentence, it is pronounced as *shiidii*, not /siːdiː/ as in the original English pronunciation. The conversion from English pronunciation to the pronunciation that conforms to the Japanese sound system and can be accurately transcribed using *katakana* is the standard procedure for using acronyms in the Roman alphabet in Japanese, and even in the Japanese language textbooks for learners of Japanese, students are instructed to pronounce acronyms in *katakana* pronunciation. For example, in *Genki I* (Banno et al., 2011), which is an elementary-level Japanese language textbook, the word *CD* is introduced with *shiidii* (シーディー) in *katakana* as a pronunciation guide in the vocabulary list. It should also be noted that for acronyms that have unique reading patterns that are different from simply reading out the Roman letters, such as OPEC read as /oʊpek/ in English, the pronunciation conforms with the Japanese sound system and is enunciated as *opekku* (this could also be written as オペック) in Japanese.

3.2   Proper nouns written in the Roman alphabet in Japanese

In addition to proper nouns that are acronyms, certain types of proper nouns in non-Japanese languages are written in the Roman alphabet without being converted to *katakana*.

3.2.1   Roman alphabet used for reference purposes

The first types of examples discussed here are proper nouns such as personal names and place names originally written in the Roman alphabet. The following examples are from news articles that include proper nouns in foreign languages.

(6) フランス大統領府は 17 日、エマニュエル・マクロン(Emmanuel Macron)大統領が新型コロナウイルス検査で陽性と診断されたと発表した。今後 1 週間自主隔離を行うという。

Furansu daitooryoofu wa juunana nichi, emanyueru makuron (Emmanuel Macron) daitooryoo ga shingata korona uirusu kensa de yoosee to shindan sareta to happyoo shita. Kongo isshuukan jishu kakuri o okonau to iu.

'The Office of the President of France announced that President Emmanuel Macron has tested positive for the new-type coronavirus. He will self-quarantine for a week.'

(*Yahoo! News*, https://news.yahoo.co.jp/, accessed 12/17/2020)

(7) 気象当局によるとニューヨーク市の北 290 キロに位置するビンガムトン
(Binghamton)やペンシルベニア州リッチフィールド(Litchfield)で積雪が 1 メ
ートルを超えた。

Kishoo tookyoku ni yoru to nyuuyooku shi no kita nihyaku kyuujukkiro ni ichi suru
bingamuton (Binghamton) ya penshirubania shuu ricchifiirudo (Litchfield) de
sekisetsu ga ichi meetoru o koeta.

'According to the Weather Bureau, snow accumulation exceeded one meter in
Binghamton, which is located 290 kilometers north of New York City, and also in
Litchfield, Pennsylvania.'

(*Yahoo! News*, https://news.yahoo.co.jp/, accessed 12/18/2020)

In (6), *Emmanuel Macron*, which is the proper noun for a French politician, is
written in *katakana* as in *emanyueru makuron* (エマニュエル・マクロン) and it is
followed by his name in the Roman alphabet in parentheses. Similarly, in (7),
Binghamton and *Litchfield*, which are proper nouns for city names in the United States,
are written in *katakana* as *bingamuton* (ビンガムトン) and *ricchifiirudo* (リッチフィ
ールド), followed by their original names in the Roman alphabet. It should be noted
that in (7), *nyuuyooku* (ニューヨーク) 'New York' and *penshirubenia* (ペンシルベニ
ア) 'Pennsylvania' are not followed by their Roman alphabet forms. The reason for this
inconsistency appears to be how well-known those proper nouns are among the
intended readers, who are speakers of Japanese that reside in Japan. Many foreign
place names are well-known in Japan, and major states in the United States such as
New York and Pennsylvania have been incorporated into the vocabulary pool of
Japanese as *katakana* loanwords, as demonstrated by the fact that *nyuuyooku* and
penshirubenia in *katakana* are both included in the *Daijisen Dictionary* (Matsumura,
2020), which is one of the leading Japanese monolingual dictionaries. However, less-
commonly-known city names such as *Binghamton* and *Litchfield* are unlikely to be
recognized by speakers of Japanese, and it appears that the forms in the original Roman
alphabet are provided in the parentheses as supplementary information that helps
readers make a connection between the *katakana* forms and the original forms.

