Exploring Student Engagement on Library Facebook Pages: A Survey of Vietnamese Academic Libraries

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ABSTRACT

Facebook is very popular among young people and especially university students. Therefore, Facebook is the most logical platform to be used by academic libraries for promotional purposes and reaching out to user communities. This study aims to measure the effectiveness of using Facebook in connecting with students in academic libraries. A questionnaire survey was conducted to collect research data from students at four Vietnamese universities. A total of 1,670 valid questionnaires were returned, and more than half of the respondents were females between the ages of 18 and 22 years. The survey results found that libraries' Facebook pages did not receive adequate attention and interaction from students. Besides that, the information needs of students and social media content in general affected student acceptance of libraries' Facebook pages. These factors are demonstrated by the great majority of students who used Facebook often for various purposes, but fewer accessed library pages and they were not actively engaged in library posts. Students were interested in the information they already tended to get from libraries and were optimistic about the quality of library posts. However, they still expected more diverse and attractive content from the libraries. The findings of this study can help libraries create a close connection with students by satisfying their needs and expectations on Facebook.

Keywords: Facebook, social networking sites, user engagement, academic libraries, Vietnam

1. INTRODUCTION

In the Internet age nowadays, social media is described as a global phenomenon with billions of users worldwide. Social media gives libraries many opportunities to improve communication with their users without time and distance limitations. King (2015) emphasized the benefits for libraries to use social media to increase the visibility of libraries, connect and share information with user communities, enhance the reach of users, and make libraries more modern. Sharma and Verma (2018) classified social media based on their primary purpose. They defined social media as encompassing various platforms such as social networking sites, blogs, discussion forums, video sharing, content sharing, social bookmarking, podcasts, and wikis. In particular, social networking sites are much more popular than others, which allows registered users to build a network of friends, interact, and share information (Scott, 2015). In the last few years, Facebook has become one of the largest social networking sites, with almost 2.89 billion monthly active users across the globe (Statista Research Department, 2021b). Previous research papers revealed library staff realize that the application of social media, especially Facebook, has a positive effect on both libraries and library users. While existing studies have mainly focused on using Facebook in libraries, the user aspect is often overlooked when doing research. Therefore, this current study aims to identify the use of library Facebook pages by students, clarify students' evaluation of library posts on Facebook, and then offer a few possible recommendations to raise the effectiveness of using library Facebook pages in connecting with students. Accordingly, the main research questions of this study are as follows.

RQ1. How do students use library Facebook pages?
RQ2. How do students evaluate library posts on Facebook?
RQ3. What are students' expectations for library Facebook pages?

The structure of this paper is: First, a brief review of the literature is conducted. Next, the research method is clarified. Then, the analysis of collected data is presented, followed by a discussion and recommendations on Facebook applications in libraries. Lastly, a conclusion is given.

2. LITERATURE REVIEW

2.1. Facebook

First launched in 2004, Reitz (2013) defined Facebook as a social networking site that allows individuals to create and upgrade personal profiles, maintain a friends list to whom messages can be exchanged, and join social networks organized by the school, workplace, city, or region. Facebook is free to use, making it open to everyone (Kohli et al., 2018). Facebook offers its users several functions, including status updating, photo or video uploading, reacting to and commenting on posts, as well as sending private messages (Chan et al., 2020). In addition, Facebook users can follow a page or someone and will then receive updates about them in the news feed (Wan, 2011). Besides this, Facebook provides an analytics section called Facebook Insights to measure engagement and usage (King, 2015). Internet users have different reasons for participating on Facebook, such as sharing and seeking information, maintaining communication between themselves and their families, friends, and colleagues, or leisure purposes (Al-Busaidi, 2014; Marino et al., 2016). In recent years, Facebook has grown to be the world's most commonly accessed social networking site, with almost 1.93 billion daily active users during the third quarter of 2021 (Statista Research Department, 2021a). The rising number of Facebook users demonstrates 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. Significantly, Facebook usage among students is increasing, and 32% of university students spend more than four hours of their daily time on Facebook (Divine et al., 2019).

