A Comparative Study of Social Media Usage by Nonprofits in the U.S. and Japan

Measuring User Engagement on Facebook

by

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ABSTRACT

The purpose of this study is to identify and examine how top revenue-generating nonprofits in Japan and the U.S. use Facebook, and to compare the differences. The two countries were selected due to the differing levels of government support for social welfare and related programs as the level of government support for social welfare tends to affect the size of a country's nonprofit. To compare nonprofits in two countries, the International Classification of Nonprofit Organizations (ICNPO) was applied. U.S. nonprofits tend to offer more information on their Facebook profile compared to Japanese nonprofits. Additionally, 83% of nonprofits in the U.S. had a Facebook profile, while only 67% of Japanese nonprofits had a Facebook profile. As for engagement, this research shows that Japanese nonprofits tend to have better engagement compared to U.S. nonprofits. Additionally, with respect to post types, in the U.S. it is clear that for nonprofits in the Health category, posting images helps to promote engagement with users. However, in Japan, the same is true only for the Social Service category. While images tend to help increase engagement, posts with videos lower engagement for the U.S. cultural, health, philanthropic, and international nonprofits. However, in Japan, posting videos has a positive correlation with engagement for social service and environmental nonprofits. In addition, for Japanese nonprofits, posting an external link hurts engagement if the nonprofit is in either the Health or Philanthropic categories, which is the same for the U.S. However, posting an external link increases engagement for nonprofits in the Environmental category in Japan, but increases engagement for nonprofits in the Cultural category in the U.S. With respect to post content type, requesting donations through external links caused decreased comment based engagement for U.S. nonprofits. For Japanese nonprofits, including videos on posts requesting volunteers or donations increases

comment based engagement. While some of these results are surprising, they indicate that different approaches are needed in different nonprofit categories and in different countries if nonprofits want to maximize user engagement.

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INTRODUCTION

The world is now occupying a major role in information exchange, human relations, and even business through social media, and this phenomenon can no longer be ignored. Around 3.8 billion people in the world use social media today to communicate and connect with the people around them (We Are Social, 2020). While social media is used to connect with friends and family, it is also used by organizations who wish to connect with their users or stakeholders. According to the Technology Report 2018, 90% of the world's nonprofit organizations are using social media to engage with their supporters, donors, and stakeholders. Furthermore, of the organizations that use social media, 94% believe it is useful for increasing online brand awareness, 80% for recruiting participants for events, 78% for promoting social change, and 72% for fundraising online. Of the nonprofits worldwide that maintain a social media presence, 84% are on Facebook, with an average of 20,606 followers per organization (Nonprofit Tech for Good, 2018). Among these organizations, 97% own a Facebook page for their organization, 54% post Facebook stories, 47% purchase Facebook advertisements, 44% have organization Facebook groups, while only 29% use Facebook's online charity tools (Nonprofit Tech for Good, 2018). Although there has been some research, such as the study by Waters et al. (2009) which examined how nonprofits in the U.S. use social media, little research has been conducted comparing how top nonprofits in countries with different levels of government social benefit involvement are using social media to engage in relationships with the public. Additionally, Waters et al. (2009)

did not examine the usage patterns by nonprofits according to content type such as how often a nonprofit solicits donations.

Relationships with stakeholders are the foundation that allows nonprofits to be able to work to achieve their mission goals. However, currently, not many guidelines exist to help nonprofits manage their social media usage. For nonprofits, getting attention is an important goal of social media advocacy (Campbell, 2021). Nonprofits represent the voice of the people and provide a voice to society for solutions to various problems. When each nonprofit that engages in various activities gathers supporters, it increases the public's interest in social problems that the organization is trying to solve. Furthermore, when supporters, including social media users, have the opportunity to pay attention to and get involved with a nonprofit organization, they have the opportunity to feel that their opinions are properly reflected in the organization and that they are part of society and can participate more actively in society. In this way, nonprofits can be said to contribute to democracy by providing a place for people to engage with society. If individual social media users are able to gain more access to specific organizations due to the organization's social media presence, those individuals will benefit not only the organizations in which they are becoming involved but also themselves.

The amount of information flooding the world continues to expand, and digitization is no longer avoidable. The term "gigabyte", a common unit of data storage, is followed by "terabyte," "petabyte," "exabyte," and "zettabyte," each increasing by a factor of 1,000. The total amount of data that existed in the world as of 2000 was 6.2 exabytes. However, as of 2020, the total amount of digital data generated and consumed worldwide has increased to about 50 zettabytes. This means that in the 20 years between 2000 and 2020, the amount of data has increased by 806,452%.

Furthermore, it is expected to increase to 175 zettabytes by 2025 (Global DataSphere Forecast, 2020). Even for nonprofit organizations, this phenomenon cannot be ignored.

For nonprofits, the primary benefit of participating is ensuring communication and engagement with users. Research on how to drive engagement, such as Algharabat et al. (2018), indicates that both presence and involvement are important. Algharabat et al. (2018) found that different post types, such as success stories of the organization or photos and videos, impacted the level of engagement an organization was able to achieve with its users. If a nonprofit wants to achieve high rates of engagement, it must understand and utilize the most effective approaches for doing so.

While participation in this data age is important for nonprofits, with the usage of social media tools nonprofits may also increase stakeholder trust. According to the results of a survey of 174 stakeholders of an Austrian nonprofit, Facebook and YouTube can enhance trust in the organization (Gartner et al., 2021). The survey states that the experience, skills, and knowledge gained in traditional marketing are still valuable and can be incorporated into social media strategies in today's digital world (Gartner et al., 2021). More specifically, the study sought to show that social media and organizational trust affect marketing performance, as well as customer word-of-mouth and loyalty to the organization. In addition, Gartner et al. (2021) says that social media can be a source of trust and contribute to building a sense of proximity to the organization as the organization builds relationships with stakeholders. Social media is similarly important for nonprofits, and for the same reasons as for-profit organizations, to be able to build relationships with stakeholders, increase stakeholder trust, and build a sense of community.

According to the results of a study that conducted an online survey of 1,400 people to determine how social media use affects happiness, active social media use is

positively associated with happiness (Masciantonio et al., 2021). Specifically, active use of Facebook and Twitter seems to increase happiness by increasing feelings of connectedness. Since Gartner et al. (2021) showed that social media can be used to increase the sense of community, and Masciantonio et al. (2021) showed that an increase in connectedness or community leads to an increase in user happiness, nonprofits could indirectly improve the happiness of users which they interact with as long as they work to build a sense of community and engage with users. However, Masciantonio et al. (2021) also showed that passive use of social media is negatively correlated with happiness. Overall, social media has been found to be helpful in increasing awareness of an organization, such as the effectiveness of posts with warm and emotive photos, and interactive tweets which tend to be better at engaging with users (Algharabat et al., 2018).

As the social media landscape has changed dramatically since Waters et al. (2009), a current comparison between nonprofit social media usage in different countries as well as the additional insights into social media usage which were not captured in Waters et al. (2009), such as donation solicitations or volunteer requests, are the main contributions of this study.

1.1 Purpose

The purpose of this study is to identify and examine how top revenue-generating nonprofits in Japan and the U.S. use Facebook and to compare the similarities and differences. The study aims to obtain actionable data that can be used by American and Japanese nonprofits to improve their ability to build community and engage effectively with their stakeholders.

In order to achieve these goals, three research questions are answered.

RQ1: What information do nonprofits provide on their Facebook profiles in the U.S. and Japan, respectively?

Facebook profile features are important as they influence the presence of a nonprofit organization. When a user searches for an organization, the first thing they see is the profile. If a user's interest and concern are not captured on a nonprofit's profile, a user may choose not to follow an organization. Conversely, the content displayed on the profile, if effective, can lead to gaining followers and increasing engagement with users. In this way, the profile features correspond to user engagement and presence. Whether an organization just publishes information about itself, or whether it includes a contact method so that users can communicate with the organization directly is useful to examine as it shows how an organization is engaging with its users.

RQ2: How does Facebook user engagement differ by Facebook post type for nonprofits in the U.S. and Japan, respectively?

Engagement measures how and if users are interacting with the content published by nonprofits on social media. An organization with high engagement is likely effectively communicating with its users. However, engagement can also vary depending on post type category which, for this study, includes image, video, and external link posts. Insights into these differences are also obtained while answering this research question. As discussed in previous sections, effective communication has many benefits for nonprofits including building trust and a sense of community. There have been no comparative studies looking at the differences in nonprofit social media engagement between the U.S. and Japan. Answering this research question will help to fill the gap in prior literature by giving nonprofits in the U.S. and Japan insights into the most effective strategies for engaging with users.

RQ3: Do nonprofits in the U.S. and Japan use social media for similar or different purposes?

Engagement is effective for measuring the interaction between users and a nonprofit on social media; however, it does not tell the complete story of nonprofit social media use, which includes the nonprofit's social media strategy. This study looks at three categories of post content including donation requests, volunteer requests, and other which will provide insight into what nonprofits in the U.S. and Japan use social media for. These findings may allow nonprofits in both countries to re-examine and improve their approach to social media use.

1.2 Definition of Terms

Facebook

Facebook is a social networking service that aims to give people the power to build community and bring the world closer together. It was founded in 2004 and allows users to build communities and stay connected with family and friends. Users can share photos, text, and videos with their Facebook friends as well as engage with other users' posts by liking, commenting on, and sharing them (Facebook, 2020b).

Nonprofit (Definition in Japan)

A nonprofit is an organization that aims to carry out various social contribution activities such as welfare, community development, environmental conservation, international exchange, and disaster relief without seeking profit while remaining independent of the government. In particular, nonprofit organizations are expected to approach social issues that governments cannot achieve in the private sector (NPO Cabinet Japan, 2019).

Nonprofit (Definition in The U.S)

A nonprofit organization is an organization that provides a public benefit. A nonprofit is a business that has been granted tax-exempt status by the Internal Revenue Service because it furthers the educational, safety, scientific, and charitable areas of work. Received donations or any money earned through fundraising by a nonprofit is not subject to taxation. Nonprofits are sometimes called NPOs or nonprofit organizations (National Council of Nonprofits, 2020).

Nonprofit (Definition in The U.S and Japan)

The characteristics of U.S. nonprofit organizations, as defined by (Salamon, 1999b), can be divided into the following six categories

1. Officially established organizations.
2. Institutionally independent of the government and considered to be private.
3. Not profit-sharing and not profit-generating for the owners of the organization.
4. Self-governed and self-managed.
5. Voluntary.
6. Serves and contributes to the public good.

Frumkin (2002) also points out that the non-distribution constraint of nonprofit organizations is a unique feature of nonprofits, which applies to nonprofits in both Japan and the US, that helps prevent problems arising from information asymmetry that is often found in for-profit companies. Information asymmetry refers to the difference in the amount of information possessed by the service provider and the recipient. The problem lies in the fact that the service provider may abuse its rights in order to take advantage of the small amount of information the recipient has in order to gain further benefits. However, these problems are less likely to occur in nonprofits, which are characterized by a system of

non-distribution constraint (Frumkin, 2002). This is an advantage of nonprofits compared to governmental organizations and for-profit organizations in that they tend to gain the trust of citizens even more.

According to Johns Hopkins University (2011), the following two characteristics have been added to the six listed above as they better enable the comparison of nonprofits between countries.

1. Nonreligious.
2. Nonpolitical.

These characteristics are required for making international comparisons of nonprofit organizations as it was found that many organizations in other countries do not correspond to the American definition of a nonprofit organization. In fact, in the U.S., religious corporations are often classified as non-profit organizations, while in Japan, religious organizations are not recognized as nonprofit organizations (NPO Cabinet Japan, 2019). Therefore, in this study, the two characteristics mentioned above were also applied to define a nonprofit organization as there is an international comparison between American nonprofit organizations and Japanese nonprofit organizations.

Social Media

Social media is a type of interactive media that allows anyone to easily transmit information and interact with others via the internet. Typical examples include blogs, social networking services such as Facebook or Twitter, video sharing sites such as YouTube or Nico Nico Douga, and messaging applications such as LINE (Japan Ministry of Internal Affairs And Communication, 2020).

1.2.1 Classification of Nonprofit Organizations in the U.S. and Japan

As for the field of activities of nonprofit organizations, the classification system used in the international comparison of nonprofit organizations is adopted. Since the activities of nonprofit organizations vary widely, classification is necessary for research to distinguish between organizations. Specifically, the International Classification of Nonprofit Organizations (ICNPO) is used (Johns Hopkins University, 2011). This is a modified version of the International Standard Industrial Classification (ISIC) system, which divides organizations by their main economic activities or jobs. The reason for choosing this system is that it is a widely accepted system that is very useful for international comparisons of non-profit organizations. It classifies nonprofit organizations into 12 major groups. These groups defined by Johns Hopkins University (2011) are as follows:

1. Culture and recreation.
2. Education and research.
3. Health.
4. Social service.
5. Environment.
6. Development and housing.
7. Law advocacy and politics.
8. Philanthropic intermediaries and voluntarism promotion.
9. International.
10. Religion.
11. Business and professional associations, Unions.
12. Not elsewhere classified.

Although there are actually 12 major groups with their respective subgroups, for a total of 27 subgroups, only the major groups are considered because the data at the major group level is more reliable. Due to data limitations, it was not possible to distinguish organizations by subgroup (Johns Hopkins University, 2011).

1.3 Research Rationale

As there are many nonprofits operating around the world as well as many social media platforms available today, it is not possible to study all nonprofits across all social media platforms. The following section outlines the rationale for selecting both which social media platform as well as which countries to analyze in this study. First, the selection rationale will be discussed. Following this, are sections detailing the similarities and differences between the selected samples.

1.3.1 Rationale for Selecting Facebook

The most recent data shows there are 226 million Facebook users in the United State. Among them, 3.2% are in the 13-17 age group, 16.2% in the 18-24 age group, 26.4% in the 25-34 age group, 18.2% in the 35-44 age group, 13.9% in the 45-54 age group, 11.4% in the 55-64 age group and 10.7% in the 65+ age group (Statista, 2021, 2022). In terms of frequency of use, 73% of Facebook users in the U.S. use it daily, 93% use it weekly, and 98% access it monthly (Statista, 2020). In Japan, the number of Facebook users is approximately 21.5 million (2019). In terms of age groups, 48% of Facebook users are between the ages of 30 and 39, and about 30% are in their 20s. However, Facebook use among teens is very low (Statista, 2020).