In addition, personal proper nouns in languages that are written in the Roman
alphabet are also written in the original format in scholarly publications in Japanese.
The following excerpt includes such examples of foreign names written in the Roman
alphabet in a scholarly article.

(8) Gumperz (1982) は、異文化を持つ者同士の会話では、参加者が互いに異なる期待を持っているがために、誤解が生じるとし、Tannen (1993) は、文化により会話のスタイルが異なることを指摘している。

Gumperz (1982) wa, ibunka o motsu mono dooshi no kaiwa de wa, sankasha ga tagai ni kotonaru kitai o motte iru ga tame ni, gokai ga shoojiru to shi, Tannen (1993) wa, bunka ni yori kaiwa no sutairu ga kotonaru koto o shiteki shite iru.

'Gumperz (1982) claims that misunderstandings occur in conversations between participants with diverse cultural backgrounds because their expectations are different, and Tannen (1993) points out that conversation styles are different in different cultures.'

(*Nihonjin daigakusee no guruupu tooron ni okeru ketsuron seesee to shinkooyaku no yakuwari*, Otsuka, 2003)

(8) is from an article about linguistics, and the authors of the cited references are written in the Roman alphabet as in *Gumperz* and *Tannen*. This convention to use the Roman alphabet for references in scholarly publications seems to be developed from the necessity to maintain the original spelling information for the authors' names in the cited documents. If the authors of the cited documents were converted to *katakana*, it would be challenging for the readers to identify the cited documents that were written in non-Japanese languages. In addition, if each author attempts to convert non-Japanese names into *katakana*, the same author's name written in the Roman alphabet in the original language may be converted to *katakana* differently depending on the author's personal preferences, even though the conventions for converting English to *katakana* are mostly uniform among native speakers of Japanese. For those reasons, names in non-Japanese languages appear to be conventionalized to be written in their original form (the Roman or other Western alphabets) in scholarly publications in Japanese.[2]

Furthermore, it should also be noted that even when the author of the cited document has a name originally written in the Roman alphabet, when the cited document is published in Japanese with the author's name written in *katakana*, the author's name of the cited document is also written in *katakana*. Observe the following excerpt.

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[2] Names in East Asian languages, especially Chinese names, are conventionalized to be written in *kanji* in scholarly documents in Japanese. However, names in Asian languages in the entertainment field tend to be written in *katakana*. For more details, see Kimura (2013), Mochizuki et al. (2014), etc.

(9) 林(2008)は、言語管理理論(Jernudd & Neustupný 1987, Neustupný 1985a, 1985b, 1994a，ネウストプニー1994b, 1995)に沿って、日本語非母語話者が何を留意したことで聞き返しが実施されたのかを明らかにしている。

Hayashi (2008) wa, gengo kanri riron (Jernudd & Neustupný 1987, Neustupný 1985a, 1985b, 1994a, neusutopunii 1994b, 1995) ni sotte, nihongo hi bigowasha ga nani o ryuui shita koto de kikikaeshi ga jisshi sareta no ka o akiraka ni shite iru.

'Hayashi (2008) follows the Language Management Theory (Jernudd & Neustupný 1987, Neustupný 1985a, 1985b, 1994a, *neusutopunii* 1994b, 1995), and reveals what triggered non-native speakers of Japanese to make reiteration requests.'

(*Kikikaeshi no sutorategii to mondai kaiketsu*, Hayashi, 2009)

In (9), *Neustupný* in the Roman alphabet, which refers to the Czech-Australian linguist J.V. Neustupný, is used for some of the citations, but *neusutopunii* (ネウストプニー) in *katakana* is also included in the citation list. *Neustupný* in the Roman alphabet and *neusutopunii* in *katakana* in (9) both refer to the same linguist, J.V. Neustupný. This inconsistency is resulting from the difference in the languages used in the cited documents. The cited documents with *Neustupný* in the Roman alphabet are written in English, and the author's name is also written in the Roman alphabet in those articles. On the other hand, the documents cited with *neusutopunii* in *katakana* are written in Japanese*,* and the author's name is also listed in *katakana* in the cited articles. Therefore, even when the author's name is written in the Roman alphabet in the original language if the same name is written in *katakana* in the cited document in Japanese, the name remains in *katakana* in academic citations.

