

Content Analysis of the Facebook Pages of Selected Academic Libraries in Vietnam

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ABSTRACT

This study explores Facebook use in Vietnamese academic libraries by analysing libraries' posts on their Facebook pages and library users' interaction with those posts. A total of 260 posts on four academic libraries' Facebook pages were examined using the content analysis method. The findings reveal that Facebook was mainly used to encourage reading and to transmit announcements. Most of the academic libraries published one post a week. The photo was the most frequent media type of libraries' posts and gained a higher level of interaction than other posts. According to the research results, the user engagement was low, and the user interaction with libraries' posts generally was in the form of reaction. The findings can help better understand Facebook use in Vietnamese academic libraries and may assist libraries in creating a plan for using Facebook more effectively.

Keywords: social networking sites, Facebook, academic libraries, library promotion, content analysis, Vietnam

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1. INTRODUCTION

Social media is defined as “a group of Internet-based applications that built on the ideological and technological of Web 2.0” (Kaplan & Haenlein, 2010, p. 61), that allows its users to communicate, create, edit, and share contents (Lewis, 2010). The contents can be text, photo, video, or sound, or a mixture of all these (Scott, 2015). In this digital era, social media gives libraries a better chance to reach their users without distance and time limitations. King (2015) revealed that there are many benefits for libraries to use social media to understand the community, interact between libraries and users, receive more feedback from users, take advantage of mobile technology, and extend the reach of users. Kahn and Bhatti (2012) expressed that social media offers several opportunities for libraries to survive in a virtual environment.

Social media consists of many different platforms, such as social networking sites, blogs, discussion forums, video sharing, content sharing, social bookmarking, podcasts, and wikis (Sharma & Verma, 2018). Among them, social networking sites are much stronger than other platforms, which help people develop friendship environment and share information (Scott, 2015).

In recent years, Facebook has become a giant social networking site, with almost 2.8 billion monthly active users all over the world (Tankovska, 2021). There are over 55 million Facebook users in Vietnam as of April 2019, making it the seventh country in terms of Facebook audience size (Clement, 2019). Previous studies revealed that librarians have realized that social media, especially Facebook, has a positive effect. Therefore, just like other libraries abroad, Vietnamese academic libraries have started using Facebook as a powerful communication tool for libraries to transmit announcements, conduct online reference services, and introduce library resources to users. Although existing research mainly focused on the ways social media was used in Vietnamese libraries, the use of Facebook did not involve independent research. For all the reasons mentioned above, a study analysing Facebook use in Vietnamese libraries is necessary. In particular, this study aims to explore Facebook's current use in Vietnamese academic libraries. The primary research questions are as follows.

- (1) What are the characteristics of academic libraries' posts on Facebook?
- (2) How often do academic libraries post on their Facebook pages?
- (3) How do users interact with libraries' posts?

This study's structure is as follows: first, a review of the literature is carried out. Then, the methodological approach is identified. Next, the analysis of collected data and discussion are presented, focusing on the main characteristics of libraries' posts, frequency of posts, and users' interactions with libraries' posts on Facebook. Finally, a conclusion is given.

2. LITERATURE REVIEW

2.1. Facebook

Facebook was first launched in February 2004 by students at Harvard University (Hall, 2012). Facebook is defined as a social networking site that allows its users to create a personal profile, maintain a friends list to whom messages can be sent, and join social networks organized by school, workplace, city, or region (Reitz, 2013). Access to Facebook is free of charge (Kohli et al., 2018). Facebook offers users various functions such as status updating, photo or video uploading, commenting on or reacting to posts, and sending private messages (Chan et al., 2020). Additionally, Facebook users can follow someone or a page and will then receive updates about them in their news feed (Wan, 2011). Facebook also provides an analytics section called Facebook Insights to measure usage and interaction (King, 2015). People have many reasons for using Facebook, including sharing and seeking information, communicating with family, friends, and colleagues, or leisure (Al-Busaidi, 2014; Marino et al., 2016). Facebook has become the largest social networking site today (Chugh & Ruhi, 2018; Shiau et al., 2018), with almost 1.85 billion daily active users during the fourth quarter of 2020 (Tankovska, 2021). The growing number of Facebook users shows that Facebook plays an increasingly important role in social life (Shiau et al., 2018). Divine et al. (2019) reported that 23% of Facebook users were young people aged 18-25 years, and 32% of undergraduate students spent more than four hours on Facebook daily.