2.2. Facebook Use in Academic Libraries

More and more libraries are building a presence on social media (Vassilakaki & Garoufallou, 2014). Taylor and Francis Group (2016) provided an overview of current practices relating to social media application by libraries worldwide. They reported that social media is now widely used, with more than 70% libraries participating. In particular, Facebook is the most popular academic library platform today (Cheng et al., 2020). Previous studies identified that academic libraries used Facebook to promote information resources and services, deliver online services, reach out to users, and improve teaching and learning of information literacy (Cheng et al., 2020; Chugh & Ruhi, 2018). Several content analyses were carried out on Facebook pages of academic libraries and reflected differ-

ent uses of Facebook. Notably, academic libraries in the United States used Facebook to promote library services and make community connections using posts designed to pique users' curiosity in the casual language used (Harrison et al., 2017; Phillips, 2011). Likewise, Croatian libraries mainly adapted Facebook for promotional purposes, sharing links potentially interesting to users (Zorica et al., 2012). Roos (2013) revealed that Facebook was adapted mostly for announcements by Estonian academic libraries. In addition to content analysis, measuring the success of library posts has been discussed in recent studies. According to Glazer (2012), the level of engagement with posts is a significant indicator to measure the use of Facebook. More specifically, engagement is calculated by the total number of likes, shares, and comments on posts (Al-Daihani & Abrahams, 2018; King, 2015).

2.3. Literature Gap

As mentioned above, numerous studies on Facebook adoption among libraries have been carried out in the last few years. Although libraries need to know how to use social media effectively by understanding their users' behavior, culture, and etiquette, only a few studies focus on users through collecting data from them (Cheng et al., 2020). Moreover, previous studies mainly mentioned academic libraries in the West. More case studies on Facebook use in Asian countries are needed to comprehensively understand the Facebook phenomenon in libraries worldwide (Aharony, 2012; Chan et al., 2020). Although many Vietnamese libraries use Facebook, research on

Facebook is still limited from both users' and libraries' sides (Hồ, 2018). Therefore, this present study tries to fill the research gap by analysing the use of Facebook as a connecting tool between libraries and users from the student perspective in Vietnam.

3. METHODOLOGY

In the context of the limitation of time and resources, this study is limited to four academic libraries in Ho Chi Minh City (Vietnam). The criteria for choosing universities were: firstly, the four universities are national-level public universities that cover many science fields with a wide range of curricula. Secondly, the universities were ranked among the top universities in Vietnam, and each university had a large population with more than 20,000 students and staff (uniRank, 2020). Finally, the libraries of the universities must have their own official Facebook pages. Academic libraries participating in the current 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).

This study aims to fill a literature void by collecting data, mainly from students. A quantitative survey was applied as the primary source of information, collected through a questionnaire. Questions collected information on how students use Facebook, the use of libraries' Facebook pages by students, how satisfied they are with li-

Table 1. Demographic characteristics of respondents

	Variable	USSH	US	UTE	TDTU	Total	
						Frequency	Percentage % (n=1,670)
Sex	Male	81	220	180	195	676	40.48
	Female	339	181	265	209	994	59.52
Age	18 years-less than 20	217	123	261	121	722	43.23
	20 years-less than 22	131	189	135	224	679	40.66
	22 years and above	72	89	49	59	269	16.11
Year of study	Year 1	167	101	235	133	636	38.08
	Year 2	103	149	117	137	506	30.30
	Year 3	81	75	78	98	332	19.88
	Year 4	69	76	15	36	196	11.74

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

brary posts, and what content they would like to see from libraries on Facebook. The Likert scale has been applied in the questionnaire. Two professors familiar with the application of social media in communication activities were invited to test the questionnaire for consistency and validity. A pre-test was conducted among a few students at each library to identify any problems regarding the questionnaire's content and structure. The online questionnaire was created using Google Forms, then placed on the Facebook pages of the surveyed libraries and e-mailed to students in June 2020. Because of the large number of students, the formula recommended by Yamane (1967) was used to determine the minimal sample size to investigate (Israel, 1992; Yamane, 1967). In total, 1,670 student responses were gathered within three weeks from June 1

to 21, 2020 (see Appendix).

4. RESULT AND DATA ANALYSIS

4.1. Respondents' Demographic Characteristics

Respondents to the questionnaire were requested to clarify their demographic characteristics (i.e., sex, age, and year of study). As shown in Table 1, more than half of the respondents were female (59.52%), while 40.48% were male. Furthermore, 43.23% were aged between 18 to less than 20 years old, 40.66% were aged between 20 to less than 22 years old, and 16.11% were aged 22 years and above. The respondents' composition regarding years of study was: 38.08% were in the first year, 30.3% were in the second year, 19.88% were in the third year, and 11.74% were in the fourth year.
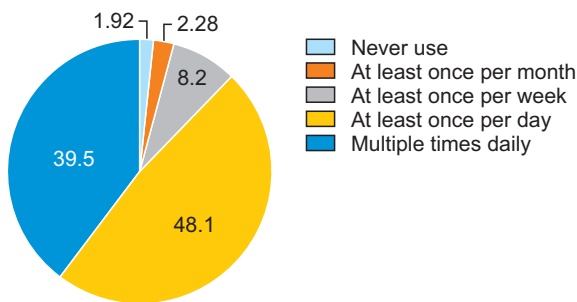
4.2. Students' Use of Facebook

Students were asked to provide information on their habits and preferences on Facebook. It was clear from the results that Facebook is very popular among students. Almost all respondents were active on this platform (98.08%). In particular, most respondents answered they use Facebook "at least once per day" or "multiple times daily" (Fig. 1).

