

تأثير وسائل التواصل الاجتماعي على الطلاب السعوديين
الدوليين في المملكة المتحدة: استكشاف تجارب الدراسة في ظل
جائحة كوفيد-19

**Social Media's Influence on Saudi International
Students in the UK: Exploring Study Experiences
Amidst the Covid-19 Pandemic**

د امنة سليمان البهيجي
قسم العلوم الاجتماعية – كلية الآداب والعلوم الإنسانية
جامعة طيبة

تأثير وسائل التواصل الاجتماعي على الطلاب السعوديين الدوليين في المملكة المتحدة: استكشاف تجارب الدراسة في ظل جائحة كوفيد-19

د. امنة سليمان البهيجي

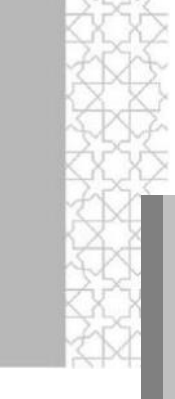
قسم العلوم الاجتماعية – كلية الآداب والعلوم الإنسانية -جامعة طيبة

تاريخ تقديم البحث: ١١-٥-١٤٤٥ هـ تاريخ قبول البحث: ١١-٨-١٤٤٥ هـ

ملخص الدراسة:

تحظى وسائل التواصل الاجتماعي بشعبية متزايدة ووسيلة بارزة للتواصل وتبادل المعلومات في مجتمع اليوم. كما تم تكثيف استخدامها في التعليم العالي في العقد الماضي، ولكن يمكن القول إن وسائل التواصل الاجتماعي أصبحت ذات أهمية خاصة خلال جائحة كوفيد -19. كان هذا هو الحال بشكل خاص للطلاب الدوليين. في حين أن الوباء كان حدثاً غير عادي وربما استثنائياً، فمن المهم فهم دور قيمة وسائل التواصل الاجتماعي واستخدامتها خلال هذا الوقت من منظور الطلاب أنفسهم لضمان الاستخدام الأمثل والفعال لهذه الوسيلة المهمة من قبل مؤسسات التعليم العالي في المستقبل. استندت الدراسة الحالية إلى مقابلات شبيهة منظمة نوعية مع ثمانية طلاب دوليين سعوديين يدرسون في المملكة المتحدة في وقت الوباء، بما في ذلك أولئك الذين بقوا في المملكة المتحدة وأولئك الذين عادوا. أشارت النتائج إلى أن وسائل التواصل الاجتماعي وفرت للطلاب الدوليين وسيلة أساسية للتواصل والدعم، وكانت موضع تقدير كأداة تعليمية، ولكن الجامعات لم تستخدمها بشكل كافٍ وكانت هناك عواقب جسدية ونفسية سلبية مهمة لزيادة استخدام وسائل التواصل الاجتماعي للعديد منهم. يُوصى أن تستثمر الجامعات في هذا المورد لتكملة التدابير التعليمية الحالية، مع تطوير المشورة والتوجيه أيضاً لتسهيل استخدامه الآمن والفعال.

الكلمات المفتاحية: كوفيد-19، التعليم العالي، الطلاب الدوليون، الصحة النفسية، وسائل التواصل الاجتماعي.



Social Media's Influence on Saudi International Students in the UK: Exploring Study Experiences Amidst the Covid-19 Pandemic


Dr. Amnah Albehiji

Department of Social Sciences - Faculty College of Arts and Humanities
Taibah University

Abstract:

Social media are increasingly popular and prominent modes of communication, networking and information sharing in today's society. Their use within higher education has also intensified in the last decade, but it was during the Covid-19 pandemic that social media arguably became especially significant. This was particularly the case for international students. Whilst the pandemic was an extraordinary and potentially exceptional event, it is important to understand the role, use and value of social media during this time from the perspective of the students themselves to ensure optimal and effective utilisation of this important medium by higher education institutions in the future. The current study drew on qualitative semi-structured interviews with eight Saudi international students studying in the UK at the time of the pandemic, including those who remained in the UK and those who returned. The findings indicated that social media provided international students with an essential means of communication and support, and was valued as a learning tool, but it was under-utilised by universities and there were important negative physical and mental consequences of increased social media use for many. It is recommended that universities invest in this valuable resource to supplement existing educational measures, whilst also developing advice and guidance to facilitate its safe and effective use.

keywords: Covid-19, higher education, international students, mental health, social media, sociology



