Social Media Use Among University Students: A Review and Direction for Future Research

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The use of social media has become widespread in recent years. It is an excellent source of social interaction, and students routinely use various social media platforms for different academic activities. This study aimed to review and synthesize research on social media usage and its impact on university students in Pakistan.

The systematic literature review (SLR) technique was used. With the help of a refined search string, a systematic review of studies published in the English language between 2010 and 2022 was conducted.

The data was collected from the Web of Science, Google Scholar, and the Library Information Science and Technology Abstracts (LISTA) database. Thirty-one studies were selected after a rigorous review of 1244 studies. It was found that most quantitative research studies were conducted using the survey method and reported both positive and negative impacts of social media. The results highlighted that Pakistani students use social media for (1) knowledge sharing, (2) socialization, (3) political awareness, (4) job hunting, and (5) cross-cultural communication and coordination. They also support the positive impact of social media use among Pakistani students. The novelty of this research is rooted in the comprehensive search and systematic review of social media research from the Pakistani university student's perspective, which has not been unified to the present date. The results of this study would provide valuable insights to educational administrators regarding the formal adoption of social media technologies for teaching and research in the educational institutions of Pakistan.

Keywords: Social media, Ubiquitous technologies, Higher education, University students, Pakistan.

INTRODUCTION

The introduction of modern technologies and the internet has revolutionized human life. The developments made in internet applications have been beyond imagination.

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No one could have imagined that a networking tool developed for defense purposes would become a source of entertainment, knowledge, interaction, publishing, and communication. Social media has translated the idea of a global village into reality (Little, 2014). Social media technologies have revolutionized professional and personal communication and have become integral to almost every individual's life (Chugh & Ruhi, 2018). Educational institutes have also implemented social media to enhance communication, community engagement, and learning outcomes and connect with the digital generation by integrating social media into modern education (Davis et al., 2015). Over the last decade, learning from media and computer-supported collaborative technologies have merged into social media usage (Otchie & Pedaste, 2020). Social media use has grabbed researchers' attention in many contexts, such as communication, marketing, politics, mental health, education, public health, crisis management, cultural change, and ethical concerns (Clark, 1983; Kozma, 1991). The body of literature on the use of social media for learning processes, especially in higher education (Davis et al., 2015; Gupta, 2014), is rapidly growing. Social media comprises internet-based websites, practices, and services that ensure and empower collaboration, participation, community building, and sharing of information and knowledge (Hughes, 2009). Kaplan and Haenlein (2010) defined social media as a set of internet applications based on Web 2.0 ideology, allowing users to create and exchange information. Social media are technologies that make communication and discussions easy among participants (Shah & Balaji, 2020). Social media has become a crucial tool for boosting learning, interaction, and dynamism in peer collaboration (Chu et al., 2017; Raacke & Raacke, 2015). Currently, 3.8 billion active social media users worldwide spend an average of 2 hours and 24 minutes daily on social media (Kemp, 2020). Nearly 3.5 billion people have accounts on social media, which is almost equal to 43% of the total world population. Most social media users (95%) are between 18 and 35 (Tjepkema et al., 2019). The statistics reported in July 2021 highlighted that there were 4.48 billion social media users worldwide, equal to almost 57% of the global population (Datareportal, 2021).In Pakistan, there are 180 million cellular users and 76.3 million internet users (PTA, 2019).A recent survey reported46 million social media users in the country. Furthermore, the number of social media users increased by 9.0 million (+24%) between 2020 and 2021 (Digital Pakistan, 2021).

The increasing social media usage trend shows these ubiquitous technologies' significance. Social media manifests in various forms, such as blogs, vlogs, virtual communications, instant messaging, bookmarking, wikis, and discussion forums, promoting broader collaboration (Chugh & Ruhi, 2018). The boundaries between the formal and informal use of social networking sites are slowly getting blurred. Several studies have been conducted worldwide to explore the role of social media in the transformation of the academic landscape (Johnson, 2017) and measure the usability and impact of social media in an

academic environment, with a particular focus on university students (Azizi et al., 2019; Baishya & Maheshwari, 2020; Batubara et al., 2021; Chugh & Ruhi, 2018; Makki & Bali, 2021; Naqviet al., 2020; Owusu-Acheaw & Larson, 2015; Stylianou & Suhonen, 2014). All available reviews based on social media research, especially in the context of education, investigate an array of applications, uses, and impacts (Table 2). Abbas et al. (2019) and Khanet al. (2018) examined the constructive and adverse impact of the use of social media on students' behavior in Pakistan. Several researchers have also studied the impact of social media use on students' academic performance in Pakistan (Ahmed &Qazi, 2011; Arif & Kanwal, 2016; Jamil et al., 2013; Khan et al., 2021; Ullahet al., 2021). Hussain and Cakir (2018) assessed social media as a learning technology for university students. Similarly, Raza, Qazi, and Khan (2019) investigated the impact of social media use on students' life satisfaction. Several researchers have examined the trends and reasons behind the use of social media among university students (Hussain, 2012; Javid & Bhatti, 2015; Khan, 2020). Numerous studies on social media have been conducted outside of the educational realm or by targeting the millennial generation's use of social media (Bolton et al., 2013; Yadav &Rai, 2017). Compared to other age groups, youth are more vibrant in using such ubiquitous technologies. During the last decade, several researchers have investigated social media adoption and its impact, especially on university students in Pakistan (Ahmed & Qazi, 2011; Hussain & Cakir, 2017; Khan, 2021; Rafiqet al., 2019; Raza et al., 2020). This study synthesizes the social media research findings in Pakistan and highlights the avenues for further research in the social media landscape. The findings of this study would also support educational administrators in formulating policies on the use of social media technologies in the educational institutions of Pakistan.

Research Questions

The following three research questions (RQ) were framed to guide the study:

RQ 1: How does existing literature elucidate the diverse perspectives on social media usage among university students?

RQ 2: What are the positive and negative impacts of social media use on Pakistani university students?

RQ 3: Which methodologies were applied in social media studies?

METHODOLOGY

This study used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to conduct the Systematic Literature Review (SLR). PRISMA aims to improve and help authors critically evaluate the quality of published materials (Moher et al., 2010). PRISMA standards have been effectively applied in recent library and information science (LIS) research studies to systematically review published scientific literature (Ahmad & Rafiq, 2022; Mahmood, 2017; Rafique & Mahmood, 2018).