Next, students were asked about their purposes for using Facebook. According to Fig. 2, respondents overwhelmingly use Facebook for finding entertaining con-
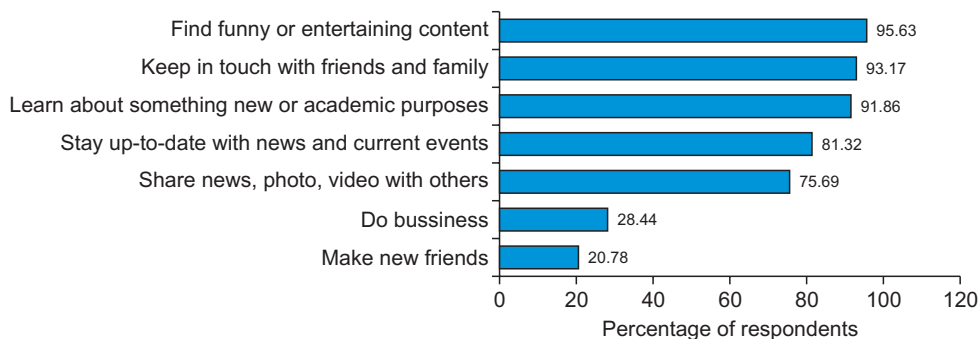

Fig. 1. Level of students' use of Facebook.
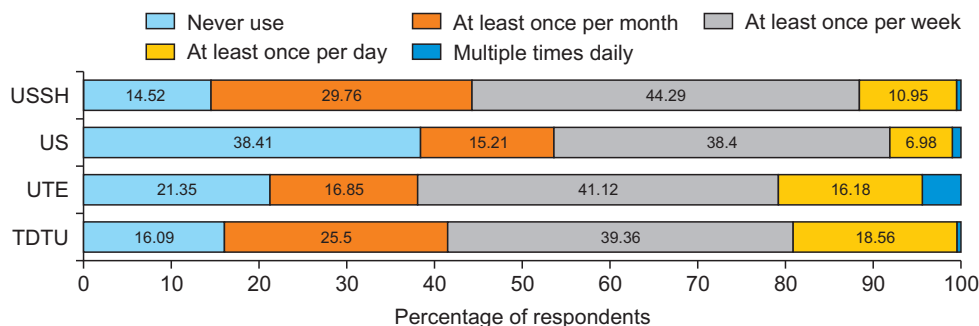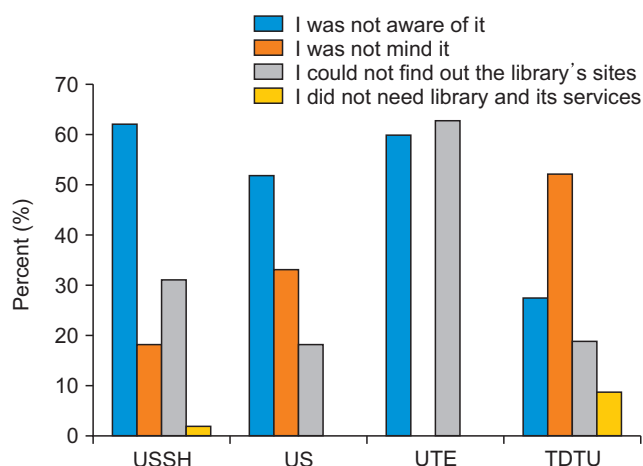

Fig. 2. Students' purposes of using Facebook.

Fig. 3. Level of students' use of libraries' Facebook pages. USSH, University of Social Sciences and Humanities; US, University of Science; UTE, University of Technology and Education; TDTU, Ton Duc Thang University.

tent (95.63%), keeping in touch with friends and family (93.17%), or learning about something new or academic purposes (91.86%). There were other purposes based on the answers to this question, ranging from staying updated with news of their interests to sharing information, photos, and videos with others, doing business (e.g., selling products online), and making new friends.

4.3. Students' Use of Libraries' Facebook Pages

Respondents were asked how likely they were to use libraries' Facebook pages. Fig. 3 illustrates the responses received. However, most respondents use Facebook for personal reasons, and fewer access library pages. For example, 38.41% of the US respondents reported they "never use" the library page on Facebook.