As mentioned previously, of the nonprofits worldwide that maintain a social media presence, 84% are on Facebook, with an average of 20,606 followers per organization. Among these organizations, 97% own a Facebook page for their organization, 54% post Facebook stories, 47% purchase Facebook advertisements, 44% have organization Facebook groups, while only 29% use Facebook's online charity tools (Nonprofit Tech for Good, 2018).

Facebook was chosen as the social media site to analyze for this study because, as is shown in the data above, many nonprofits use Facebook as at least one part of their social media strategy. In addition, while data was not available to describe the usage patterns of Facebook in Japan, Facebook in the U.S. as shown in the data above is used frequently and consistently which makes it a good target for analysis as frequent users may be more likely to interact with nonprofits on the site.

1.3.2 Rationale for Comparing Nonprofits in the U.S. and Japan

In order to contribute novel findings to the literature, comparing two countries that have not been compared before in terms of the usage of Facebook by nonprofits is crucial. To achieve this, countries were selected from differing levels of government support for social welfare and related programs as the level of government support for social welfare tends to affect the size of a country's nonprofits. According to Korpi and Palme (1998), government involvement in social welfare can be grouped into five categories: targeted, voluntary state-subsidized, corporatist, basic security, and encompassing. Most countries fall into either the corporatist or basic security categories, so, these two categories were selected for this research. For the basic security category, the U.S. was selected as it has a well-established nonprofit sector

that attracts the highest number of donations in the world (World Population Review, 2020). For the corporatist category, Japan was selected partially due to the fact that no research has been done on nonprofit Facebook usage in Japan or on comparisons between Facebook usage in the U.S. and Japan. Additionally, the U.S. and Japan share strong ties which makes comparisons between the nonprofit sectors in both countries particularly interesting.

The formal connection between the U.S. and Japan began with the Treaty of Amity and Commerce, which was established in 1854. After the Pacific War from 1941 to 1945, the U.S. and Japan have had a strong military, political, and economic ties due to post-war alliances.

In terms of military and political relations, the U.S. military facilities in Japan should be mentioned. Currently, there are 78 of them as of 2021 (Ministry of Defense, 2021). Of the total area of facilities, about 70% are densely located in the Okinawa Prefecture. The U.S. military bases are determined by the Japan-U.S. Security Treaty, which was signed in 1951 and revised in 1960. The purpose of the installation is to protect peace in Japan, China, Taiwan, and the Korean Peninsula.

In terms of economic ties, the U.S. is an important trading partner for Japan. In 2019, it was Japan's number one trading partner in terms of exports and number two in terms of imports (Ministry of Finance Japan, 2022). Furthermore, in 2018, Japan was the fourth-largest trading partner for the U.S. in terms of exports and imports (Japan Foreign Trade Council, 2021).

Because of these strong military, political, and economic ties, Japan gained significant insight into the West as a whole but specifically the U.S. At least in part, the strong alliances between the U.S. and Japan likely helped to form Japan's notion of what civil society, and specifically nonprofits, could look like. This can be seen

through the similarities between nonprofits in the U.S. and Japan. However, Japan's level of government aid for social welfare remains in a different category from the U.S. and its nonprofit sector is significantly younger. As mentioned, the governments in the U.S. and Japan have different levels of support for social welfare and related programs. In Korpi and Palme (1998), the U.S. is categorized as basic security, while Japan is categorized as corporatist. As defined by Korpi and Palme (1998), the definition of basic security is flat-rate support if you are a citizen or if you have contributed to the program. Whereas in Japan, which is classified as a corporatist country, you can receive income-based benefits only if you are in certain occupational categories and if you have contributed to the program. In general, corporatist countries, such as Japan, tend to have a larger social benefit expenditure as a percentage of their gross domestic product (GDP) than basic security countries, such as the U.S. (Korpi & Palme, 1998). The most recent available data from both the U.S. and Japan regarding social benefit spending confirms this to be true with Japan spending 22.3% of their GDP and the U.S. spending 18.7% (OECD Data, 2022).

The size of nonprofits in the U.S. and Japan appears to be inversely correlated to the amount of social benefit expenditure in both countries (NPO Cabinet Japan, 2019; The Non-Profit Times, 2019). This difference makes a comparative study of the social media usage of nonprofits in both countries particularly interesting as the nonprofits were created to fill potentially different gaps in governmental support of social benefits. Put differently, social media usage may differ between nonprofits in the two countries as the needs of each are different due to how involved the government is in social benefits. Comparisons between the two countries allow for novel insights into how at least partially similarly structured nonprofit sectors between two strongly aligned countries at different stages in their growth utilize modern tools available to them

such as Facebook. Selecting the U.S. and Japan enables this research to fill gaps in the literature, provides novel insights into both nonprofit Facebook usage in Japan as well as comparisons between the U.S. and Japan with respect to nonprofit Facebook usage, and may allow for nonprofits in both countries to better utilize social media by exposing strategies which have not been used by nonprofits in the given country due to initially different needs.

1.3.3 Rationale for the Selection of Nonprofits

As discussed in the previous section, nonprofits in the U.S. tend to be larger in terms of revenue than nonprofits in Japan, at least in part, because of the difference in social benefit expenditure of both countries. Despite this, nonprofit revenue is still useful for determining which nonprofits are financially performing the best in each country. While each country has different top income distributions, both represent the most successful organizations in each country. As more successful organizations are probably more likely to have an active social media presence, selecting top-performing nonprofits allows the sample to contain mostly active social media profiles.

According to the National Center for Charitable Statistics (NCCS), there are more than 1.5 million registered nonprofits in the U.S. (National Center for Charitable Statistic, 2019). In contrast, the number of nonprofits in Japan was only 50,860 as of December 2021 (NPO Cabinet Japan, 2019). However, the number of nonprofits announced by the Japanese government contains only those which are certified organizations. If looking at certified nonprofits, there is a difference of 29 times between the U.S. and Japan, however, while undocumented, there are many volunteer organizations

or other non-certified organizations which may unofficially be considered nonprofits in Japan. So, the difference may be smaller than suggested by official reports.

In the U.S., organizations with 501(c)(3) status are eligible for tax incentives on donations. However, in Japan, the only nonprofits that can deduct donations are certified nonprofits. Volunteer organizations that are not certified are not eligible for tax deductions. In other words, although the number of nonprofits in Japan is increasing, the number of organizations that can receive preferential treatment for donations in Japan is smaller than in the United States. According to the National Center for Charitable Statistics' Nonprofit Sector in Brief in 2014, in the U.S., 53.6% of nonprofit income comes from earned income, 32.3% from government grants, and 12.9% from private donations while all remaining sources accounted for 1.2% (National Center for Charitable Statistic, 2019).

As for the sources of income of nonprofit organizations in Japan, according to a survey of 7,347 nonprofit organizations in Japan conducted by NPO Cabinet Japan (2019), earned income accounted for 48.8%, grants from individuals and the private sector (including corporations) accounted for 31.6%, and government subsidies accounted for 13.2% while all remaining sources accounted for 6.4%. It is very interesting to note that, as can be seen in Table 1, although the size of nonprofits differs greatly between the U.S. and Japan, the proportions of sources of income are very similar.

While the income distributions for top nonprofits in the U.S. and Japan are very different, the distribution of income sources is nearly identical. These similarities help to reinforce that selection based on top revenue is valid as the organizations' total income is very different, however, the means to revenue are very similar.

Table 1. Nonprofit Income Sources

	Earned Income	Government Grants	Private Donations
The U.S.	53.6%	32.3%	12.9%
Japan	48.8%	31.6%	13.2%

Note: Data collected from (National Center for Charitable Statistic, 2019; NPO Cabinet Office Japan, 2021).

1.3.4 Nonprofit Volunteers

As for volunteers, the following data is presented for reference, although none were found that measure the same scale in the U.S., and Japan. Despite this, these comparisons are important as this study aims to compare how users interact with nonprofits which are making volunteer requests on social media in the U.S. and Japan.

With regard to the number of volunteer days in Japan for those involved in project activities, 12.1% volunteered for 0 days, 14.2% volunteered for 1 to 9 days, 13.1% volunteered for 10 to 29 days, 9.9% volunteered for 30 to 49 days, 11.6% volunteered for 50 to 99 days, 14.1% volunteered for 100 to 199 days, and 24.9% volunteered for more than 200 days (NPO Cabinet Office Japan, 2021). It should be noted, however, that even one hour of activity in a day is counted as one day.

In the United States, approximately 64.4 million people volunteered at least once in 2017. This amounts to 25.1% of the population. In terms of time spent volunteering, it is about 8.8 hours per volunteer (National Center for Charitable Statistic, 2019).

1.3.5 Tax-Exemption in Japan

One of the advantages that certified nonprofits have is tax exemption. Membership fees, donations, and government and individual funding are not subject to taxation which is one of the merits of nonprofits. However, business income is more complicated and the Cooperation Tax Act in Japan states that if an organization acts as a profit-making business, the organization is subject to taxation of profits. Profit-making businesses include, but are not limited to, selling goods or services, real estate, and money lending. There are 34 business types that are considered to be profit-making businesses and because of this profits related to these types of activities are subject to taxation. However, if the business is not one of the 34 types, childcare is one such example, profits are not subject to taxation. Additionally, these rules only apply to certified nonprofits in Japan and it can take more than four months, sometimes significantly longer, to become certified. This means that even if an uncertified organization is doing an activity similar to a certified nonprofit, they are obligated to pay taxes.

1.3.6 Tax-Exemption in the U.S.

There are non-profit organizations with various purposes, but in the U.S., they are classified under Section 501(c) of the federal tax code: educational, religious, charitable, scientific, public safety, literary, and child and animal abuse prevention purposes. Hopkins (1989) says that nonprofit organizations are those that address personal and social issues. Indeed, a nonprofit organization works to improve social problems, and nonprofits in the U.S. consist of a wide variety of organizations that

are incorporated, including foundations, schools, and social welfare organizations. For organizations to be recognized as non-profit organizations, they must be legally established, not affiliated with the government, must not distribute profits to the organization's leaders or the individuals who run the organization, and must be independently operated.

Income earned by 501(c) organizations is tax-exempt, even if the income is business or profit-making-related. However, these earnings must be compatible with the social purpose of the organization. Furthermore, if an individual or company makes a donation to a 501(c)(3) organization, the amount can be deducted from the donor's income for tax purposes.

The NTEE code (National Taxonomy of Exempt Entities) helps to separate nonprofits that are engaged in a variety of activities in the U.S. The NTEE was first created by the NCCS (National Center for Charitable Statistics) and the NTEE system is used by the IRS and NCCS to classify nonprofit organizations. In addition, the Foundation Center also uses it to sort grants and grant recipients. While the NTTE code helps to categorize the many nonprofit organizations with a wide range of activities by sector, it also poses challenges. Indeed, if there is one main code for each nonprofit organization, nonprofits may be able to divide their activities into different fields, however, organizations that are working to improve problems in multiple fields may create a false image of their activities because of one main code holding. Nevertheless, if the NTEE code is introduced in Japan, where financial data is publicly available but not in a unified form, and in other countries where it is not used, it would help to classify the activities of nonprofits and make it easier to investigate and compare their finances by category.

1.3.7 Sample Similarities

The sample for this research includes nonprofits in both the U.S. and Japan. Regarding the samples from the U.S., the top 100 nonprofits by revenue are selected from The Non-Profit Times (2019). For the nonprofit organizations in Japan, the sample consists of the top 94 nonprofit organizations in the highest revenue bracket, $262,882 to $876,374, and were selected from the NPO Mieruka Nabi, which means, visualization navigation (NPO Mieruka Nabi, 2022).

The similarities between the U.S. and Japanese samples are as follows. The first is that the mission statements of nonprofits in each country are similar. Specifically, all of the organizations focus on various social problems that exist today and include content that attempts to solve those problems. Secondly, both organizations in the U.S. and Japan can be categorized in the same way. Specifically, the International Classification of Nonprofit Organizations (ICNPO) was used as a reference to categorize the organizations, and the activities and missions of organizations in the same category are similar. Third, with regard to the definition of a nonprofit, they are built on very similar definitions. Fourth, the organizations in both countries are similar in that they are among the top 100 organizations in their respective countries in terms of revenue. This means that they are both relatively stable and well-run organizations in their respective countries. Lastly, as mentioned earlier, the percentage of income sources for nonprofits in the U.S. and Japan are very similar.

Chapter 2

RECENT HISTORY OF NONPROFITS IN THE U.S. AND JAPAN

2.1 The U.S.

The Revenue Act of 1954 created the tax laws that exist today. Specifically, Section 501(c) of the Internal Revenue Code states that nonprofits must run on a nonprofit basis and not distribute profits earned to organizational members (Daniels, 2017). Following this provision can help a nonprofit qualify for tax exemption benefits. In addition, donations to 501(c)(3) organizations can be tax-deductible. Since 1969, when Congress passed a revision to the law, all nonprofits have been required to file and make Form 990 available to the public, which describes the financial status of the organization (Chasin et al., 2022). In the 1960s, the government entered the welfare sector on a large scale. This resulted in a broad field of collaboration between nonprofits and the government (Salamon, 1999b). Nonprofits gained momentum in the United States during the Reagan administration in the 1970s. In response to the recession that followed the Vietnam War, the government adopted a policy shift to "small government," which promoted leaving what the private sector could do to the private sector and proposed fiscal reform. Beginning in the early 1980s, government budget cuts took a heavy toll on the financial resources of nonprofits, leaving many in serious financial trouble (Salamon, 1999a). Reaganomics in the 1980s aimed to revive the U.S. by cutting back on social security spending and boosting military spending. The welfare budget, which had increased due to rising unemployment, was cut as non-defense spending. As a result, the public's anxiety about society increased and

caused social confusion. Then, the concept of social capital was proposed by Putnam. This concept refers to the spirit of building a community through the cooperation of each individual living there, rather than relying entirely on the government, in other words, community power. He studied the different states in Italy and found that civic participation was an essential key to the success of a region (Putnam, 1993). This includes belonging to soccer clubs, reading circles, and singing in choirs. This sense of belonging and community can be seen virtually as the engagement of users with nonprofits on social media. Putnam argued that social capital, that is, rich civic solidarity, leads to economic development and better government (Putnam, 1993). Later, he pointed out that the decline of social capital in the U.S. is due to women's social advancement and the relocation of populations (Putnam, 2000).

Today, nonprofits in the U.S. are beginning to play a very active role in society. The existence of nonprofits that can work more flexibly is also becoming more important. In fact, many of the welfare services such as hospitals, schools, and libraries are run by nonprofits.