Search strategies

The researchers devised an inclusive search strategy to extract the most relevant literature. Three leading academic databases, (1) Library Information Science & Technology Abstracts (LISTA), (2) Web of Science (WoS), and (3) Google Scholar, were selected to search for the relevant literature. Initially, all authors applied different keywords to check the amount of available literature on the use of social media among students. All authors discussed their results and eventually agreed to create a search string. The following search string was used to extract the most relevant literature from the three selected databases.

> Social AND (media OR network* OR site*) AND (student*) AND (university*OR higher education) AND Pakistan*).

This search was carried out in November 2022. Two authors searched, and two double-checked it to ensure its accuracy. All relevant data were extracted and placed in an Excel Sheet. All four researchers carried out all processes, from data download to data extraction, and replicated them at each level to confirm the correctness and authenticity of the obtained data.

Criteria for inclusion and exclusion

SLR inclusion and exclusion criteria assist researchers in identifying relevant studies on a topic. Studies are selected based on their adherence to the inclusion criteria and excluded if they fail to meet any of the specified criteria (Xiao & Watson, 2019). The inclusion criteria for studies in this review involve English-language publications focusing on social media usage, specifically by university students in Pakistan between 2010 and mid-2022, with accessible full-text articles from any social media platform. Non-English studies, research on social media usage outside the university context, inaccessible or restricted articles, books, theses, chapters, non-peer-reviewed and unpublished studies, and research published before 2010 were excluded.

Selection of studies and data extraction

The identification and screening process has been presented in Figure 1. All extracted data were entered into an Excel spreadsheet for critical analysis and study selection. In the initial iteration of the search query, 1238 results were found on social media use among students. First, duplicate studies were deleted, and then papers were discarded to determine relevance based on title and abstract. The publications were examined using pre-defined inclusion and exclusion criteria to reduce the possibility of bias. However, backward and forward searches were performed to reach the maximum literature. Backward searching includes manually examining the references included in a paper to identify further relevant papers (Hussain et al., 2024). Conversely, the forward search involves searching databases for any paper that cites the included paper; this helps determine the new and relevant papers (Yousaf et al., 2015).

The researchers found 60 studies related to the topic. However, 29 were excluded due to poor quality. Finally, 31 studies were selected for further analysis. All the extracted results were reviewed by following the identification and screening process, as presented in Figure 1.

Figure 1

PRISMA Flow Chart for Social Media usage among university students in Pakistan
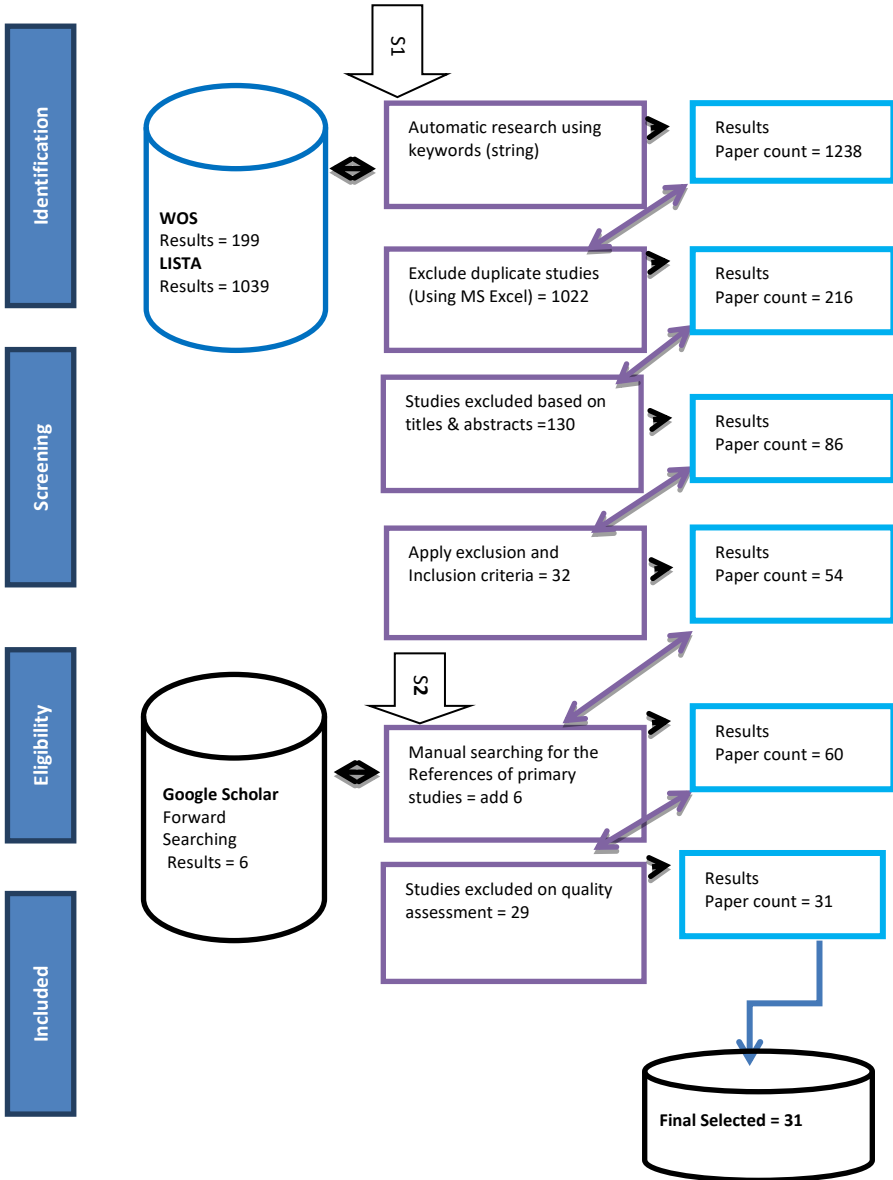
Quality Assessment of Studies

In a SLR, the quality assessment of selected research studies is critically important (Seo& Kim, 2012). Many studies recommend different quality-control tests and checklists while considering 9, more than 9, or equal to 9 scores as good (Kitchenham, 2004; Kmetet al., 2004). The studies that obtained nine or more scores out of 13 in the quality assessment process were included in this SLR. A quality assessment process brings more clarity to select studies for systematic review. We used the Kmet et al. (2004) checklist for quality assessment, evaluating each study across six domains with a total possible score of 13 to indicate the highest quality. These domains are related to questions and design; sampling strategies (up to 2 points each for clarity and appropriateness); data collection tool (4 points for accuracy and relevance); response rate (1 point for study validity); coding and analysis; and results' presentation (2 points each for rigor and clarity). The cumulative scores from these categories determine the inclusion of a study based on the research quality standards. It also helps to finalize studies on the basis of parameters of quality assessment checklists (Khan et al., 2023). This step ensures the quality of included papers and makes a valuable contribution to the whole process of SLR (Ross et al., 2016).Table 1 explains the details of the quality assessment of the selected studies.