Regarding the reasons for the non-usage of libraries' Facebook pages, respondents who stated "never use" were asked to explain why they did not access their libraries' pages (Fig. 4). The study found out that students had a
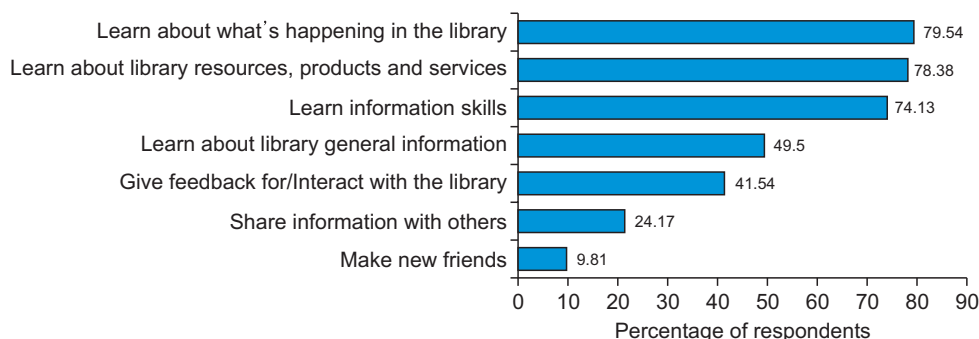
high awareness of Facebook but a low awareness of library Facebook pages. Lack of understanding of the sites' existence was the main reason the respondents did not use libraries' Facebook pages, given by 62.3% at USSH, 51.95% at US, 60% at UTE, and 27.54% at TDTU. Other reasons for non-usage were that students did not find their libraries' pages, were not interested in the information provided by the library, and did not need libraries or their services. These results indicated that libraries need to spend more time and effort to increase their visibility and enrich their social media content on Facebook.

Next, respondents were asked about their purposes while accessing pages supplied by libraries (Fig. 5). The survey results found that "Learn about what's happening in the library" and "Learn about library resources, products, and services" were reported as the primary purposes of using libraries' Facebook pages with 79.54% and 78.38%, respectively. Besides this, most respondents (74.13%) used libraries' Facebook pages to "Learn information skills," which included examples such as seeking information in the various collections within the library, or accessing different specific online databases. Following this, 49.5% of respondents chose "Learn about general library information," which included library hours, contacts, policies, and rules. 41.54% of respondents used libraries' Facebook pages to "Give feedback or interact with the library," followed by "Sharing information with others" with 24.17%. Coming in last, which still means 9.81% of respondents, was "Make new friends."

4.4. Students' Interaction with Library Posts

If students become engaged with libraries through social networks, this can influence their perceptions and actions. However, the current study finds low student interaction with libraries' posts. More than half of the respondents (54.98%) have never interacted with libraries on Facebook (Fig. 6).

Respondents who interacted with libraries were then

Fig. 4. Reasons for non-usage of libraries' Facebook pages. USSH, University of Social Sciences and Humanities; US, University of Science; UTE, University of Technology and Education; TDTU, Ton Duc Thang University.

Fig. 5. Students' purposes while accessing libraries' Facebook pages.

asked to clarify their interactions (Fig. 7).

According to Fig. 7, most respondents interacted with library posts using emoticons to express their emotions (79.25%). The following most frequent interaction was sharing libraries' posts on their profile (31.9%). When students are engaged with libraries and respond positively to the content, they share it with friends. This can be beneficial to libraries, especially when many students do not access libraries' Facebook pages. These students may still receive messages from libraries through their peers. The third most common interaction was commenting on libraries' posts. Although the number of respondents who left comments was still low (31.56%), commenting might help spread the libraries' posts and attract more attention from other users on Facebook. Lastly, 23.33% of respondents contacted librarians via Facebook chat messages. The reasons for these contacts were questions about the li-

brary and questions about resources or events mentioned.

4.5. Student Ratings of Library Posts

Students were asked how they rated the quality of the messages posted on libraries' Facebook pages from "very poor" to "excellent." The responses received were relatively positive in general (Fig. 8).

Firstly, criteria related to the content of messages were evaluated. As shown in Fig. 8, the diversity in content was rated "fair" by nearly half of the respondents (46.18%). This demonstrates that librarians should carefully select wider content in addition to content directly related to the library itself. Next, respondents were asked if they thought messages shared on libraries' Facebook pages were useful and relevant. As expected, Fig. 8 shows the responses were overwhelmingly positive, with the rating as 30.04% "excellent" and 45.64% "good." Students are very familiar with social networks since they often use them for various purposes. Therefore, useful and relevant content will encourage students to accept libraries as a source of good quality information, which might help to increase the use of library facilities and resources. Although the value of frequently updated content was measured as "fair" by the majority of respondents in total (40.77%), 29.73% of respondents rated this criterion as "good." Generally, among the content criteria, the relevant and useful messages posted had the most excellent rating, while the frequently updated criterion had the poorest rating.
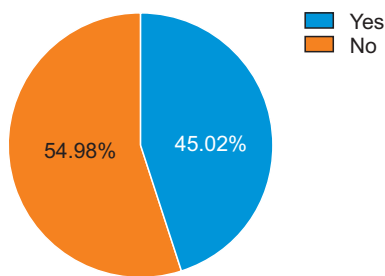