Introduction

The use of social media has risen significantly in recent years (Manning, 2016; Kemp, 2022) with figures for January 2023 indicating 4.76 billion social media users worldwide, or 59.4 per cent of the global population (Petrosyan, 2023). Not only has social media permeated society in general, but more specifically, it has become prominent as a learning tool within higher education (HE) settings (Moran *et al.*, 2011; Schlenkrich and Sewry, 2012; McCarroll and Curran, 2013; Mbatha, 2014; Romero, 2015; Sobaih *et al.*, 2016; Kumar and Nanda, 2018; Greenhow and Galvin, 2020; Vandeyar, 2020). The role of social media further intensified in educational settings during the Covid-19 pandemic, which saw the viral outbreak of pneumonia in Wuhan, China in December 2019 and the swift spread of the virus around the world (Marioni *et al.*, 2020). ‘Lockdowns’ were a common response to the outbreak, where countries placed restrictions on people’s movement and gatherings, including across borders and in the UK, there were three lockdowns across 2020 and into the beginning of 2021 (Brown and Kirk-Wade, 2021). During this time, the use of a variety of different forms of communication became increasingly vital for maintaining relationships. In addition to social media, video conferencing platforms or applications, including Zoom, Microsoft Teams and Google Meet, which facilitate live meetings between two or more members, provided crucial tools for communication throughout the Covid-19 pandemic.

Within HE specifically, responses to the spread of the virus varied. Institutions with flexible systems and infrastructures, for example, were able to adapt quickly and efficiently, being less affected by the pandemic than less well-prepared institutions which were shut down. Nonetheless, university closures were a common response to containing the spread of the virus (Murugesan and Chidambaram, 2020) in line with national lockdown measures, leading to a rapid increase in online learning, heightened use of online learning platforms - such as Blackboard - and new technologies (or the development of those already in place), and more flexible forms of educational delivery becoming commonplace within higher

education. Alongside such developments, other technologies, applications and communication tools also rose in prominence and significance within HE, in particular, the use of social media. Thus, in addition to representing the platform of choice for information-sharing during the pandemic amongst governments and organisations (Tsao *et al.*, 2021) - and whilst social media was already becoming increasingly important as a tool for learning before the pandemic (Balakrishnan and Gan, 2016) - during Covid-19, social media has been argued to have taken on an even more significant role within HE, alongside video conferencing platforms (Cavus and Sekyere-Asiedu, 2021; Papademetriou *et al.*, 2022; Tudor, 2022).

Problem statement

Whilst a wealth of literature has drawn attention to the importance of social media for higher education during the pandemic, little has focused specifically on its use and significance for international students, and less so for Saudi international students, from a sociological perspective. Furthermore, whilst there has been some engagement with student perspectives, these have largely provided valuable yet quantitative findings, arguably overlooking the depth of understanding offered by more qualitative insights.

Objectives

The research aimed to explore the experiences of international students with regard to social media use during the Covid-19 pandemic and determine its value for the students and the challenges they encountered. The key objectives of the research were therefore:

- To provide an in-depth understanding of the ways in which social media were used by Saudi international students during the Covid-19 pandemic.
- To determine the value of social media for international students on both a personal and academic level.

- To understand the challenges encountered by the students in their use of social media during the pandemic.
- To inform higher education institutions about the use and value of social media for international students to facilitate future developments in its use which may benefit both the students and the institutions involved.

Significance

This article presents important contributions from research which focused on exploring the role of social media for international postgraduate students from Saudi Arabia during the Covid-19 pandemic. This is a timely issue, given the short period since which the Covid-19 pandemic is deemed to have ended. Whilst the pandemic was a difficult time for many students across the world, for those studying abroad, a long way from their homes, friends, families and communities, the experience could be particularly challenging. Social media therefore has the potential to provide even greater benefits for this specific group within educational settings. It is thus crucial to gain in-depth insights, from international students themselves, which can be used to inform educational institutions and assist in the most effective use of this valuable and increasingly popular medium in the immediate and near future.

Scope and limitations

The scope of the study was limited to the recruitment of eight Saudi international students who were studying for a Master's degree or a PhD in the UK, during the Covid-19 pandemic. This included four males and four females and those who had returned to Saudi Arabia during the pandemic and those who had remained in the UK, ensuring that a variety of experiences were represented. Participants were recruited through Twitter using the Saudi Community. The recruitment period lasted for two months, ending when the desired sample of participants had been recruited. It is important to note that the small sample utilised in the study, and the focus on one particular culture – Saudi Arabian students – may be regarded as a limitation

in terms of the applicability of the findings to other settings. Whilst small samples do indeed restrict the generalisability of the findings, the intent of qualitative research often goes beyond this to generate rich, experiential insights which develop understandings of a given population. Arguably, the findings presented from the current study provide in-depth insights into the experiences and perceptions of a previously overlooked group (Saudi international students) whilst also informing the reader about concerns relevant to the needs and preferences of international students as a whole. It is also worth acknowledging the potential impact of researcher positionality with the use of qualitative interviewing, particularly in relation to the debate surrounding insider/outsider status of the researcher. The researcher had experience of being a Saudi international student in the UK at the time of the pandemic and as such, could identify with the experiences of the participants in the research but there was also a risk of inherent bias of being part of the culture or oversharing by the participants (Byrne *et al.*, 2015) which may have impacted the results. Nonetheless, the ease of access to participants that this insider status afforded, as well as potentially greater trust and more meaningful discussions through enhanced understanding and shared language (Holmes, 2020) were considered key benefits which facilitated the interviewer-interviewee relationship and the collection of rich data.

