

UX Isolationism in Japan

Why Japanese UX design turned inward after the 1990s, read through a usability analysis of the country's diplomatic websites

Isolacionismo em UX no Japão

Por que o design de UX japonês se voltou para dentro após os anos 1990, lido por meio de uma análise de usabilidade dos sites diplomáticos do país

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2025

Abstract

Following the burst of the economic bubble in 1991, Japan's openness to international user experience (UX) design, the discipline that ensures intuitive and effective human-computer interactions, declined, as a comparative study by Cruz (2023) shows. This article investigates the cultural and psychological roots of that shift through Jung's theory of the collective unconscious. It examines how the Sakoku isolation policy of the Edo period fostered a resistance to international influence in design, a disposition that resurfaced after the bubble burst and contributed to the period of stagnation that Hayashi and Prescott (2001) called the "lost decades." In addressing this connection, the study fills a gap in the academic literature linking macroeconomic decline to UX isolationism. By examining the role of Omotenashi in the global rise of twentieth-century Japanese products and the successful internationalization of South Korean products, the article identifies how UX isolationism can be countered without compromising Japanese cultural heritage. These arguments are grounded in a comparative heuristic analysis, based on Nielsen's principles from Usability Engineering (1993), of the diplomatic websites that serve as the point of contact between foreign users and Japanese institutions, contrasting the Embassy of Japan and the Embassy of the United States in Brazil. The analysis demonstrates that the Japanese platform departs from international usability standards, reflecting the same inward orientation traced through the country's cultural and economic history. The findings suggest that an internationalized design could become a soft-power tool for Japanese diplomacy, projecting the image of a modern Japan abroad while preserving its cultural essence of Omotenashi, and could serve as a model for Japanese firms seeking more exportable products and for countries such as Brazil pursuing their own digital identity through design.

Keywords: Accessibility; Apple; diplomatic missions; Edo Period; internationalization; Japan; Lost Decades; Nintendo; PUBG; Sakoku; South Korea; technology; United States; usability; user experience; user interface.

Resumo

Após o colapso da bolha econômica em 1991, a abertura do Japão ao design de experiência do usuário (UX) internacional, disciplina que garante interações humano-máquina intuitivas e eficazes, diminuiu, como demonstra um estudo comparativo realizado por Cruz (2023). Este artigo investiga as raízes culturais e psicológicas dessa mudança por meio da teoria do inconsciente coletivo de Jung. Examina-se como a política de isolamento Sakoku do período Edo fomentou uma resistência à influência internacional no design, disposição que ressurgiu após o estouro da bolha e contribuiu para o período de estagnação que Hayashi e Prescott (2001) chamaram de “décadas perdidas.” Ao abordar essa conexão, o estudo preenche uma lacuna na literatura acadêmica que relaciona o declínio macroeconômico ao isolacionismo em UX. Ao investigar o papel do Omotenashi na ascensão global dos produtos japoneses no século XX e a bem-sucedida internacionalização dos produtos sul-coreanos, o artigo identifica como o isolacionismo em UX pode ser combatido sem comprometer o patrimônio cultural japonês. Esses argumentos sustentam-se em uma análise heurística comparativa, baseada nos princípios de Nielsen em Engenharia da Usabilidade (1993, tradução nossa), dos sites diplomáticos que servem de ponto de contato entre usuários estrangeiros e instituições japonesas, contrastando a Embaixada do Japão e a Embaixada dos Estados Unidos no Brasil. A análise demonstra que a plataforma japonesa se afasta dos padrões internacionais de usabilidade, refletindo a mesma orientação introspectiva traçada ao longo da história cultural e econômica do país. Os resultados sugerem que um design internacionalizado poderia tornar-se uma ferramenta de soft power para

a diplomacia japonesa, projetando a imagem de um Japão moderno no exterior ao mesmo tempo em que preserva sua essência cultural de Omotenashi, e poderia servir de modelo para empresas japonesas em busca de produtos mais exportáveis e para países como o Brasil que perseguem sua própria identidade digital por meio do design.

Palavras-chave: Acessibilidade; Apple; missões diplomáticas; Período Edo; internacionalização; Japão; Décadas Perdidas; Nintendo; PUBG; Sakoku; Coreia do Sul; tecnologia; Estados Unidos; usabilidade; experiência do usuário; interface do usuário.

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1. Introduction

1.1. Definitions

User experience design (UX design) is the application of usability, accessibility, and other standards in the development of products or services, with the goal of providing a user experience that meets the needs of the target audience. In other words, it aims to ensure that the product or service is easy to use, efficient, and pleasant for the end user. Examples include making a website easy to navigate or ensuring that a mobile app places buttons where users expect to find them.

Usability defines how easy it is to use a product to fulfil its predefined purpose (NAU, 2016), for example, in Facebook Messenger, how easy it is to send a text message. Accessibility refers to the possibility of users accessing the product, or the product's adaptation to the specific needs of its intended audience (Cambridge Dictionary, n.d.-a), for instance, the Android operating system, which offers a high-contrast option so that users with visual impairments can use it easily.

The UX design process unfolds through research, schematization, and prototyping across all types of products, whether physical or digital. This article focuses on user experience design for digital products such as apps, video games, and software in general.

The central object of study here, measured in terms of usability and accessibility, is internationalization: the assurance that a product is easily adaptable to different languages and cultures without requiring redesign, reprogramming, or reengineering (Aykin, 2016, p. 4). The Google website, for example, can be automatically translated into the user's language without

changes to the code. **An internationalized product is an easily exportable product, marketable on an international scale.**

1.2. The Japanese success

In the period following World War II, Japan stood out as a leader in the development and export of technology, even when compared with its emerging neighbours, the Asian Tigers.¹

Such was the extent of Japan's dominance in the twentieth century that a report published by CNBC indicates that, in 1989, of the 100 largest companies in the world by market capitalization, 32 were Japanese (Steiger, 2011). This growth produced the positive perception of 'Made in Japan' products, a perception that today is no longer homogeneous (Kunst, 2019).

At first glance, it is easy to conclude that Japan became a leader in technology exports, especially electronics, in the second half of the twentieth century because of its long manufacturing tradition, that is, its artisanal production. As Robert Klanten et al. (2020) describe, the country's appreciation for excellence in craftsmanship stems from the Confucian roots of its educational system and social organization, which culminate in their influence over Bushidō (武士道), the code of conduct that guided the Samurai (侍) class, based on values such as honour, loyalty, courage, and, above all, discipline.²

In his theory of the collective unconscious, the Swiss psychiatrist Carl Gustav Jung describes the existence of primordial images, archetypes, which are passed down through generations and influence the way an individual interacts with society. This transmission is

¹South Korea, Hong Kong, Singapore, and Taiwan. These experienced enormous economic development, pointing to the prelude of what is known as 'the Asian century', the return of economic and cultural centralization in Eastern countries from the 2000s onward (Asian Development Bank, 2011).

²The strictness of Bushidō and its influence on the rules and etiquette of traditional Japanese society can also be read as the setting for the development of Wabi-Sabi (侘寂), a culturally Japanese aesthetic that finds beauty in transience and imperfection (Deng, 2024), in contrast to the strictness of the Samurai code.

unconscious: the individual does not remember the images themselves but, because of them, tends to share a symbolic-cultural foundation similar to that of their ancestors (Britannica, 2020).

Because of the Samurai's position in the upper stratum of society, the strict pursuit of perfection through the virtues described in Bushidō not only directly inspired the way of life of all social classes in historical Japan, including the artisan class responsible for equipping the societal elite, but was also a product of that same way of life. In this context, Jung's theory explains how the image of the Samurai and the pursuit of perfection were passed down over time until they became Japanese stereotypes in the West.