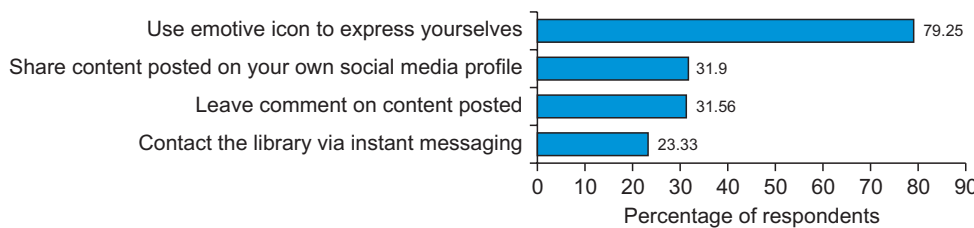**Fig. 6.** Number of respondents who interacted with libraries.

Fig. 7. Types of student interactions on libraries' Facebook pages.
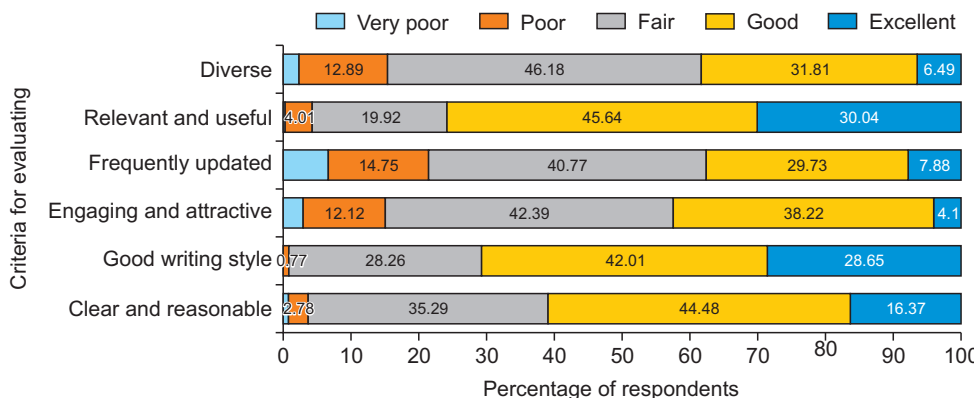

Fig. 8. Student ratings of libraries' posts on Facebook.

Then, respondents were asked to evaluate criteria related to the format of messages that appeared on libraries' Facebook pages. In particular, respondents were asked about the attractiveness of libraries' posts. The results were relatively modest: 42.39% of respondents rated it "fair." Most respondents found libraries' messages were written in a good writing style. The rating was 28.65% "excellent" and 42.01% "good." Likewise, the survey results also show that respondents were impressed with the clear and reasonable format of libraries' messages, with 60.85% rating it as either "excellent" or "good." In short, when all the criteria for format are compared, good writing style had an excellent rating while being engaging and attractive had the lowest rating.

4.6. Impact of Libraries' Facebook Pages on Students

Respondents were asked about statements related to the effectiveness of Facebook as a way of raising awareness amongst students. Most of the respondents recognized certain benefits of using Facebook. Responses are presented in Fig. 9.

Facebook was considered an effective tool for libraries to promote and communicate with users. Most respondents agreed that they were made aware of library resources, services, and activities through Facebook. Respondents were also asked about their use of libraries due to their promotion via Facebook. The findings are encouraging as they demonstrate that promotion via Facebook impacts the use of information resources, products, and promoted services. Many respondents thought Facebook had increased their use of the library with 35.98% "agree" and 16.53% "strongly agree." This is positive because it means Facebook is helping to encourage students to use libraries.

Making librarians more accessible through online interactions is one of the primary benefits of adopting Facebook in libraries. Responses to the statement "I have contacted the library more often" were overwhelmingly positive. "Strongly disagreed," "disagreed," and "neutral" responses were in the minority with this statement. Online contact with libraries was available previously. There was still an element of inconvenience, as students had to visit the library website to get contact details in the past. In contrast, they can directly contact librarians more quickly by making librarians seem more approachable. Facebook can break down barriers between libraries and students.