2.2 Japan

The nonprofit sector in Japan is very young compared to the nonprofit sector in the United States. In 1998, the first law established for nonprofits was the Act on Public Interest Corporations. However, this was for organizations working under the supervision of the government and did not give freedom to citizen activities. In the 1990s, there was an increased effort to create a more liberal, citizen-driven law, and in 1995, the Great Hanshin-Awaji Earthquake triggered the creation of the NPO Law which was implemented in 1998 (NPO Cabinet Japan, 2019). The earthquake

was the first of its kind in the country's history, with a seismic intensity of 7 on the Richter scale, killing 6,434 people, including related deaths, and causing damage to 640,000 homes (Kobe Newspaper NEXT, 1995). This brought people's attention to the volunteers who gathered across Japan to help, which led to an increase in people's understanding of the necessity of volunteers and nonprofit organizations (DREAMISLAND, 2022). The NPO Law implemented in 1998 allowed volunteer groups and public interest groups to obtain legal authorization as an organization. When the law was first introduced, there were only 23 nonprofits in Japan, however, the number has been increasing dramatically since then; Japan now has 51,031 nonprofits (NPO Cabinet Japan, 2022). In 2011, after the Great East Japan Earthquake, the NPO Law was substantially revised and came into effect in 2012. The number of certified nonprofits in 2001 was 6,596, however, as a result of the revisions to the NPO Law, it has increased to 51,058 organizations as of July 31, 2020 (NPO Cabinet Japan, 2022). It can be said that the number of nonprofits is increasing at a very fast pace in Japan. The increase in the number of organizations implies that the amount of data generated has also been increasing, and technology is needed to collect, analyze, and obtain meaningful results from this data.

Chapter 3

LITERATURE REVIEW

Over the past two decades, many social media companies providing a variety of services have emerged such as Facebook in 2004 (Facebook, 2020a), Twitter in 2006 (Twitter, 2020), Instagram in 2010 (TechCrunch, 2020), and LINE in 2011. Social media is a form of media that encourages the exchange of information among users. For example, with Twitter, a user can tweet, the service's term for a public post, messages as long as they contain fewer than 140 words. Similarly, with LINE, a user can call or send messages privately to other users of the service. However, there are also more personal social media services that allow a user to communicate and deepen their relationship with their friends, co-workers, neighbors, or extended family. Facebook is one of the most popular social media services which falls under this category and requires users to use their real names. Moreover, the personal information of each user can be seen by the user's friends. Around 3.8 billion people in the world use social media today (We Are Social, 2020).

Social media services are used not only between individuals but also as idea and information-sharing platforms for groups that may have specific goals. Nonprofit and for-profit companies often use social media as well. The driving motivation for a private company is that if they introduce their product on a platform such as Facebook and someone shows interest in the product, this information can be used to recommend the same product to people in this person's network. In addition, if a buyer posts positive feedback about a product it improves the company's ability to sell the product. This enables companies and customers to collaborate to increase the

benefits for the other. Nonprofits use social media for a variety of reasons including, showcasing their work, recruiting volunteers or event attendees, soliciting donations, and more (Nonprofit Tech for Good, 2018).

According to NPO Cabinet Office Japan (2021), in terms of social media usage, 93.7% of Japanese nonprofits have a website or blog to distribute information about their activities. In addition, 87.2% of them use LINE, Facebook, or other social media for administrative communication. Information about the organization's activities is distributed through social media by 61.3% of the total respondents. In addition, 43.7% of the respondents get information about other nonprofits from social media. These findings show that nonprofits in Japan have fairly strong usage of social media.

Despite fairly strong social media usage, there are still areas that can be improved in terms of the strategic use of social media. Nelson (2019) researched how nonprofits can build good relationships with stakeholders through Twitter, and also how to gain new organizational advocates from viral messages. From this study, tweets in the form of sharing information were found to be more passive, such as retweets and favorites. It was found that the tweets that attract greater attention are those that are aimed at opening a communication dialogue with users, and tend to have higher levels of user engagement such as @ mentions and retweets with comments. Interestingly, tweets that invite online event participants or promote some kind of action had the highest number of @ mentions, retweets, retweets with comments, and favorites, as well as the highest levels of user interest and the most interactivity. In addition, users who participate in an organization's campaign or post using the event's hashtag have the opportunity to engage with the organization more than other users (Nelson, 2019). These findings are interesting as they show that at least for Twitter, the type and content or purpose of a post influences the level of user engagement.

According to Nonprofit Tech for Good (2018), in the Asian region, 57% of respondents accepted online donations on their websites. In addition, 95% of organizations that use social media believe that it is effective. The most popular social media sites used by nonprofits in the Asian region were Facebook (72%), Twitter (32%), Instagram (28%), and YouTube (26%). In the U.S. and Canada, 97% of nonprofits have a website. Of these, 85% allow online donations on their websites, the highest percentage in the world. These findings show that at least in the Asian region, Facebook is the most widely used social media platform by nonprofits. However, it appears that many nonprofits are not taking full advantage of the donation-related opportunities through social media compared to U.S. nonprofits. A different donation-related survey of 339 people in Switzerland found that 87% of respondents had already donated to Swiss nonprofits (Nageswarakurukkal et al., 2019). However, two-thirds of these donations were still in the form of offline donations. Donations through online channels still need to be embraced in the future, as there is a huge potential for online contributions (Nageswarakurukkal et al., 2019). This opportunity exists because newer generations are more willing to donate online, and a wider range of donation methods can help attract more customers (Nageswarakurukkal et al., 2019). These findings demonstrate that nonprofits should include online fundraising as one of their fundraising strategies, as it is more efficient and less costly in targeting young people. Nageswarakurukkal et al. (2019) claims that having multiple channels for fundraising is effective, but the methods need to be differentiated depending on which audience is being targeted. For example, private donors would read the organization's activity reports and see how their donations are being used. Therefore, activities should be well reported in order to increase donor loyalty. However, a different approach is needed when targeting online shoppers. They prefer to pay online and are willing to help those in need, but

tend not to spend time reading information about nonprofits. This indicates that audio and visuals may be an effective tool for soliciting donations or at a minimum engagement from online shoppers.

Algharabat et al. (2018) argues that there is a positive relationship between social presence and the emotional and cognitive aspects of engagement. Specifically, there are two factors that have a positive impact on consumers' engagement with an organization: social presence and involvement. To this point, they found that it is beneficial to use social media by posting success stories of an organization's customers through photos and videos to emotionally engage the viewer. When it comes to posting on social media, posting pictures that call to people's imagination, such as pictures of people struggling with diseases can increase the presence of nonprofit organizations as it touches viewers' imaginations. Similarly, they found that photographs can deliver information through non-verbal actions, such as postures or facial expressions, which can provide a heightened emotional response compared to text only. As with Nageswarakurukkal et al. (2019), these findings indicate that audio and visuals are likely effective tools for driving user engagement.

Another study of how an organization's use of social media affects user engagement found that users respond differently to Facebook and Twitter (Smith, 2018). Specifically, they found that the type of communication, coded according to Lovejoy and Saxton (2012), had a greater impact on user engagement on Facebook than the type of post, coded as text, link, picture, or video. However, in terms of the impact of the post, the post type was found to be more important on Twitter than the communication type (Smith, 2018). In terms of post type, posts with videos and photos were more effective than text and external links only (Smith, 2018). Additionally, Smith (2018) states that photos and videos increase the likelihood that a post will be shared on

Facebook, and video posts are effective at improving engagement with users. Facebook is also more effective at generating dialogue than Twitter. Based on these findings, if a nonprofit's goal is to gain high engagement with stakeholders from Facebook, they should likely think carefully about what they are communicating with their users as both post type and communication type appear to impact user engagement.

With respect to the relationship between the type of image posted and the number of "likes," "comments," and "shares" received, a study of the emotions expressed in the images posted by two large nonprofits, UNICEF USA and Save the Children US, found that for Save the Children US, negative images expressing sadness and fear received more reactions (Jordan et al., 2018). However, for UNICEF USA, there was no difference in the number of reactions for negative, positive, or neutral pictures (Jordan et al., 2018). With regard to the use of Facebook by environment-focused nonprofit organizations in Malaysia, content analysis and expert interviews revealed that informational posts were more engaging than posts aimed at community building (Bashir & Fong, 2020). The findings from Bashir and Fong (2020) are particularly interesting as they seem to disagree with the findings of Algharabat et al. (2018) mentioned above with respect to communication type and its relationship with user engagement.

As for studies that have directly looked at nonprofit usage of Facebook, Waters et al. (2009) conducted empirical research about social media usage by nonprofits by analyzing the Facebook profiles of 275 nonprofits in the United States. The research claims that nonprofits in the U.S. are not fully taking advantage of the communication tools that Facebook is offering. On average, a nonprofit's strategy for using Facebook was found to be posting photos or providing links that lead users to external news. However, the authors found that barely any nonprofits posted content

other than links to external news. In addition, 30% of the 204 sampled organizations did not use discussion tools over the prior month. The authors also mentioned that nonprofits tend to lack the time and resources to handle social media strategically. Moreover, the nonprofits sampled did not post documents to inform their followers about management news, new products, or other services offered. These findings are interesting as they show that at least in 2009, nonprofits in the U.S. were not fully taking advantage of the opportunities that Facebook allows for.

As described above, many studies have been done related to both generic social media usage by nonprofits as well as detailed usage and approach analysis. While studies such as Jordan et al. (2018) and Smith (2018) demonstrate that both post type and communication type likely matter for user engagement and that nonprofits should pay attention to these, no similar studies have been performed for nonprofits in Japan or as comparisons between the U.S. and Japan. Similarly, while Waters et al. (2009) looked at the overall approach to Facebook usage by nonprofits and showed that the tool was being underutilized, both social media and the nonprofit landscape have advanced in the past thirteen years since the study. Additionally, Waters et al. (2009) did not investigate user engagement or provide insights into nonprofits outside the U.S. such as Japan. Finally, studies that investigated the impact of media type on engagement such as Algharabat et al. (2018) and Nageswarakurukkal et al. (2019) did not also investigate engagement as it relates to communication type. There is currently no existing literature that studied Facebook usage by nonprofits in Japan or which compared nonprofit Facebook usage between the U.S. and Japan. This research aims to fill these gaps in the existing literature by investigating, for both nonprofits in the U.S. and Japan as well as comparisons between them, the impact of post type and communication type on user engagement for nonprofits and the

approach to information disclosure and involvement through Facebook profiles. Based on prior research, it is expected that posts which include either a video or an image will increase engagement for nonprofits in both the U.S. and Japan.

Chapter 4

RESEARCH METHODOLOGY

4.1 Research Design

The sample for this study contains 100 nonprofit organizations in the U.S. and 94 nonprofit organizations in Japan. Details about the selection methodology for this sample can be found in the next section.

> *RQ1: What information do nonprofits provide on their Facebook profiles in the U.S. and Japan, respectively?*

This is analyzed by examining whether a given nonprofit Facebook profile includes information disclosure and involvement. Information disclosure includes the following information: nonprofit description, mission statement, URL to the organization's website, the organization's history, and the organization's logo. Involvement is the presence of an email address and phone number. The research methodology for this question was based on a study that analyzed the content of nonprofit Facebook profiles (Waters et al., 2009). To answer this question, the full sample (100 U.S. and 94 Japanese nonprofits) is used.

> *RQ2: How does Facebook user engagement differ by Facebook post type for nonprofits in the U.S. and Japan, respectively?*

User engagement is calculated as follows

$$EngagementRate(\%) = ((Likes + Comments + Shares)/TotalFollowers) * 100$$

Specifically, follower engagement is calculated by summing up followers' responses (likes, comments, and shares) to each organization and dividing it by the number

of followers. The higher the number, the higher the engagement rate. The number of likes on a page is not considered a form of engagement. Concretely, "likes" for a post on Facebook and "likes" for an organization's page are different. Liking an organization's page allows a user to follow the page. In this study, "liking" a post, or some other kind of reaction stamp, is counted as engagement. Seeing and liking a post or some other reaction stamp indicates interest in the post. Comments on posts are also considered engagement. Sharing opinions and feelings about a post indicates interest in the post and a desire to be involved. Sharing is another form of engagement as well. This is because sharing occurs because respondents want their own followers to know about the post distributed by the organization and to spread the information. Taking some action in response to a post, as described above, indicates the user's interest in and liking of the organization.

Differences in engagement by post type were examined by splitting posts based on if the post contains an image, video, or external link and comparing the engagement rates between posts with and without an image, video, or external link, respectively. To answer this question, a sub-sample of the entire sample is used by selecting the top one US and Japanese nonprofit by follower count from each of the 7 subcategories of nonprofits, namely culture and recreation, education and research, health, social service, environment, philanthropic intermediaries and voluntarism promotion, and international. The reason for a significantly smaller sample size is that all posts by each of the nonprofits in both countries are analyzed over a 45 day period. This includes a significant amount of data despite a small organizational sample size. Variable definitions are presented with the results.

RQ3: Do nonprofits in the U.S. and Japan use social media for similar or different purposes?

Post content by each nonprofit on social media was analyzed to determine the

purpose of the post broken down into three possible categories: request for volunteers, donation solicitation, and other. These categories were also analyzed with respect to user engagement. The same sample is used as in RQ2 and for the same reasons. Variable definitions are presented with the results.

In this study, the comparative method is applied. The comparative method is a way of looking at a research object in relation to other research objects. Since the object of study can be compared across space and time, it is an adaptable method for comparing nonprofit organizations in the U.S. and Japan. Specifically, it looks for differences and similarities between the nonprofit organizations of the two countries and explains them. The Variable-Oriented approach is also applied. This is an evidence-based research method, characterized by a flexible approach. It looks for patterns in variables (Ragin, 1981). To add, the challenge of this research method is that the objects of comparison may appear to be the same group, but they may be defined differently in each country. The same sub-sample of the entire sample is used as in RQ2 and contains posts by the top 7 U.S. and Japanese nonprofits by follower count over a 45 day period.

4.2 Selection of Participants

Regarding the sample from the U.S., as mentioned in the introduction, the top 100 nonprofits by revenue were selected from The Non-Profit Times (2019). One note is that only nonprofit organizations that receive 10% or more of their income from public support are included in this ranking.