2.2. Facebook Use in Academic Libraries

The research by Taylor and Francis Group (2016) reported that more than 70% of libraries use social media, particularly Facebook, which has become the most popular academic library platform (Cheng et al., 2020; Collins & Quan-Haase, 2012). Recent studies showed that academic libraries used Facebook for promoting library resources and services, reaching out to users, delivering online services, and enhancing teaching and learning (Cheng et al., 2020; Chugh & Ruhi, 2018; Vassilakaki &

Garoufallou, 2014; Wan, 2011). Specifically, several content analyses have been carried out on academic libraries' Facebook pages and have reflected various uses of Facebook by libraries in specific countries. For instance, studies examined academic libraries in the United States and found that libraries explored the applicability of Facebook as a tool to market services and make community connections using messages designed to pique the curiosity of users in an informal tone (Harrison et al., 2017; Phillips, 2011). Zorica et al. (2012) analysed the content of 91 Croatian libraries' Facebook pages and revealed that libraries mostly used Facebook for promotional purposes and posting links potentially interesting to users. However, a large number of library posts were considered "spam," which showed the lack of useful information. On the other hand, an analysis of Estonian academic libraries' Facebook pages found that Facebook was adapted mainly for announcements, with one post per week in a dull and formal form as in official documents. The library Facebook page could be considered as reduplicating a library website (Roos, 2013). At the same time, Tyson et al. (2019) said that Facebook was employed to deliver information literacy content to students.

Besides analysing the content, measuring the success of library posts has been discussed. Glazer (2012) stated that the level of engagement with posts is a significant indicator to evaluate Facebook use of libraries. Engagement is measured by the total number of likes, shares, and comments on posts (Al-Daihani & Abrahams, 2018; Gerolimos, 2011; King, 2015). Gerolimos (2011) investigated comments on the Facebook pages of American academic libraries and reported that 91% of posts did not have comments. Likewise, Al-Daihani and Abrahams (2018) analysed Facebook posts of academic libraries in the United States, Canada, the United Kingdom, and Australia to measure user engagement with library Facebook posts. Their findings showed a very low level of engagement, with less than a quarter of examined libraries gaining more than 2,000 post-related likes, and only seven libraries having more than 100 comments on posts.

2.3. Research Gap

Numerous studies on the use of Facebook have been conducted in recent years. However, they mainly mentioned libraries in the West. Thus, more case studies on the use of Facebook in various countries should be carried out to gain a comprehensive understanding of the Facebook phenomenon in libraries across the globe (Aharony, 2012; Chan et al., 2020). In Vietnam, few papers focused

on the current trends and practical experiences of using social media in libraries have been found (Dương, 2019; Ngô, 2016; Trương, 2008). Although Facebook has been adapting to several Vietnamese academic libraries (Hỗ, 2018), limited studies have been conducted on Facebook use. Therefore, the present research aims to fill a literature void by analysing academic libraries' posts and examining users' interaction with those posts.

3. METHODOLOGY

To know how academic libraries use Facebook, a content analysis of libraries' messages on their Facebook pages was conducted. In the past, researchers used a method called content analysis to identify the meaning of documents or other forms of communication (Allen & Reser, 1990). It has been applied to new technologies such as radio, television, and websites (Salinas, 2006). In the current study, content analysis is used to know how academic libraries are using Facebook, focusing on the categories of posts, the updates, and the degree of users' participation. The study developed the instrument to analyse libraries' Facebook pages based on the work of Nancy K. Phillips (Phillips, 2011). Posts on the chosen libraries' Facebook pages are in Vietnamese, but because the present study is carried out in English, it is necessary to translate posts into English.

This study is limited to the Facebook pages of four academic libraries in Ho Chi Minh City (Vietnam). The choice of academic libraries was made based on the fact that academic libraries are generally well-equipped with information resources and employees, compared to public libraries. Additionally, the criteria for choosing universities were: first, the universities are listed among the top universities located in Ho Chi Minh City (uniRank, 2020), and each university has a large population with more than 20,000 staff and students; next, selected libraries must have their own official Facebook pages. Academic libraries participating in this study include the Library of the University of Social Sciences and Humanities (USSH), Library of University of Science (US), Library of University of Technology and Education (UTE), and Library of Ton Duc Thang University (TDTU).

Only publicly available posts were used because of the unavailable data access from Facebook Insights. Considering the academic calendar of universities, the time of sampled posts ranged from September 1, 2019, to June 30, 2020 (one academic year), including messages posted by libraries or users. The data collection process comprised of four steps as following:

- (1) Step one identified the library's Facebook pages. The appearance of the library Facebook page was embedded from the library website. Four library websites were scanned for the Facebook icon. The Facebook icon, which represents a symbol "f" was found on two library websites (US, TDTU). This icon immediately leads to the library Facebook page by clicking on it. Two other library Facebook pages were identified by asking librarians (USSH, UTE);
- (2) Step two was to collect all posts appearing on each Facebook page between September 1, 2019, and June 30, 2020. The data were collected, including date of the post, content of the post, the number of reactions, the number of shares, and the number of comments for posts;
- (3) In step three, each post on four libraries' Facebook pages were assigned categories;

- (4) In the last step, the number of fans was recorded for each Facebook page as of June 30, 2020.

4. DATA ANALYSIS AND DISCUSSION

Although Facebook was launched in 2004 and became more popular in 2007, USSH was the first library which had its own Facebook page, in December 2012. It was noticed that all four libraries' Facebook pages provide general information about the library, such as opening hours, contact information, and library web page address.