Figure 1

Scene from the film The Karate Kid (1984), in which the character Mr. Miyagi, played by Noriyuki "Pat" Morita, uses discipline to teach perfection in the martial art of Karate (空手).



Note. Source: InfanTV (1984).

This cultural phenomenon, tied to Japan's extensive artisanal tradition, cannot by itself explain the success of Japanese products in the post–World War II world.³ **The success cannot be attributed to a cultural phenomenon alone but rather to at least three interdependent and correlated processes: (1) Omotenashi (おもてなし), (2) high levels of economic freedom, and (3) internationalization in the design process.**

1.2.1. Omotenashi

The phenomenon that helped popularize Japan as a symbol of high-quality products in the West is Omotenashi. A publication in Japan Today (2014) defines Omotenashi as the uniquely Japanese approach to hospitality: total dedication to the treatment of a guest. Influenced by Zen Buddhism, which values attention to the present moment and the pursuit of harmony in human relationships, Omotenashi, although more commonly associated with hospitality, reflects the Japanese culture of anticipating the needs of others (Kernaghan, 2022).⁴

Omotenashi directly shapes product design in Japan, ensuring empathy with the end user, more precisely, an understanding of their needs and an anticipation of their pains, desires, and ambitions, which should result in products or services delivered in the best possible way.

³Other nations, such as France and Italy, known for their age-old traditions of high-quality manufacturing, never recorded economic growth figures comparable to those achieved by Japan in the second half of the twentieth century (O'Neill, 2024).

⁴In the Japanese corporate world, this philosophy is present in Kaizen (改善), a set of practices aimed at increasing efficiency, reducing waste, and ensuring high quality of products and services. The best-known form of Kaizen is the 5S: (1) Seiri (整理), Sense of Use: eliminating unnecessary materials or costs; (2) Seiton (整頓), Sense of Order: keeping work tools always accessible; (3) Seisō (清掃), Sense of Cleanliness: cleaning the environment to ensure workers' well-being; (4) Seiketsu (清潔), Sense of Standardization: establishing standards and processes to ensure efficiency; and (5) Shitsuke (躰), Sense of Discipline: maintaining self-discipline and commitment to the organization's quality standards. Traditional companies such as Toyota (トヨタ) and Honda (本田) apply these principles from the assembly lines to the executive levels (Gapp et al., 2007, p. 1).

Figure 2

Tea ceremony (茶の湯 or 茶道), one of the most celebrated manifestations of Omotenashi.⁵



Note. Source: Millennial Thoughts (2020).

1.2.2. High levels of economic freedom

It was in the post–World War II period that Japan moved from the status of an expansionist, protectionist empire to a liberal democracy modelled on the American system, governed by a constitution written under the supervision of Douglas MacArthur, Supreme Commander of the Allied Forces. With the end of the emperor’s unrestricted power (Prime Minister of Japan and His Cabinet, n.d.), the country established low labour-market regulation

⁵In the tea ceremony, a series of honours ensures that the tea is served in a way that exalts the guest (Embassy of Japan in Brazil, n.d.). In *The Book of Tea* (1906), Okakura Kakuzō (岡倉 覚三) highlights the role of the ceremony in the cultural cohesion of Japanese civilization amid the Westernization of the early twentieth century; it thus influenced the ritualization of products and services in Japan, a legacy that endures in customer service into the twenty-first century.

(The Heritage Foundation, 2022),⁶as well as low sales taxation, expressed in a total rate of 10% (World Population Review, 2020).

This enabled competitiveness and increased demand for products and services aimed at the external market, a correlation common to all countries, as Ulman (2013) explains.

1.2.3. Internationalization in the design process

To meet that demand, product design at the time underwent growing internationalization. In other words, Japanese production was adjusted to international user experience demands, even though the term ‘user experience,’ or ‘UX,’ would only be coined later. This adjustment became possible because of the popularization of Western technology in the country (Nicholas, 2011) and the enrichment of the average population: in 1960, Japan’s GDP per capita was US\$475.00, and by 1995 it had reached US\$44,198.00 (Macrotrends, 2022).

The adjustment to international standards produced products that were easily adaptable to various languages and cultures and, therefore, easily exportable. It did not take long for these internationalized ‘Made in Japan’ products to reach the entire world, especially the American market. In 1995, Japan’s electronics exports to the United States nearly reached US\$30 billion (Trading Economics, 2022).

1.2.4. The case of the Honda Civic in Brazil

In Brazil, a clear example of this latent internationalization is Honda’s import of the Civic, which began in 1992 (Honda, n.d.), alongside the country’s economic opening that ended restrictions on foreign automakers (Sodré, 2010).

⁶According to the same report by The Heritage Foundation, levels of ‘Labour Freedom’ in Japan in 2022 are high. ‘Labour Freedom’ refers to freedom in establishing employment contracts with little interference from labour laws. Taiwan is considered Japan’s main direct competitor in this regard. The metric is scored from 0 to 100; Japan and Taiwan reached 66 and 67 points, respectively. The leader in Asia is Singapore, with 77 points.

Figure 3

1992 Honda Civic.



Note. Source: Autoo (2021).

At that point the Civic already existed and was produced in other countries as a modular platform, fully internationalized and localizable for any market, without the need for complex redesign or reengineering. The car was not designed by Brazilian engineers for Brazilians but by Japanese engineers for the world; on its arrival in Brazil, Honda only had to adapt it.

Tropicalization is an informal term used in the automotive industry to describe the adaptation of a foreign vehicle to the climate, road conditions, and specific demands of tropical countries (Dicionário Infopédia da Língua Portuguesa, n.d.). In the case of the Civic produced on Brazilian soil, and thanks to its internationalized platform, Honda was able to pioneer the adaptation of the cooling system to the hot climate, the replacement of the suspension to withstand irregular road conditions, and changes in interior materials to resist humidity and heat, preventing premature damage.

The Civic's success in the Brazilian market, which lasted for years, must be understood as the result of a product designed for more than the Japanese public. It is a consequence of tropicalization, which was made possible only by the internationalization of the model, still in Japan, before its introduction to Brazil.

1.3. Economic crisis

The scenario changed completely in the 1990s, with the burst of Japan's financial and real-estate bubble and the end of the country's economic miracle. As Paul Krugman (2009) describes, the massive injection of money into the economy by the Nippon Ginkō (日本銀行), the Bank of Japan, led the country's banking system to spend the late 1980s in a phase of easy credit: loans granted without any concrete analysis of the debtor's repayment capacity.

In 1989, to control the inflation caused by money printing, the central bank raised lending rates by 4.5 points (Reuters, 1989). This drastic change turned once-easy credit costly. As a result, the price of investment in the country rose quickly, leading to a stock-market crash and the bursting of the bubble. As reported by the World Bank (2022), Japan's GDP fell by approximately 26% over three years, dropping from a peak of US\$5.55 trillion in 1995 to US\$4.1 trillion in 1998. **What followed the 1990s crisis was a period of stagnation that became popularly known as the 'lost decades'**, decades in which the country did not recover its pre-bubble levels of rapid growth and during which its exports stagnated (Macrotrends, 2022).

Figure 4

U.S. President Barack Obama cites the stagnation of Japan's "lost decades" as a warning to the United States during a White House press conference in 2009.



Note. Source: The Wall Street Journal (2009).