Twenty-one percent (21.08%) of respondents strongly agreed, and 40.62% decided that it is important for libraries to maintain a presence on Facebook. Students are very tech-aware, so it is no surprise that they respond positively to using Facebook.

4.7. Students' Expectations for Libraries' Facebook Pages

Respondents were asked what content they would like to see from libraries on Facebook. The questionnaire presented a list of contents from which respondents could choose, including how to use library resources and services (e.g., finding materials, using scanners or printers, renewing checked-out books); library collections and resources info (e.g., information about authors whose books libraries have, information about what is in digital collections or curriculum collections, information about specific databases); library news (e.g., if the library wins an award); research techniques and tips; non-academic reading (e.g., new arrivals in recreation collections, reading suggestions over breaks, interesting websites); and campus-wide events (Fig. 10).

Respondents widely selected all types of content, with the three most chosen content options being research techniques and tips (80.23%), library collections and re-
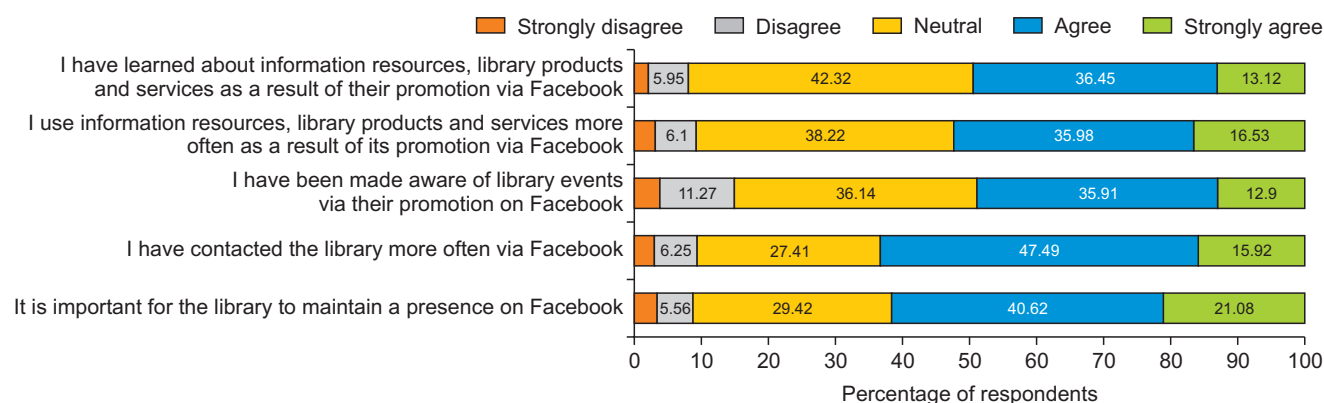

Fig. 9. Student responses to statements related to Facebook use in libraries.

Research techniques and tips — 80.23
Library collections and resources info — 74.67
How to use library resources and services — 64.25
Library news/events — 61.78
Non-academic reading — 59.77
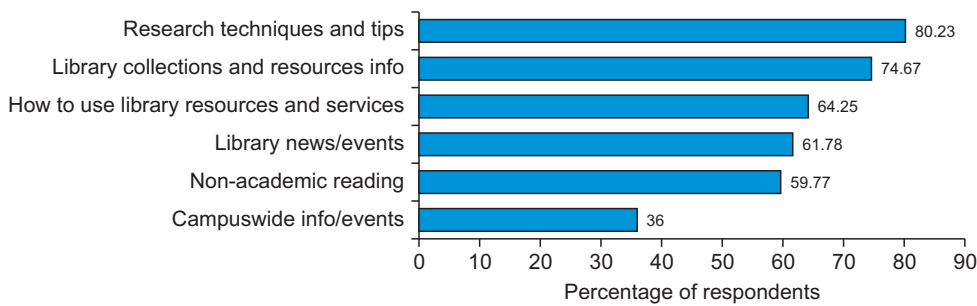Campuswide info/events — 36

Percentage of respondents

Fig. 10. Students' expectations for the content of library posts.

sources info (74.67%), and how to use library resources and services (64.25%).

Besides the content of posts, respondents thought that libraries need to improve the quality of photos and videos. Respondents also suggested that libraries use special Facebook features such as stories, hashtags, and live videos to attract more viewers.

5. DISCUSSION AND SUGGESTIONS

5.1. Students' Use of Library Facebook Pages (RQ1)

The survey results show that students currently use Facebook very often. Facebook is a primary tool for students to communicate with classmates, family, friends, and others. However, students who used library Facebook pages did so only rarely or did not use them at all. A significant portion of respondents did not access library pages because they did not know about them. Thus, libraries need to solve this problem. The good news for libraries is that students are interested in the information they receive from libraries on Facebook, including information about libraries and their products, services, or announcements. Therefore, libraries need to communicate with students regarding services, collections, events, and more.