4.1. Characteristic of Posts

4.1.1. Content of Posts

A total of 260 posts were collected from four libraries' Facebook pages. Separately, the appearance and percentage were calculated for each category, as shown in Table

Table 1. Categories of posts on four library Facebook pages from September 1, 2019, to June 30, 2020

Category	Definition	USSH	US	UTE	TDTU	Total (n=260)
Encourage reading	About author, book, reading	2	6	2	74	84 (32.31)
Announcement	Library hours, library policy, information about staff, the current status of service	18	8	9	39	74 (28.46)
Community building	Greeting, interacting with users by asking the question, inviting fans for joining competitions, promoting the image of the university, recognizing students, faculty	1	13	7	17	38 (14.62)
Promoting libraries	Highlight the attributes of libraries in general and the specific library	3	14	4	9	30 (11.54)
Event – library	Event organized or hosted by the library	4	1	9	9	23 (8.85)
Event – external	The event is not sponsored by or located at the library	5	4	0	8	17 (6.54)
Information resource	Identify database or information source available to users, or highlight a particular selection from an identified database or information resource, or an online resource that is on the world wide web	3	2	9	3	17 (6.54)
Instructional	Help users learn how to do something	0	1	5	8	14 (5.38)
General interest/ miscellaneous	Information that does not fit in other categories	1	4	0	5	10 (3.85)
Highlighting collection	Identify specific collection, excepting electronic databases or reference resources (categorized as Information Resource)	1	1	0	2	4 (1.54)
Other library services	Describe how the library can help users through specific services, including reference help, catalogs, inter-library loans, and others	1	0	1	2	4 (1.54)

Values are presented as number only or number (%).

USSH, Library of the University of Social Sciences and Humanities; US, Library of University of Science; UTE, Library of University of Technology and Education; TDTU, Library of Ton Duc Thang University.

1. It was feasible for a post to be allocated more than one category, as appropriate.

The results analysis revealed that academic libraries published various posts that showed who they are and what they do. Libraries also try to engage and connect with users via Facebook. Information that academic libraries delivered through their Facebook pages is as below.

4.1.1.1. Encourage Reading.

Table 1 shows that academic libraries emphasize reading as a principal value. A broad content category relates to encouraging reading with 84 posts, which collectively represent 32.31% of total posts. It was noticed that these messages were combined with other categories. For example, the author event promoted reading and provided a chance to introduce books in the library collection. Most encourage reading messages were posted by TDTU, representing over 88% (74/84) of total posts in this category. Moreover, TDTU also introduced exciting books in different ways, such as taking photos of highlighted important text in books, or making videos under two minutes to review the content of specific books, to encourage users to read them (Fig. 1).

4.1.1.2. Announcements.

Announcement posts gave users current information that they should know to use the library better. Announcements on four libraries' Facebook pages were 28.46% of the total. These announcements mainly focused on changes in library operations in the long term or temporary. Announcement posts also informed users when services were unavailable and when they were back in the process. Moreover, announcements were about changes in facilities, policies, and employees. Examples of announcement posts by sub-theme are given in Table 2.

From Table 2, some announcements were written relationally, for instance, "Many thanks for your patience!" to acknowledge that users may have felt inconvenience because the system was down.

Furthermore, announcement posts reflected the rhythms of the university calendar. The finding shows that the number of announcements in the beginning (September) and the end of the academic year (May and June) was higher than in other periods because most students used libraries at that time. These announcements related to registering new students, reserving a study room, and returning books. Besides this, Facebook was used to inform the immediacy of information, like changes in the weather,

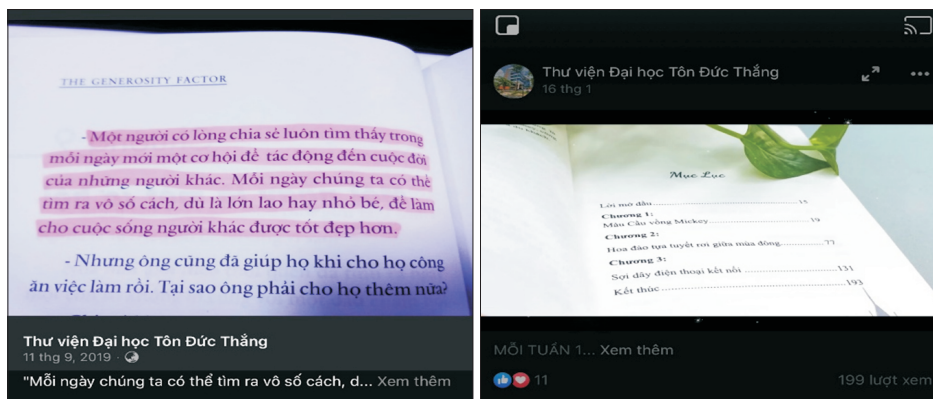


Fig. 1. Encourage reading posts on the Library of Ton Duc Thang University Facebook page.