Table 1

Quality Assessment of Studies Included in the Systematic Review

	Studies	Score Obtained in Each Section of Quality Assessment					
		Questions & Design (2)	Sampling (2)	Data Collection tool (4)	Response (1)	Coding and Analysis (2)	Results' Presentation (2)	Total Marks (13)
1.	Arif &Kanwal (2016)	2	1	2	1	2	2	10
2.	Arif et al.(2019)	2	2	3	0	2	2	11
3.	Ahmed & Qazi (2011)	1	2	3	1	2	1	10
4.	Abbas et al. (2019)	1	2	3	1	1	2	10
5.	Abbas et al., (2020)	1	1	2	1	2	2	9
6.	Ahmad, S. (2020)	1	2	3	1	1	1	9
7.	Arif, Qaisar & Kanwal, (2022)	1	1	3	1	2	1	9
8.	Bhatti & Amjad (2013)	2	2	3	1	2	2	12
9.	Hussain, Cakir & Candeger (2018)	2	2	3	1	2	2	12
10.	Haroon et al. (2020)	1	2	3	1	2	1	10

No.	Author							Total
11.	Hussain (2012).	2	2	3	1	2	2	12
12.	Naqvi et al. (2020)	2	2	2	1	2	2	11
13.	Jamil et al. (2013)	1	2	3	1	2	2	11
14.	Javed& Bhatti (2015)	2	2	3	1	1	2	11
15.	Kanwal et al., (2019).	1	1	3	1	2	2	10
16.	Khan et al., (2018)	1	2	3	1	1	1	9
17.	Khan et al., (2021).	1	1	3	1	2	2	10
18.	Khan (2020)	2	2	3	1	2	2	12
19.	Khan, Masrek&Rehman(2018)	2	2	2	1	1	1	9
20.	Muhammad & Ahmad (N.D)	2	2	3	1	2	1	11
21.	Malik & Khan (2015)	1	2	3	1	2	1	10
22.	Mahmood, Zakar&Zakar (2018)	1	2	3	1	1	1	9
23.	Qureshi, Raza &Whitty (2014)	1	1	3	1	2	2	10
24.	Rafiq et al. (2019)	2	2	3	1	2	2	12
25.	Raza et al. (2020)	1	1	3	1	2	2	10
26.	Shafique et al. (2010)	2	2	2	1	2	2	11
27.	Tareen &Jabeen (2019)	2	2	3	1	2	2	12
28.	Ullah et al. (2021)	2	2	3	1	2	2	12
29.	Waqas et al. (2016)	2	2	3	1	2	2	12
30.	Ramzan, Ahmad& Asif (2019)	2	2	3	1	2	2	12
31.	Raza, Soroya & Babar (2017)	2	1	3	1	2	2	11
Quality Score Expected		62	62	124	31	62	62	403
Quality Score Obtained		48	54	88	30	56	53	329

Eligibility and Overview of the Selected Studies

Eligibility is the process by which the authors manually include or exclude a study (ies), considering criteria in accordance with the research question(s) and study objective(s) (Tang et al., 2021). In this case, all the retrieved articles were reviewed carefully, and only those that fully met the inclusion and exclusion criteria were included. The systematic literature search was performed using Google Scholar, LISTA, and the WoS. It yielded 1238 results. The forward citation method was also used to get more relevant studies. Data extraction consisted of 3 steps: (1) reading the title of the articles, (2) abstract reading, and (3) reading the research article to ensure its relevancy in line with the research questions. After an initial skimming of titles and abstracts, a total of 86 studies were selected. The selected studies were checked against the inclusion criteria, and only 54 were retained. Finally, based on the quality assessment of the studies explained in Table 1, 31 studies were considered eligible for this study (Figure 1). Most of the studies were published in Pakistani journals. The selected studies' population was university students, and the sample size ranged from 94 to 4122 respondents. The sample participants belonged to different fields of study. Most researchers employed quantitative survey methodologies using non-probability sampling techniques to conduct the studies. The detailed characteristics of the selected studies are presented in Table 2.

Table 2

Detailed Characteristics of the Included Studies

Sr.No.	Study	Name of Journal	Journal Publishing Country	Population	Sample size /Sampling technique	Method	Research design
1.	Rafiq et al.(2019)	Pakistan Journal of Information Management and Libraries	Pakistan	University of the Punjab, Lahore	430/ Convenient sample	Survey	Quantitative
2.	Khan, Masrek & Rehman (2017)	Pakistan Journal of Information Management and Libraries	Pakistan	University of Peshawar	1177/ Stratified random sample	survey	Quantitative
3.	Tareen & Jabeen (2019)	Pakistan Library & Information Science Journal	Pakistan	Higher Educational Institutions of Baluchistan	420/ Convenient sample	Survey	Quantitative
4.	Ramzan, Ahmad & Asif (2019)	Pakistan Library & Information Science Journal	Pakistan	two public and two private universities of Lahore	204/ Quota sample	Survey	Quantitative
5.	Shafique, Anwar & Bushra (2010)	Webology	Iran	Geography students of Islamia University of Bahawalpur	130/Not Mentioned	Survey	Quantitative
6.	Raza, Soroya & Babar (2019)	Pakistan Library & Information Science Journal	Pakistan	University of the Punjab, Lahore	600/ Stratified random sample	Survey	Quantitative