3.2.2   Roman alphabet used for product names

Another type of usage of the Roman alphabet within Japanese is for specific proper nouns such as product and service names. Certain product names are marketed in the Roman alphabet without being converted into *katakana* for the Japanese market. In addition, those product names are also written in the Roman alphabet when they appear in Japanese sentences. The following excerpt is from a website about mobile phone services. The page includes information about the *iPhone*, which is also marketed as *iPhone* in the English-speaking market.

(10) iPhone のモデルを比較する: 容量やディスプレイ、サイズなどドコモから
     発売中の iPhone のすべてのモデルの機能と仕様を比較できます。

     iPhone no moderu o hikaku suru: Yooryoo ya disupurei, saizu nado dokomo kara
     hatsubaichuu no iPhone no subete no moderu no kinoo to shiyoo o hikaku
     dekimasu.

     'Compare iPhone models: You can compare the storage space, display, and size
     of all iPhone models sold by Docomo.'

     (https://www.nttdocomo.co.jp/iphone/, accessed 12/27/2020)

As shown in (10), the product name *iPhone* is written in the Roman Alphabet within a
Japanese sentence without being converted into *aifon* (アイフォン) in *katakana*, and
the readers are also expected to understand the product name without relying on
katakana. However, it should also be noted that when *iPhone* in the Roman alphabet
is read aloud in Japanese sentences, it is pronounced as *aifon*, conforming with the
sound system of Japanese, as it would be transcribed in *katakana*.

    Furthermore, the usage of the Roman alphabet for commercial products is not
limited to products with foreign origins. The following excerpt is from a webpage about
the connected service for Toyota vehicles.

(11) T-Connect のユーザー様専用のサービスサイトや設定・操作マニュアルな
     ど、お役に立つ情報をご紹介します。

     T-Connect no yuuzaa sama senyoo no saabisu saito ya settee soosa manyuaru
     nado, oyaku ni tatsu joohoo o goshookai shimasu.

     '[This page] introduces useful information for *T-Connect* users such as the service
     website, settings, and operation manuals.'

     (https://toyota.jp/tconnectservice/user/?padid=ag341_from_owner_tconnect_
     user/, accessed 12/27/2020)

    In (11), *T-Connect*, which is the proper noun for a service offered by Toyota, is
written in the Roman alphabet in a Japanese sentence. This example shows that even
though Toyota is a Japanese company and the service is also for the Japanese domestic
market, the Roman alphabet is used for the service's proper noun and the assumption
is that the usage of the Roman alphabet does not block communication for the
Japanese-speaking audience. Also, the use of the Roman alphabet for *T-Connect*
contrasts with the use of *katakana* for general loanwords from English such as *yuuzaa*
(ユーザー) 'user' and *saabisu* (サービス) 'service' in the same sentence, which are
considered to be already integrated into the vocabulary pool of Japanese as *katakana*
loanwords.

3.2.3   Common nouns written in the Roman alphabet in Japanese: IT-related vocabulary

The usage of the Roman alphabet in Japanese may initially appear to be predominantly for acronyms and proper nouns; however, there are some somewhat conventionalized usages of the Roman alphabet for common nouns. This subsection explores those usages of the Roman alphabet for common nouns and expressions. (12) is an excerpt from the website about service schedules for *Tokyo Gas*, which is the provider of natural gas in the Tokyo metropolitan area.

(12) ガス作業希望時間が午前の場合: ガス作業希望日前日の 17:00 まで Web での変更が可能です。

Gasu sagyoo kiboo jikan ga gozen no baai: Gasu sagyoo kiboobi zenjitsu no 17:00 made web deno henkoo ga kanoo desu.

'If you prefer a.m. gas work: It is possible to change (the schedule) until 17:00 of the day before your preferred day.'