Despite some growth in the 2010s, the country is no longer the major leader in the global technology market (IndexMundi, 2022). Of the 32 Japanese companies among the 100 largest in the world in 1989, only two hold their positions today: Toyota and Sony (ソニー) (Companies Market Cap, 2025).

1.4. The end of internationalized Japanese UX design

Economists from various schools have advanced theories to explain Japan's difficulty in regaining global leadership. Part of what accounts for the situation, however, lies outside macroeconomics and is the result of a historical-cultural process with direct implications for how

large Japanese companies came to develop their products over time, that is, for how user experience design came to be practised in Japan.

After the decline in exports in the 1990s, those large companies became inclined to develop products with user experiences more focused on local needs and Japanese cultural preferences. In this way, while the world was undergoing, and is still undergoing, a process of international unification of usability and accessibility standards in product design, **the country moved in the opposite direction.**

1.4.1. Maximalist Japanese websites

In 2022, the Canadian researcher Sabrina Cruz used machine learning, an artificial-intelligence technique that allows computers to learn patterns and make predictions from large volumes of data without reprogramming for each task (Cambridge Dictionary, n.d.-b), to visually categorize the most-used websites in Japan and in several other countries.⁷

The classification was based on a vertical scale ranging from (1) top, designs dominated by dark colours, to (2) bottom, designs dominated by light colours, and a horizontal scale ranging from (3) left, minimalist design, to (4) right, maximalist design (many visual elements).

⁷The algorithm used is t-SNE, or t-distributed Stochastic Neighbour Embedding, a non-linear technique specific to data science, used for dimensionality reduction to make large datasets easier to visualize.

Figure 5

The world's most-used websites categorized by the predominance of dark and light colours and by minimalist and maximalist design.

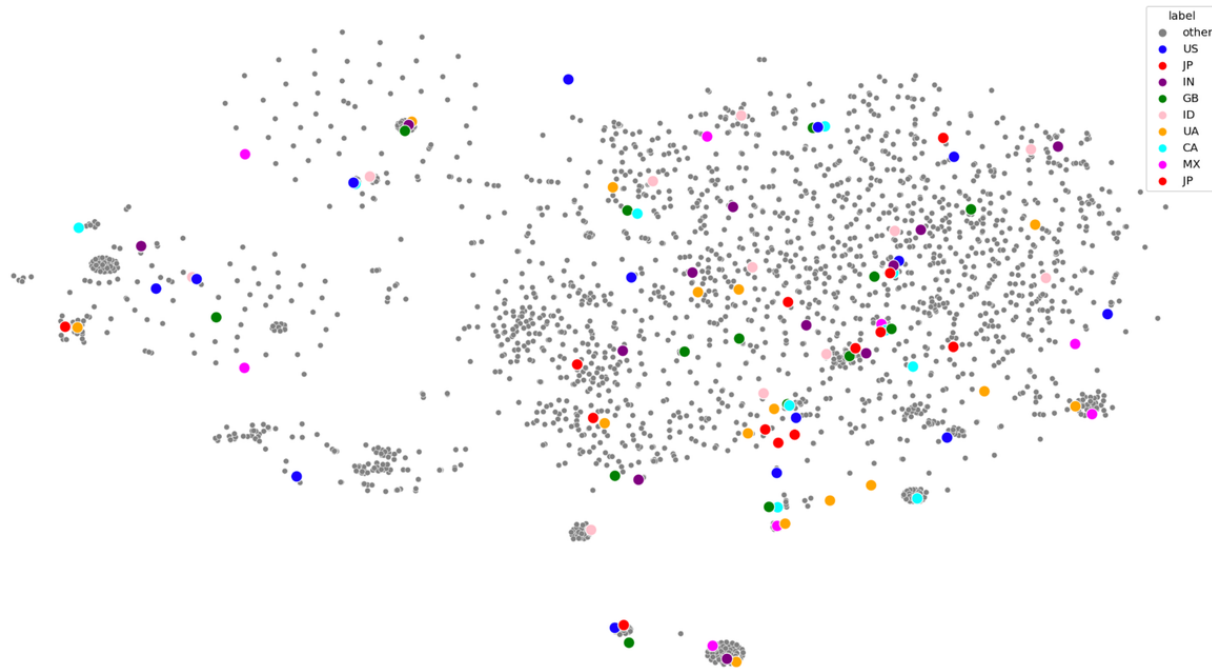


Note. Source: sabrinas.space.

The algorithm found that all countries had their most-viewed websites distributed across every area of the chart. **Japan was the only exception: in its case, almost all the analysed websites were categorized as predominantly light-coloured and maximalist, the opposite of the global design trend that favours fewer visual elements to facilitate user absorption** (Answer in Progress, 2022).

Figure 6

The world's most-used websites categorized by the predominance of dark and light colours and by minimalist and maximalist design, visualized by country, with Japan in red.



Note. Source: sabras.space.

1.4.2. The case of Nintendo (任天堂)

Another instructive case for understanding this process is the video-game market, and the Japanese company Nintendo in particular. Until the early 1990s, Nintendo was the largest company in the field worldwide, with extremely high levels of console and game exports (Gizmo, 2019). Its products were developed with Japanese cultural aspirations but aimed at an international audience, with its own demands and ways of playing. Japanese dominance was such that Keza Macdonald, video-games editor at The Guardian, stated that in the late 1980s and 1990s, video games were Japan (CNA Insider, 2021).

After the bubble burst, and during Satoru Iwata's (岩田 聡) presidency, the company began producing games that resonated more with the Japanese imagination and whose usability and accessibility were designed for that audience alone. One example is the focus on local multiplayer, games in which two or more players share the same physical environment.

The West and countries such as South Korea and China had already moved past the era of local multiplayer and were focused on online multiplayer, games in which two or more players are physically distant but connected via the internet. Nintendo, however, dedicated its efforts to developing the Wii (2006), Wii U (2012), and Switch (2017) with accessories and features compatible with local multiplayer, ignoring the global trend of online gaming, a market projected to reach US\$132 billion annually by 2030 (Acumen Research and Consulting, 2022).

Figure 7

Nintendo Wii accessories for local multiplayer, counter to the trend of online multiplayer.



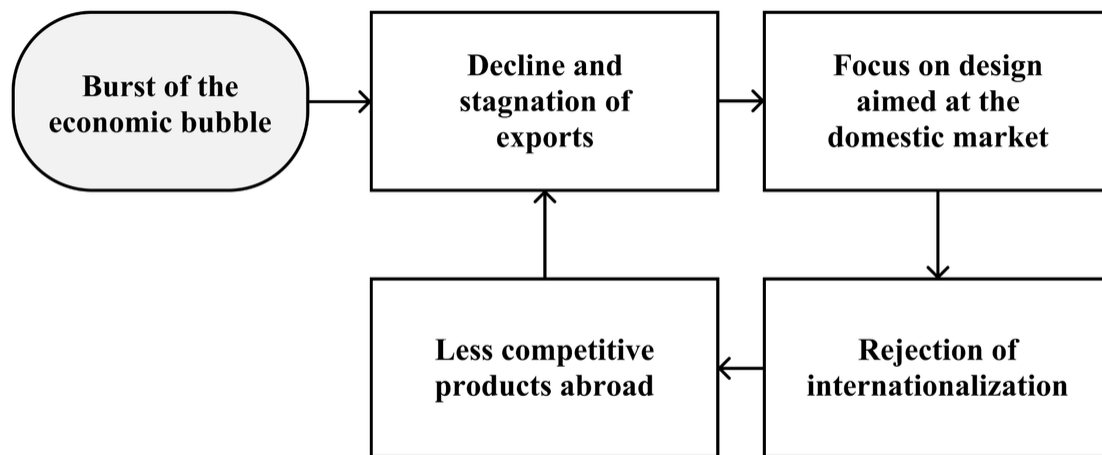
Note. Source: Nex-Tech Classifieds (2023).