7.	Arif & Kanwal (2016)	Pakistan Journal of Information Management and Libraries	Pakistan	Distance education students	4122/Not Mentioned	Survey	Quantitative
8.	Javed & Bhatti (2015)	Journal of Hospital Librarianship International	USA	Nishtar Medical College, Multan	250/ No sampling	Survey	Quantitative
9.	Arif, Qaisar & Kanwal (2022)	Journal of Management Education,	Pakistan	University students	266/ No sampling	Survey	Quantitative
10.	Bhatti &Amjad(2013)	Pakistan Library & Information Science Journal	Pakistan	Islamia University, Bahawalpur	160/ No sampling	Survey	Quantitative
11.	Arif et al. (2019)	Conference paper	Europe	A public sector university in Islamabad	266/ No sampling	Survey	Quantitative
12.	Muhammad & Ahmad (N.D)	Conference paper	Pakistan	University of Malakand and Swat	299/No sampling	Survey	Quantitative
13.	Khan (2020)	Library Philosophy and Practice	USA	King Edward Medical University, Lahore	200/ Purposive sample	Survey	Quantitative
14.	Naqvi et al. (2020)	Cogent Business & Management	England	University of Punjab	353/ Convenient sample	Survey	Quantitative
15.	Abbas et al. (2019)	Sustainability	Switzerland	5 regional universities of Pakistan with an age range of 16 to 35 years	831/Probability cluster sampling	Survey + interview	Mixed methods
16.	Khan et al. (2021)	International	England	Higher educational	382/ Not Mentioned	Survey	Quantitative

		Transaction Journal of Engineering, Management, & Applied Sciences & Technologies		institutions of southern Punjab, Pakistan			
17.	Khan et al. (2018)	Rawal Medical Journal	Pakistan	Foundation University Islamabad	94/Convenient sampling	descriptive cross-sectional	Quantitative
18.	Khan (2020)	International Journal of Social Sciences and Management	Nepal	Four public and private universities of Lahore	120/ Not Mentioned	Descriptive survey	Quantitative
19.	Kanwal et al. (2019)	Interdisciplinary Description of Complex Systems: INDECS	Europe	Mehran University, Sindh University, Shah Abdul Latif University, NED, and Karachi University	290/ Not Mentioned	Survey	Quantitative
20.	Hussain, Cakir & Candeger (2018)	International Journal of Instruction	Turkey	Islamia University of Bahawalpur	450/Convenient cum purposively	Exploratory descriptive study	Quantitative
21.	Mahmood, Zakar & Zakar(2018)	Journal of Human Behavior in the Social Environment	United States	Randomly selected	1,245/ Not Mentioned	Survey	Quantitative
22.	Haroon et al. (2020)	Journal of Organizational Culture, Conflict	United Kingdom	University of Management and Technology, Lahore	402 students/ Not Mentioned	Survey	Quantitative
23.	Malik & Khan (2015)	Journal of Pakistan	Pakistan	University of Sargodha	200	Survey	Quantitative

24.	Raza et al. (2020)	Medical Association Technology in Society	Pakistan	University students	280/ Convenient sample	Survey	Quantitative
25.	Raza et al. (2020)	Health Education.	United Kingdom	University students	525/Convenient sample	Survey	Quantitative
26.	Qureshi, Raza & Whitty (2014)	Knowledge Management & E-Learning: An International Journal	China	University students	180/ Convenient sampling	Survey	Quantitative
27.	Jamil et al. (2013)	International Conference on ICTs	Malaysia	13 different private universities	275/Convenience sample	Survey	Quantitative
28.	Hussain (2012)	International Journal of Instruction	Turkey	Islamia University of Bahawalpur	600/Convenient sample	survey	Quantitative
29.	Ahmed &Qazi (2011)	African Journal of Business Management	South Africa	Six universities	1000/ / Random sampling	Survey	Quantitative
30.	Ullah et al. (2021)	International Journal of Business	Canada	Iqra University Gulshan Campus Karachi	114 /Snowball &convenience sampling	Survey	Quantitative
31.	Ahmad (2020)	Journal of Human Behavior in the Social Environment	United States	50 universities across Pakistan	2403 / Driven sample	Survey	Quantitative

Results and interpretation
Perspectives on social media use in the selected studies

Collectively, these studies confirm that students use social media for diverse purposes. The results disclose that Pakistani students use social media for academic purposes, such as course assignments, exam preparation, research, and collaborative activities. They leverage social technologies to share knowledge and generate ideas. In addition to academic uses, they use social technologies as communication tools for obtaining social benefits, finding jobs, entertainment, political awareness, and religious learning. Table 3 explains in detail the purposes of social media use.

Table 3

Characteristics of extracted data from the selected studies (n=25)

Sr. No	Source	Purpose to use social media	Positive and Negative Impacts of Social Media Use
1	Rafiq et al. (2019)	Preparation of tests/exams/assignments, knowledge sharing, chatting with friends, communication with teachers	Distraction from studies. Supporting students in their studies.
2	Khan, Masrek & Rehman (2017)	Information seeking, socializing, friendship, academic purposes	
3	Tareen & Jabeen (2019)		Positive impact on the student's academic performance
4	Ramzan, Ahmad & Asif (2019)		Using WhatsApp has both positive and negative impacts
5	Shafique, Anwar & Bushra (2010)	Making friends, sharing links, online learning, passing time, finding jobs online, news, leisure/fun/entertainment, communication, research work.	
6	Raza, Soroya & Babar (2019)	Religious learning, political awareness, and entertainment	Positive impact on the learning and informational growth
7	Arif & Kanwal (2016)	Communication with class fellows on projects, sharing pictures and videos, killing free time, friendship, and career networking.	Positive impact on students' academic performance.
8	Javed & Bhatti (2015)	Communicate with class fellows, socialize to get updated information, entertainment, learning	
9	Arif, Qaisar & Kanwal (2022)	Knowledge sharing	Positive impact on students' creativity.
10	Bhatti & Amjad (2013)	To Increase knowledge, promoting ideas, entertainment, research work, keeping in touch with family and friends, socialization, sharing pictures, videos, and	