Terminology

Social media broadly refers to forms of media that enable interactivity, participation and instant feedback, across a digital platform (Davis *et al.*, 2012). Such media is reflective of the interactive age, distinguishable from what Manning (2014; 2016) refers to as the broadcast age, where centralized media was distributed to many people and where mediated communication was often smaller scale and feedback was often delayed. Definitions of social media have focused on web-based platforms as the main forms of social media, which allow the generation and sharing of content and interactions with other users, including blogs and microblog sites (such as Tumblr), social networking sites (including Facebook

and Twitter), content communities or video-sharing services (such as YouTube or Instagram), photo sharing services (such as Pinterest), collaborative projects or wikis (like Wikipedia), virtual game worlds and virtual social worlds (Social Media Research Group, 2016; Greenhow and Galvin, 2020).

For the purpose of this study, social media is operationally defined as a range of web-based digital platforms specifically designed to promote user interactivity, engagement, and the provision of real-time feedback. These platforms, indicative of the interactive digital age, differ from traditional broadcast communication methods characterized by a central-source distributing content to a broader audience with limited and often delayed user feedback.

Hypothesis

Given the increasing significance of social media as a tool for communication, information-sharing, and learning, particularly amidst the challenges posed by the Covid-19 pandemic, this research proposes the following hypothesis:

Saudi international students who utilized social media platforms during the Covid-19 pandemic experienced higher levels of connectivity, emotional support, and academic engagement compared to those who did not frequently use or had limited access to these platforms.

This hypothesis stems from the preliminary evidence suggesting that social media played a crucial role in providing international students with essential communication channels and academic resources during the pandemic, potentially mitigating feelings of isolation, enhancing learning experiences, and facilitating peer interactions in the absence of traditional face-to-face academic settings.

Review of the literature

The outbreak of the Covid-19 pandemic has altered various facets of daily life globally, with the educational sector experiencing unprecedented challenges. Around the world, governments have implemented numerous preventive measures to curtail the spread of the virus, notably lockdowns and restrictions on physical gatherings (Brown and Kirk-Wade, 2021). Consequently, these measures

catalyzed a swift shift from traditional classroom settings to online education platforms. This transformation, while necessary, has brought to light various challenges and opportunities in the educational sector, particularly in higher education. Countries like Saudi Arabia have not been spared, with the crisis exposing disparities in readiness and adaptability to such sudden educational shifts (Al-Bar, 2022).

Saudi Arabia, known for its rich cultural tapestry and historically conventional educational practices, encountered unique challenges during this shift. The nation grappled with factors like students' mental health, awareness of modern teaching strategies, and specific challenges for groups such as undergraduate women and the deaf community (Al-Rasheed, 2021; Alamro, 2021; Aljedaani et al., 2021). At the same time, the global rise in the use of social media platforms and technologies offered potential solutions and tools for overcoming some of these challenges (Ortiz-Ospina, 2019; Aleksandrova and Parusheva, 2019).

Historical Context

International education and student mobility have undergone significant evolution over the centuries. Originally grounded in religious and cultural exchanges, the movement of students across borders has expanded due to socio-economic factors, technology, and geopolitics. In recent decades, the growth of technology, especially social media platforms, has influenced how students interact and acquire information, and consequently, how institutions market their programs to attract foreign students (Ortiz-Ospina, 2019; Aleksandrova & Parusheva, 2019).

Saudi Arabia's commitment to investing in its human capital through education is evident in its extensive scholarship programs for overseas study. The Kingdom's program, predominantly established in the 21st century, focuses on sending thousands of students abroad annually to achieve qualifications in various disciplines and to bring back valuable knowledge and skills.