Table 2. Examples of announcement posts

Sub-theme	Examples
Hours of operation	UTE posted on December 31, 2019: NEW YEAR'S HOLIDAY 2020! The Library will be closed on Wednesday (January 1, 2020)
Facility	US posted on September 5, 2019: Free wireless access is available within the Library.
Service availability	USSH posted on February 6, 2020: The network will be down from Fri, February 7, for maintenance. There will be no access to databases and the wireless network until Tue, February 11. Thank you for your patience!
Policies	TDTU posted on December 21, 2019: Please bring your card when visiting the Library!

UTE, Library of University of Technology and Education; US, Library of University of Science; USSH, Library of the University of Social Sciences and Humanities; TDTU, Library of Ton Duc Thang University.

which could help users. For example, “Do not forget your umbrella or raincoat!” was posted on TDTU’s Facebook page status on May 25, 2020.

4.1.1.3. Community Building.

Another major category was how academic libraries shared with students, the university, and the local community to build strong relationships between them (Table 3).

Table 3 shows that academic libraries find ways to interact with their users casually via invitations, supportive comments, or direct questions. Several posts gave kindly wishes to users without mention of libraries. Like announcements, some greetings followed the university calendar, such as welcoming freshmen students at the beginning of the academic year and congratulating graduates at the end of the academic year. Besides this, libraries started direct interaction with followers by inviting them to participate in activities and asking questions related to libraries.

Libraries showed that their posts were not just about reading and books. They began to share messages about the university. There were posts on the achievements and contributions of the university, faculty, and staff. For example, US and TDTU shared news about the feelings of pride or creations of lecturers and researchers from their universities. Furthermore, academic libraries also shared content outside of the university. For instance, libraries promoted community programs to connect students to the community and push them to participate (i.e., US posted a message “Say “NO” to single-use plastic!” on September 19, 2019).

4.1.1.4. Library Promotion.

As mentioned earlier, libraries are taking advantage of opportunities to promote themselves, their resources, and services via Facebook with promotional posts, representing 11.54% of total posts. However, some of the posts

which promoted libraries overlapped with community building and libraries’ events categories.

4.1.1.5. Events, Information Resources, and Services.

Other content categories were related to posts about events, library collections, databases, and other services available to users. All four libraries’ Facebook pages posted messages about libraries’ events, which collectively represent 8.85% of total posts. Besides this, libraries were also informed about other events not located at or sponsored by libraries (6.54%). Also, libraries used Facebook to share instructional sessions (5.38%), to introduce electronic information resources available in libraries or on the Internet (6.54%), as well as to highlight impressive library collections (1.54%).

Via Facebook, academic libraries reminded users of reference services and reserves. Besides this, they collected feedback from users about library services. Table 4 gives examples of posts about events, information resources, and services by categories.

Facebook posts displayed various resources, services, and events that libraries offer to meet users’ needs; therefore, this can help expand the brand of libraries in the digital era.

Generally, the content analysis shows what can be seen and inferred from posts on four libraries’ Facebook pages. Results of the study demonstrated that Facebook offers a dynamic environment for libraries to communicate with users. There is general information about libraries on their Facebook pages. As expected, a significant portion of posts contains book recommendations, announcements, introduction-specific collections and databases, instructional sessions, and various events, which may influence users’ perceptions about libraries’ roles. The distribution of post categories varied across selected libraries. “Encourage reading” was the most frequent topic shared by TDTU, “Library promotion” was often posted on US’s Facebook page, while “Announcements” posts were frequently posted by USSH and UTE. Several posts were written in an

Table 3. Examples of posts in the community building category

Sub-theme	Examples
Supportive, good wishes	USSH posted on September 8, 2019: Welcome Class of 2019!!!
Celebration	UTE posted on December 24, 2019: We wish you a Merry Christmas! (included photo of Christmas card)
Questions	TDTU posted on December 31, 2019: New Year is coming! Would you like the Library to do something? Please leave your comment below!
Society messages	US posted on September 19, 2019: Say “NO” to single-use plastic! (included photo)

USSH, Library of the University of Social Sciences and Humanities; UTE, Library of University of Technology and Education; TDTU, Library of Ton Duc Thang University; US, Library of University of Science.

Table 4. Examples of messages about events, information resources, and services

Category	Examples
Event – library	US posted on October 15, 2019: FREE FOOD AND DRINKS! Come to the Library to study or take a break.
Event – external	USSH posted on March 31, 2019: Play Online Quiz and Win Prizes. Springer Nature Publisher cooperates with VNU-HCM on organizing a “Springer Nature Online Quiz at VNU HCM.” Quickly access the SpringerLink database to answer questions and bring back any exciting gifts, dear library users! (including the link to the event announcement)
Instructional	TDTU posted May 13, 2019: 17 Google search tips! You’ll regret not knowing these tips sooner! (including instructional video)
Information resources	UTE posted on December 18, 2019: Find the best database for your research! Vietdata provides online, full-text access to publications on Business & Economics in Vietnam. Click on the link to access (including a link to the database)
Highlighting collection	TDTU posted on May 18, 2020: Celebrate Ho Chi Minh’s 130th birthday. Discover research resources on Ho Chi Minh from the Library, including books and academic journals! (including photos of books and journals)

US, Library of University of Science; USSH, Library of the University of Social Sciences and Humanities; VNU-HCM, Vietnam National University – Ho Chi Minh City; TDTU, Library of Ton Duc Thang University; UTE, Library of University of Technology and Education.

