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Scott Pike
University of British Columbia

Life and Legacy of the Japanese Typewriter

Introduction

The symbiotic relationship of technology and change is a defining characteristic of human civilization. With regards to the evolution of communication and writing, this is certainly true. The transition from scroll to codex facilitated the need for easier storage and transportation of a larger amount of written information, while the advent of the printing press meant that written information could be distributed to a greater audience, spreading enlightenment and influence over countries and continents. History is marked with such advances in technology – large and small – situated within periods that both reflect the need for change, and the effects of that change.

Originating in the Far East, the moveable type press is an invention that has seen almost a thousand years of change. During that period of time, countless variations and innovations have ushered in ages of prosperity and enlightenment, and have helped civilizations define themselves and their relationships with the world. Yet as humanity moved into the 20th century, and the moveable type press became portable, the area of the globe that is credited for this invention seemed one of the few regions to truly benefit from it. It wasn't until political and economic conflicts of the early 20th century, that the innovation of the typewriter began to help countries like Japan and China assert themselves as global forces.

Emergence of Japanese and Chinese Typewriters

After the release of the first commercially successful typewriter – the Scholes and Glidden model – in 1874, companies like Remington and Underwood began to see their technology gain popularity in both English and non-English speaking lands. What couldn't be produced from a standard QWERTY keyboard, could be modified to suit the needs of languages like Hebrew, Arabic, or Cyrillic. However, western companies were ill-equipped to modify their machines for the countless ideograms that comprised the Chinese language, and therefore saw limited success in the Asian market.

Around the same time as the Scholes and Glidden model was introduced, innovators in the East were working on solving the "puzzle" that companies like Remington and Underwood couldn't. Chinese typewriters had been in existence for much of the 19th century, with the first commercial model entering the market around 1910 (Mullaney, 2016).

The innovation and history of Chinese inventors and companies should not be ignored. Their story is one that both parallels and deviates from the rise of the Japanese typewriter, and ultimately leads towards a testimony that praises the global significance of this technology, as well as highlights complex eastern

Asian relations of the 20th century. For the purposes of this documentary, we examine how the Japanese typewriter similarly influenced its own country's literacy, identity, and diplomacy in a formative age.

Japanese Language

The mediation of the Japanese language into the age of the typewriter begins with a brief examination of the language itself. Japanese makes use of two syllabic scripts – *hiragana* and *katakana* – as well as an extensive set of logographic characters – *kanji* - borrowed from the Chinese written language. As early as 1894, Japan had its first *hiragana* typewriter, with a similar *katakana* typewriter soon following. Both were fashioned after western English typewriter models. Shortly after their conception, western companies like Remington sought to control their share of the Asian market with their own models, which promoted the exclusive use of the phonetic scripts instead of the larger set of logography. Yet despite these influences – and others – that sought to separate the Japanese language from its Chinese roots, the beginning of the 20th century saw the advent of the Japanese *kanji* typewriter. Sugimoto Kyota is credited with the invention, having received a U.S. patent for the machine in 1916. Sugimoto's contribution to this innovation of the Japanese language was significant enough to earn him a place as one of Japan's top ten greatest inventors, according to a 100-year commemoration by the Japan Patent Office in 1985.

Functionality

The original model of the first Japanese typewriter was comprised of a frame that held a paper roller, a typing mechanism, and a "type-nest" containing 2400 kanji type. To operate the machine, a typist would position the typing mechanism so that it aligned with a character in the type nest. Sometimes, both the mechanism *and* nest would need to be separately maneuvered to allow the correct character to be selected. Once the type is located, a firm thrust on the typing mechanism knob would force the selected character from the nest, to be grasped by the striker before being passed over an ink wheel and struck against the paper. The selected type would then be returned to the nest.

Subsequent models of the Japanese typewriter have included small and large modifications to the various components. One significant modification saw the type blocks being placed into a drum instead of a tray or nest.

Significance Within Japan

Influence of both the *kana* and *kanji* typewriters was widespread. As promoted by manufacturers, Japanese typewriters brought a myriad of benefits, including accuracy, legibility, and conservation of time and resources. Without a doubt, it was these qualities that contributed to, as described by the Japan Patent Office, the "increased efficiency of document preparation at Japanese companies and government Offices" (Japan Patent Office, n.d.).

More specifically, the emergence of the Japanese typewriter opened the door for opportunities for women in the work force. Newly created typing schools were attended mostly by women, and elements of contemporary media extolled the virtue of the "modern working women" through their newly realized

professional skills. In the 1920s, the Japan Typist Association created the magazine *Taipisuto,* which reflected the evolution of the Japanese female working class within the context of the typing profession.