However, like other aspects of international education, Saudi Arabia's scholarship programs were not immune to global challenges, especially the recent COVID-19 pandemic. With universities shutting down and switching to online platforms, the

experience of international students changed dramatically. Saudi Arabian students faced several challenges during this period:

- **Transition to Online Learning:** The sudden switch to remote learning posed challenges for students who were accustomed to in-person instruction, affecting their academic performance and social interactions (Hanafy, Jumaa & Arafa, 2021; Aljedaani et al., 2021).
- **Mental Health Concerns:** The uncertainty and isolation resulting from lockdowns and the pandemic, in general, contributed to increased anxiety and other mental health issues among students (Ali et al., 2022; Alyoubi et al., 2021).
- **Adherence to COVID-19 Protocols:** As a reflection of the global student community, Saudi students also had diverse perspectives towards COVID-19 preventive measures, with varying levels of adherence (Almalki, 2022).
- **Challenges Specific to Women:** Undergraduate women in Saudi Arabia faced unique challenges during the pandemic, including juggling domestic responsibilities with academic demands (Al-Rasheed, 2021).
- **Training Needs:** The pandemic highlighted the need for increased awareness and training regarding modern teaching strategies, especially for those at the tertiary level (Alamro, 2021).

The role of social media became even more pronounced during this period. Platforms like Facebook, Instagram, and others facilitated communication between students, teachers, and peers, helping bridge the gap created by physical distancing (Aleksandrova & Parusheva, 2019; Cheung & Vogel, 2011; Greenhow & Galvin, 2020). While social media provided a lifeline for many, it also came with its challenges, including distractions and concerns about privacy (Balakrishnan & Gan, 2016; McCarroll & Curran, 2013).

The Advent of Social Media in Education

The 21st century has seen a remarkable surge in the popularity and ubiquity of social media. Platforms such as Facebook, Twitter, Instagram, and others have transformed the way we communicate, share information, and engage with the world around us (Ortiz-

Ospina, 2019). This change has significantly impacted the educational sector, influencing the way educators teach and students learn.

Development and Growth of Social Media Platforms

Social media's rapid proliferation is a testament to its immense appeal and versatility. With billions of users worldwide, platforms like Facebook, Twitter, and Instagram have redefined communication and information sharing (Petrosyan, 2023). Such platforms have become indispensable tools for communication, information dissemination, and even professional networking (Manning, 2016).

Integration of Social Media in Educational Settings

In the realm of education, social media has emerged as a potent tool for fostering engagement, collaboration, and learning. Institutions are increasingly integrating these platforms into their curriculums to enhance student engagement, improve communication, and facilitate collaborative learning (Aleksandrova & Parusheva, 2019). For instance, educators have employed platforms like Facebook and Twitter to create virtual classrooms, fostering student interaction, sharing course materials, and facilitating discussions (Hung & Yuen, 2010).

Moreover, during the unprecedented challenges of the COVID-19 pandemic, social media played a pivotal role in bridging the gap between educators and learners. As traditional classrooms shifted to online platforms, many educators turned to social media to ensure continuity in learning (Greenhow & Galvin, 2020). In a study by Hanafy et al. (2021), the adoption of online learning in response to the pandemic was highlighted, showcasing the adaptability and resilience of educational institutions during these trying times.

Importance of Social Media for International Students

For international students, social media offers a unique lifeline. These platforms not only help them stay connected with their families and friends back home but also provide a platform to engage with their peers, participate in academic discussions, and immerse themselves in the cultural nuances of their host countries (Alamro, 2021).

Furthermore, the challenges brought about by the pandemic emphasized the critical role of social media for international

students. With travel restrictions and lockdowns, many students were unable to return to their home countries. Social media platforms became essential tools for them to stay informed, connected, and mentally healthy during these challenging times (Ali et al., 2022).

The Saudi Arabian Context: Social Media Usage

- Overview of social media consumption in Saudi Arabia

With the growth of digitalization globally, Saudi Arabia has seen a surge in social media consumption. According to Petrosyan (2023), the digital population has been steadily increasing, with a substantial portion attributed to social media users. As Ortiz-Ospina (2019) noted, the rise of social media has transformed the way societies communicate, and Saudi Arabia is no exception.

- Preferred social media platforms among Saudi youth

The youth in Saudi Arabia, like their counterparts worldwide, have shown an inclination towards platforms that offer a combination of text, image, and video sharing. The platforms not only serve as a medium of entertainment but also play a crucial role in education and societal discourse (Kemp, 2022; Aleksandrova & Parusheva, 2019). Moreover, the significance of social media in educational institutions has been highlighted by studies that delve into its usage patterns (Aleksandrova & Parusheva, 2019).

- Cultural and societal impacts on social media utilization

Culture and societal norms in Saudi Arabia have influenced how people utilize social media. There has been a growing emphasis on using these platforms for educational purposes, reflecting the country's focus on higher education and digital learning, especially during the Covid-19 pandemic (Al-Bar, 2022; Al-Rasheed, 2021). Furthermore, the challenges faced by undergraduate women during the pandemic were amplified through social media, shedding light on broader societal issues (Al-Rasheed, 2021).