1.4.3. Lack of internationalization as a vicious cycle

This rejection of international user experience standards has extended over decades and is directly related to the effects of the economic bubble. The burst of the bubble caused a decline in exports, leading companies such as Nintendo to focus on the domestic market. Yet, **by directing their efforts toward the local market, these companies lost ground abroad, which further contributed to the decline in exports and perpetuated the cycle.**

Figure 8

Flowchart illustrating how the lack of internationalization produces a vicious cycle of stagnation in Japan after the burst of the economic bubble.



Note. Source: author's own work.

2. Aim of the study

This study examines how Japan's cultural isolationism, intensified by the self-sufficiency of the Sakoku policy during the Edo period, became latent again after the burst of the country's economic bubble at the end of the twentieth century. It explores how this isolationism informs the development of products with user experiences oriented primarily toward Japanese consumers, and how that orientation bears on Japan's global competitiveness, particularly in the

user experience design of digital interfaces. The comparative analysis of diplomatic websites serves as the empirical ground on which the argument is tested.

In pursuing this aim, the study (i) identifies the economic and cultural factors that made ‘Made in Japan’ products easily exportable and a symbol of quality; (ii) describes the twentieth-century historical and economic trajectory that culminated in the crisis and the decline of exports, and the isolationist design trend that followed; (iii) traces the influence of the Edo period and the Sakoku policy in shaping, within the Japanese collective unconscious, a predisposition toward internal production and the rejection of foreign influence that still affects interface development in major Japanese technology firms; (iv) analyses how South Korea’s internationalization model, inspired by the American one, supported its rise in technology exports; and (v) considers how Japan might adopt practices from that model while preserving the elements that made its products popular, a tension made concrete in the comparative analysis of diplomatic websites.

Although there is extensive academic literature on the causes and macroeconomic consequences of the crisis that followed the bubble, the factor of ‘lack of internationalization in user experience design’, though one of the main contributors to the stagnation that followed, has received little sustained study. By treating that factor as an object of analysis, with plausible causes and hypotheses about how it might be transformed, this study contributes to filling a gap in the literature. Identifying the factors that shaped the mentality of isolation allows it to be examined as a historical and cultural process rather than accepted as a fixed feature of Japanese behaviour and design; and setting the problem alongside countries that have overcome it, such as South Korea, points toward new approaches for the Japanese user experience design community.

3. Research questions

The investigation is organized around four questions, which the analysis here addresses.

1. Carl Jung's theory of the collective unconscious posits the transmission of archetypal images across generations. In Japan, the isolationist Sakoku policy of the Edo period played a crucial role in shaping a collective unconscious that prioritizes self-sufficiency and distance from external influence. How did this process produce Japan's current design scene, which favours products oriented toward domestic rather than global consumers?
2. The 1990s crisis marked the beginning of Japan's decline in the international technology market and the start of a turn toward production for the domestic market, guided by Japanese standards and neglectful of internationalization. What is the relationship between that neglect and the economic crisis at the end of the twentieth century, the crisis through which Japan lost leadership to the United States as the new centre of the global user experience design market?
3. The renewal of South Korea's video-game market has led the country to internationalize its production and reach new audiences. Japan, despite its difficulties with internationalized user experience design, was able to turn cultural traits such as the emphasis on perfection and Omotenashi into the very qualities that made 'Made in Japan' products symbols of quality in the twentieth century. How can Japan follow South Korea's example without losing the essential cultural characteristics that define its identity, and ensure they remain reflected in its products?
4. How does the comparison of diplomatic websites illustrate the difference between an internationalized and a non-internationalized user experience, and what would an internationalized design of Japan's diplomatic platforms require, without losing the cultural elements that define the essence of Japanese identity?

4. Method

This study develops its argument in two movements. The first is a historical and cultural analysis of how Japan's openness to internationalized design formed in the second half of the twentieth century and receded after the burst of the economic bubble, drawing on the country's history and on the literature on its post-bubble stagnation.

The second movement is a comparative heuristic analysis, a method widely used in user experience design, in which an interface is reviewed against established principles, here Nielsen's heuristics (Nielsen, 1993). It contrasts the website of the Embassy of Japan in Brazil with that of the Embassy of the United States in Brazil, the latter serving as a benchmark of internationalized practice; the choice of the United States reflects its position as the contemporary centre of digital product design. The full analysis is presented in Section 7.

5. Causes and effects

5.1. Edo Period (江戸時代) and the Sakoku Policy (鎖国)

To understand why companies such as Nintendo follow the pattern described above, it is necessary to revisit Carl Jung's theory of the collective unconscious and to situate it within Japan's history, particularly during a decisive era for how the Japanese think about and practise design today: the Edo period, between 1603 and 1868 (Mason & Caiger, 1997).

During that time, under the rule of the Tokugawa Shogunate (徳川幕府), Japan implemented an isolationist policy called Sakoku. Under it, the country closed itself off from foreign trade and diplomatic relations, except for diplomacy with China and the Netherlands, and from immigration and emigration, the entry of foreigners and the departure of nationals from the lands of the Shogunate (Britannica, n.d.).

Figure 9

View of Nagasaki Port (長崎市) with Deshima Island (出島) and ships; Japanese trade with the Netherlands between 1800 and 1825, ink and colour on silk, signed and sealed.



Note. Source: The British Museum (n.d.).

More than two hundred years of this phenomenon, pursued with unmatched intensity, were enough to instil isolationist ideas in the collective unconscious of the Japanese population: ways of producing, creating, acting, and behaving so distinctive that they did not aspire to be comparable to, or interchangeable with, foreign ones. The isolationism of the Edo period accustomed the Japanese, in all their artistic and creative nuances, to develop unique products and services that did not seek to meet the needs of any people other than their own, and which, under the Sakoku policy, were not even permitted to.

A concrete example is the artisanal production of the katana (刀), a term translated as ‘sword’ that refers to one of the various swords used by the Samurai. Throughout history, the production and handling of these items absorbed mystical and transcendental meanings, and their manufacturing ritual is unique and purely a Japanese cultural matter. Thus, even with the

introduction of firearms in Japan during the First Mongol Invasion in the thirteenth century (Brown, 1948, p. 236), and the importance attributed to such items by the Portuguese who arrived on the island of Tanegashima (種子島), in southern Kyushu (九州), in the sixteenth century (Brown, 1948, p. 238), the Samurai refused to replace their swords.⁸

Figure 10

Kabuki actor (歌舞伎) in the role of a samurai holding a katana.



Note. Source: KUNISADA, Utagawa. Samurai with Sword. Artelino (1851–1853).

⁸The use of the katana as a weapon began to decline only when, early in the Meiji period (明治時代), the government ended the privileges of the Samurai class with the promulgation of the Haitō Edict (廃刀令) on 28 March 1876 (Kōkan, 1997). At the same time, it ended the public carrying of weapons, except for public officials in law enforcement and the Daimyo (大名), former clan lords. The prohibition met with a series of revolts, especially on the island of Kyushu, and is responsible for the development of Japanese martial arts, particularly Karate (空手), which translates directly as ‘empty hands.’

This illustrates how the isolation of the Edo period contributed to a belief, lodged in the Japanese collective unconscious, that product design, including military design, need not meet international standards. For a homogeneous people, it suffices that their products reflect their own aspirations, even if this entails losses in usability and accessibility, or renders the product less competitive than others from abroad.