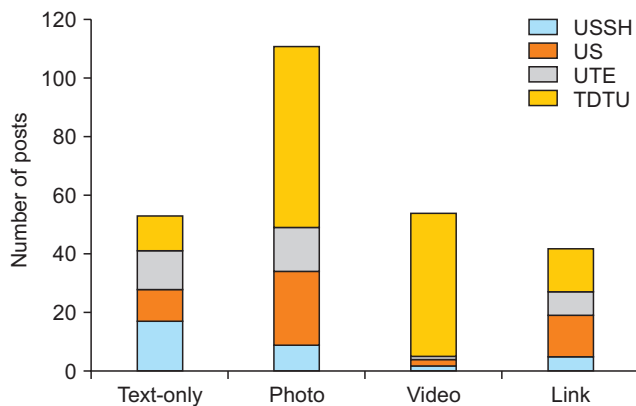


Fig. 2. Media types of posts. USSH, Library of the University of Social Sciences and Humanities; US, Library of University of Science; UTE, Library of University of Technology and Education; TDTU, Library of Ton Duc Thang University.

informal style by using punctuation such as capital letters and exclamation points.

4.1.2. Media Type of Posts

The media type was classified based on four types, including photo, video, link, and text-only. The media type of posts adopted by sampled libraries between September 1, 2019, and June 30, 2020, are shown in Fig. 2.

According to Fig. 2, the most frequent media type of posts was a photo (42.69%), followed by video (20.77%), text-only (20.38%), and link (16.16%) as less posted. The three libraries, including US, UTE, and TDTU, mostly used photo-based media for their posts, while USSH used text-only for posting. Notably, TDTU posted a large number of videos, with 35.51% of their total posts. Besides this,

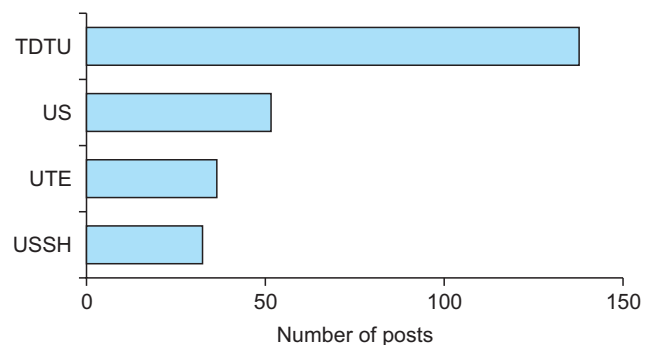


Fig. 3. Number of posts on library Facebook pages from September 1, 2019, to June 30, 2020. TDTU, Library of Ton Duc Thang University; US, Library of University of Science; UTE, Library of University of Technology and Education; USSH, Library of the University of Social Sciences and Humanities.

the US and TDTU libraries also preferred to share links. It seems that sharing content helps to maintain high posting frequency while saving time.

4.2. Frequency of Posts

The findings show that the frequency of posts on sampled libraries' Facebook pages was complicated. During the 43 weeks (September 1, 2019, to June 30, 2020), the number of Facebook posts ranged from 33 to 138, with USSH registering the least number of posts, 0.77 posts per week ($n=33$). Similarly, UTE also had a low number of posts, an average of 0.86 posts per week ($n=37$). On the other hand, TDTU had the most number of posts, which was equivalent to 3.2 posts per week ($n=138$), while the US updated its status by an average of 1.21 posts a week ($n=52$) (Fig. 3).

4.3. Interaction with Posts

Like other Web 2.0 tools, Facebook offers the option for interactivity between its users. People can make reactions (i.e., Like, Love, Haha, Wow, Sad, and Angry), “Share” or “Comment” on the post on the news feed. Facebook defines liking as a simple way to show enjoyment on posts or comments while reacting to specify a response (Facebook, 2020b). A “Comment” is the way people communicate on Facebook (Whitnah, 2010).

For the 260 posts coded in the current study, 100% of posts prompted reactions by fans. However, only 32.69% (n=85) of posts elicited comments, excluding comments of librarians. For these 85 messages, there were 363 comments (Table 5). It was noticed that the number of words was lower than the number of shares or reactions. Perhaps this was because a click on the response and share button is more comfortable than writing a comment.

Table 5 displays the number of fans for every library’s Facebook page. Libraries’ Facebook pages gained between 2,554 and 19,182 fans at the end of the data collection period. There was a difference in the number of fans between the chosen libraries. Among them, the UTE’s Facebook page is the last one, with the least new fans.