(https://home.tokyo-gas.co.jp/procedure/moving/change.html, 2/22/2021)

In (12), *Web* 'web' is written in the Roman alphabet in a sentence in Japanese, even though its *katakana* counterpart *webu* (ウェブ) 'web' already exists as a *katakana* loanword in the vocabulary pool of Japanese. Also, *gasu* (ガス) 'gas,' which has been part of the Japanese vocabulary for a considerable length of time, is written in *katakana*.

The next excerpt also includes an IT-related term written in the Roman alphabet.

(13) 備北広域農業普及指導センターは、7 月 26 日に開催された新・農業人フェア（場所　東京ドームプリズムホール）に online で参加しました。

Bihoku kooiki noogyoo shidoo sentaa wa, 7 gatsu 26 nichi ni kaisai sareta shin noogyoojin fea (basho tookyoo doomu purizumu hooru) ni online de sanka shimashita.

'Larger Bihoku area Agriculture Advocacy and Training Center participated in the New Agriculture People Fair (location: Tokyo Dome Prizm Hall) online on July 26.'

(https://www.pref.okayama.jp/site/587/674203.html, accessed 2/25/2021)

Example (13) was taken from the newsletter by the Okayama Prefecture Government. In it, *online* in the Roman alphabet is used instead of its *katakana* counterpart *onrain* (オンライン). This type of usage of the Roman alphabet instead of using loanwords in *katakana* is frequently observed for the vocabulary items related to the IT field, and other well-known IT-related terms such as *chat*, *spam*, and *bot* are also often written in the Roman alphabet in sentences written in Japanese. Those IT-related terms were not in common usage until recently, since only 25% of households in Japan

had personal computers at home in 1997, and even in 2005, the percentage was 65% (Okabe, 2009). It is speculated that specialized terminologies from foreign languages that were incorporated into Japanese recently may have a tendency to be written in the Roman alphabet without being converted to *katakana*, and the same tendency may also exist for non-specialized loanwords that were recently incorporated into Japanese.

3.2.4   Common nouns written in Roman alphabet in Japanese: general expressions

The use of the Roman alphabet for non-proper nouns is not limited to IT-related terminologies. Some commonly-recognized expressions in English are also written in the Roman alphabet in Japanese sentences without being converted into *katakana*. Observe the following two excerpts.

(14) 電気とガスをまとめておトクにしたいお客さま: 電気とガスをまとめる と、ガスセット割がついて電気代が年間約 1,200 円 OFF。

Denki to gasu o matomete otoku ni shitai okyakusama: Denki to gasu o matomeru to, gasusetto wari ga tsuite denkidai ga nenkan yaku 1,200 en OFF.

'For customers who want to bundle electricity and gas and save money: If you bundle electricity and gas, it will be 1,200 yen off with the gas-set discount.'

(https://www.tepco.co.jp/ep/private/plan/index-j.html, accessed 2/21/2020)

(15) 経営学部の国際交流・交換留学ページを OPEN しました。これから経営 学部の国際交流・交換留学制度については、このサイトを通じて最新の 情報を発信していきます。

Keeee gakubu no kokusai kooryuu kookan ryuugaku peeji o OPEN shimashita. Korekara keeee gakubu no kokusai kookan ryuugaku seedo ni tsuite wa, kono saito o tsuujite saishin no joohoo o hasshin shite ikimasu.

'We have opened the webpage for international exchange and exchange programs for the Department of Management. The latest information about the international exchange and exchange study abroad programs will be uploaded on this website from now on.'

(https://www.meiji.ac.jp/keiei/exchange/topics/2010/6t5h7p0000001v4j.html, accessed 2/27/2020)

In (14), *OFF* in English is written in the Roman alphabet. In this particular example, even though the same information can be conveyed by using Japanese words such as *waribiki* 'discount' or the *katakana* loanword *ofu* (オフ) 'off,' *OFF* in the Roman alphabet is selected as the vocabulary item to convey the information to the reader. Similarly, in (15), which is from a university's website about its study abroad programs, *OPEN* in the Roman alphabet is used to form a past-tense verb *OPEN shita* 'opened,' even though *oopun* (オープン) 'open' in *katakana* is already a commonly-used

loanword in Japanese. Furthermore, the same information can also be conveyed with Japanese vocabulary such as *dekita* 'to be made, to be completed' in (15).