The example of Nintendo turning toward the domestic market and rejecting new international user experience standards mirrors Japan's earlier rejection of firearms. By choosing to maintain its artisanal sword production, the nation could not match the military strength of the West, which demanded the opening of trade in the nineteenth century. The arrival of American Commodore Matthew Perry in 1853 with a military expedition of steamships equipped with cannons was a show of force signalling to the Japanese that, if they did not accept the opening of their ports, the situation would escalate into conflict. This pressured Japan to abandon its isolationist policy, culminating in the Meiji Restoration (明治維新) of 1868 and the end of the Tokugawa Shogunate (Britannica, n.d.).

Figure 11

Emperor Meiji (明治天皇), who overthrew the Tokugawa Shogunate.



Note. Source: Encyclopædia Britannica (n.d.).

Japan's tendency to reject military innovations, which cost it technological and military leadership to the West in the nineteenth century, seems to reappear at the start of the twenty-first. Companies such as Nintendo, by rejecting international user experience guidelines, once again cause the country to lose global leadership. **In both cases, the loss occurs in the face of the same competitor: the United States of America.**

5.2. The rise of American UX design

In 2007, a new device completely changed the way user experience design was understood: the iPhone. Until then, when it came to usability and accessibility, a large portion of the literature focused on physical products.

The iPhone brought digital design closer to everyday users, a concept previously confined to computers. For a long time, a computer was dispensable in the daily, non-corporate life of the average citizen; for this reason, the effects of digital usability and accessibility could go unnoticed, and user experience design remained limited to a niche little known even among information-technology professionals.

Figure 12

Steve Jobs, founder of Apple, presents the first iPhone on 9 January 2007.



Note. Source: Wired (2007).

The mobile revolution brought by Apple produced the current scenario, in which it is estimated that there are more than 8.58 billion smartphones in the world, a figure higher than the global population on 23 December 2024, which stood at 8.02 billion (Richter, 2024). It is not surprising, then, that the general understanding of interfaces has shifted. Interfaces are the point

of human–machine interaction on a device. The Facebook app, its groups, feed, and marketplace, is the user interface (UI); the ways the user interacts with that interface constitute the user experience (UX). With the spread of smartphones, the general perception of what an interface is changed, becoming centred on smartphone apps and shifting from physical to digital interfaces.⁹

The American Donald Norman, cognitive scientist and user experience architect, coined the term ‘user experience’ and was the first to open the field to digital interfaces, mainly through his research at Apple, which he joined in the early 1990s (Nielsen, 2017).

It is no coincidence that Norman’s studies influenced the creation of the first iPhone, nor that, with the development of the App Store, which facilitated the creation and distribution of mobile apps,¹⁰ Apple became the world’s leading reference in UX and **the United States emerged as the main centre for research and the development of digital design guidelines.**

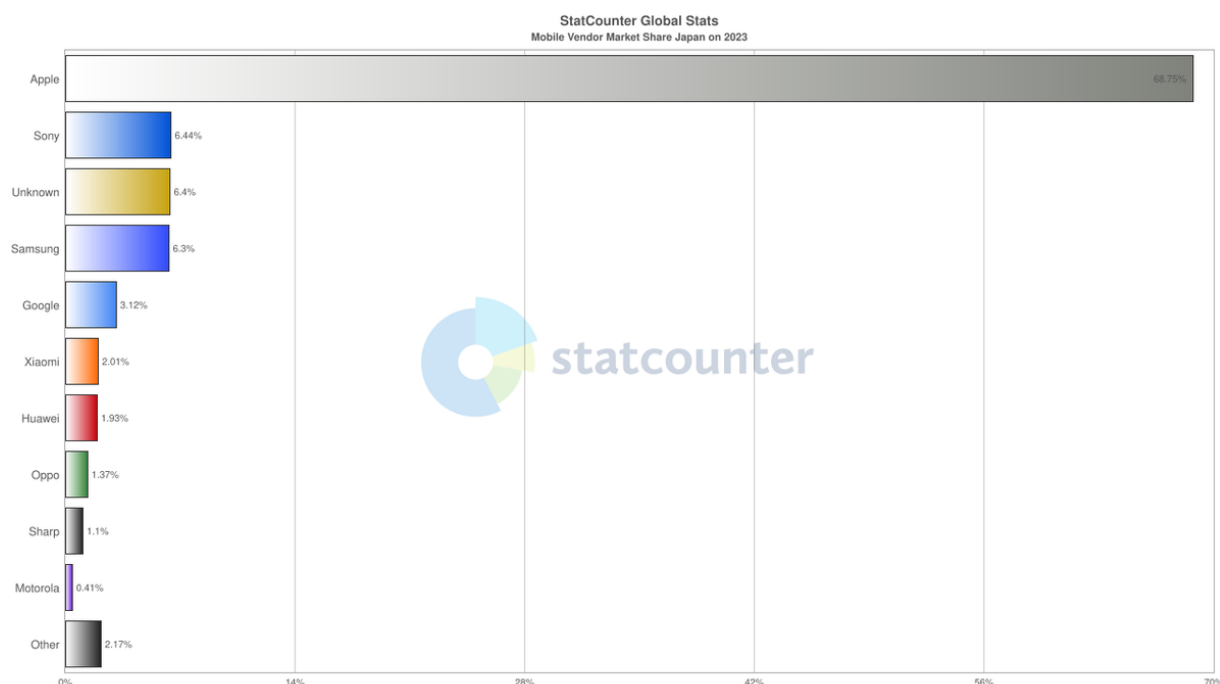
With the arrival of the iPhone, even the Japanese market became dependent on American companies. In the 1990s, Sony and Panasonic (パナソニック) dominated mobile-device sales in the country; in 2023, Apple, an American brand, was responsible for 68.75% of all smartphone sales in Japan (Statcounter Global Stats, 2024).

⁹An example is the smart home. Before the spread of the smartphone, any human–machine interaction in a residence occurred through physical interfaces: turning on a light by pressing a switch, opening a faucet by turning a valve, lighting an oven by pressing a button. Today, solutions such as Xiaomi’s Smart House centralize household functions in a general control app, and voice assistants such as Amazon’s Alexa can control lights and appliances. One way or another, physical interfaces are being replaced by digital ones.

¹⁰With the App Store, developers around the world can create applications with a wide range of functions, downloadable by any user. To protect users against viruses and to make it easier for developers to sell their apps, everything takes place within a virtual store regulated by Apple.

Figure 13

Cell-phone sales in Japan in 2023.



Note. Source: Statcounter Global Stats (2023).

5.3. South Korean competition

Among the Asian Tigers that experienced a wave of development and became competitors of Japan in technology exports is South Korea. The country spent the 1990s internationalizing its production and seized the space left by Japan's economic slowdown to accelerate in the race to become the newest centre of technology development in Asia.

In the twenty-first century, unlike in the twentieth, products such as televisions are no longer predominantly Japanese; Sony and Panasonic lost leadership to South Korea's Samsung and compete constantly with LG, also South Korean (Kizer, 2022). In the smartphone market

today, the only company that competes on equal terms with Apple is Samsung.¹¹ And, in general terms, South Korea now exports more than twice as much per capita as Japan (The Observatory of Economic Complexity, 2024a, 2024b).

More striking than Japan's loss of leadership in smartphone sales, however, is what has happened in the South Korean video-game market. **While Japanese games have become increasingly less focused on international audiences, South Korean companies have begun to grasp the power of internationalizing user experience.** Such is the case of a 2017 South Korean game that revolutionized video-game mechanics worldwide: PlayerUnknown's Battlegrounds, or PUBG.