The current study also calculated the engagement rate better to understand users’ interaction on libraries’ Facebook pages. According to Facebook, the engagement rate refers to the percentage of people who see a post that click, react to, comment on, and share it (Facebook, 2020a). Besides this, the engagement rate was influenced by the number of posts and fans, so that the average engagement rate was calculated as the sum of reactions, comments, and shares per post per fan (Lam et al., 2019).

$$\text{Engagement rate} = \frac{\text{Number of (reactions+comments+shares)}}{\text{Number of Posts} \times \text{Total Fans on a Given Day}} \times 100$$

According to Table 5, the engagement rate was different among the four libraries. US received the highest rate (1.5%), followed by UTE (1.06%), USSH (0.57%), and

TDTU (0.1%). Surprisingly, TDTU had the highest number of posts and fans, but its engagement rate was the lowest. In contrast, the US did not update the post frequently; however, the US’s Facebook page had the highest engagement rate.

Furthermore, the research finding examined which categories of posts attracted the most users.

According to Fig. 4, the “Promoting libraries” category gained the highest interactions from library users with 81 acts per post on average, following by the “Event – library” category with 60 acts, and the “Community building” category with over 43 acts. For instance, a promoting post of new facilities in the TDTU attracted 177 reactions, 30 comments, and 13 shares, or a post of a Christmas event at the TDTU also gained 219 reactions, 66 comments, and 52 shares (Fig. 5). The examples showed that library users were interested in new facilities that support their learning. Besides this, posts of library events in the form of hu-

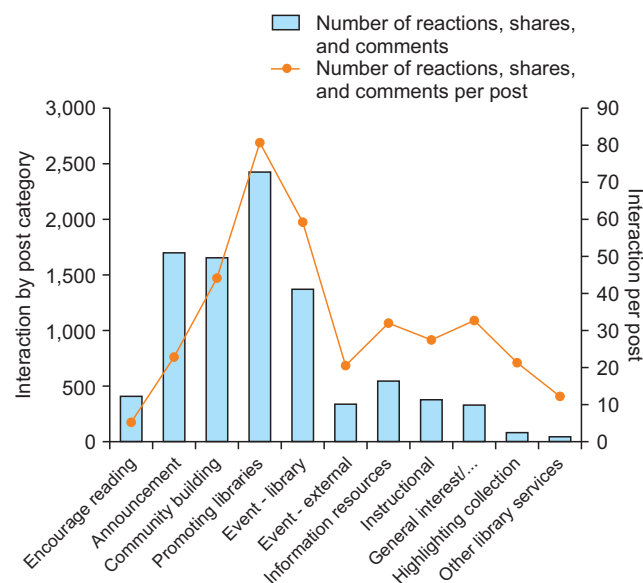


Fig. 4. Interactions of library users by post categories.

Table 5. Number of fans, reactions, comments, shares, and engagement rate from September 1, 2019, to June 30, 2020

Name of library	Number of fans as of June 30, 2020	Number of reaction	Number of shares	Number of comment	Average engagement rate (%)
USSH	10,340	1,674	200	84	0.57
US	3,979	2,842	120	149	1.5
UTE	2,554	861	110	34	1.06
TDTU	19,182	2,385	260	96	0.1

USSH, Library of the University of Social Sciences and Humanities; US, Library of University of Science; UTE, Library of University of Technology and Education; TDTU, Library of Ton Duc Thang University.



Fig. 5. Posts on the Library of Ton Duc Thang University Facebook page. (A) Post of “Promoting libraries” category. (B) Post of “Event – library” category.



Fig. 6. Posts on library Facebook pages. (A) Library of Ton Duc Thang University's post. (B) Library of the University of Social Sciences and Humanities's post.

morous and friendly approaches also impressed users.

Moreover, it is noticed that the interactions were different from the media type of post. While photo, video, and link posts attracted user attention mostly, text-only posts displayed a low level of attraction. For example, a post of TDTU with an amusing photo about the library's rule was more appealing and drew users' attention with 90 reactions, seven comments, and six shares. In contrast, although the posting of USSH was clear and easy to follow, a similar text-only message without a photo or video was not impressive. It has been observed that this post received only one “Like” from users (Fig. 6). Therefore, we believe that contents with a higher level of vividness are more attractive than plain text.

5. CONCLUSION

This study explores Facebook use in four academic libraries in Ho Chi Minh (Vietnam) by analysing libraries' posts and user interaction on libraries' Facebook pages. “Encourage reading” and “Announcements” were the most frequent content type posted by Vietnamese academic libraries on Facebook. The research results were quite the same as previous findings, such as finding that academic libraries' Facebook pages were not updated often, and content comprised of photos was the most favorite type of post. The current study is in line with the study of Al-Daihani and Abrahams (2018), which confirmed library users

interacted most with photos. The number of comments was much lower than for other reactions, and the engagement rate was low among libraries studied. Generally, it can be concluded that selected libraries used Facebook as a tool for delivering information rather than as a venue for two-way interaction with library users. Therefore, academic libraries should upload content more frequently to make their Facebook pages more active. Posting with a higher level of vividness may be good practice for using Facebook. Furthermore, libraries should survey to know users' expectations and then diversify libraries' presences on Facebook accordingly.