Regarding the sample from Japan, again as mentioned in the introduction, the top 94 nonprofit organizations in the highest revenue bracket, $262,882 to $876,374, in

Japan are selected from the NPO Mieruka Nabi, which means, visualization navigation (NPO Mieruka Nabi, 2022). In addition, only organizations whose membership fee/donation ratio accounts for more than 15% of their income were carefully selected. The reason why the same framework as in the U.S. of 10% or more was not used is that the website only allowed for separating the data into the 15% or more grouping.

With respect to RQ2 and RQ3, 7 nonprofits with the highest number of followers from each subcategory in the US and Japan were selected from the overall sample described above.

For the sampling method, non-probability sampling is used. This is a method of subjectively, or in other words, intentionally, selecting a sample of research subjects based on information held by the researcher. In this study, this sampling method was chosen in order to prevent the inclusion of non-certified nonprofit organizations as well as unincorporated volunteer groups in Japan, which may result in higher error rates. Furthermore, the sample was intended to include organizations that rank high in terms of financial health, in order to target organizations with a high degree of independence and autonomy.

Organizations with a large amount of revenue were selected based on the belief that they are relatively stable and therefore active on social media. If random sampling was used it may have included many smaller organizations that may not maintain social media or may have irregular activity, which could have biased the results for RQ2 and RQ3. This sampling choice is suitable to reduce bias in conducting research on organizations that are regularly active on social media.

For RQ2 and RQ3 there are 7 categories as organizations that fall into the development and housing, law advocacy and politics, religion, business and professional associations, and not elsewhere classified categories were excluded. The reason is

that the only Japanese nonprofit organization that falls under the development and housing category does not have a Facebook page. Also, no U.S. nonprofit organizations fall under the law advocacy and politics category. Religious organizations are not considered nonprofit organizations in Japan and were excluded for this reason. Finally, no nonprofits fell into the business and professional associations or not elsewhere classified categories in either the U.S. or Japan.

With regard to the jurisdiction of each organization, the author has included the Cabinet Office and all areas of Japan in the scope of selection. In addition, the date of establishment of organizations is included from 1970 to the 2000s. For the balance of business ratios, business growth rates, and sources of income, no range was defined and all were included in the selection. On the scale of income, the ranking was based on the average total recurring income over the past three years. It should be noted that the Public Interest Incorporated Associations were left out. After the selection, religious-related organizations were removed from the study due to the definition difference between the two countries.

As a result, there were 7 organizations with revenues of more than 1 billion yen, or $8,762,550 (exchange rate as of Jan 13, 11:57 PM UTC 2022). There were 28 organizations with more than 100 million yen but less than 1 billion yen, or more than $876,374 and less than $8,762,550, and 59 organizations that had more than $30 million yen but less than $100 million yen, or more than $262,882 but less than $876,374. The total number of organizations was 94.

4.3 Data Collection Methods

Data on the U.S. nonprofit organizations were gathered from The Nonprofit Times (The Non-Profit Times, 2019), while Japanese nonprofit organization data was gathered from the NPO Mieruka Nabi (NPO Mieruka Nabi, 2022). To determine how nonprofits in the U.S. and Japan use social media to engage with their stakeholders, this research uses Facebook. Facebook usage by nonprofits is measured and broken down into two categories with reference to the study conducted by Waters et al. (2009). The categories are organizational information and engagement with stakeholders and Facebook users. Specifically, for organization information, the following information was looked at: a description of the organization's efforts, the organization's origins, the organization's mission, the organization's logo, and whether there is a link to the organization's website. In terms of stakeholder and Facebook user engagement, whether information allowing for mutual communication, such as contact information for the organization, donation solicitation, or volunteer opportunities was investigated. In addition, engagement rates with each organization's users are measured.

Almost all measurement scales are nominal in the first category due to the data being simple yes/no identifications. Hence, the instruments used in this research is the observation of an organization's social media profiles and post contents evaluation which is used to fill in Tables 2, 3, 4, and 5 based on Waters et al. (2009).

All data on Facebook used in this study is publicly available data. Specifically, as mentioned earlier, the nonprofit's profile is checked to see if it contains a description, mission statement, URL to the organization's website, the organization's history, the organization's logo, an email address, and phone number. From this data, it is possible to determine if there is a lot of one-way distribution of information, or if

the user is provided with some way to contact the organization. Next, the level of user engagement for each post per nonprofit is measured. To achieve this, post time, organization name, post text, if the post contains an image, if the post contains a video, if the post contains an external link, the number of reactions, the number of comments, the number of shares, and the calculated engagement rate are collected for each post in the data set. The engagement rate is calculated and measured as previously described in the Research Design section. While each nonprofit may be posting at a set frequency, the timing, date, and time of posting can be expected to vary. Therefore, data posted in the prior 45 days from April 2nd 2022 by each of the top 7 nonprofits by follower count is included in the study.

4.4 Classification Process

For the classification of nonprofit organizations in the U.S., the NTEE codes of each organization were checked and each organization was then categorized in accordance with the International Classification of Nonprofit Organizations (ICNPO). As for the categorization of nonprofit organizations in Japan, there is no code equivalent to the NTEE code. However, it is possible to check the field of activity (including multiple selections) of nonprofits registered with the NPO Cabinet Office. Therefore, in the process of categorizing Japanese nonprofit organizations, the activities of the organizations were checked by visiting their websites and comparing them with the information provided by the NPO Cabinet Office to fit them into the International Classification of Nonprofit Organizations (ICNPO) categories. For example, if a nonprofit's main activity was health, it was placed in the health category in reference to the ICNPO.

Chapter 5

RESULTS

5.1 Research Question One

First, by analyzing Facebook profile contents, we aim to understand how a nonprofit is using social media as a tool to communicate with its stakeholders. Specifically, a nonprofit's description, mission statement, organization URL, history, and organization logo are evaluated.

To fit neatly into the table, the classification order of the organization has been shortened and is defined as follows:

(1) Cul. *Culture and Recreation*

(2) Edu. *Education and Research*

(3) Heal. *Health*

(4) Soci. *Social Service*

(5) Env. *Environment*

(6) Phi. *Philanthropic Intermediaries and Voluntarism Promotion*

(7) Int. *International*

The collected data shows that with respect to Information Disclosure, nonprofits in the U.S. tend to offer more information on their Facebook profiles than nonprofits in Japan. Specifically, 83% of nonprofits in the U.S. had a Facebook profile, however, only

67.02% of nonprofits in Japan had a Facebook profile. While most U.S. and Japanese nonprofits provided a description and a URL to the nonprofit's website on their Facebook profile as shown in Tables 2 and 3, many did not provide the organization's history with only 45.78% of nonprofits in the U.S. and 31.74% of nonprofits in Japan providing history. Furthermore, the inclusion of a mission statement was less common for nonprofits in Japan. The lower rate of having a Facebook profile for Japanese nonprofits may be due to the nonprofit sector in Japan being significantly younger with many nonprofits yet to adopt social media as a strategy.

Table 2. Profile Contents in the U.S. - Information Disclosure

	Cul	Edu	Heal	Soci	Env	Phi	Int
Description	13(1)	8(1)	16(1)	8(1)	7(0)	7(0)	18(2)
Mission statement	7(7)	7(2)	14(3)	7(2)	1(6)	0(7)	16(4)
URL to a nonprofit website	14(0)	9(0)	17(0)	9(0)	7(0)	7(0)	20(0)
Organization's history	4(10)	0(9)	15(2)	0(9)	1(6)	0(7)	18(2)
Organization's logo	13(1)	8(1)	17(0)	8(1)	7(0)	7(0)	18(2)

Note: Table presents the frequency of each item in the form included(missing).

Table 3. Profile Contents in Japan - Information Disclosure

	Cul	Edu	Heal	Soci	Env	Phi	Int
Description	4(1)	5(3)	7(0)	6(2)	4(1)	3(0)	27(0)
Mission statement	4(1)	1(7)	2(5)	0(8)	1(4)	0(3)	6(21)
URL to a nonprofit website	4(1)	8(0)	7(0)	7(1)	5(0)	3(0)	27(0)
Organization's history	0(5)	2(6)	2(5)	2(6)	1(4)	0(3)	13(14)
Organization's logo	3(2)	7(1)	7(0)	5(3)	4(1)	3(0)	24(3)

Note: Table presents the frequency of each item in the form included(missing) where included means it appears on a Facebook profile and missing means it does not.

With respect to Involvement, as shown in the Tables 4 and 5, nonprofits in both the U.S. and Japan provided a contact e-mail address at roughly the same frequency with 68.67% of U.S nonprofits and 71.42% of Japanese nonprofits providing an e-mail address. U.S. nonprofits included a phone number more often than Japanese nonprofits with 85.54% of U.S nonprofits and 71.42% of Japanese nonprofits providing a phone number. This indicates that nonprofits in both the U.S. and Japan do a good job of providing methods for user's to contact the nonprofit.

Table 4. Involvement (Methods Used by an Organization to Directly Communicate with Social Media Users) - the U.S.

	Cul	Edu	Heal	Soci	Env	Phi	Int
E-mail address	5(9)	3(6)	14(3)	7(2)	4(3)	7(0)	17(3)
Phone number	11(3)	7(2)	14(3)	7(2)	6(1)	6(1)	20(0)

Note: Table presents the frequency of each item in the form included(missing) where included means it appears on a Facebook profile and excluded means it does not.

Table 5. Involvement (Methods Used by an Organization to Directly Communicate with Social Media Users) - Japan

	Cul	Edu	Heal	Soci	Env	Phi	Int
E-mail address	3(2)	7(1)	4(3)	5(3)	5(0)	1(2)	20(7)
Phone number	3(2)	7(1)	5(2)	4(4)	3(2)	2(1)	21(6)

Note: Table presents the frequency of each item in the form included(missing) where included means it appears on a Facebook profile and excluded means it does not.

5.2 Research Question Two

Facebook posts posted by the 7 selected nonprofit organizations in the U.S. during the 45-day period beginning on February 2nd, 2022 and ending on April 2nd, 2022 consists of 165 image posts, 174 video posts, and 332 external link posts, compared with 114 image posts, 26 video posts, and 284 external link posts by the 7 selected Japanese nonprofits. In order to understand if users interact more with nonprofits in the U.S. or Japan, the normalized, raw number divided by follower count, number of reactions, comments, shares, and calculated engagement were compared between the two countries. To achieve this comparison, posts in the data set were first split by nonprofit category and then the normalized number of interactions was compared by country which is shown in Figure 1. Interestingly for almost all types of engagement Japan shows higher levels of engagement than the U.S. with the exception of comments.

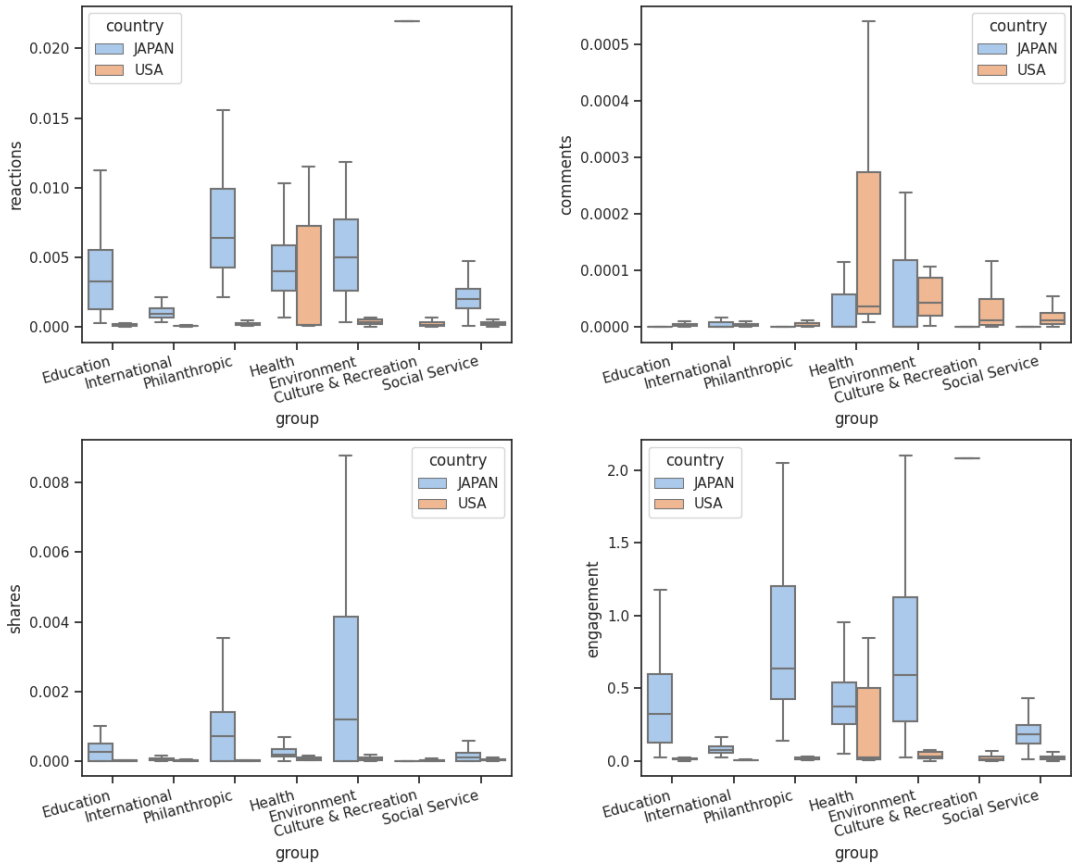

Figure 1. Comparison of U.S. And Japan by Nonprofit Category

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

To understand if any of these distribution differences were statistically significant, a point biserial correlation coefficient, which is equivalent to Pearson's correlation coefficient, was calculated. A point biserial correlation coefficient should be used when one variable X is continuous and the other variable Y is dichotomous. The coefficient can be computed as

$$r_{pointbiserial} = \frac{M_1 - M_0}{s_{n-1}} \sqrt{\frac{n_1 n_0}{n(n-1)}}$$

Table 6. Country and Engagement Variables

	Variable	Variable Label	Measurement Type	Definition
	Normalized Reactions	X_r	Continuous	Reactions / Followers
	Normalized Comments	X_c	Continuous	Comments / Followers
Post	Normalized Shares	X_s	Continuous	Shares / Followers
	Normalized Engagement	X_e	Continuous	Calculated Engagement
	Country	Y	Dichotomous	U.S. is 0, Japan is 1

Note: Variables used for correlation calculations in Tables 7 and 15. X_r, X_c, X_s, and X_e are all individually correlated against Y.

where M_1 is the mean value of the continuous variable X for all data points in dichotomous variable Y group 1 and M_0 is the mean value of the continuous variable X for all data points in dichotomous variable Y group 2. Additionally, n is the total sample size and n_1 and n_0 are the number of data points in group 1 and group 2, respectively. s_{n-1} is the sample standard deviation and is calculated as

$$s_{n-1} = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(X_i - \overline{X})^2}$$

To calculate the correlation coefficients in Table 7 the sample is first split by nonprofit category yielding 7 sub-samples, one for each category, where each row in the sub-sample represents a post. Each row contains four columns where each column represents a different continuous variable X which includes normalized reactions, comments, shares, and calculated engagement, respectively. There is an additional column which represents a dichotomous variable Y which describes the country with the U.S. represented as a 0 and Japan represented as a 1. Due to this representation of Y, a negative correlation indicates higher engagement for the U.S. while a positive correlation indicates higher engagement for Japan. A complete overview of variables used for these correlation calculations is presented in Table 6.