The usages of the Roman alphabet in (14) and (15) seem to contrast with the cases we observed in (12) and (13). The IT-related terms included in (12) and (13) were loanwords that were newly introduced to the vocabulary pool of Japanese. However, general expressions in English such as *off* and *open* have been part of the Japanese vocabulary pool for a long time, and as mentioned earlier, *katakana* are typically used when words from non-Japanese languages are used in Japanese in conformity with the phonological system in Japanese. However, the role of *katakana* loanwords is not simply limited to enabling the usage of foreign words within Japanese. *Katakana* loanwords are often chosen even when Japanese equivalents already exist in the vocabulary pool of Japanese, and they have various sociolinguistic functions that are unique to loanwords, especially when the loanwords are from European languages including English. For example, Kay (1995) argues that "[l]oanwords are often associated with a sophisticated, Western lifestyle, and may be used in place of Japanese words of equivalent meaning because of their foreign appeal" (p. 74). As Kay argues, loanwords are often used to portray certain sophisticated and advanced images, even though the same information can be expressed with non-loanword Japanese vocabulary. Those loanwords used for the purpose of displaying sophisticated images are written in *katakana* in most cases; however, by using the Roman alphabet instead of *katakana*, the intended sophisticated image seems to be even more amplified, since the Roman alphabet carries more sophisticated appeal compared to *katakana,* which are considered to be fully part of the Japanese writing system.

In addition, even without an intention to portray a sophisticated image, using the Roman alphabet can be simply eye-catching in the text where the rest is predominantly written in Japanese characters. Examples of the usage of the Roman alphabet such as what we observed in (14) and (15) could also be from the writers' desire to make the phrases more eye-catching for the audience, and since almost all Japanese readers would know basic English expressions such as *off* and *open*, the understandability of the sentences will not be sacrificed by using the Roman alphabet as in (14) and (15).

3.2.5   Proper nouns in the Roman alphabet with preserved English structures

Some English expressions written in the Roman alphabet contain expressions that are not typically considered to be included in the vocabulary pool of Japanese as *katakana* loanwords. Observe the following excerpt.

(16) iPhone 12 Pro を購入: Apple Trade In を利用すると、最大 40,000 円割引になります。

iPhone 12 Pro o koonyuu: Apple Trade In o riyoo suru to, saidai 40,000 en waribiki ni narimasu.

'Purchasing iPhone 12 Pro: If you make use of *Apple Trade In*, you can save up to 40,000 yen.'

(https://www.apple.com/jp/shop/buy-iphone/iphone-12-pro, accessed 12/28/2020)

In (16), *Apple Trade In* is written in the Roman alphabet. *Apple Trade In* is a discount service for purchasing new phones with which buyers can use the value of their old phones towards the payment for the new phone, and the same service is also marketed as *Apple Trade In* in the English-speaking market. What is noticeable here is that the English expression *trade-in* is not typically considered to be a loanword used in Japanese. For example, *trade-in* in English would be *toreedoin* (トレードイン) in *katakana*, but it is not included in the *Daijisen* Japanese monolingual dictionary (Matsumura, 2020). *Apple Trade In* in (16) is an example that requires readers to understand an English phrase that is not incorporated into the vocabulary pool of Japanese. Needless to say, *trade-in* is a basic phrase for speakers of English; however, even though *trade-in* in (16) is used as part of a proper noun, (16) can be interpreted as an example in which a neologism from English written in the Roman alphabet is incorporated into a Japanese sentence mostly written in Japanese characters.

The following excerpt also includes an example of the Roman alphabet used as part of a proper noun. (17) is from an announcement about a music and dramatic reading event featuring the *Shingeki no Kyojin* series, a well-known manga and anime series in Japan. *Shingeki no Kyojin* is known as *Attack on Titan* in the English-speaking market.