The current study was limited to what can be seen on Facebook pages, so that there were unanswered questions without input from both librarians and library users. Besides this, the sample libraries are too tiny to generalize how Vietnamese academic libraries are using Facebook. For all these limitations, in-depth studies on factors influencing Facebook usage, managing Facebook's presence, user satisfaction from the library performance on Facebook, etc., are needed.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

- Aharony, N. (2012). Facebook use in libraries: An exploratory analysis. *Aslib Proceedings*, 64(4), 358-372. <https://doi.org/10.1108/00012531211244725>.
- Al-Busaidi, K. A. (2014). SWOT of social networking sites for group work in government organizations: An exploratory Delphi study from IT managers' perspective. *VINE*, 44(1), 121-139. <https://doi.org/10.1108/VINE-06-2012-0019>.
- Al-Daihani, S. M., & Abrahams, A. (2018). Analysis of academic libraries' Facebook posts: Text and data analytics. *The Journal of Academic Librarianship*, 44(2), 216-225. <https://doi.org/10.1016/j.acalib.2018.02.004>.
- Allen, B., & Reser, D. (1990). Content analysis in library and information science research. *Library & Information Science Research*, 12(3), 251-262. <https://eric.ed.gov/?id=EJ421718>.
- Chan, T. T. W., Lam, A. H. C., & Chiu, D. K. W. (2020). From Facebook to Instagram: Exploring user engagement in an academic library. *The Journal of Academic Librarianship*, 46(6), 102229. <https://doi.org/10.1016/j.acalib.2020.102229>.
- Cheng, W. W. H., Lam, E. T. H., & Chiu, D. K. W. (2020). Social media as a platform in academic library marketing: A comparative study. *The Journal of Academic Librarianship*, 46(5), 102188. <https://doi.org/10.1016/j.acalib.2020.102188>.
- Chugh, R., & Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Education and Information Technologies*, 23(2), 605-616. <https://doi.org/10.1007/s10639-017-9621-2>.
- Clement, J. (2019). *Leading countries based on number of Facebook users as of April 2019 (in millions)*. <https://www.statista.com/statistics/268136/top-15-countries>
- Collins, G., & Quan-Haase, A. (2012). Social media and academic libraries: Current trends and future challenges. *Proceedings of the American Society for Information Science and Technology*, 49(1), 1-4. <https://doi.org/10.1002/meet.14504901272>.
- Divine, A., Watson, P. M., Baker, S., & Hall, C. R. (2019). Facebook, relatedness and exercise motivation in university students: A mixed methods investigation. *Computers in Human Behavior*, 91, 138-150. <https://doi.org/10.1016/j.chb.2018.09.037>.
- Dương, T. P. C. (2019). Tiếp thị truyền thông xã hội trong hoạt động thư viện - thông tin [Social media marketing in library-information activities]. *Vietnam Library Journal*, 2, 19-24. <https://nlv.gov.vn/tap-chi-thu-vien-viet-nam/tap-chi-thu-vien-viet-nam-so-2-2019-ra-ngay-15/03/2019.html>.
- Facebook (2020a). *About engagement rate ranking*. <https://www.facebook.com/business/help/2351270371824148>.
- Facebook (2020b). *How do I react to a post or comment on Facebook?* <https://www.facebook.com/help/933093216805622>.
- Gerolimos, M. (2011). Academic libraries on Facebook: An analysis of users' comments. *D-Lib Magazine*, 17(11/12), 5. <http://doi.org/10.1045/november2011-gerolimos>.
- Glazer, H. (2012). "Likes" are lovely, but do they lead to more logins?: Developing metrics for academic libraries' Facebook pages. *College & Research Libraries News*, 73(1), 18-21. <https://doi.org/10.5860/crln.73.1.8688>.
- Hall, M. (2012). *Facebook*. <https://www.britannica.com/topic/Facebook>.
- Harrison, A., Burrell, R., Velasquez, S., & Schreiner, L. (2017). Social media use in academic libraries: A phenomenological study. *The Journal of Academic Librarianship*, 43(3), 248-256. <https://doi.org/10.1016/j.acalib.2017.02.014>.
- Hồ, T. N. (2018). *Ứng dụng truyền thông xã hội trong hoạt động thư viện Trường Đại học Khoa học Xã hội và Nhân văn Đại học Quốc gia Thành phố Hồ Chí Minh [Application of social media in library activities at the University of Social Sciences and Humanities]*. [Master's thesis]. Vietnam National University, Ho Chi Minh City, Ho Chi Minh City, Vietnam.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68. <https://doi.org/10.1016/j.bushor.2009.09.003>.
- Khan, S. A., & Bhatti, R. (2012). Application of social media in marketing of library and information services: A case study from Pakistan. *Webology*, 9(1), Article 93. <http://www.webology.org/2012/v9n1/a93.html>.
- King, D. L. (2015). *Managing your library's social media channels*. ALA TechSource.
- Kohli, M. D., Daye, D., Towbin, A. J., Kotsenas, A. L., & Heilbrun, M. E. (2018). Social media tools for department and practice communication and branding in the digital age. *Radiographics: A Review Publication of the Radiological Society of North America, Inc*, 38(6), 1773-1785.
- Lam, E. T. H., Au, C. H., & Chiu, D. K. W. (2019). Analyzing the use of Facebook among university libraries in Hong Kong. *The Journal of Academic Librarianship*, 45(3), 175-183. <https://doi.org/10.1016/j.acalib.2019.02.007>.
- Lewis, B. K. (2010). Social media and strategic communication: Attitudes and perceptions among college students. *Public Relations Journal*, 4(3), 1-23. <https://prjournal.institute-forpr.org/wp-content/uploads/2010Lewis.pdf>.
- Marino, C., Vieno, A., Pastore, M., Albery, I. P., Frings, D., & Spada, M. M. (2016). Modeling the contribution of personality, social identity and social norms to problematic Face-