Table 7. Correlation Coefficients for Engagement and Country by Nonprofit Category

	Reactions	Comments	Shares	Engagement
Cul	N/A	-0.029	-0.020	N/A
Edu	**0.686*** **	0.036	**0.445*** **	**0.681*** **
Heal	**0.447*** **	-0.083	**0.240***	**0.313****
Soci	**0.665*** **	**-0.204****	**0.156***	**0.513*** **
Env	**0.578*** **	0.149	**0.481****	**0.597*** **
Phi	**0.753*** **	0.109	**0.521*** **	**0.740*** **
Int	**0.813*** **	-0.092	**0.351*** **	**0.822*** **

Note: Uses the point-biserial correlation coefficient. Negative correlation coefficients mean higher engagement for the U.S. and positive coefficients mean higher engagement for Japan. Correlation is computed by comparing the continuous variable of engagement type, represented by the columns of the table, with the binary variable of country, represented as 0 for U.S. and 1 for Japan. N/A indicates insufficient data to calculate correlation.

*p<.05, **p<.01, ***p<.001

Surprisingly, as shown in Table 7, all categories apart from Culture and Recreation had positive correlation coefficients with p-values of < 0.05 at a 95% confidence interval for reactions, shares, and calculated engagement. This indicates that nonprofits in Japan have more interaction with users than nonprofits in the U.S. overall. However, the correlation of the normalized number of comments between the U.S. and Japan is not statistically significant for all categories except for Social Service which is a negative correlation and thus suggests that U.S. nonprofits in the Social Service category tend to have more engagement through comments than nonprofits in Japan despite having weaker engagement for likes and shares compared to nonprofits in Japan.

In order to discover if certain post types are more effective in fostering engagement in the U.S. or Japan, comparisons were made between the two countries for each of

the correlations between types of posts (image, video, or external link posts) and engagement (reactions, comments, shares, and calculated engagement).

To calculate the correlation coefficients in Tables 9, 10, and 11, the sample is first split by country yielding 2 sub-samples, one for each country, where each row in the sub-sample represents a post. Each row contains four columns where each column represents a different continuous variable X which includes normalized reactions, comments, shares, and calculated engagement, respectively. There are three additional columns which represent a different dichotomous variable Y where each describes the type of post which includes image posts, video posts, or external link posts. Each Y has two possible values which are 0 for posts which do not have an image, video, or external link, or 1 for posts which do have an image, video, or external link, respectively. Due to this representation of Y, negative correlation indicates higher engagement when a post does not contain an image, video, or external link while positive correlation indicates higher engagement when a post does contain an image, video, or external link, respectively. A complete overview of variables used is presented in Table 8.

The distributions for posts that had or did not have an image as shown in Figure 2 show very small differences, however, only the negative correlation between image posts and calculated engagement for U.S. nonprofits, which shows that including images hurts engagement, is statistically significant as shown in Table 9.

Table 8. Post Type and Engagement Variables

	Variable	Variable Label	Measurement Type	Definition
Image Post	Normalized Reactions	X_r	Continuous	Reactions / Followers
	Normalized Comments	X_c	Continuous	Comments / Followers
	Normalized Shares	X_s	Continuous	Shares / Followers
	Normalized Engagement	X_e	Continuous	Calculated Engagement
	Is Image	Y	Dichotomous	No Image is 0, Image is 1
Video Post	Normalized Reactions	X_r	Continuous	Reactions / Followers
	Normalized Comments	X_c	Continuous	Comments / Followers
	Normalized Shares	X_s	Continuous	Shares / Followers
	Normalized Engagement	X_e	Continuous	Calculated Engagement
	Is Video	Y	Dichotomous	No Video is 0, Video is 1
External Link Post	Normalized Reactions	X_r	Continuous	Reactions / Followers
	Normalized Comments	X_c	Continuous	Comments / Followers
	Normalized Shares	X_s	Continuous	Shares / Followers
	Normalized Engagement	X_e	Continuous	Calculated Engagement
	Is External Link	Y	Dichotomous	No Link is 0, Link is 1

Note: Variables used for correlation calculations in Tables 9, 10, 11, 12, 13, 14, 16, 17, and 18. X_r, X_c, X_s, and X_e are all individually correlated against Y.

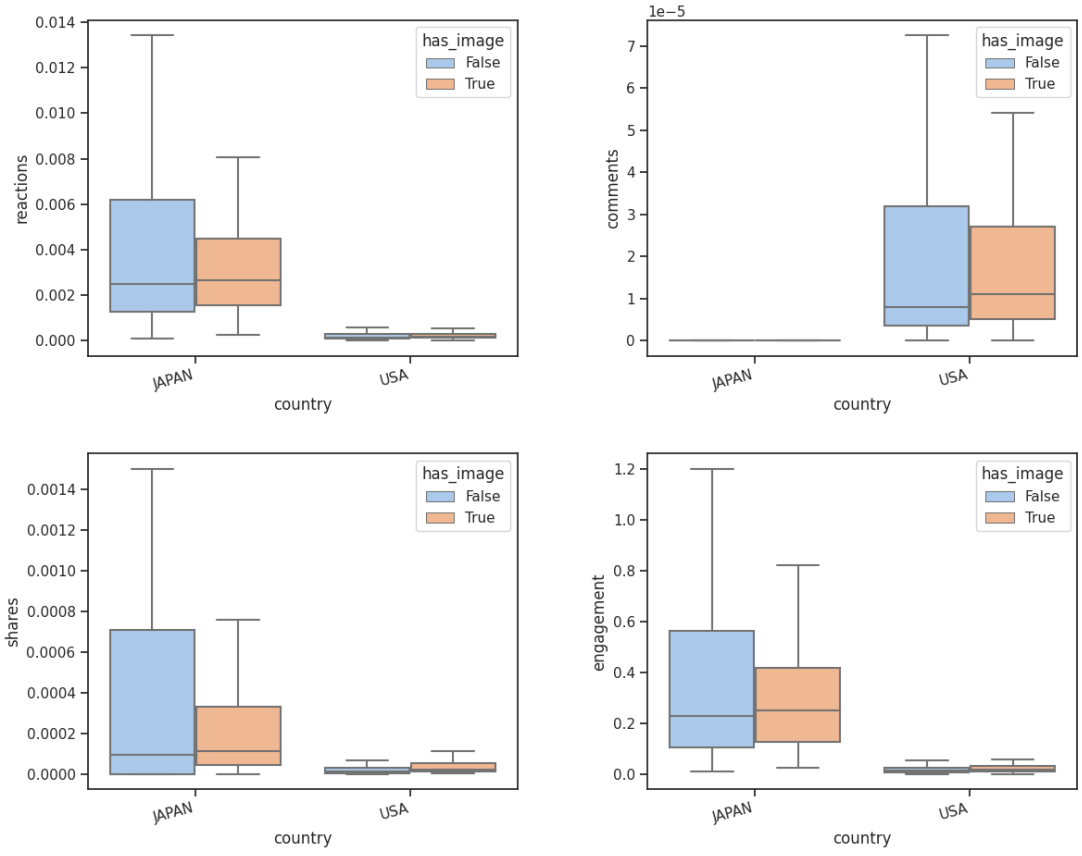

Figure 2. Comparison of Image Posts by Country

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 9. Correlation Coefficients for Image Posts and Engagement by Country

	Reactions	Comments	Shares	Engagement
U.S.	-0.041	0.009	-0.060	**-0.091***
Japan	0.080	-0.046	0.074	0.093

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an image (0 for no image and 1 for an image).

*p<.05, **p<.01, ***p<.001

Additionally, distributions for posts that had or did not have a video (Figure 3) showed mostly negative impact on engagement for posts which had a video. In the U.S. correlations showed a statistically significant slight negative correlation, indicating that video posts performed worse, for likes, comments, shares, and calculated engagement for U.S. nonprofits. Additionally, a negative correlation, indicating that video posts performed worse, was seen for reactions for Japanese nonprofits as shown in Table 10.

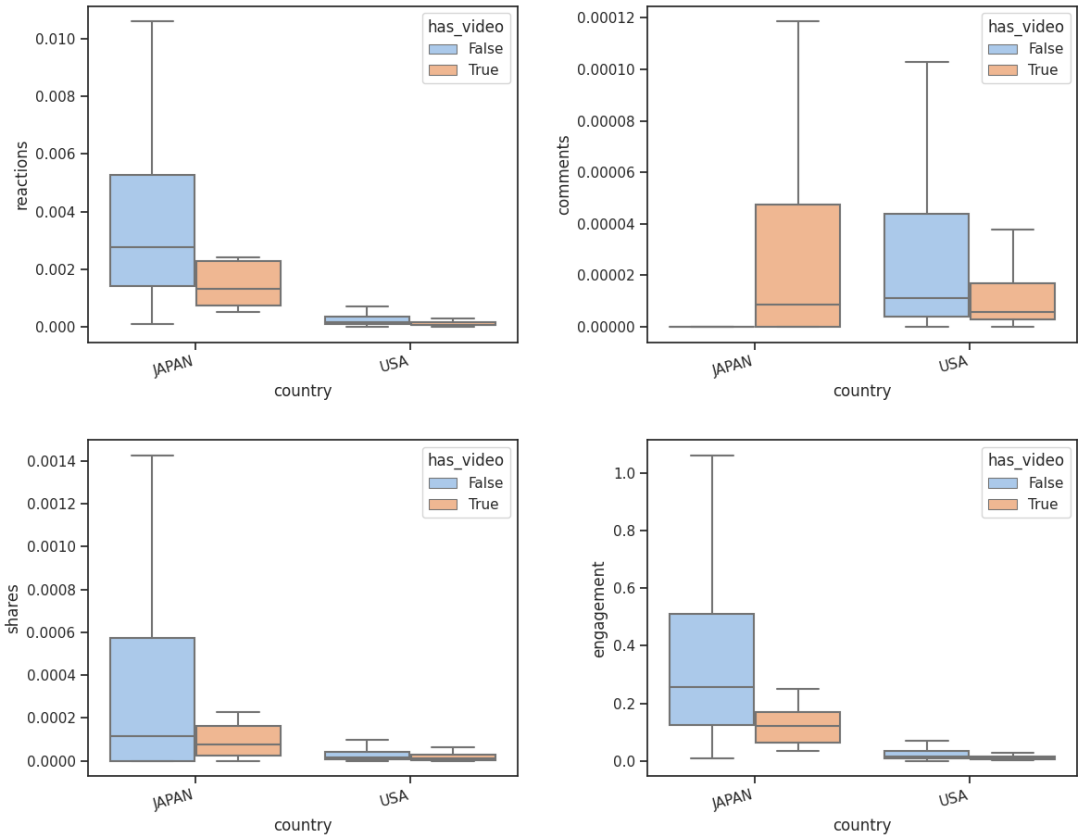

Figure 3. Comparison of Video Posts by Country

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 10. Correlation Coefficients for Video Posts and Engagement by Country

	Reactions	Comments	Shares	Engagement
U.S.	**-0.135****	**-0.177*****	**-0.114****	**-0.127****
Japan	**-0.128***	0.077	0.003	-0.079

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains a video (0 for no video and 1 for a video).

*p<.05, **p<.01, ***p<.001

For posts containing or not containing external links (Figure 4), posts with an external link showed higher engagement in general. Posts with an external link also had a slight positive correlation, indicating that posts containing external links performed better, for both comments on posts by U.S. nonprofits as well as reactions, shares, and calculated engagement for posts by Japanese nonprofits as shown in Table 11.

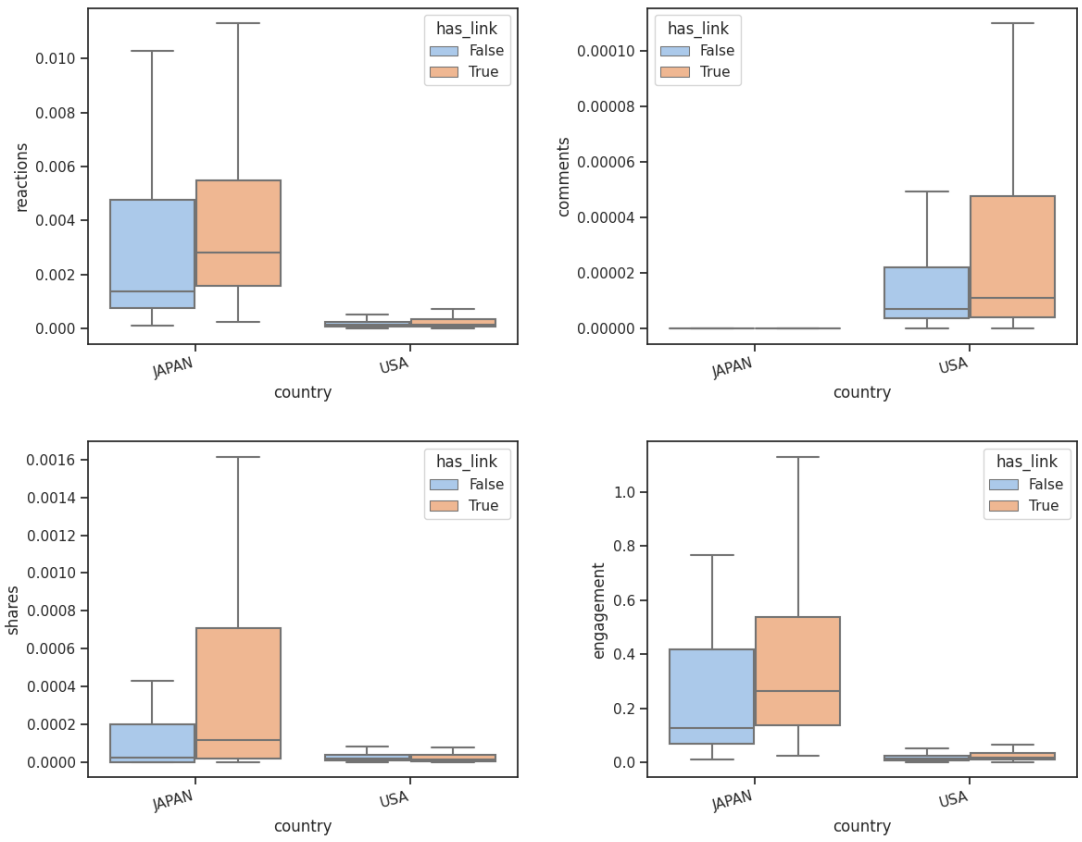

Figure 4. Comparison of External Link Posts by Country

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 11. Correlation Coefficients for External Link Posts and Engagement by Country

	Reactions	Comments	Shares	Engagement
U.S.	0.047	**0.106****	-0.016	0.047
Japan	**0.139***	-0.012	**0.119***	**0.157****

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an external link (0 for no external link and 1 for an external link).