Figure 14

Screenshot from a PUBG match.



¹¹Apple is the sales leader in the American market (Counterpoint, 2022) and still sets trends that competitors copy. Samsung, for its part, made Android the most widely adopted mobile operating system in the world (Sherif, 2025), especially in developing countries.

Note. Source: Throneful (2023).

While Nintendo insists on local-multiplayer games exclusive to consoles that are not especially popular outside Japan, PUBG draws on Western games such as Minecraft and Arma 2 to create a game focused on online multiplayer and, above all, available for free on any Android or iOS smartphone. The game, which according to Craig Chapple (2021) generated US\$7 million per day in 2020, was downloaded more than one billion times in 2022 (Apolinario, 2022).

The gameplay mode popularized by PUBG is the battle royale: players face one another using items found on the battlefield while the map's diameter continually shrinks. This mechanic made South Korea, for the first time, a direct rival to the United States in the industry. While American Apple sets trends for smartphones and South Korean Samsung replicates them, in the video-game market it was South Korea that created the trend and the United States that copied it. The influence is so great that American franchises such as Call of Duty, which had sold more than 500 million copies by 2024 (Park, 2024), were forced to develop battle-royale modes to avoid losing further market share to PUBG.

Figure 15

Winners of the first PUBG World Championship, with a prize of US\$1,008,000.00.



Note. Source: Inven Global (2022).

South Korea and Japan are countries that endured traumatic wars in the twentieth century and whose cultures are historically linked. The example of PUBG is a reminder that the phenomenon of isolationism and the loss of Japanese leadership can be examined in light of the experience of a country with similar issues, one that has overcome them to internationalize its production successfully, becoming central to the global electronics and video-game industries.

6. The website of Japan's diplomatic representations

A practical example of Japanese digital interface design that rejects foreign influences is the platform on which the Ministry of Foreign Affairs of Japan (外務省) makes its consular services available. Although the website is lightweight and responsive, functioning on both computers and mobile devices, it can be categorized as 'maximalist,' in the terms of Sabrina

Cruz's experiment (2022): it presents a large amount of visual information rather than simplifying the content, as is common in internationalized interfaces.

Figure 16

Official website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

In a brief comparison, the website of the Embassy of the United States in Brazil offers a clearer, more intuitive user experience, with a well-defined visual hierarchy, objective terminology, and a minimalist design that facilitates navigation. The website of the Embassy of Japan, by contrast, presents an excessive amount of information on screen, colour inconsistencies, indirect terminology, and the absence of features that would make navigation

more efficient, such as an easily accessible search bar. The detailed comparative analysis supporting these conclusions is presented in Section 7.

Figure 17

Official website of the Embassy of the United States in Brazil.



Note. Source: U.S. Department of State.

The choice of this platform for analysis, rather than others such as the website of Japan's Ministry of Defense (防衛省), is deliberate. A country's diplomatic representation is the point of contact between the country and foreign publics. If the website is difficult to use, confusing, or simply fails to appear modern, the image the nation projects abroad is negatively shaped. Japan's consular digital platforms are therefore a meaningful site at which to observe the country's stance toward international usability standards, and one whose modernization would bear directly on its image of excellence and its alignment with international user experience practices.

7. Comparative heuristic analysis of the diplomatic websites

The following comparative heuristic analysis supports the claim that the website of Japan's diplomatic representations does not follow international user experience standards. Each of Nielsen's heuristics (Nielsen, 1993) is used as a lens to contrast the website of the Embassy of Japan in Brazil with that of the Embassy of the United States in Brazil.

7.1. Visibility of system status

Description. The design should ensure that users are always aware of what is happening, providing appropriate feedback within a reasonable time (Nielsen, 1993).

Embassy of Japan. Because of the volume of content on the homepage, the language menu, the top menu, the side menu, news hyperlinks, photographs of the ambassador, and so on, the title “Embassy of Japan in Brazil” (Embaixada do Japão no Brasil) does not stand out enough to be readily visible and to keep the user aware of their location on the platform.

Figure 18

Title of the homepage of the Embassy of Japan in Brazil, dense with visual information.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. Set beneath the header, in a blue band contrasting with the rest of the page, the title “Embassy and Consulates of the USA in Brazil” (Embaixada e

Consulados dos EUA no Brasil) is the most eye-catching element, and users immediately recognize where they are.

Figure 19

Title of the homepage of the U.S. Embassy in Brazil, with minimal visual information.



Note. Source: U.S. Department of State.

7.2. Match between system and the real world

Description. The design should speak the users' language, using familiar words and concepts rather than internal jargon, and following real-world conventions so that text reads naturally (Nielsen, 1993).

Embassy of Japan. It uses vague terminology such as “Consular Service” (Serviço Consular) or “Bilateral Rel. [Relations]” (Rel. Bilaterais), which does not clearly indicate where the user will be taken on selecting these options.

Figure 20

Top menu on the website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. It prefers direct terms matching what the user is looking for, such as “Visa” (Vistos) or “American Citizens” (Cidadãos Americanos), making the menu sections easier to understand.

Figure 21

Top menu on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.3. User control and freedom

Description. Users often make mistakes and need a clearly marked “emergency exit” to return to where they were without going through a complicated process (Nielsen, 1993).

Embassy of Japan. When a user leaves the homepage for a secondary page, the website shows a clickable breadcrumb indicating the navigation hierarchy: “superior page > Visa” (página superior > Visto). The problem is the component’s size, which becomes hard to see amid the surrounding colours and text.

Figure 22

Breadcrumb on the website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Figure 23

Breadcrumb above the page title “Visa” (Visto), Embassy of Japan in Brazil.

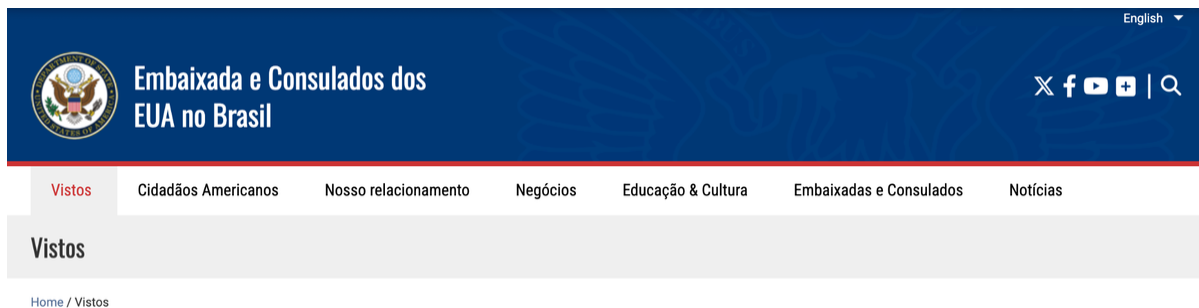


Note. Source: Embassy of Japan (2024).

Embassy of the United States. The breadcrumb is placed below the title, and the interface creates a grey layer indicating which tab of the top menu the user is on.

Figure 24

Breadcrumb on the website of the U.S. Embassy in Brazil, below the title “Visas” (Vistos).



Note. Source: U.S. Department of State.

7.4. Consistency and standards

Description. Users should not have to wonder whether different words, situations, or actions mean the same thing (Nielsen, 1993).

Embassy of Japan. Some pages have completely different layouts and functions from one another. This is the case with pages dedicated solely to posting hyperlinks, which almost function as menus in their own right.