International Students and Digital Support Systems

- Role of social media in forming support communities

Social media has been pivotal in forming support communities, especially for international students. It offers a platform where students can share experiences, seek advice, and provide mutual

support (Hung & Yuen, 2010). Such communities became even more crucial during the Covid-19 pandemic when physical distancing norms were imposed, limiting face-to-face interactions (Brown & Kirk-Wade, 2021).

- Virtual platforms as bridges for cultural exchange and understanding

Platforms like Facebook, Twitter, and Instagram have bridged gaps, enabling students from different cultures to interact and learn from each other (Cheung & Vogel, 2011). These interactions foster cultural understanding and diminish stereotypes, promoting global unity (Karvounidis et al., 2014). Universities have recognized this potential and are increasingly incorporating social media into their educational strategies to facilitate this exchange (Balakrishnan & Gan, 2016).

- Social media as a coping mechanism during the study abroad experience

Studying abroad can be a challenging experience, with students often facing feelings of isolation and homesickness. Social media platforms have provided these students with an avenue to connect with their peers and loved ones back home (Celik, 2014). During the Covid-19 pandemic, the role of social media as a coping mechanism was even more pronounced. Platforms acted as a primary source of information, ensuring students stayed updated about the situation in their home countries and abroad (Ali et al., 2022).

Benefits and Challenges of Social Media for Saudi Students during the Pandemic

The COVID-19 pandemic radically transformed the academic experiences of students across the globe, and Saudi students studying in the UK were no exception. The transition to online learning platforms posed myriad challenges, but it also unveiled the powerful role of social media in bridging gaps, alleviating isolation, and disseminating critical information.

Social Media as a Source of Information

During the COVID-19 crisis, many students turned to social media platforms as an essential source of updated information regarding travel, lockdowns, and university policies (Al-Bar, 2022). Platforms such as Facebook, Twitter, and Instagram served as a hub for

notifications, allowing universities to reach their student populations promptly (Greenhow & Galvin, 2020). Kemp (2022) reported on the substantial increase in social media use during this period, reflecting its heightened role in information dissemination.

Platforms Facilitating Academic Collaboration

The sudden shift to remote learning posed challenges in collaboration and communication. Here, platforms such as WhatsApp, Zoom, and Microsoft Teams became integral to the academic experience (Alamro, 2021). These platforms, although not strictly categorized as social media, borrowed many features from them and facilitated peer interaction and collaboration amidst physical distancing. Cavus & Sekyere–Asiedu (2021) examined the contributions of such platforms in education during the pandemic and found them invaluable for real-time academic discourse.

Socio-emotional Implications and Social Media

For Saudi students in the UK, homesickness, isolation, and cultural disconnect became pronounced with the pandemic's restrictions (Al-Rasheed, 2021). Social media platforms, particularly culturally prevalent ones in Saudi Arabia became a lifeline for these students. They connected not just with families back home, but also with peers who shared similar feelings of displacement (Alyoubi et al., 2021). Platforms such as Snapchat and Instagram allowed them to share their experiences, bridging the emotional and geographical gaps.

Challenges with Social Media

However, reliance on social media wasn't without challenges. Misinformation about the pandemic spread rapidly, causing heightened anxieties among students (Azmi et al., 2022). Furthermore, with academic and leisure activities both conducted online, the boundaries blurred, leading to potential academic distractions (Celik, 2014). The continuous exposure to distressing news about the pandemic, combined with personal anxieties about their academic performance, created a tumultuous emotional environment for many (Ali et al., 2022).

Social Media and Academic Experience

Balakrishnan & Gan (2016) and Aleksandrova & Parusheva (2019) have both underlined how learning styles impact the utilization of social media. For Saudi students, the cultural context played a pivotal role. Adapting to virtual classrooms had its own set of

challenges - from time zone differences to the unfamiliarity with certain digital platforms (Aljedaani et al., 2021). However, social media offered some respite. Platforms enabled informal peer-to-peer learning, allowing students to collaborate and share resources, aiding their academic adaptation (Chugh & Ruhi, 2018).

Previous Studies:

Almalki (2022) aimed to assess the satisfaction, commitment, and views of public health students in Jazan, Saudi Arabia, regarding COVID-19 preventive measures, with the intent to augment the campus experience. Using a descriptive analytical method and an electronic questionnaire, the study encompassed 200 participants. The findings revealed that 55.0% were discontented with the preventive protocols instituted on campus. Interestingly, female participants manifested a higher level of dissatisfaction compared to their male counterparts. Statistical analyses discerned a significant correlation between satisfaction levels and factors such as the participant's gender and educational stage. The study underscored the necessity for improvements in student satisfaction with COVID-19 preventive measures and the equitable extension of these measures to the entire student body. The research also suggested further exploration into students' experiences associated with transitions to new infrastructure, receiving COVID-19 vaccinations, and the resumption of on-campus learning.