*p<.05, **p<.01, ***p<.001

So, while both countries show that including an external link benefits engagement, the U.S. and Japan are different in terms of which type of engagement benefits most. This may be due to cultural differences between the two countries as users in the U.S. may feel more comfortable voicing their opinions whereas in Japan, culturally, users are discouraged from voicing their opinions in order to maintain harmony.

In order to understand if the above findings applied to all nonprofit categories or if individual categories tended to have higher or lower reactions, comments, shares, and calculated engagement, nonprofits were first split by country and then by category in order to compare post type impact for each category between U.S. and Japanese nonprofits. These comparisons help to understand if post type affects engagement not only between countries but also between nonprofit categories.

To calculate the correlation coefficients in Tables 12, 13, and 14, the sample is first split by country yielding 2 sub-samples, one for each country, and each of these sub-samples was then split by nonprofit category yielding 7 sub-samples for each country, where each row in the sub-sample represents a post. Each row contains four columns where each column represents a different continuous variable X which includes normalized reactions, comments, shares, and calculated engagement, respectively.

There are three additional columns which represent a different dichotomous variable Y where each describes the type of post which includes image posts, video posts, or external link posts. Each Y has two possible values which are 0 for posts which do not have an image, video, or external link, or 1 for posts which do have an image, video, or external link, respectively. Due to this representation of Y, negative correlation indicates higher engagement when a post does not contain an image, video, or external link while positive correlation indicates higher engagement when a post does contain an image, video, or external link, respectively. A complete overview of variables used is presented in Table 8.

With respect to posts which had or did not have an image (Figure 5), including an image shows positive impact on engagement across most nonprofit categories in both the U.S. and Japan. However, in the U.S. only the health category had a statistically significant positive correlation, indicating that posts with images increased engagement, for reactions, comments, shares, and calculated engagement as shown in Table 12. This may be due to images being effective in the health category as they are useful in communicating the situation quickly to the user. In the Social Services Category for U.S. nonprofits, comments had a statistically significant negative correlation with image posts, indicating that posts with images decreased the number of comments left on a post. This may be due to the type of images that the nonprofit in this category was sharing which tended to be difficult to see as they often depicted suffering.

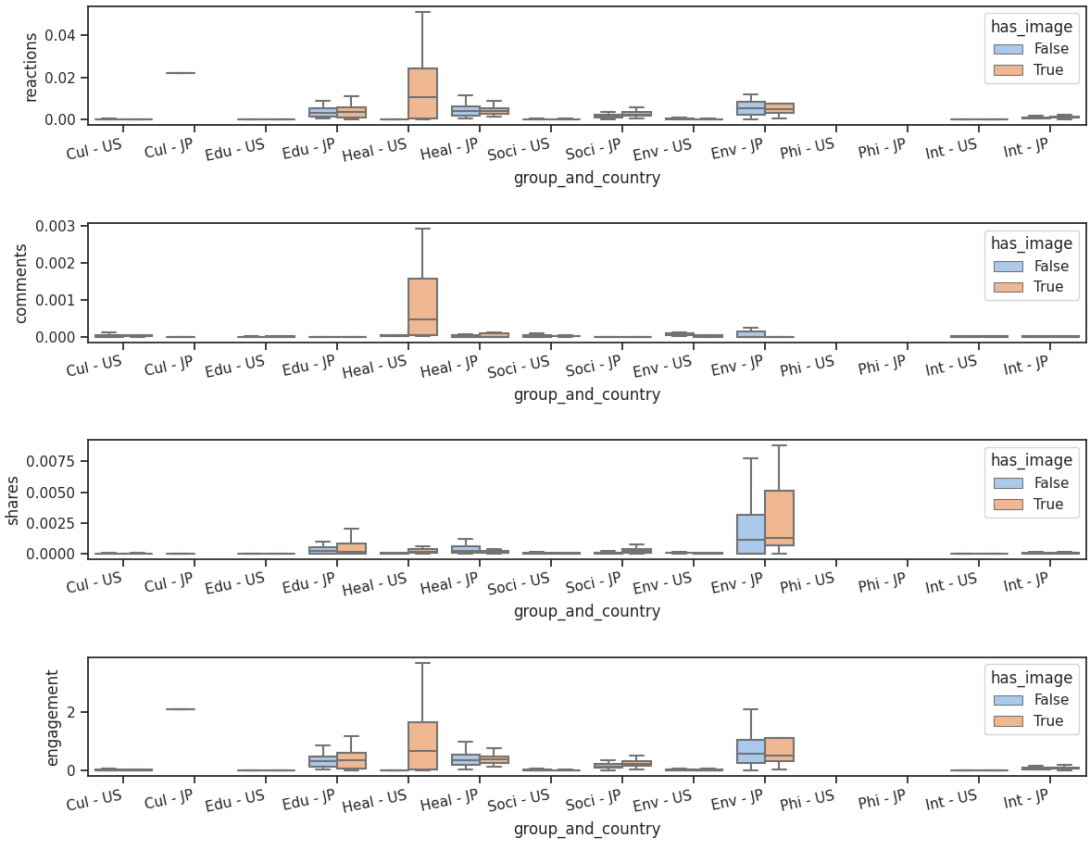

Figure 5. Comparison of U.S. and Japanese Engagement on Image Posts by Category

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 12. Correlation Coefficients for Image Posts and Engagement by Category

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Cul	-0.079	N/A	0.053	N/A	0.040	N/A	-0.038	N/A
Edu	-0.029	0.073	-0.054	-0.144	0.320	0.167	0.010	0.089
Heal	**0.563****	-0.049	**0.552****	0.089	**0.604*****	-0.221	**0.565****	-0.048
Soci	-0.067	**0.384*****	**-0.186***	0.062	-0.135	**0.399*****	-0.060	**0.380*****
Env	-0.545	-0.173	-0.441	-0.090	-0.246	-0.135	-0.390	-0.126
Phi	0.073	-0.123	-0.248	N/A	0.180	-0.195	0.237	-0.146
Int	0.226	0.180	0.201	-0.103	0.101	0.085	0.165	0.186

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an image (0 for no image and 1 for an image). N/A indicates insufficient data to calculate correlation.

*p<.05, **p<.01, ***p<.001

For Japanese nonprofits, only the Social Service category had a positive and statistically significant correlation, indicating that posts with images increased engagement, for reactions, shares, and calculated engagement as shown in Table 12. This may be due to the positive tone of the posts which are made in the Social Service category by Japanese nonprofits.

With respect to posts that had or did not have a video (Figure 6), including a video shows a mostly negative impact on engagement for all nonprofit categories in both the U.S. and Japan. In the U.S. there was a statistically significant negative correlation for video posts, indicating that posts with a video decreased engagement, for reactions, comments, shares, and calculated engagement for both the Health and Culture & Recreation categories as shown in Table 13.

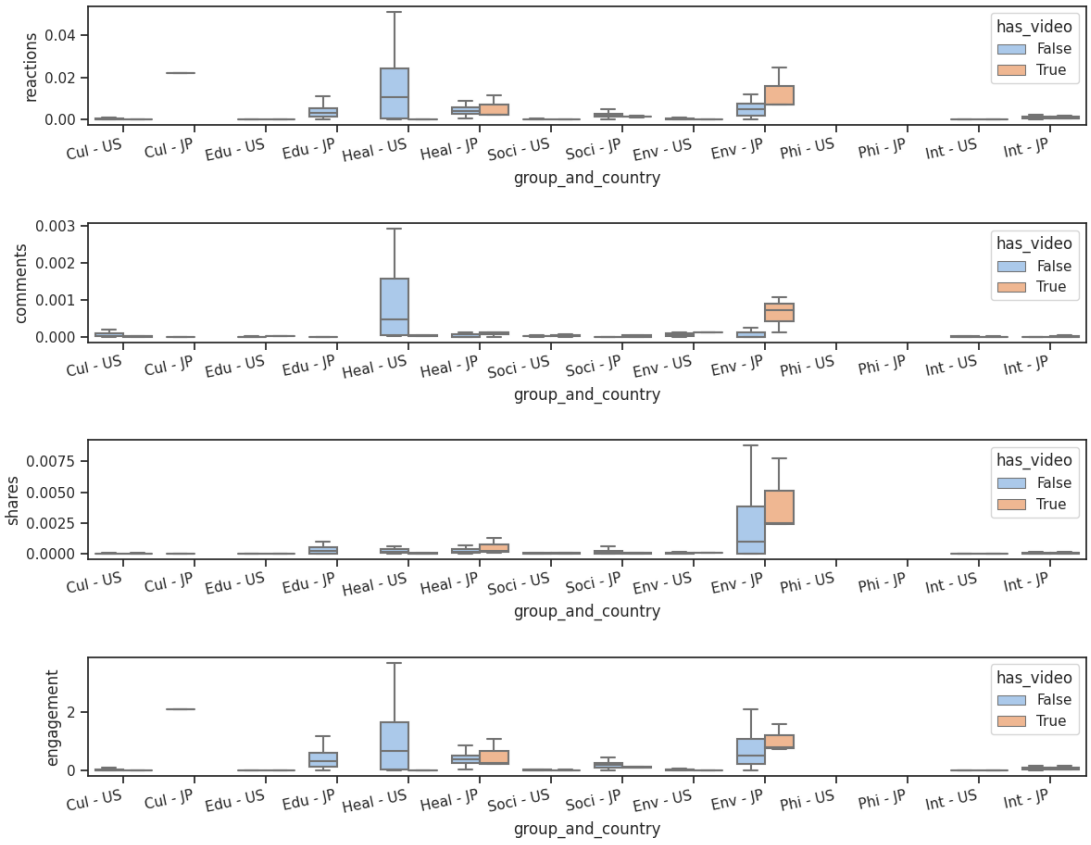

Figure 6. Comparison of U.S. and Japan Engagement on Video Posts by Category

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 13. Correlation Coefficients for Video Posts and Engagement by Category

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Cul	**-0.198*** **	N/A	**-0.302*** **	N/A	**-0.162** **	N/A	**-0.263*** **	N/A
Edu	0.107	N/A	-0.018	N/A	0.271	N/A	0.072	N/A
Heal	**-0.563** **	0.089	**-0.552** **	0.112	**-0.604*** **	0.138	**-0.565** **	0.115
Soci	-0.094	-0.150	-0.001	**0.249** **	-0.006	-0.123	-0.071	-0.148
Env	-0.194	**0.460***	0.441	0.077	0.014	0.417	-0.171	0.286
Phi	**-0.451** **	N/A	-0.133	N/A	-0.059	N/A	**-0.388***	N/A
Int	**-0.256***	-0.051	**-0.278***	0.222	-0.079	0.204	-0.210	-0.091

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains a video (0 for no video and 1 for a video). N/A indicates insufficient data to calculate correlation.

*p<.05, **p<.01, ***p<.001

Additionally, a statistically significant negative correlation for video posts, indicating that posts containing videos decreased engagement, was observed in the Culture & Recreation, Health, Philanthropic, and International categories across a variety of engagement types. For Japanese nonprofits, the Social Service and Environment categories both had positive and statistically significant correlation, indicating that posts with videos increased engagement, for comments and reactions respectively as shown in Table 13. This may be due to the content typically contained in the videos. The sampled Health organization in the U.S., as well as the sampled Culture & Recreation organization, tended to post either videos with very little information or videos on a wide variety of topics which were also typically fairly long. Users in the U.S. may have shorter attention spans than users in Japan and therefore may not engage with longer video posts. This may explain why the statistically significant correlations for Japan are positive whereas the correlations in the U.S. are negative. The video content in Japan is also more positive than videos posted in the U.S.

With respect to posts that had or did not have an external link (Figure 7), including

an external link decreases engagement for most nonprofit categories in the U.S but has a mixed impact on engagement in Japan. In the U.S. every statistically significant correlation for external link posts was negative, indicating engagement was lower for posts containing external links, except for in the Culture & Recreation category where the correlation was slightly positive for reactions, comments, shares, and calculated engagement as shown in Table 14. Users who are interested in Culture & Recreation focused nonprofits in the U.S. are likely aiming to participate in events or to learn about news related to their area of interest more so than other nonprofit categories which may explain the correlation difference.