		games, contact with teachers	
11	Arif et al. (2019)		Positive impact on individual creativity and knowledge-sharing practices.
12	Muhammad & Ahmad (N.D)		No negative impact on the academic performance
13	Khan, (2020)	Communication with friends, sharing information, getting information about current events, killing time, chatting and posting, bookmarking websites or link	
14	Naqvi et al. (2020)		Improves social and communication skills, Increases knowledge, Easy communication Creates awareness, easy
15	Abbas et al. (2019)		communication, helps to maintain contacts, Reduces the cost of purchasing books. Negative impact on critical thinking, writing skills, study, laziness, low attention, or disconnection towards studies.
16	Khan et al. (2021)	Knowledge sharing, collaboration, and interaction with teachers	Significant impact on students' academic performance.
17	Khan et al. (2018)		Positive impact on professional development
18	Khan (2020)		Positive impact in studies boosted knowledge sharing with fellows Negative impact on studies
19	Kanwal et al. (2019)		Significant impact on self-disclosure Negative impact on psychological and health, and internet addiction.
20	Hussain, Cakir & Candeger, (2018)		Positive impact on learning technologies, boosts critical thinking, improves problem-solving skills, and improves argumentation, facilitates access to latest and reliable information.
21	Mahmood, Zakar & Zakar (2018)		Positive impact in bounding social capital.
22	Haroon et al. (2020)		Excessive use increases anxiety, depression, and stress, No negative impact on spiritual well-being.
23	Malik & Khan (2015)		Negative correlation with self-esteem
24	Raza et al., (2020)	Social interaction, social relationships, to learn new ideas, information-seeking	
25	Raza et al. (2020)		Negative impact on life satisfaction,

			positive influences on social benefits.
26	Qureshi, Raza & Whitty (2014)	Academic use, social benefits	
27	Jamil et al. (2013)		No impact of Facebook on Students' grades
28	Hussain (2012)	Social networking, enjoyment, and exchange of academic activities	
29	Ahmed & Qazi (2011)		No negative impact on education
30	Ullah et al. (2021)		Negative impact on academic grades
31	Ahmad (2020)	Political participation	

Impact of social media use on university students

The research findings reveal that social media has both positive and negative impacts on students.

Negative impact of social media use on the students

Out of the 31 papers, eight dealt with the negative effects of social media use. In terms of negative impact, the results showed that the use of social technologies negatively affected students' academic performance and contributed towards addiction to social technologies, waste of time, increased cyber-bullying, psychological (depression, anxiety), social and health problems, and negative influence on the student's behaviour.

Figure 2

Negative impact of social media use
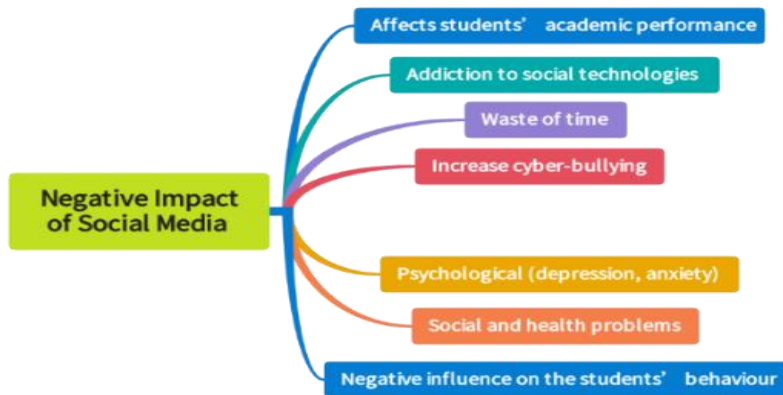
Positive impact of social media use on the students

Most (22) of the studies have reported a positive impact of social media use on students. For instance, it has been reported that the use of social technologies supported the achievement of high academic grades, reduced stress, improved critical thinking and problem-solving, inculcated deeper learning, reduced the cost of purchasing books, increased knowledge, and augmented students' creativity by sharing information and knowledge through diverse social platforms. Social technologies also provide state-of-the-art platforms for professional development, 24/7 access to data and information, self-disclosure, cross-cultural understanding, building confidence, and bounding social capital.

Figure 3

Positive impact of social media use

Methodological approach in the selected studies

The methodological approach used in the studies included in this SLR comprised quantitative and qualitative methods (RQ 3). Most studies (30) have employed a quantitative approach, and the survey method, based on a questionnaire, has been used for data collection. Out of 31 selected papers, only one study by Abbas et al. (2019) has opted for a mixed-methods approach. Furthermore, in these 31 studies, the sample size varied between 94 and 4122 (See Table 2).

DISCUSSION ON THE FINDINGS

Social media has become an integral part of our lives and is rapidly gaining popularity, especially among adults studying at the university level (Abaido, 2020). Several SLRson social media have reported on the high school students and teachers (Otchie &Pedaste, 2020) information-seeking behavior through social media (Hamid et al., 2016), explored the best features of social media that can be utilized in eLearning, and the use of social media in the Covid-19 era (Cavus et al., 2021). Many studies have been conducted on different aspects of social media use in higher education. However, the

literature lacks research that synthesizes the results of the studies published on the purposes and impacts of social media use by university students in Pakistan. This research is based on an intensive literature review depicting the purposes and impacts of social media use by Pakistani university students. After following several steps of SLR, a total of 31 studies were selected, keeping in view the research questions. The research findings underscore the multifaceted role of social media among students, spanning academic, social, political, and professional spheres. Notably, a significant portion of student engagement on social platforms is dedicated to academic pursuits, followed closely by social interaction and networking. Furthermore, the significance of socialization through platforms like Facebook among higher education students in Pakistan cannot be overstated and is consistent with research findings. So, the use of social media for academic purposes emerged as a significant factor in Pakistani students' use of social media. These findings align with the findings of Mahdi (2019), who claimed that social media positively impacted the academic performance of Saudi students. Beyond academic and social realms, social media's impact extends to professional development and knowledge sharing. Digital platforms facilitate communication and collaboration and enhance knowledge dissemination and decision-making, improving individual job performance (Deng et al., 2022). This convergence of academic, social, and professional benefits underscores the transformative potential of social media in fostering educational advancement, interpersonal connections, and professional growth (Deng et al., 2022). In the 31 selected studies, the authors have discussed the constructive and adverse impact of social media usage among university students.