Al-Rasheed (2021) embarked on an exploration of the challenges confronting female university students in Saudi Arabian universities during the exclusive adoption of online learning amidst the COVID-19 outbreak. Employing both the descriptive analytical and qualitative methods and utilizing questionnaires, the study drew from a sample of 68 female students from Princess Noura bint Abdul Rahman University. Predominant challenges highlighted encompassed technical issues, the absence of personal interactions, distractions, time management woes, unstructured schedules, psychological stressors, the missing conventional university ambiance, and restricted access to digital learning devices.

Alamro (2021) sought to evaluate the contemporary teaching methodologies implemented by faculty at the University of Hail during the COVID-19 pandemic, aiming to identify salient motivations, needs, and hindrances from their perspectives. Relying

on the descriptive analytical method and questionnaires, the study garnered insights from 164 faculty members. Notably, the importance of digital training in the context of these modern teaching methods was underscored. Moreover, while faculty did employ modern teaching methods to some extent, significant disparities based on gender, academic rank, tenure, or academic specialization were absent.

Ali et al. (2022) ventured to discern the interrelations between shifts in sleep patterns, time perception, and digital media usage consequent to the COVID-19 pandemic, and their impact on students' mental health across educational phases. Utilizing the descriptive analytical methodology and questionnaires, the study covered 251 university students in Pakistan. The findings illuminated significant disturbances in sleep patterns due to government-mandated lockdowns. Increased engagement with social media corresponded with prolonged sleep durations, deteriorated sleep habits, and amplified fatigue. Additionally, students frequently lost track of weekdays, with a distorted sense of time, indicating a decline in mental well-being. The study advocates for better sleep habits, minimized digital consumption, and hobby engagement as potential remedies.

Alyoubi et al. (2021) turned their focus to the repercussions of the COVID-19 pandemic on the mental well-being and sleep patterns of university students in Saudi Arabia. Implementing the descriptive analytical method and questionnaires, the study tapped into the experiences of 582 students aged 18 to 45. The results painted a bleak picture, with undergraduate students reporting heightened levels of depression, anxiety, and stress, alongside diminished resilience during the pandemic. Factors such as pre-existing mental health conditions and learning impediments (e.g., dyslexia, dyspraxia, dyscalculia) corresponded with exacerbated depression and stress. Furthermore, diminished psychological resilience and heightened insomnia levels were significantly linked with amplified levels of depression, anxiety, and stress among college students.

Methodology and procedures

Qualitative semi-structured interviews were selected as the primary data collection method to ensure that participants could convey their thoughts, experiences and perspectives more openly than structured methods such as questionnaires and surveys would allow (Alshenqeeti, 2014) and as mentioned, the intention was to contribute more qualitative insights to a field that has been largely dominated by quantitative research. Whilst it was important to remain aware of the limitations of qualitative interviews in relation to conduct, analysis and interviewer effect (see, for instance, Berg and Lune, 2013; Adams, 2015), it was felt that the benefits of gaining rich, in-depth insights in the words of the students themselves, far outweighed the disadvantages of this method. The interviews were carried out in Arabic - the first language of the participants - ensuring participants not only felt at ease but that the validity of the study was increased through participants articulating their thinking in their mother language (Creswell, 2005). The interviews were recorded and typed up, before being translated to English. It was important to be aware, however, that the representation of participants' words may be questioned by the participants themselves when viewed in the written form, which can be further exacerbated by the translation process, "because in the translation the words are literally not their own anymore" (van Nes *et al.*, 2010: 313). Participants were therefore invited to read their translated transcripts in English, to ensure accurate representation of their accounts and the intended meanings.

As touched on above, participants were recruited through Twitter using the Saudi Community. An advert was placed requesting participants who had been Saudi international students studying for an MA or PhD in the UK at the time of the pandemic. Recruitment ended once an equal number of males and females came forward to participate, four of whom had remained in the UK during the pandemic and four of whom had returned, with two each of MA and PhD students. The intention was not to identify comparisons between genders and levels of study, as with such a small sample, this would not have provided sufficient evidence, but rather, diversity in the sample enabled richer and more detailed insights

from a variety of perspectives. Eight participants in total took part in the interviews and all but one had completed their studies. Participants were provided with an information sheet and consent form, which they were asked to sign prior to the interviews taking place. Face-to-face interviews were conducted in Saudi Arabia in quiet locations selected by the participants, including a university, coffee houses and libraries during October and November of 2022. The participants were asked to share their experiences of social media before and during the pandemic, on both a personal and academic level, as well as the benefits and challenges encountered in relation to social media use at this time.