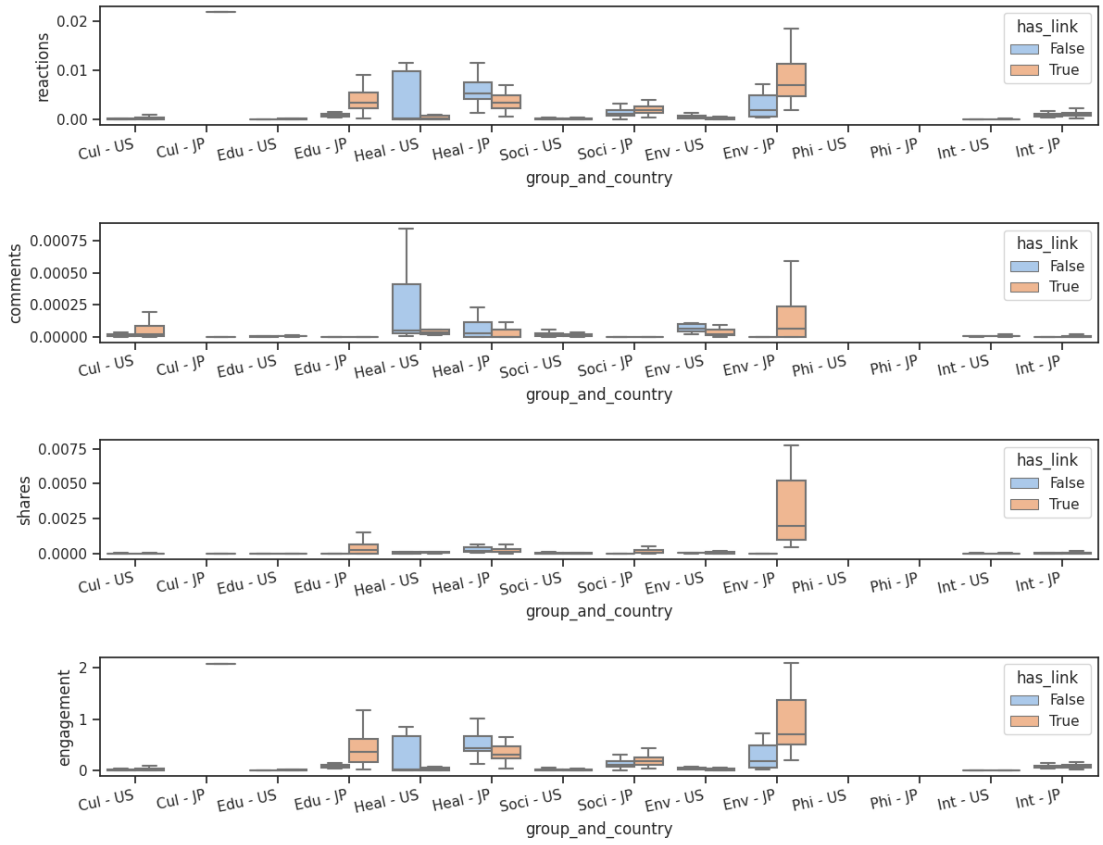

Figure 7. Comparison of U.S. and Japan Engagement on External Link Posts by Category

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 14. Correlation Coefficients for External Link Posts and Engagement by Category

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Cul	**0.209*** **	N/A	**0.212*** **	N/A	0.094	N/A	**0.236*** **	N/A
Edu	0.049	0.327	0.066	0.080	0.089	0.230	0.081	0.325
Heal	**-0.377***	**-0.313***	**-0.383***	-0.164	0.186	-0.227	**-0.372***	**-0.298***
Soci	-0.010	0.150	-0.082	-0.006	-0.104	0.134	0.025	0.174
Env	-0.491	**0.481***	-0.424	0.305	0.193	**0.543***	-0.249	**0.553** **
Phi	**-0.355***	**-0.314***	-0.172	N/A	-0.226	0.002	**-0.359***	**-0.243***
Int	0.021	0.146	0.107	0.187	-0.006	0.104	0.000	0.078

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an external link (0 for no external link and 1 for an external link). N/A indicates insufficient data to calculate correlation.

*p<.05, **p<.01, ***p<.001

For Japanese nonprofits, only the Environment category had positive and statistically significant correlation, indicating that posts containing external links increased engagement, for reactions, shares, and calculated engagement as shown in Table 14. However, the Health and Philanthropic categories also had a statistically significant correlation but were negative for reactions and calculated engagement. These results seem reasonable as external links do seem less likely to generate an emotional response compared to other post types for the Health and Philanthropic categories where images or videos can paint a more moving illustration of need. However, users who are interested in the environment are likely more impacted by news and statistics, perhaps supplied via external links, rather than images. This aligns with the findings in Japan.

5.3 Research Question Three

In order to understand how the content of a post impacts engagement and if nonprofits in the U.S. and Japan use social media for different purposes, the U.S. and Japanese nonprofit posts were categorized and compared as shown in Figure 8. After categorization, the U.S. had 30 volunteer posts, 49 donation posts, and 552 type other posts while Japan had 46 volunteer posts, 34 donation posts, and 275 type other posts.

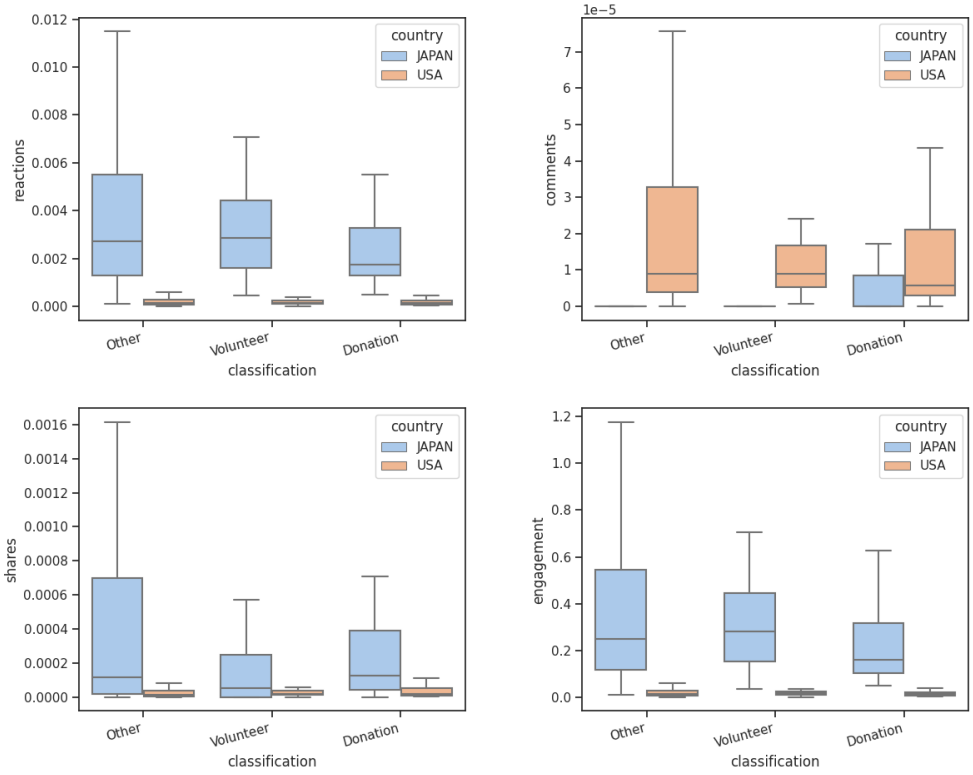

Figure 8. Comparison of U.S. and Japanese Engagement by Content Classification

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

To calculate the correlation coefficients in Table 15 the sample is first split by post content type yielding 3 sub-samples, one for each post content type, , where each row in the sub-sample represents a post. Each row contains four columns where each column represents a different continuous variable X which includes normalized reactions, comments, shares, and calculated engagement, respectively. There is an additional column which represents a dichotomous variable Y which describes the country with the U.S. represented as a 0 and Japan represented as a 1. Due to this representation of Y, a negative correlation indicates higher engagement for the U.S. while a positive correlation indicates higher engagement for Japan. A complete overview of variables used for these correlation calculations is presented in Table 6.

For all post content types and across reactions, shares, and calculated engagement, Japan had more user engagement than the U.S. for all statistically significant correlations except for comments on volunteering post, where the U.S. had higher engagement as shown in Table 15. U.S. nonprofits did show better engagement with respect to comments on volunteer-related posts, however, this was the only content type and engagement type which favored U.S. nonprofits. These mirror the findings for RQ2 when comparing nonprofit engagement rates in the U.S. and Japan by nonprofit category.

Table 15. Correlation Coefficients for the U.S. And Japan by Post Content Classification

	Reactions	Comments	Shares	Engagement
Other	**0.586*** **	-0.066	**0.406*** **	**0.569*** **
Volunteer	**0.623*** **	**-0.300** **	**0.242***	**0.591*** **
Donation	**0.540*** **	-0.022	0.198	0.414

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of country (0 for U.S. and 1 for Japan).

*p<.05, **p<.01, ***p<.001

In order to understand if certain post types, such as posts that include an image, led to higher or lower engagement across the three post content type categories which are Donation, Volunteer, and Other, a similar comparison was done as in RQ2 by breaking down posts by country and then comparing post type and engagement for each post content type category.

To calculate the correlation coefficients in Tables 16, 17, and 18, the sample is first split by country yielding 2 sub-samples, one for each country, and each of these sub-samples was then split by post content type yielding 3 sub-samples for each country, where each row in the sub-sample represents a post. Each row contains four columns where each column represents a different continuous variable X which includes normalized reactions, comments, shares, and calculated engagement, respectively. There are three additional columns which represent a different dichotomous variable Y where each describes the type of post which includes image posts, video posts, or external link posts. Each Y has two possible values which are 0 for posts which do not have an image, video, or external link, or 1 for posts which do have an image, video, or external link, respectively. Due to this representation of Y, negative correlation

indicates higher engagement when a post does not contain an image, video, or external link while positive correlation indicates higher engagement when a post does contain an image, video, or external link, respectively. A complete overview of variables used is presented in Table 8.

With respect to posts which had or did not have an image (Figure 9), the impact on engagement appears to be relatively minor in both the U.S. and Japan. However, there are fairly significant differences between the U.S. and Japan in each post content type category. This matches the findings described above where in general the U.S. has lower engagement than Japan. For U.S. nonprofits, posting an image had a positive impact on user engagement across reactions, shares, and calculated engagement for posts with content type Other as shown in Table 16. However, posting an image has a negative impact on shares for content type Volunteer. No other correlations were statistically significant.

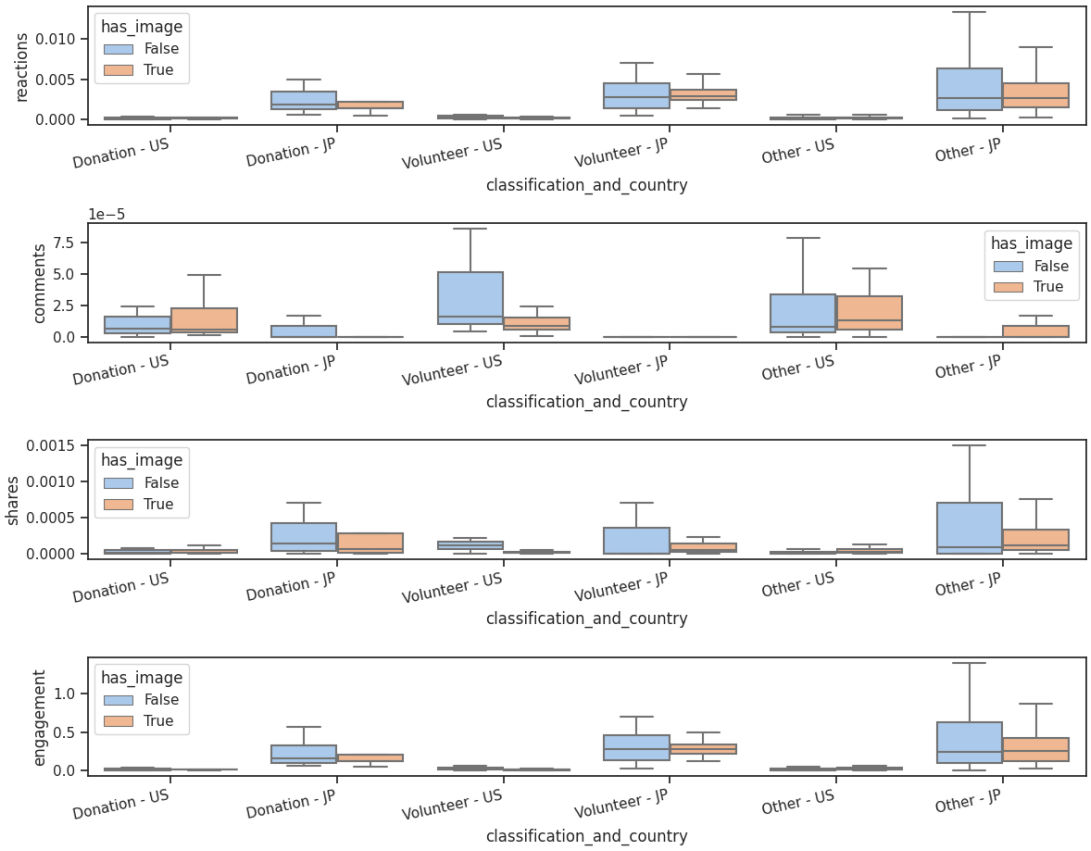

Figure 9. Comparison of U.S. and Japan Engagement on Image Posts by Post Content Classification

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 16. Correlation Coefficients for Image Posts and Engagement by Content Classification

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Other	**0.088***	-0.114	0.059	0.046	**0.129****	**-0.154***	**0.121****	**-0.127***
Volunteer	-0.361	-0.119	-0.290	0.042	**-0.401***	-0.173	-0.230	-0.143
Donation	0.213	-0.139	-0.152	-0.126	0.039	-0.064	0.143	-0.108

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an image (0 for no image and 1 for an image).

*p<.05, **p<.01, ***p<.001

For Japanese nonprofits, posting an image had a negative impact on user engagement for shares, and calculated engagement for posts in the content category of Other as shown in Table 16. No other correlations were statistically significant.

With respect to posts which had or did not have a video (Figure 10), including a video shows decreased engagement in general for both the U.S. and Japan. For U.S. nonprofit posts which contained a video, engagement decreased across reactions, comments, shares, and calculated engagement for the content category Other as shown in Table 17. All other correlations for posts by U.S. nonprofits containing a video were statistically insignificant.