The results predominantly highlight the positive influence of social media use among Pakistani students. The findings reveal that social media platforms are crucial in achieving high academic grades, reducing stress, improving critical thinking and problem-solving, and inculcating deeper learning. One significant finding is the role of social media in enhancing academic performance. Platforms such as online study groups, educational forums, and collaborative projects enable students to learn actively and share knowledge. Through these digital spaces, students can access a wealth of educational resources, seek assistance from peers and experts, and participate in meaningful discussions that deepen their understanding of course material. The overall consensus among research studies affirms and endorses the positive effects of social media use, supported by several other studies. For example, Dzogbenuku, Amoako, and Kumi (2020) discovered that social media information, innovation, and entertainment collectively positively impacted knowledge generation among students, thereby

positively influencing their academic performance. Similarly, Palla and Sheikh (2021) reported that using social media significantly aids college students in sharing knowledge and information with others, enhancing their academic grades, and refining their reading and writing skills. The use of social media has accelerated the students' learning. The results highlight several positive impacts of social media use; however, six studies reported the adverse impact of social media usage on Pakistani university students. This review has identified five main negative impacts of social media use on students. It was found that social media use (1) distracts while studying, (2) negatively impacts reading habits, (3) boosts negative behavior, (4) decreases life satisfaction, and (5) fosters poor academic performance, for example, poor grades. The study underscores the adverse effects of social media on reading habits among students. The prevalence of short, attention-grabbing content on social media platforms may lead to a decline in reading comprehension and a preference for superficial information over in-depth analysis. It might have happened due to low awareness or non-training on how to use social media sites positively. Another concerning finding is the correlation between social media use and the amplification of negative behaviors. Exposure to online interactions can exacerbate tendencies towards cyberbullying, trolling, and other forms of negative behavior, which can have detrimental effects on students' mental health and overall well-being. Similarly, Owusu-Acheaw and Larson (2015) conducted a study on the use of social media and its impact on the academic performance of students of Koforidua Polytechnic. They reported that the utilization of social media sites had a negative impact on the respondents' academic performance.

Another significant finding from this study is that students extensively use various social media applications, albeit for different purposes. The research uncovers both the positive and negative impacts of social network sites, highlighting the urgent need to educate students about using social technologies primarily for academic purposes rather than allowing them to become addicted. The Higher Education Commission (HEC) can facilitate the promotion of positive social media use among students through various strategic approaches. HEC can develop educational programs and workshops to enhance students' digital literacy skills. These initiatives can include seminars on responsible social media use, workshops on online safety, and courses that integrate social media literacy into the curriculum. It can be beneficial to partner with universities to incorporate social media literacy into their academic programs. By working closely with faculty members, HEC can ensure that students receive comprehensive education on navigating social media platforms effectively and responsibly.

Implications of the Study

The study carries significant implications for both researchers and educational institutions alike. Firstly, by providing a comprehensive overview of research methodologies employed in social media studies, it equips researchers with the necessary insights to assess the strengths and limitations of various methodologies, thus guiding them in designing future research endeavors. Secondly, the study's findings offer valuable guidance for educational institutions in formulating guidelines or interventions to foster positive and responsible social media usage among students, thereby mitigating potential negative impacts. Moreover, this SLR enables future researchers to pinpoint specific areas within social media use among university students that warrant further exploration. Additionally, the study's insights can aid regulatory bodies such as the Pakistan Telecommunication Authority in crafting guidelines or regulations to promote responsible social media usage while addressing potential harms. Lastly, it presents an opportunity for entities like the HEC to develop digital literacy initiatives tailored to the needs of universities, thereby enhancing students' digital skills and awareness.

Limitations and future research directions

Like other SLR studies, the present study also has some limitations: (1) The study was geographically limited to Pakistani university students. For a holistic view of Pakistani higher education, there is a need for a more comprehensive study on social media usage among teachers and administrators. Future researchers should investigate social media use for personality development, civics sense, health awareness, environmental protection, reflecting identity, and formal sharing of information and knowledge on social media from the Pakistani higher education perspective. (2) This study was limited to LISTA), the WoS, and Google Scholar; future researchers should broaden the search scope for more comprehensive results. (3) Researchers predominantly used quantitative research design to investigate social media use among Pakistani students. For better insight, academics and practitioners should investigate social media using qualitative and mixed methods approaches. (4) Several studies have highlighted the adverse impact of social use among university students. Future researchers should aim to investigate ways to minimize the negative impact of social media use. Finally, this research found that social media platforms were being used for information and knowledge sharing; however, studies have yet to address the tacit (for example, experience, skills, and insights) dimension of knowledge sharing. Naka and Takeuchi (1995) indicated that socialization fosters tacit knowledge-sharing among individuals. In higher education, explicit knowledge sharing is a well-researched stream of

knowledge management (Charband & Navimipour, 2018). In contrast, tacit knowledge sharing is an emerging phenomenon in universities (Alves & Pinheiro, 2022).

CONCLUSION

Technology is booming, and the younger generation is mesmerized by these rapid technological changes. Social media has become a great source of social interaction, and students use social media platforms for diverse purposes. Since this study critically reviewed and synthesized social media research findings, the PRISMA systematic review method was used to conduct this research. This study has found that students use social media platforms for academics, socialization, job hunting, political awareness, knowledge sharing, and cross-cultural communication and coordination. Compared to adverse impact, most studies supported constructive social media use among university students. This study also offers theoretical and practical implications and critical future research directions.

REFERENCES

Abaido, G. M. (2020). Cyberbullying on social media platforms among university students in the United Arab Emirates. *International Journal of Adolescence and Youth, 25*(1), 407–420.

Abbas, J., Aman, J., Nurunnabi, M., & Bano, S. (2019). The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan. *Sustainability, 11*(6), 1-23.

Ahmed, I., & Qazi, T. F. (2011). A lookout for academic impacts of social networking sites (SNSs): A student-based perspective. *African Journal of Business Management, 5*(12), 5022–5031.

Alves, R. B., & Pinheiro, P. (2022). Factors Influencing Tacit Knowledge Sharing in Research Groups in Higher Education Institutions. *Administrative Sciences*, *12*(3), 89, 2-15.

Arif, M., & Kanwal, S. (2016). Adoption of social media technologies and their impact on students' academic performance: The only way for future survival of distance education students in Pakistan. *Pakistan Journal of Information Management and Libraries, 18*(1), 25-36.

Arif, M., Nunes, M. B., Qaisar, N., & Kanwal, S. (2019, September). Knowledge sharing through social media and its impact on student creativity. *In Proceedings of the European Conference on Knowledge Management, ECKM 1*, 60-68

Arif, M., Qaisar, N., & Kanwal, S. (2022). Factors affecting students' knowledge sharing over social media and individual creativity: An empirical investigation in Pakistan. *The International Journal of Management Education*, *20*(1), 1-12.

Askari, E., Marín, V. I., Frausto, M., & Hurst, A. (2018). Youth, learning and social media in K-12 education: The state of the field. In J. Kay & R. Luckin (Eds.), *Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS)* (pp. 344-351). International Society of the Learning Sciences.

Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: a cross-sectional study. *BMC Psychology, 7*(1), 1–8.

Baishya, D., & Maheshwari, S. (2020). Whatsapp groups in academic context: Exploring the academic uses of Whatsapp groups among the students. *Contemporary educational technology, 11*(1), 31–46.

Batubara, B. M. (2021). The Problems of the World of Education in the Middle of the Covid-19 Pandemic. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4*(1), 450-457.

Bolton, R.N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Komarova Loureiro, Y., Solnet, D. (2013). Understanding Generation Y and their use of social media: a review and research agenda, *Journal of Service Management*, 24(3), 245–267.

Charband, Y., &Navimipour, N. J. (2018). Knowledge sharing mechanisms in the education: A systematic review of the state of the art literature and recommendations for future research. *Kybernetes, 47*(7), 1456–1490.

Chu, S. K., Capio, C. M., van Aalst, J. C., & Cheng, E. W. (2017). Evaluating the use of a social media tool for collaborative group writing of secondary school students in Hong Kong. *Computers & Education, 110*, 170-180.

Chugh, R., & Ruhi, U. (2018). Social Media in Higher Education: A Literature Review of Facebook. *Education and Information Technologies, 23*(2), 605–16.

Clark, R. E. (1983). Reconsidering research on learning from media. *Review of educational research, 53*(4), 445–459.

Datareportal. (2021). Global Social Media Stats; Global Digital Insights. Sep. 24, 2021.https://datareportal.com).

Davis III, C. H., Deil-Amen, R., Rios-Aguilar, C., & González Canché, M. S. (2015). Social media, higher education, and community colleges: A research synthesis and implications for the study of two-year institutions. *Community College Journal of Research and Practice, 39*(5), 409-422.

Deng, H., Duan, S. X., & Wibowo, S. (2022). Digital technology-driven knowledge sharing for job performance. *Journal of Knowledge Management,27*(2), 404-425. https://doi.org/10.1108/JKM-08-2021-0637.

Digital Pakistan. (2021). Data-reportal Digital 2021: Pakistan. Accessed on April 26, 2021. https://datareportal.com/reports/digital-2021-pakistan.

Dzogbenuku, R. K., Amoako, G. K., & Kumi, D. K. (2020). Social media and student performance: the moderating role of ICT knowledge. *Journal of Information, Communication and Ethics in Society*, *18*(2), 197-219.

Gupta, D. S. (2014). Social media for teachers of English: A hub for professional development. *Research Journal of English language and literature, 2*(2), 34–38.

Haggis, T. (2003). Constructing images of ourselves? A critical investigation into 'approaches to learning research in higher education. *British Educational Research Journal*, *29*(1), 89–104.

Haroon, M., Saeed, M., Ali, F., & Awais, M. (2020). Social Media intrusion and psychological adjustment among university students: the mediating role of religious commitment and spirituality. *Journal of Organizational Culture, Communications, and Conflict*, *24(1)*, 1–14.

Hughes, A. (2009). Higher education in a Web 2.0 world. *JISC report*.

Hussain, A., Khan, A., & Ahmad, P. (2024). Library management models: a review and direction for future research. *Global Knowledge, Memory, and Communication*. https://doi.org/10.1108/GKMC-08-2023-0309.

Hussain, I. (2012). A study to evaluate the social media trends among university students. *Procedia-Social and Behavioral Sciences, 64*, 639–645.

Hussain, I., Cakir, O., &Candeger, Ü. (2018). Social Media as a Learning Technology for University Students. *International Journal of Instruction, 11*(2), 281-296.

Jamil, S., Zehra, F., Naqvi, R., & Bhamani, S. (2013). Impact of Facebook intensity on academic grades of private university students. *In ICICT 2013 - Proceedings of the 2013 5th International Conference on Information and Communication Technologies:* Using Technology to Create a Better World, 1-10. IEEE Computer Society.

Javed, M. W., & Bhatti, R. (2015). Usage of social media by medical and dental students at Nishtar Medical College, Multan, Pakistan. *Journal of Hospital Librarianship, 15*(1), 53–64.

Johnson, H. (2017). NoDAPL: social media, empowerment, and civic participation at Standing Rock. *Library Trends, 66*(2), 155–175.

Jünger, S., Payne, S. A., Brine, J., Radbruch, L., & Brearley, S. G. (2017). Guidance on Conducting and REportingDElphi Studies (CREDES) in palliative care: Recommendations based on a methodological systematic review. *Palliative medicine, 31*(8), 684-706.

Kaplan, A. M., & Haenlein, M. (2010). Users of the World, Unite! TheChallenges and Opportunities of social media. *Business Horizons, 53*(1), 59-68. DOI: https://doi.org/10.1016/j.bushor.2009.09.003.

Khan, A., Hussain, A., & Zareef, M. (2023). The use of human-computer interaction in libraries: a systematic literature review. *Global Knowledge, Memory, and Communication*.
https://doi.org/10.1108/GKMC-07-2022-0167.

Khan, A., Masrek, M. N., & Rehman, S. U. (2017). Students' engagement of social networking sites: An evaluation of perception, gratification, sociability, academic and generalized usage patterns. *Pakistan Journal of Information Management and Libraries, 19*, 13-36.

Khan, M. I., Azeem, M., Ahmed, M., Yasin, M. A., & Ali, R. (2021). Impacts of social media on Student's Academic Achievement: A Case of Higher Educational Institutions of Southern Punjab of Pakistan.*International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(3),* 1-11.

Khan, S. A. (2020). Educational Uses of social media among Medical Students: A Case of King Edward Medical University, Lahore, Pakistan. *Library Philosophy and Practice*, 1–30.

Khan, S. B., Tassadaq, N., Siddiqi, F. A., Yaqoob, M. F., Chaudary, E. A., & Shafi, H. (2018). Impact of social media on attitudes and professional growth of physical therapy students of Foundation University, Islamabad, Pakistan. *Rawal Medical Journal, 43*(3), 494-497.

Kitchenham, B. (2004). Procedures for performing systematic reviews. *Keele, UK, Keele University, 33*(2004), 1-26.

Kmet, L. M., Cook, L. S., & Lee, R. C. (2004). *Standard quality assessment criteria for evaluating primary research papers from a variety of fields*. Canada: AHFMR

Kozma, R. B. (1991). Learning with media. *Review of educational research, 61*(2), 179–211.