Participants were selected using purposive sampling to ensure that they represented groups within the chosen population of Saudi international students studying in the UK at the time of the Covid-19 pandemic and had relevant knowledge and experience of the chosen topic. As touched on above, however, it was felt important to include some diversity within this sample, to provide as rich insights as possible. Subsequently, purposive sampling, with its focus on targeting the required population (Palinkas *et al.*, 2015), was regarded as the most convenient approach. The ensuing sample included two MA and two PhD students who had returned home during the pandemic, with one male and one female in each group, and two MA and two PhD students who had remained in the UK during the pandemic, again with one male and one female in each group. Whilst this form of sampling raises questions around the ability to generalise the findings beyond the selected participants, as well as the potential bias (Pole and Lampard, 2002), it can also be argued that more important than generalising the findings is the ability to develop “rich, contextualized understanding of human experience through the intensive study of particular cases” (Polit and Beck, 2010: 1452).

The research strategy was rooted in thematic analysis, building upon the six essential stages set out by Braun and Clarke (2006). The first steps involved transcribing the interviews conducted in Arabic and subsequently translating them into English. To immerse in the data, transcripts were meticulously read and re-read.

During the coding phase, raw data was systematically broken down into more manageable parts. Initial codes were generated by

highlighting phrases, sentences, or sections of the transcripts that seemed particularly poignant or relevant based on the research questions and existing literature. This phase produced a comprehensive list of codes capturing a range of participant experiences, perceptions, and sentiments.

Post the coding phase, these codes were assembled into potential themes. These potential themes encapsulated grouped codes that shared similar or overlapping content. Themes were then reviewed, refined, and organized to form a cohesive narrative that would articulate the participants' shared experiences and perspectives.

Ethically, the study strictly followed the British Sociological Association's (BSA) Statement of Ethical Practice (2017). Utmost priority was given to the safety of the participants, ensuring confidentiality, maintaining anonymity, safeguarding data, and acquiring informed consent. The participants were provided with comprehensive information regarding how their data would be handled, protected, and the limits to which it would remain anonymous. To protect participants' identities, pseudonyms were utilized, and all identifiable details were concealed.

Lastly, participants were presented with a consent form, both in Arabic and English, prior to the interviews. The form described the study's objectives, the rights of participants, and the intended dissemination of the study's findings.

Results and discussion

In the responses gathered from the participants, there was a noticeable divergence from the findings of Aleksandrova and Parusheva (2019). While they highlighted Facebook as the predominant form of social media among students, this study revealed that during the Covid-19 pandemic, platforms like Twitter, WhatsApp, YouTube, Instagram, Duo, and Snapchat gained prominence. Remarkably, Twitter was the standout platform in this study, with every participant acknowledging its use. It was trailed by WhatsApp, YouTube, and Instagram. For instance, Maha noted that although she frequented platforms such as Snapchat, Instagram, and WhatsApp during the pandemic, her primary attention was centered on Twitter.

I loved reading people's Tweets, following the news and also posting myself. I have many followers and would go on daily posting everything that I have been doing throughout the day.

The observed preferences among participants resonate with the prevailing social media trends in Saudi Arabia. The most favored social media platforms in the nation, ranked by popularity, are WhatsApp, Instagram, Snapchat, Twitter, TikTok, and Facebook. Notably, Twitter's surge in popularity during the Covid-19 pandemic was evident in our findings. While only two participants reported using Twitter before the pandemic, all eight indicated its use during and post-pandemic. Additionally, video conferencing platforms, such as Zoom, Teams, and Skype, found mention in participants' definition of social media. Among these, Zoom emerged as a clear favorite. Seven out of the eight participants discussed their utilization of Zoom for both academic and personal purposes during the pandemic. This inclination towards Zoom mirrors global patterns, solidifying Zoom's position as one of the predominant 'lockdown winners' of 2020, as noted by Richter (2022).

In light of the complexities and disruptions ushered in by the Covid-19 pandemic, the shifting landscape of social media usage in Saudi Arabia's higher education context serves as a reflection of broader socio-cultural and pedagogical shifts. Al-Rasheed (2021) underscores the unique challenges faced by undergraduate women during this period, suggesting the heightened need for connectivity and information dissemination, potentially explaining the surge in Twitter usage. These challenges might have necessitated a more active engagement with platforms that provided real-time news, peer interactions, and academic updates. Similarly, Alamro (2021) touches upon the pressing need for the awareness and application of modern teaching strategies during the pandemic. The acknowledgment of platforms like Zoom and Teams as social media tools by participants, as indicated in our findings, can be seen as an organic response to these teaching adaptations. Aljedaani et al. (2021) further elucidate the distinct perspectives and challenges of certain demographics, such as deaf students, necessitating the diversification of online platforms and tools for inclusivity.