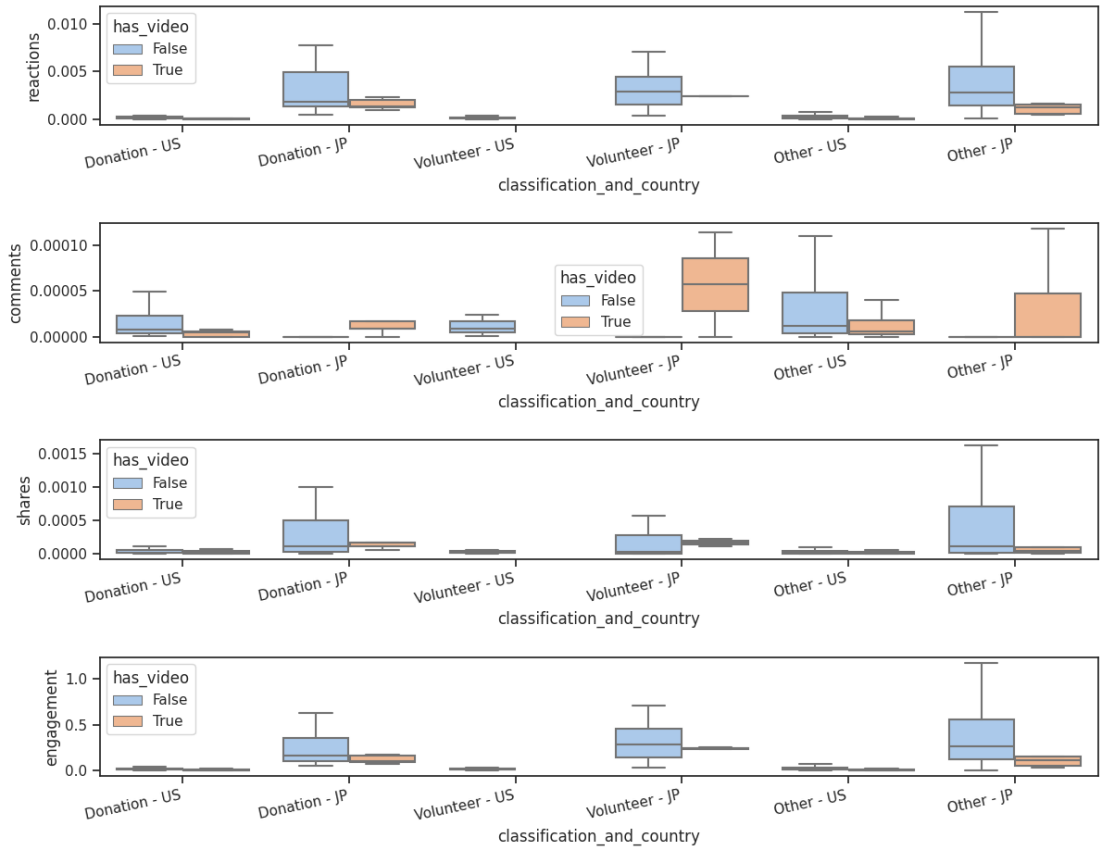

Figure 10. Comparison of U.S. and Japan Engagement on Video Posts by Post Content Classification

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 17. Correlation Coefficients for Video Posts and Engagement by Content Classification

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Other	**-0.153*** **	-0.032	**-0.200*** **	0.025	**-0.134** **	-0.022	**-0.178*** **	-0.059
Volunteer	N/A	-0.081	N/A	**0.616*** **	N/A	-0.046	N/A	-0.076
Donation	-0.160	-0.203	-0.089	**0.385***	-0.106	-0.119	-0.107	-0.218

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains a video (0 for no video and 1 for a video). N/A indicates insufficient data to calculate correlation.

For Japanese nonprofits, user engagement increased for comments across both the Volunteer and Donation content categories as shown in Table 17. In Japan, users who are seeking to volunteer or donate may be concerned with the details of their donation or volunteer activity and therefore interact more with video posts. While the U.S. results are interesting, it should be noted that the Other category contains a wide variety of content which may explain the unexpected negative correlation.

With respect to posts which had or did not have an external link (Figure 11), including a link lowers engagement in the U.S. for donation related posts but increases engagement for other content type categories in general for both the U.S. and Japan. For posts by U.S. nonprofits containing an external link, engagement increased for comments on posts in the Other content category but decreased for comments on posts in the Donation content category as shown in Table 18.

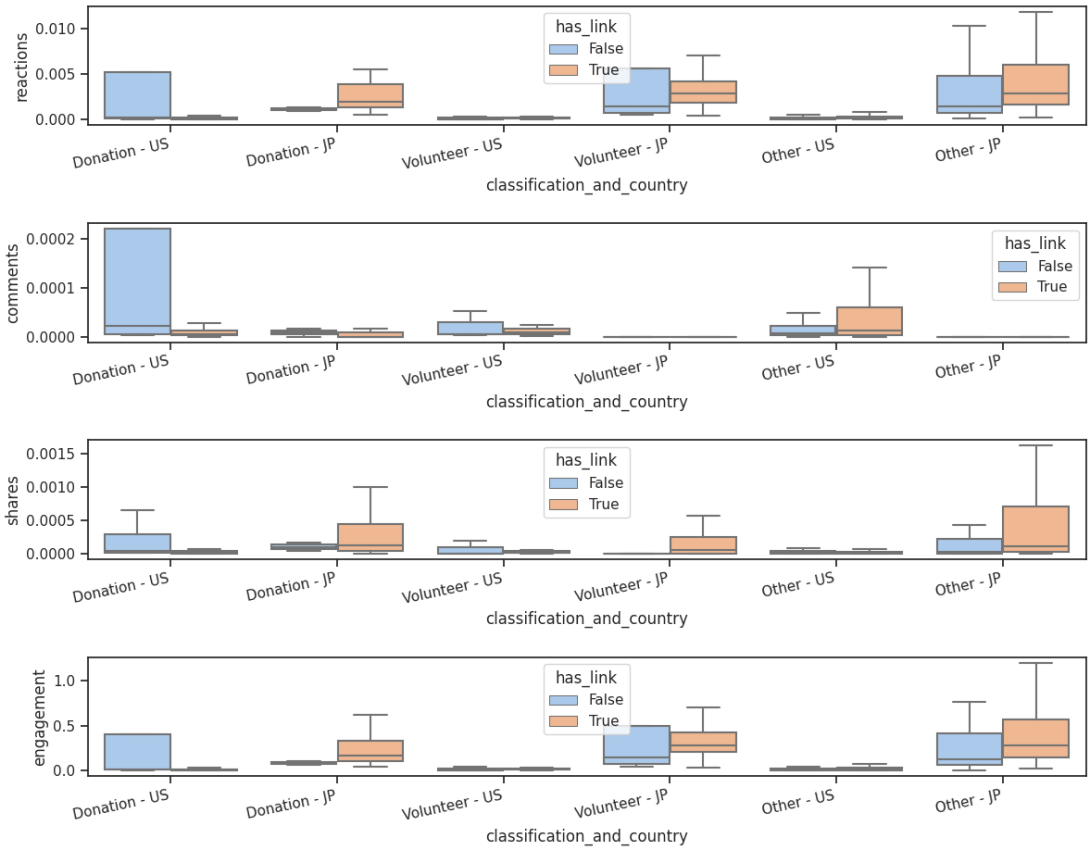

Figure 11. Comparison of U.S. and Japan Engagement on External Link Posts by Post Content Classification

Note: Reactions, comments, shares, and engagement are all normalized by dividing the raw value by the number of followers for the organization which made the post.

Table 18. Correlation Coefficients for External Link Posts and Engagement by Content Classification

	Reactions		Comments		Shares		Engagement	
	U.S.	Japan	U.S.	Japan	U.S.	Japan	U.S.	Japan
Other	0.052	**0.156***	**0.137****	-0.008	0.018	**0.162****	0.058	**0.176****
Volunteer	0.080	-0.157	-0.062	0.072	-0.151	-0.115	0.016	-0.131
Donation	0.029	0.152	**-0.381****	-0.100	-0.282	0.102	-0.076	0.153

Note: Uses the point-biserial correlation coefficient. Correlation is computed by comparing the continuous variable of engagement type (normalized reactions, normalized comments, etc.) with the binary variable of if the post contains an external link (0 for no external link and 1 for an external link).

*p<.05, **p<.01, ***p<.001

For Japanese nonprofits, engagement increased across reactions, shares, and calculated engagement for the content category Other as shown in Table 18. Surprisingly, the U.S. has a statistically significant negative correlation for external link posts, indicating that posts containing external links decreased engagement, in the donation category. While this seems counterintuitive, it may be due to users either favoring donations through Facebook's tools or users leaving Facebook to make their donation and then not returning to engage with the post.

5.4 Discussion and Conclusion

For RQ1, 83% of nonprofits in the U.S. had a Facebook profile while only 67.02% of Japanese nonprofits had a Facebook profile. This indicates that Japanese nonprofits have room to grow with respect to representation on Facebook compared to the U.S. In addition, Japanese nonprofits also provided less information on the Facebook profiles which did exist. Interestingly, the mission statement item was significantly less common for Japanese nonprofits compared to U.S. nonprofits. In order to improve their presence, Japanese nonprofits should provide more information on their Facebook

profile specifically a mission statement, history, and involvement, which consists of email and phone contact information.

For RQ2, as shown in Table 7, Japanese nonprofits tend to have better engagement compared to U.S. nonprofits. This may be due to Japanese nonprofits having smaller communities which may help to create a heightened sense of belonging and purpose for the users which in turn may encourage them to engage more with each post. Interestingly, Algharabat et al. (2018) also found that the more reactions there are to a post soliciting volunteers, the more sluggish the volunteers' willingness to participate will be. The more followers a nonprofit has on social media, the lower the engagement rate tends to be. This matches the U.S. and Japan nonprofit data as Japanese nonprofits which tended to be smaller, also tended to have higher engagement. In the U.S. it is clear that for nonprofits in the Health category, posting images helps to enable engagement with users. However, in Japan, the same is true only for the Social Service category. So, the category of nonprofit does matter when a nonprofit is deciding whether to post an image or not and this decision is different for nonprofits in the U.S. and Japan. Therefore, it may be that Japanese nonprofits in the Social Service category, as well as U.S. nonprofits in the Health category, would benefit from posting more images. Surprisingly, while images tend to help increase engagement, videos decreased engagement in the U.S. for all statistically significant categories. However, in Japan, posting videos increased engagement for all statistically significant categories. These results are somewhat surprising and suggest that if the goal is to increase user engagement, nonprofits in the U.S. may benefit from posting fewer videos while nonprofits in Japan may benefit from posting more videos. Finally, for posts that contain an external link, both U.S. and Japanese nonprofits have different directions of correlation by category. For Japanese nonprofits, posting an external link

hurts engagement if the nonprofit is in either the Health or Philanthropic categories. For U.S. nonprofits, posting an external link has the same correlation with engagement and in the same categories as Japan. However, posting external links helps engagement for both U.S. nonprofits in the Culture & Recreation category as well as Japanese nonprofits in the Environment category. So, nonprofits in both the U.S. and Japan may benefit from considering their category when deciding if it is advisable to include external links in their posts.

For RQ3, as shown in Table 15, Japanese nonprofits tend to have better engagement compared to U.S. nonprofits. As with RQ2, this may be due to Japanese nonprofits having smaller communities. Users may feel more closely connected to the smaller organizations and feel that their help is needed whereas U.S. nonprofits are so large that people may not feel like their individual contributions are very meaningful. The U.S. saw worse user engagement for volunteer posts with respect to the normalized number of shares and reactions the post received when the post contained an image. Because of this, U.S. nonprofits that are seeking to spread volunteer requests to as many users as possible may benefit from posting fewer posts with images. Interestingly, for U.S. nonprofits that are seeking to increase user engagement for donation-related posts, doing so without using an external link appears to be beneficial. After inspecting the posts which did not contain an external link but did make a call for donations, it was discovered that at least a few were using the built-in Facebook tool to directly request donations from users rather than through an external link. This may indicate that users are more comfortable donating if the mechanism for doing so allows them to remain on Facebook throughout the process. Because of these findings, nonprofits in the U.S. may benefit from requesting donations through Facebook tools directly rather than through an external website, however, this requires further research. As

Japanese nonprofits saw significantly higher user engagement through comments for both Volunteer and Donation content types when the post contained a video, Japanese nonprofits may benefit from including a video if seeking to start a dialogue with users around volunteer or donation-related posts.

Chapter 6

DELIMITATIONS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

If an organization does not use social media or does not use it frequently, it has the potential to skew the results and findings for RQ2 and RQ3 as a relatively active social media presence is assumed. However, no social media presence or limited social media use by nonprofits is still an interesting finding for RQ1 as it indicates the overall usage of Facebook by nonprofits in the U.S. and Japan.

Moreover, the sample which was used in this research does not fully cover the population of all nonprofits which use social media. In order to answer RQ1 for the U.S., 100 nonprofits were selected based on a survey from the latest edition of the Nonprofit Times 100. The list includes the 100 largest U.S. organizations by revenue, and to be on the list, at least 10% of revenue must come from donations. As there are many nonprofits that do not receive at least 10% of their revenue from donations, the population is not fully representative of all nonprofits. However, this sample is still useful and studies that used the same sample selection method to survey nonprofit organizations include Kang and Norton (2004), Lovejoy and Saxton (2012), and Saxton and Wang (2014).

For the sample of Japanese nonprofits to address RQ1, the top 94 nonprofits in terms of revenue were selected through the Mieruka Nabi website. In order to be included on this list, at least 15% of a nonprofit's revenue must have come from donations. As with the U.S. sample, this revenue restriction does mean the sample is not perfectly representative of the overall population.

For RQ1 and RQ2, it may be that using the follower count as a replacement for post reach, that is how many users actually see a post, in order to normalize engagement is slightly inaccurate. This potential inaccuracy exists as it is unlikely that all followers of a nonprofit Facebook page actually see a particular post made by the nonprofit. So, as the number of followers increases, the inaccuracy of using follower count as a replacement for post reach grows. As the U.S. nonprofit Facebook pages tend to have significantly more followers than Japan, the inaccuracy is likely much higher for U.S. nonprofit Facebook pages than for Japanese nonprofit Facebook pages. So, it is suggested that future research partners with each sample organization in order to obtain accurate reach metrics per post such that this inaccuracy, if it exists or is significant, can be avoided. However, using follower count is the best available estimate if no partnership is possible as no more accurate replacement is available publicly.

For RQ3, while we did not closely examine Facebook tools for donation and their usage, the results suggest that Facebook tools may improve the reach of donations. Because of this, it is suggested that future research examine this relationship more closely and perhaps across other social media platforms with similar tools to understand the strength of this correlation.

For RQ2 and RQ3, it is possible that the sample period, when the sample is collected, sample duration, how many days of posts the sample includes, as well as sample size could impact the results. As this data was collected during a pandemic, nonprofit behavior on social media may be different during other periods which may impact the findings. Additionally, a longer or shorter sample duration may impact the results as nonprofits may not have consistent posting behavior. Finally, increasing the number of nonprofits in each category may also impact the results as different

nonprofits in each category may use Facebook differently. Study of the impact of sample duration, sample period, and sample size on the findings presented is left to future research.

Despite all of the limitations mentioned above, the findings from this research may improve social media use in the U.S. and Japan and enable nonprofits to better present, engage, and communicate with current and future stakeholders and supporters.

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