Perhaps the greatest significance of the Japanese typewriter was the way it helped to shape linguistic identity both within Japan specifically, and within East Asia in general. Sugimoto was specific to describe his invention as "designed for the Japanese and Chinese languages" in his 1916 patent. In doing so, he declares the legitimacy and importance of the shared set of kanji. As Thomas Mullaney describes, "the very 'transnational culturalism' that many Korean and Japanese reformers had attempted to dismantle in the late nineteenth century, […] typewriter inventors and engineers in the 1910s and 1920s were now setting out to rediscover and render profitable" (2016, p. 732).

In the early 20th century, at nearly the same time as East Asian linguistic identity was being asserted in a global setting, decisions were being made to the Japanese language itself that were reinforced through the success of its writing technology. In the late 1800's and early 1900's numerous efforts by scholars, politicians, and media outlets were made to restrict the number of kanji characters taught and used in society. By the time the Japanese kanji typewriter had come to market, every model contained approximately 2400 kanji character, those deemed most essential to commercial and government operations. Sugimoto's original patent included 2450 characters.

With the emergence of a reliable technology that could efficiently and neatly convey text, questions were raised as to the point and purpose to writing instruction in Japanese schools. "In 1886 and 1901, penmanship was removed from lower and higher primary school curricula and amalgamated into language class" (Adal, 2009, p. 235)), only to be reintroduced into schools as an art form in the 1940's . This transition at the beginning of the century reflected the need in Japanese society for efficiency and neatness in written communication at the dawn of this modern age. While the presence of the Japanese typewriter no doubt helped to fulfill this need, it can also be argued that this technology helped to solidify the reliable functionality of Japanese script, therefore fostering an appreciation for the traditional practices of calligraphy by the time the subject was reintroduced into Japanese schools.

Significance within East Asia

As noted by the Japan Patent Office, the Japanese typewriter brought "increased efficiency of document preparation at Japanese companies and government Offices." While this undoubtedly led to prosperity both domestically and abroad, one cannot overlook the fact that much of this prosperity was also due to Japanese imperialist expansion in the early 20th century. With the occupation of Manchukuo in 1931, Japanese typewriter manufactures began to enjoy a boon of business that grew exponentially due to the growing need to train typists on Japanese machines that would help to administrate the Japanese colony. Typing schools flourished in colonial territories; however, the significance of a local Chinese work force being trained on Japanese machines to further Japanese interests in the region was not overlooked.

The dominance of the Japanese typewriter in Chinese markets only intensified with the introduction of the Wanneng or "All Purpose" typewriter, built by the Nippon Typewriter Company. While the marketing intent of this machine was to unify writing technology within Japan's "Greater East Asian Co-Prosperity Sphere", it served to tighten Japanese manufacturers grip on a market that offered less and less for Chinese companies. It was only around the end of World War II that Chinese manufacturers were able to reclaim market share in the region, primarily through copying and selling models based on Japanese innovations like the Wanneng. This, combined with policies of seizure and nationalization of Japanese interests by the newly formed Communist regime, as well as conglomeration of Chinese typewriting manufactures, helped China to reclaim a technolinguistic presence within its own country. By 1956, with

the debut of the Chinese-built Double Pidgeon machine – reconfigured from the original Japanese Wanneng design – the heavy influence of Japanese presence and technology in this period of Chinese history was on its way to being erased. As Thomas Mullaney notes, "[t]hese chapters from history would not be suppressed so much as left out, replaced instead by the new regime's images of patriotic Chinese typists, this time providing the paperwork of state-building, post-revolutionary consolidation, economic planning, and class struggle" (Mullaney, 2016, p. 747). In Japan, the post-war occupation and reconstruction of that country was undoubtedly facilitated by the writing technology which once served to further its colonial and war-time interests. Japanese typewriters were extensively used in Japan until the arrival of the word processor in the 1980s.

While the legacy of the Japanese typewriter is one that has helped to shape – and strengthen – Japan's notions of self-identity and place in the global community, the Chinese typewriter is credited with an innovation that is felt in today's digital age. By rearranging the characters in the tray bed according to common usage, Chinese typists of the Maoist period were arranging their language somatically, a practice that is seen as a precursor to the predictive text we seen in many modern digital technologies.

As an artifact that represents the causes and effects of technolinquistic advancement, the *kanji* typewriter, as a product of both Japanese and Chinese achievement, is also a tool that has, in the 20th century, helped to bring East Asian societies out of the shadow of Western civilization's triumphs.

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Music

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