- book use in adolescents. *Addictive behaviors*, 63, 51-56.
- Ngô, T. T. (2016). Ứng dụng marketing truyền thông xã hội trong cơ quan thông tin - thư viện [Application of social media marketing at information – library organizations]. *Tạp chí Thông tin và Tư liệu*, 5, 13-19. <https://vjol.info.vn/index.php/VJIAD/article/view/25821>.
- Phillips, N. K. (2011). Academic library use of Facebook: Building relationships with students. *The Journal of Academic Librarianship*, 37(6), 512-522. <https://doi.org/10.1016/j.acalib.2011.07.008>.
- Reitz, J. M. (2013). *Online dictionary for library and information science: ODLIS*. https://products.abc-clio.com/ODLIS/odlis_f.aspx.
- Roos, J. (2013, January 23-25). Why university libraries don't trust Facebook marketing? In Z. Taşkın, T. Çakmak, & D. Doğan (Eds.), *The 21st International BOBCATSSS Conference* (pp. 160-165). Hacettepe University Department of Information Management.
- Salinas, R. (2016). A content analysis of Latina Web content. *Library & Information Science Research*, 28(2), 297-324. <https://doi.org/10.1016/j.lisr.2006.03.007>.
- Scott, D. M. (2015). *The new rules of marketing & PR: How to use social media, online video, mobile applications, blogs, news releases, and viral marketing to reach buyers directly*. Wiley.
- Sharma, S., & Verma, H. V. (2018). Social media marketing: Evolution and change. In G. Heggde, & G. Shainesh (Eds.), *Social Media Marketing* (pp. 19-36). Palgrave Macmillan.
- Shiau, W. L., Dwivedi, Y. K., & Lai, H. H. (2018). Examining the core knowledge on Facebook. *International Journal of Information Management*, 43, 52-63. <https://doi.org/10.1016/j.ijinfomgt.2018.06.006>.
- Tankovska, H. (2021). *Number of daily active Facebook users worldwide as of 4th quarter 2020 (in millions)*. <https://www.statista.com/statistics/346167/facebook-global-dau/>.
- Taylor & Francis Group (2016). *Use of social media by the library*. https://librarianresources.taylorandfrancis.com/white_paper/use-of-social-media-by-the-library/.
- Trương, Đ. L. (2008). Sử dụng blog để phổ biến dịch vụ thông tin thư viện [Using blogs to disseminate library and information services]. *Vietnam Library Journal*, 4, 16-24. <https://nlv.gov.vn/nghiep-vu-thu-vien/su-dung-blog-de-pho-bien-dich-vu-thong-tin-thu-vien.html>.
- Tyson, A. F., Angelo, A., McElwaine, B., & Tauro, K. (2019). Delivering information literacy via Facebook: Here comes the spinach! *Evidence Based Library and Information Practice*, 14(2), 33-50. <https://doi.org/10.18438/ebliip29532>.
- uniRank. (2020). *Top Universities in Vietnam: 2020 Vietnamese university ranking*. <https://www.4icu.org/vn/>.
- Vassilakaki, E., & Garoufallou, E. (2014). The impact of Facebook on libraries and librarians: A review of the literature. *Program: Electronic Library and Information Systems*, 48(3), 226-245. <https://doi.org/10.1108/PROG-03-2013-0011>.
- Wan, G. (2011). How academic libraries reach users on Facebook. *College & Undergraduate Libraries*, 18(4), 307-318. <https://doi.org/10.1080/10691316.2011.624944>.
- Whitnah, T. (2010). *I like your comment*. <https://www.facebook.com/notes/facebook-app/i-like-your-comment/399440987130>.
- Zorica, M. B., Ivanjko, T., & Benčec, M. (2012, May 21-25). Croatian libraries on Facebook - content analysis. In P. Biljanovic (Ed.), *35th International Convention MIPRO 2012* (pp. 1130-1134). Institute of Electrical and Electronics Engineers.