(17) 2017 年 10 月 29 日に東京国際フォーラムホールで開催される「進撃の巨人」Reading & Live Event Orchestra 「Attack 音 体感２」の各公演のチケット一般販売が決定いたしました!

2017 nen 10 gatsu 29 nichi ni tookyoo kokusai fooramu hooru de kaisai sareru "Shingeki no Kyojin" Reading & Live Event Orchestra "Attack on taikan 2" no kaku kooen no chiketto ippan hanbai ga kettee itashimashita!

'We announce that the tickets for each performance of "Attack on Titan" Reading & Live Orchestra "Attack Sound Experience 2," which will be held at Tokyo International Forum Hall on October 29, 2017, will be on sale to the general public!'

(https://shingeki.tv/news/archives/3381/, accessed 1/15/2021)

In (17), "*'Shingeki no Kyojin' Reading & Live Event Orchestra 'Attack on taikan 2'*" is the proper noun for the event, and the whole name is repeatedly used on other pages of the website and also in other advertisement materials. As shown in (17), *Reading & Live Event Orchestra* is written in the Roman alphabet, and the readers are expected to read the English component in the Japanese sentence. In addition, *Attack* is also in the Roman alphabet, which appears to be taken from *Shingeki no Kyojin*'s English title *Attack on Titan.* Unlike the example of the use of the Roman alphabet in (16), *katakana* versions of the English words included in (17), which are *reading*, *live*, *event*, *orchestra*, and *attack* are all included in the *Daijisen* Japanese dictionary and considered to be part of the modern Japanese vocabulary. However, the usage of English in the Roman alphabet in (17) demonstrates that English is presented as is, and the event is marketed with the assumption that the target audience would understand English in the Roman alphabet without relying on *katakana*.

3.2.6   Other miscellaneous usages of the Roman alphabet in Japanese

It should be noted that there are some other miscellaneous usages of the Roman alphabet in texts that are predominantly written in Japanese. The present paper does not discuss those miscellaneous usages in detail, but those usages are also considered to be fully integrated into the writing system of the Japanese language.

One type of usage of the Roman alphabet that was not discussed in earlier parts of the present paper is the Roman alphabet simply used as symbols, especially in listing and bullet points. Various types of characters are used as the bullet points for listing in Japanese. The characters commonly used for listing in Japanese are numbers in Arabic numerals and *kanji* (*1, 2, 3,…* or 一, 二, 三,...), *katakana* characters (ア, イ, ウ,… or イ, ロ, ハ,...[3]), and the Roman alphabet in alphabetical order (*a, b, c,…*). In addition, Roman numerals in the Roman alphabet (*I, II, III,…*) are also used for listing in Japanese. Regarding the usage of the Roman alphabet as symbols, login IDs and passwords on Japanese websites are typically in the Roman alphabet and/or Arabic numerals, even when the entire webpage is predominantly in Japanese. In addition, URLs and email addresses used in Japan are predominantly in the Roman alphabet and Arabic numerals.

Finally, one type of usage of the Roman alphabet that is prevalent in Japan but often overlooked is the usage of Romanized Japanese for typing Japanese on electronic devices. There are several different methods to type Japanese on a computer such as the Romanization input method and the *kana* input method when the QWERTY keyboard is used. When the Romanization input method is selected, the intended text in Japanese is typed in the Romanized format on the QWERTY keyboard. On the other hand, with the *kana* input method, each *hiragana* or *katakana* character is assigned to

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[3] The usage *of katakana* for listing in the ア, イ, ウ,… order is based on the *hiragana*/*katakana* ordering system in modern Japanese. The イ, ロ, ハ,… order is based on an ordering system used in classical Japanese, which was dominant prior to the implementation of the modern order.