Langworthy, M., & Hirsch-Allen, J. (2022). Learning 3.0: Bringing the Next Education Paradigm into Focus. In *New Models of Higher Education: Unbundled, Rebundled, Customized, and DIY,* 106-134. IGI Global.

Lawson, C., & Cowling, C. (2015). Social media: The next frontier for professional development in radiography. *Radiography, 21*(2), 74–80.

Levy, Y., & Ellis, T. J. (2006). A systems approach to conduct an effective literature review in support of information systems research. Informing Science*: The International Journal of an Emerging Transdiscipline. 9*, 181-212. https://doi.org/10.28945/479

Little, W., Vyain, S., Scaramuzzo, G., Cody-Rydzewski, S., Griffiths, H., Strayer, E., & Keirns, N. (2014). Introduction to Sociology-1st Canadian edition. *BC Campus: Victoria, Canada*.

Mahdi, M. (2019). Undergraduate Students' Perceptions toward Social Media Usage and Academic Performance: A Study from Saudi Arabia. *International Journal of Emerging Technologies in Learning, 14*(3), 61–78.

Mahmood, K. (2017). Reliability and validity of self-efficacy scales assessing students' information literacy skills: A systematic review. *The Electronic Library*, *35*(5), 1035–1051.

Makki, A., & Bali, A. O. (2021). The use of social media as a platform in education: Ramifications of COVID-19 in Iraq. *Academic Journal of Interdisciplinary Studies, 10*(3), 394-394.

Malcolm, J., & Zukas, M. (2001). Bridging pedagogic gaps: conceptual discontinuities in higher education. *Teaching in higher education*, *6*(1), 33–42.

Muka, T., Glisic, M., Milic, J., Verhoog, S., Bohlius, J., Bramer, W., & Franco, O. H. (2020). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *European journal of epidemiology, 35*(1), 49-60.

Naqvi, M. H.A., Jiang, Y., Miao, M., & Naqvi, M. H. (2020). The effect of social influence, trust, and entertainment value on social media use: Evidence from Pakistan. *Cogent Business & Management, 7*(1), 1-23.

Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company: how Japanese companies create the dynamics of innovation.* London: Oxford University Press.

Otchie, W. O., &Pedaste, M. (2020). Using social media for Learning in High Schools: A Systematic Literature Review. *European Journal of Educational Research, 9*(2), 889-903.

Owusu-Acheaw, M., & Larson, A. G. (2015). Use of social media and its impact on academic performance of tertiary institution students: A study of students of Koforidua Polytechnic, Ghana. *Journal of Education and Practice, 6*(6), 94–101.

Paliktzoglou, V., Stylianou, T., & Suhonen, J. (2015). Google educational apps as a collaborative learning tool among computer science learners. In *Assessing the Role of Mobile Technologies and Distance Learning in Higher Education,* 272-296. IGI Global.

Palla, I. A., & Sheikh, A. (2020). Impact of social media on the academic performance of college students in Kashmir. *Information Discovery and Delivery*, *49*(4), 298–307.

Papastergiou, M., Kanaros, D., Papamichou, A., &Vernadakis, N. (2021). Effects of a project based on mobile applications, exergames, and a web 2.0 social learning platform on students' physical activity and nutritional criteria in the era of COVID-19. *Educational Media International, 58*(4), 297-316.

Prakash Yadav, G., & Rai, J. (2017). The Generation Z and their social media usage: A review and a research outline. *Global journal of enterprise information system, 9*(2), 110-116.

Prakash Yadav, G., & Rai, J. (2017). The Generation Z and their social media usage: A review and a research outline. *Global journal of enterprise information system, 9*(2), 110-116.

PTA Annual Report (2019). Islamabad: PTA https://www.pta.gov.pk/assets/media/pta_ann_rep_2019_27032020.pdf

Qureshi, I. A., Raza, H., & Whitty, M. (2014). Facebook as e-learning tool for higher education institutes. *Knowledge Management & E-Learning: An International Journal, 6*(4), 440–448.

Raacke, J., & Bonds-Raacke, J. (2015). Are students really connected? Predicting college adjustment from social network usage. *Educational Psychology, 35*(7), 819-834.

Ramzan, M., Ahmad, D., & Asif, M. (2019). Dynamics of WhatsApp Usage by University Students. *Pakistan Library & Information Science Journal, 50*(2), 2-6.

Raza, S. A., Qazi, W., Shah, N., Qureshi, M. A., Qaiser, S., & Ali, R. (2020). Drivers of intensive Facebook usage among university students: an implication of U&G and TPB theories. *Technology in Society, 62*, 1–12.

Ross, J., Stevenson, F., Lau, R., & Murray, E. (2016). Factors that influence the implementation of e-health: a systematic review of systematic reviews (an update). *Implementation Science, 11*(1), 1–12.

Seo, H.-J., & Kim, K. U. (2012). Quality assessment of systematic reviews or meta-analyses of nursing interventions conducted by Korean reviewers. *BMC Medical Research Methodology, 12*(1), 1-6.

Shafique, F., Anwar, M., & Bushra, M. (2010). Exploitation of social media among university students: A case study. *Webology, 7*(2), 34-47.

Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: a best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual review of psychology, 70*, 747–770. https://doi.org/10.1146/annurev-psych-010418-102803

Tang, L., Omar, S. Z., Bolong, J., & Mohd Zawawi, J. W. (2021). Social media use among young people in China: a systematic literature review. *SAGE Open, 11*(2), 1-17.

Tjepkema, L., Enochs, M., Donlan, K., Barlow, H. & Stewart, B. (2019). Top 5 social media predictions for 2019. (accessed 6 May 2019). *https://emarsys.com/learn/blog/top-5-social-media-predictions-2019*.

Ullah, M. A., Hassan, M., Anwar, A., Butt, R. M., & Rasheed, A. (2021). Impact of Social Networking Sites on Academic Performance of University Students: A Quantitative Analysis. *Reviews of Management Sciences, 3*(1), 1–10.

Xiang, Z., & Fesenmaier, D. R. (2017). *Analytics in smart tourism design: concepts and methods*: Springer.

Xiao, Y. & Watson, M. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, *39*(1), 93–112.

Yousaf, O., Grunfeld, E. A., & Hunter, M. S. (2015). A systematic review of the factors associated with delays in medical and psychological help-seeking among men. *Health psychology review*, *9*(2), 264-276.