Figure 25

“Latest Events” (Últimos Acontecimentos) page of the Embassy of Japan in Brazil.

Embaixada do Japão no Brasil
● 在ブラジル日本国大使館

Site Map / Skip to main content Japanese (日本語)
Font Size S M L

Embaixada | Serviço Consular | Rel. Bilaterais | Divulgação e Cultura | Consulados e Escritórios Consulares do Japão no Brasil

[página superior](#) > Últimos Acontecimentos

Últimos Acontecimentos

2024/12/12

- ▶ [Cerimônia de outorga do Diploma de Honra ao Mérito do Ministro dos Negócios Estrangeiros do Japão de 2024 \(11 de dezembro\)](#)
- ▶ [Japan-Brazil Summit Meeting \(19 de novembro\)](#)
- ▶ [Prime Minister ISHIBA Visits Brazil \(G20 Rio de Janeiro Summit\) \(17 a 19 de novembro\)](#)
- ▶ [Courtesy call on Foreign Minister IWAYA by the members of Japan-Brazil Business Council Plenary Meeting \(6 de novembro\)](#)
- ▶ [Japan-Brazil Foreign Ministers' Telephone Meeting \(5 de novembro\)](#)
- ▶ [Courtesy call on Prime Minister ISHIBA by the members of Japan-Brazil Business Council Plenary Meeting \(5 de novembro\)](#)
- ▶ [Visita do Embaixador HAYASHI ao Estado do Ceará \(29 a 31 de outubro\)](#)
- ▶ [Visita oficial do Embaixador HAYASHI ao Estado de Santa Catarina \(19 a 21 de outubro\)](#)
- ▶ [Realização do Seminário: Empoderamento das Mulheres e Desenvolvimento da Liderança Feminina \(3 de outubro\)](#)
- ▶ [Visita do Embaixador Hayashi ao Estado de São Paulo \(10 a 13 de setembro\)](#)
- ▶ [Entrevista do Embaixador HAYASHI ao TV Justiça \(12 de setembro\)](#)
- ▶ [Recepção em Comemoração ao Dia das Forças de Autodefesa do Japão 2024 \(10 de setembro\)](#)
- ▶ [Cerimônia de Outorga da Condecoração aos estrangeiros do Outono de 2023 \(Dr. Eliseu Alves, ex-Presidente da EMBRAPA\) \(26 de julho\)](#)
- ▶ [Visita oficial do Embaixador HAYASHI Teiji ao estado de Sergipe \(12-14 de junho\)](#)
- ▶ [Realização do Seminário organizado junto com a UNICEF \(28 de maio\)](#)
- ▶ [Assistência emergencial para o enfrentamento dos danos causados pelas inundações no Brasil - Cerimônia de Entrega de Doações - \(25 de maio\)](#)
- ▶ [The 9th Consular Forum between Japan and the Federative Republic of Brazil \(22 de maio 2024\)](#)
- ▶ [Assistência emergencial para o enfrentamento dos danos causados pelas inundações no Brasil \(20 de maio\)](#)
- ▶ [Message of condolences from Foreign Minister KAMIKAWA Yoko following the damages caused by the flood in the State of Rio Grande do Sul, the Federative Republic of Brazil \(10 de maio\)](#)
- ▶ [Prime Minister Kishida's Visit to France, Brazil and Paraguay \(1 a 6 de maio\)](#)
- ▶ [Realização da Cerimônia de Outorga da Condecoração aos estrangeiros do Outono de 2023 \(17 de abril\)](#)
- ▶ [Embaixador HAYASHI visita oficial a Mato Grosso do Sul \(25 e 26 de março\)](#)
- ▶ [Courtesy call on Foreign Minister Kamikawa by Brazilian female parliamentarians \(25 de março\)](#)

Recommended Information

- ▶ [Últimos Acontecimentos](#)
- ▶ [Relações Políticas, Diplomáticas, Econômicas e Principais Visitas](#)
- ▶ [Cooperação Econômica](#)
- ▶ [Assistência a Projetos Comunitários](#)
- ▶ [Sobre APC](#)
- ▶ [Resultados no Brasil](#)
- ▶ [Projetos Realizados no DF, GO e TO](#)
- ▶ [Jurisdição](#)
- ▶ [Assistência a Projetos Comunitários de Cultura](#)
- ▶ [Empréstimo de Ines](#)
- ▶ [30 de junho 2011](#)
- ▶ [1º de julho 2010](#)
- ▶ [14 de julho de 2009](#)
- ▶ [Intercâmbio Entre Universidades](#)
- ▶ [Cidades Co-irmãs](#)

Note. Source: Embassy of Japan (2024).

Embassy of the United States. All pages carry textual and visual content and are not conglomerates of hyperlinks, which favours cohesion between pages.

Figure 26

“News and Events” (Notícias e Eventos) page on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.5. Error prevention

Description. Good error messages matter, but the best designs prevent problems from occurring, eliminating error-prone conditions, or checking for them and offering a confirmation before the user commits to an action (Nielsen, 1993).

Embassy of Japan. Because of the overwhelming amount of information on a single screen, without a clear hierarchy, users tend to make mistakes before finding what they are looking for. By Hick’s Law, the time required to make a decision increases with the number of

options; confronted with a large amount of unorganized information, the user may be led into mistakes or inappropriate choices (Hick, 1952, p. 11).

Figure 27

“Topics” section with unclear hierarchy on the website of the Embassy of Japan in Brazil.

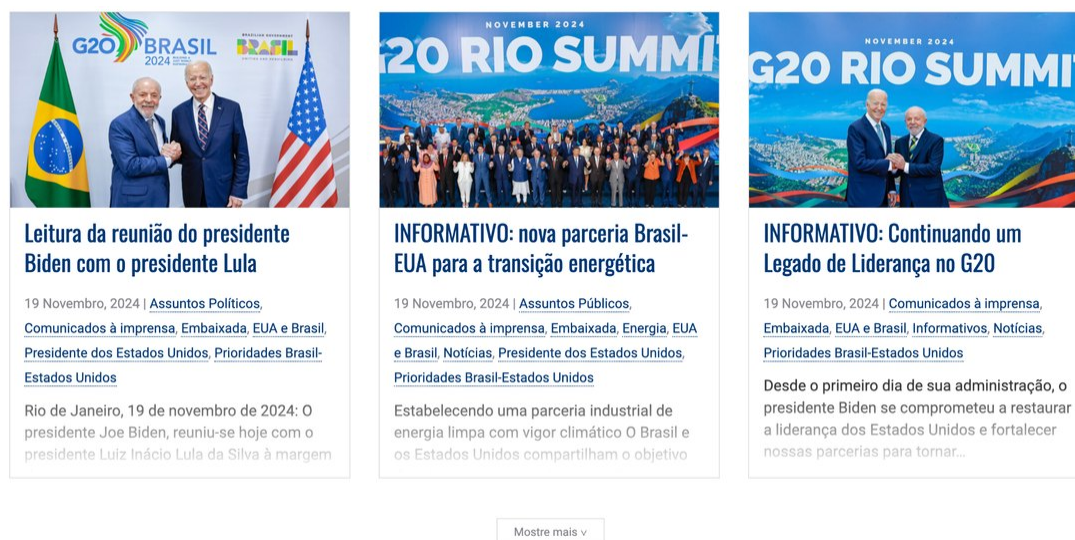


Note. Source: Embassy of Japan (2024).

Embassy of the United States. The clear visual hierarchy, pages that give greater visual focus to more important content and less to the rest, minimizes the chance of error and makes navigation more assertive, again in keeping with Hick’s Law (Hick, 1952, p. 11).