a key on the QWERTY keyboard, and those characters are input directly without being Romanized. However, even though the two input methods, the Romanization method and the *kana* method, are both available on computers sold in Japan, a survey by Endo (2015) shows that 93.1% of the respondents answered that they use the Romanization method when using computers with the QWERTY keyboard. Therefore, even though Japanese texts typed on computers are mostly in Japanese characters such as *hiragana*, *katakana*, and *kanji*, the majority of them have gone through Romanization during the input process. The usage of the Roman alphabet for typing is typically not discussed in relation to the writing system of Japanese, but it has become an essential component in the writing practice in Japan and has become the primary means of writing in modern day Japan. As for the input methods for Japanese on electronic devices, it should be noted that the input methods used on devices without physical QWERTY keyboards do not involve the Romanization process. For example, a survey by Nagasawa (2017) shows that when Japanese college students type Japanese on smartphones, more than 90% of them use the *flick* method or the *toggle* method, both of which do not require the Romanization process for typing Japanese characters.[4] In addition, a study by Noborimoto et al. (2021) indicates that high school students in Japan can type Japanese faster on smartphones compared to typing Japanese on a computer using the QWERTY keyboard. However, what Nagasawa and Noborimoto et al. have found does not indicate that Japanese people stopped using the Roman alphabet for writing Japanese electronically since the usage of computers with QWERTY keyboards are still very common in Japan, but we should also be aware that Japanese texts typed on smartphones are typically input without going through the Romanization process.

4   Discussion

The present study has explored the usages of the Roman alphabet within the writing system of modern Japanese. As the excerpts explored in this paper demonstrated, even though the Roman alphabet is not typically listed as a character type in Japanese, it has already been an essential component in the writing practice in Japan.

It seems that there are several major factors that are relevant to the usage of the Roman alphabet in modern Japanese, and those factors have also been contributing to the increased usage of the Roman alphabet within Japanese. The factor that is discussed first is the shift from vertical writing to horizontal writing in modern Japanese. Yanaike (2003a, 2003b) reports that horizontal writing originally did not exist in Japanese, but it emerged due to the interaction with the West during the late Edo period and the early Meiji period. Despite the emergence of horizontal writing in the late 19th century, the writing practice in Japan remained mostly vertical, especially in

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[4] For the details about the *flick* and the *toggle* input methods, see Nagasawa (2017).

printed media such as books, magazines, and newspapers. As of the early 2020s, the majority of printed media in Japan remain in the vertical writing style.

However, due to the recent development of IT technology, the writing practice has largely shifted towards horizontal writing, since IT-based content such as websites, emails, text messaging, and social media are predominantly based on horizontal writing. Due to this shift from vertical writing to horizontal writing, it has become significantly easier to integrate words written in the Roman alphabet into Japanese compared to doing so in vertical writing. For example, in order to integrate the English word *open* in a Japanese sentence written horizontally, it can be simply written as *open* horizontally as shown in (a) in figure 1. On the other hand, when the sentence is written vertically, the whole alphabet sequence for *open* must be turned by 90 degrees as in (b), or each letter in the Roman alphabet must be written vertically, following the pattern of other Japanese characters as in (c). The sentences in (a), (b), and (c) all read *mise ga open shita* 'the store opened.'
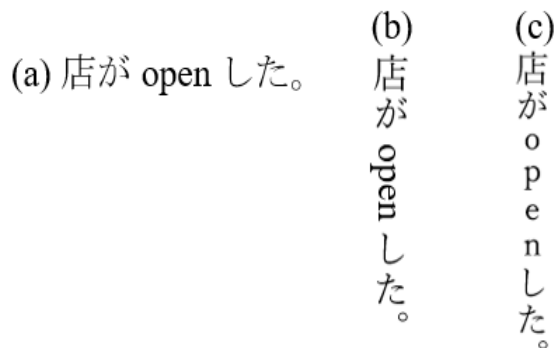
(a) 店が open した。　(b) 店がopenした。　(c) 店がopenした。

Figure 1: Horizontal and Vertical writing styles in Japanese
(Mise ga *open* shita. 'The store opened.')

As demonstrated in Figure 1, using the English word *open* in the Roman alphabet may not impose a significant problem in horizontal writing, but when the text is written vertically, it is difficult to use *open* in the Roman alphabet without modifying how the word is written in English sentences. As mentioned earlier, due to the recent development of IT technology, horizontal writing is becoming more common, and the opportunities to use the Roman alphabet within Japanese are more widely available because of the shift to horizontal writing.