Moreover, students were passively engaged in libraries' posts because they rarely like, share, and comment on posts. It shows that most students were merely consuming information. If libraries are serious about using Facebook to communicate with students, then libraries need to put more effort into interacting with them.

5.2. Students' Evaluation of Library Posts on Facebook (RQ2)

The findings revealed that students' assessment of library posts' quality was generally relatively positive. Students appreciated the usefulness of the library messages. The library pages had low student engagement because the content format was not interesting. The use of Facebook has a positive impact on those who use it, and students feel Facebook is an effective way to communicate with libraries. Facebook provides a reminder of libraries and encourages students to use their advertised resources and services. By giving students content that is both helpful and interesting, the library is helping to solidify its reputation as a place for quality information. This will encourage students to think about the library when they need information and will raise library use.

5.3. Students' Expectation for Library Facebook Pages (RQ3)

The survey results showed that students expect and are mainly interested in information for academic purposes. Perhaps unsurprisingly, students pointed out that libraries should increase the quality of visual content and actively use various Facebook features to attract interaction. If libraries create content that aligns with student preferences, the level of engagement on Facebook will increase.

Based on the survey results, the author makes a few recommendations to optimize library Facebook pages.

5.3.1. Content of Posts

As mentioned above, students mainly want to know and discuss research designs and tips, library collections and resources information, and how to use library resources and services. Therefore, library posts should focus on:

- Tips for finding research data, research support tools (e.g., plagiarism prevention software checks; bibliographic management tools to help students organize, manage, and format citations for their research; helpful data visualization tools such as Google Charts, Tableau, D3.js, and so on)

- Information resources available within the libraries, such as books, journals, theses and dissertations, digital collections, research databases, notices of new additions to library collections, and how to access them. Additionally, libraries should always include a link to the resources they are promoting.

- Library products (e.g., bibliographies, subject guides built by librarians to help students through the research process, and other aids designed to introduce students to materials the library provides and to guide them in finding available research resources)

- Library services like borrowing services (e.g., step-by-step guides to setting up student library accounts, loan periods, renewal limits, fines, and fees), interlibrary loan (e.g., who can borrow materials through ILL, how to request items that are not available from the library, which things that can/cannot be requested, costs to use ILL), digitization services (e.g., guidelines and fees for reproduction services for library materials), library instruction, and so on.

Library-centered content is essential and needs to be shared, but reposting and sharing external content that interests users is also a great idea. One of the primary purposes of using Facebook is learning about something new or for academic purposes. Therefore, academic libraries can post content about scientific activities outside libraries, research tips to interesting content from relevant publications, and information related to the research interests of faculty and students.

5.3.2. Format and Frequency of Posts

Besides content, it is essential to consider the format of posts. Students welcomed libraries' use of social media, but they expected libraries to change their uninteresting style on Facebook and make better use of Facebook features to attract more attention. Therefore, libraries should incorporate more visually appealing graphics and videos when creating Facebook posts. An example is word clouds – a popular type of image. Libraries can take words from books, journals, research articles, or keywords in different subjects and run them through a word cloud creator, save the image, and share it on libraries' Facebook pages. Dur (2014) explained that the human mind can perceive visual information transfer more quickly, efficiently, and permanently than written or verbal information. Thus, having infographics in posts can make students remember information quickly and easily. An infographic is suitable for presenting searching guides and statistics related to library resources and services.

A post on Facebook can get lengthy, with more than 63,000 characters allowed (Buck, 2012). Previous studies have presented which character length attracts the most engagement on social networks. Margolis and Treptow (2017) reported that Facebook posts with 80 characters or less received 66% higher engagement. Therefore, libraries should keep their posts as short as possible but ensure that libraries include all the most essential information. Besides this, libraries should use casual language and not take the library too seriously to create a friendly and positive atmosphere for users (Garoufallou et al., 2013).

In addition, librarians need to understand that using Facebook as a connection tool requires considerable attention. If libraries cannot update their Facebook pages at least once a week or more, it may not be a successful or useful tool (Jacobson, 2011). Thus, libraries must pay attention to constantly updating information. Two posts of well-curated content per week is a good starting point (EBSCO, 2019). Besides posting regularly, libraries should choose the best time to post. According to Hootsuite's data (Cooper, 2021), Facebook users are the most active in the early morning and around noon on weekdays, so these times are considered the most effective for posting.