Figure 28

News section with clear hierarchy on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.6. *Recognition rather than recall*

Description. Users should not have to memorize information from an interface; everything needed to navigate it should be visible and easily accessible (Nielsen, 1993).

Embassy of Japan. It requires the user to memorize paths to find what they are looking for. The use of several menus on the homepage, for example, forces the user to search through each and to remember which tab they are on.

Figure 29

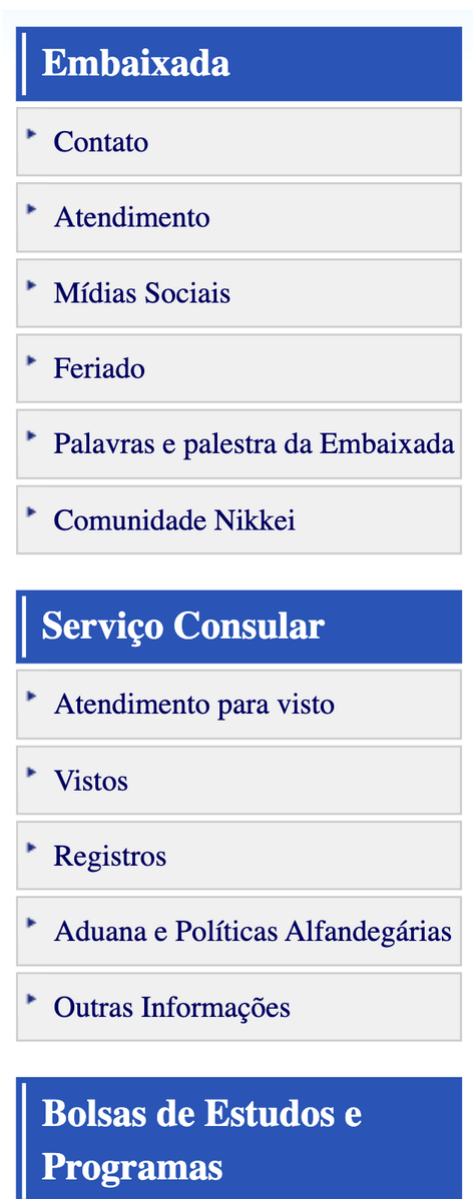
Top menu on the website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Figure 30

Side menu on the website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. Navigation is based on pattern recognition, with a single horizontal menu that consolidates all the information.

Figure 31

Top menu on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.7. Flexibility and efficiency of use

Description. Shortcuts can speed up interactions so that a design serves both inexperienced and experienced users (Nielsen, 1993).

Embassy of Japan. It offers several shortcuts, with direct links on the homepage.

Figure 32

Some sections with hyperlinks on the homepage of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. It offers some quick-access options outside the menu, though far fewer than the Japanese version.

Figure 33

Quick-access options outside the menu on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.8. Aesthetic and minimalist design

Description. Interfaces should not contain irrelevant or rarely needed information; every extra unit of information competes with the relevant ones (Nielsen, 1993).

Embassy of Japan. The website is visually overloaded, using homepage space to present secondary information that does not warrant such prominence.

Figure 34

“Recommended websites” (Recomendações de sites) on the homepage of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. There is more white space and, overall, an aesthetic that favours minimalism. One example is the “Show More” (Mostre mais) button on the homepage, which hides excess content and makes it available only on click.

Figure 35

“Show More” (Mostre mais) button on the homepage of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

7.9. Recognition, diagnosis, and recovery from errors

Description. Error messages should use plain language, without codes, and should clearly indicate the problem and how to fix it (Nielsen, 1993).

Embassy of Japan. When a user tries to reach a non-existent page, the error message does not say what to do to resolve the issue. It also redirects the user to a blank page, which can cause confusion, since the user may not understand whether they are on the correct website.¹²

Figure 36

Error message on the website of the Embassy of Japan in Brazil.

Not found

Note. Source: Embassy of Japan (2024).

¹²The text of the error message is in English which, assuming the platform’s users are proficient in Portuguese or Japanese, or both, may cause further confusion.

Embassy of the United States. Although it departs from Nielsen’s heuristic by using the “404” code, which is not widely known, the error message clearly explains what happened and how the user can resolve it. It also keeps the same layout as the rest of the embassy website, keeping the user oriented.

Figure 37

Error message “Error 404 – Page not found” (Erro 404 – Página não encontrada) on the website of the U.S. Embassy in Brazil.

Erro 404 – Página não encontrada

Desculpe, mas a página que você está procurando não existe.

Você pode ir para a [homepage](#) ou navegar pelos posts recentes abaixo.

Note. Source: U.S. Department of State.

7.10. Help and documentation

Description. Ideally the system is self-explanatory; documentation may nonetheless be needed to help users complete a specific task (Nielsen, 1993).

Embassy of Japan. There is no visible search or lookup option for users who cannot find what they need in the menus.

Figure 38

Header, top of the page, without a search bar, on the website of the Embassy of Japan in Brazil.



Note. Source: Embassy of Japan (2024).

Embassy of the United States. It provides an easily accessible search bar, reached by clicking the magnifying-glass icon at the top right of the page.

Figure 39

Search bar on the website of the U.S. Embassy in Brazil.



Note. Source: U.S. Department of State.

The analysis above is sufficient to show that **the website of Japan’s consular representations presents challenges in usability and accessibility, chiefly because it does not follow international user experience standards.** With the exception of the seventh heuristic, flexibility and efficiency of use, where the Japanese website offers more shortcut links than the American one, the latter follows better design practices, with more intuitive navigation and a clearer visual identity.

8. Conclusion

The trajectory reconstructed in this article connects a cultural disposition to an economic outcome. The isolationism of the Edo period, pursued under Sakoku with unmatched intensity for more than two centuries, settled into the Japanese collective unconscious as a tendency to create for one’s own people rather than for the world. After the economic miracle, built precisely on the opposite disposition, an internationalized design process joined to Omotenashi and high economic freedom, the burst of the 1990s bubble reactivated that older

tendency. Faced with declining exports, large firms turned inward, and in doing so lost further ground abroad, perpetuating the vicious cycle that the case of Nintendo makes legible.

South Korea offers the counterexample. A country with a historically linked culture and its own twentieth-century traumas, it spent the 1990s internationalizing its production and, with products such as PUBG, came to set trends that the United States itself followed. The contrast shows that **internationalization and cultural distinctiveness are not opposed**: Japan's own twentieth-century success turned cultural traits into marks of quality, and there is no reason the same cannot be done again.

The comparative heuristic analysis grounds this argument in a concrete artefact. The website of the Embassy of Japan in Brazil, lightweight and responsive, yet maximalist, visually overloaded, and inconsistent, departs from the international usability standards that the website of the Embassy of the United States more closely observes. The diplomatic website, as the point of contact between a nation and foreign publics, is precisely where an inward design orientation becomes a matter of how the country is seen abroad.

The implication is that **an internationalized design could function as a soft-power tool for Japanese diplomacy, projecting the image of a modern Japan while preserving its cultural essence, especially Omotenashi**. The same reorientation could serve as a model for Japanese firms seeking more exportable digital products, supporting renewed economic growth after the lost decades. Finally, a Japanese design culture with an international focus could inspire countries with smaller design markets, such as Brazil, and, like other members of Mercosur,¹³ Brazil could find in Japan's example a demonstration that products can be internationalized without compromising cultural heritage.

¹³The Southern Common Market, or Mercosur, is one of the largest economic blocs in the world, founded in 1991 by Latin American countries (Mercosur, n.d.).

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