Another relevant factor is the burden of typing *katakana* versions of English words compared to directly typing English words in the Roman alphabet. For writing English words within Japanese sentences, depending on the complexity of *katakana* combinations and the original spelling in English, the amount of work required for typing the word may be lower when the word is written in the Roman alphabet. For instance, in order to type in the word *website*, when *website* is written in the Roman

alphabet, the word can simply be input as *website*. However, if *website* is converted into *katakana*, the writer must input *webusaito* in Romanized Japanese and then convert it to *katakana*. Similarly, in order to type in the word *open*, it can be simply input as *open* in the Roman alphabet, but to type in *oopun* (オープン) in *katakana*, the typing process involves the long vowel symbol (ー) and the whole word must be input as *o-pun,* the hyphen corresponding to the long vowel symbol.

In addition, the use of the Roman alphabet in Japanese clearly relates to the recent globalization and the increased exposure to written information from outside Japan due to the development of IT technology. According to a survey by *W3Techs* (2021), 61.7% of the web content in the top 10 million websites was in English as of July 2021, while the content in Japanese was 1.9% in those top 10 million websites. As this discrepancy between English and Japanese web content shows, users of the Internet can access a significantly larger amount of information through English, and when the words or expression used in English is included in sentences written in Japanese, writing those in the Roman alphabet may be the most convenient option if they are not fully conventionalized as *katakana* loanwords in Japanese. In addition, with the recent surge of the popularity of social media such as *Facebook*, *Twitter, Instagram*, and *TikTok*, Internet memes tend to be shared globally in a timely manner, and users with various language backgrounds also comment on those shared contents. Christiansen (2016) reports that even novice-level speakers of English tend to communicate in English in online global communities, and such experiences by Japanese speakers may increase the use of the Roman alphabet when they write in Japanese.

Finally, it must be noted that the pronunciation of words written in the Roman alphabet within Japanese is still subject to an adaptation to the Japanese phonological system, and it is likely that such *katakana*-like pronunciation will continue to be prevalent for words written in the Roman alphabet in the foreseeable future. As Martin (2004) points out, *katakana* characters are used as pronunciation guides in English education in Japan. In addition, the conventions for converting English words into their *katakana* counterparts are highly standardized across speakers of Japanese (Quackenbush, 1977; Kay, 1995; Irwin, 2011; Nishi & Xu, 2013; Tsujimura, 2013; Hasegawa, 2015, etc.). For those reasons, speakers of Japanese who received school education in Japan are mostly capable of converting English words into *katakana* in a uniform manner, and they are also capable of applying the conventions to English words they have never seen. Therefore, even with the increased usage of the Roman alphabet in written Japanese, it is expected that the phonological realization of words written in the Roman alphabet will follow the *katakana* conventions when they are read aloud within Japanese.

5   Conclusion

The present study has explored the usages of the Roman alphabet within the writing system of Japanese. As demonstrated by the examples in this paper, the Roman alphabet has been integrated into the modern writing system of Japanese, and the use of the Roman alphabet is expected to increase in the future, especially with the recent development of IT technology and also due to the ever-increasing interaction with languages and cultures outside of Japan. As Yanaike (2003a, 2003b) reports, horizontal writing emerged in Japanese in the 19th century because of the interaction with the West, but the writing practice mostly remained vertical for paper-based printed materials. However, with the recent surge of electronic communication, the writing practice in Japanese is currently going through the transition from vertical writing to horizontal writing, and the transition also allows writers to use foreign words originally in the Roman alphabet without converting them into *katakana* loanwords. In addition, because of the Japanese government's recent policy change, English has been included as an official subject in elementary schools throughout Japan from the 2020–2021 academic year, which used to be from the first year of middle school (Ministry of Education, Culture, Sports, Science and Technology, 2016). This indicates that speakers of Japanese are exposed to English, which uses the Roman alphabet, from younger ages compared to the past. Considering the shift from vertical writing to horizontal writing, the influence of foreign languages written in the Roman alphabet, and the rapidly increasing global communication, it is highly likely that we will see more words written using the Roman alphabet within the writing system of Japanese in the future.

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