5.3.3. Enhancing Social Interaction with Students

First, librarians should take the initiative by engaging in discussions on library Facebook pages, which can be done through participating in giving likes, sharing, and commenting on posts using their accounts. Second, libraries should adopt updated and advanced features supported by Facebook. Mainly, libraries can use the Facebook Live feature to broadcast real-time video posts when activities or events are held in libraries, such as talks by famous authors, workshops, and library tours. Although it is not a technically complicated feature, Internet users may spend three times longer watching a video when it is broadcasted (Lavrusik & Capra, 2016). In the context of libraries, this can engage students who cannot attend events in person. Next, libraries can also use hashtags with the common language of university members. By doing so, students can easily search for relevant conversations. This also gives convenient connections to other academic libraries across the country. Thus, libraries may consider sharing more relevant and useful information, and hot topics, by adding hashtags in posts. Besides this, libraries can adopt chatbots to provide students with automatic answers for frequently asked questions (Harrison et al., 2017).

5.3.4. Popularizing Library Facebook Pages

The findings revealed that students had a low awareness of library Facebook pages. Thus, libraries should focus on popularizing library pages to increase users' access. This involves increasing followers on pages to ensure that as many users access the information shared on Facebook

as possible. Three main factors that can help libraries disseminate their Facebook pages are the service staff, liaison librarians, and library fans. In particular, the service staff can mention library Facebook pages to users during their interactions. Liaison librarians nowadays communicate with students and faculty by attending and presenting at faculty meetings, providing library orientation and information literacy lectures, and organizing events in collaboration with faculty members. Therefore, liaison librarians can help spread the word about the library's Facebook pages from one person to another through a network of relationships. Library fans are the familiar users of the library, such as colleagues and student volunteers. They use the library frequently and have a positive attitude towards the library. Thus, libraries can ask them to follow library pages with their accounts. These fans can be encouraged to actively write comments on library pages to create a warm discussion among users and encourage more interactions.

In addition, the library can follow the Facebook pages of other departments of the university to expand the library pages' visibility. Through collaboration with other departments, the information posted by libraries will be spread more quickly and broadly. Moreover, libraries should link library pages frequently in relevant locations, such as library websites, newsletters, and notice boards.

Last but not least, the library website is an official online presence of the library and always attracts many visitors. However, at the time of this writing, the USSH and US did not include links to their Facebook pages from library websites. To popularize them, the USSH's and US's Facebook pages should be linked from the main website of these two libraries. By doing this, visitors to the library website will know that the library has a Facebook page, they can visit it, and they have the opportunity to like the library's Facebook page.

6. CONCLUSION

This study investigated student engagement on the Facebook pages of four academic libraries in Ho Chi Minh City (Vietnam). An online survey was conducted among students. The survey found that almost all respondents were active on Facebook for personal reasons, but fewer accessed libraries' Facebook pages. The most common reason for non-usage was a lack of awareness of library pages. The data collected also revealed that the number of respondents who interacted with libraries' posts and contacted librarians on Facebook was low. Although respon-

dents were optimistic about the quality of content posted on libraries' Facebook pages, they reported that the library posts lacked attractiveness.

Additionally, most respondents welcomed library presence on Facebook and stated that it positively impacted their perceptions. However, respondents expected more diversified and exciting content from libraries. According to student feedback, a few recommendations to increase effectiveness in connecting with them are given, such as sharing social media content that consists of students' interests, posting with a higher level of vividness, uploading content more frequently, and using special Facebook features to make libraries' Facebook pages more active and attractive. Besides this, libraries should enhance social interaction with students and popularize library Facebook pages. The survey's sample size was small to generalize how students engage with libraries on Facebook. Still, the author hopes the findings will contribute toward academic libraries some insights to improve communication and meet the needs of students on social networks.

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CONFLICTS OF INTEREST

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

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APPENDIX. Determining Sample Size

Yamane Taro is a famous statistician who has contributed to developing sampling methods. Taro provided a simplified formula to calculate sample sizes that can be used to determine the minimal sample size to analyse any given population size. The formula is shown below (Yamane, 1967, p. 886).

$$n=\frac{N}{1+N(e)^2}$$

Where: n is the sample size
N is the population size
e is the level of precision (the acceptable sampling error)

The level of precision, sometimes called sampling error or allowable error, is the range in which the actual value of the population is estimated. The acceptable sampling error is often expressed in percentage points, and the formula from Yamane assumes a 95% confidence level and ±5% allowable error (Israel, 1992).

In this research, the author identified the survey sample based on the formula of Yamane Taro with a 95% confidence level after calculating the sample size by substituting the numbers into this formula. The sample numbers are presented as follows.

Sample size in the surveyed libraries

Name of library	Population size	Minimal sample size	Number of student responses
USSH	22,000	393	420
US	20,038	392	401
UTE	25,089	394	445
TDTU	23,792	393	404
Total			1,670