Moreover, the emotional and mental toll on students during the lockdown period, highlighted by Ali et al. (2022) and Alyoubi et al. (2021), might have played a role in their gravitation towards platforms like Twitter for a sense of community, news, and academic camaraderie. Given the overarching narratives of the aforementioned studies, it is evident that the seismic shifts in social media preferences among students are emblematic of a deeper, multifaceted adaptation to a global crisis, reshaping the contours of education, connectivity, and well-being in the Kingdom.

Social media as an essential means of communication

As previously discussed, the myriad benefits of social media use in Higher Education (HE) are well-known. However, in this study, there was a unanimous consensus among participants regarding the primary value of social media during the Covid-19 pandemic: it served as a vital communication tool to stay in touch with family, friends, and colleagues. Such a need for connection is unsurprising during times of uncertainty and imposed social distancing, but it becomes even more pronounced for international students distanced from their homes and families. All eight participants emphasized the importance of staying connected to their loved ones, with seven highlighting the significance of social interaction during a time when it was severely limited. Many pointed out that visual interactions, facilitated by apps like Google Duo or FaceTime, where they could see their families, were particularly cherished. This consistent connection substantially alleviated feelings of loneliness and isolation, especially for the two participants who chose to stay in their host country throughout the pandemic."

It allowed me to communicate with family who is far away. You feel like you are with them when you see them in the camera, so you feel less isolation from your family (Mohammed).

I am abroad, far away from my family and home country, so if I didn't have social media, I just couldn't have imagined my life without it during this pandemic. I kept in contact with

my family and my friends in Saudi. I felt that we had a bridge between us, it was a way of feeling closer to them, interacting with them (Maha).

At the same time, international students who returned to their home country during the pandemic also highlighted the importance of social media for facilitating social interaction at a time when they were prevented from being with friends and family. As Rowan explained:

Social media helped me to continue to see and be with my friends. We used to always meet, maybe sit having a coffee together or going to each other's houses. Once that stopped because of Covid, we were still able to be in touch every day. Having social media meant we could be together all the time, so we didn't miss each other so much.

For two participants who had journeyed back to their native countries during the pandemic, social media emerged as a bridge to reconnect with acquaintances and friends with whom they had lost touch. For example, Rowan shared that she was able to rekindle relationships with individuals she hadn't spoken to in years. She believed that social media played a pivotal role in enhancing and solidifying these bonds.

While the study didn't aim to highlight differences within such a compact sample size, a noteworthy observation was the distinction in the connections made by students based on their location during the pandemic. Students who went back to their home countries not only mentioned family but also brought up other connections such as friends and university contacts. In contrast, students who chose to stay in the UK predominantly referenced their family or a combination of family and friends. As Layla explained:

Oh my God, this was very important for me. As an international student, it meant I could keep in touch with my family, who are the most important people in my life.

This distinction between international student returners and those who stayed might be expected, given that for many, the most

important people in their lives are far away. The returners being in closer proximity to friends and family, and even living with some, may have opened up opportunities to consider other people in their lives, such as those they have lost contact with. For those who remained in the host country, however, it is likely that families were at the forefront of their minds.

The findings highlighting the role of social media as a primary communication tool for international students during the Covid-19 pandemic resonates with multiple scholarly sources. For instance, Al-Bar's (2022) discussion about the management of the Covid-19 crisis in Saudi Arabia suggests that adaptive strategies and innovative communication methods were pivotal during this period, reaffirming the experiences of participants like Mohammed and Maha who found solace in visual interactions to connect with families from afar. Furthermore, Al-Rasheed (2021) expounds on the challenges undergraduate women faced in Saudi Arabia during the pandemic. While this source is gender-specific, it gives a cultural context, providing a backdrop for understanding the shared sentiments of Saudi students like Maha who emphasized the importance of the virtual "bridge" social media provided, bridging the emotional and physical distance.

Diving deeper into the observations on the distinctions in the connections made by students based on their location during the pandemic, the references offer enlightening perspectives. Aleksandrova and Parusheva (2019) illustrate the patterns of social media usage in higher education institutions, shedding light on how technological tools can shape student interactions. For students like Layla, who remained in the UK, the emphasis on family might be intrinsically linked to the need to maintain cultural and emotional ties with loved ones, given the distance and the unprecedented challenges presented by the pandemic. The essence of this inclination is mirrored in Alyoubi et al.'s (2021) research, which delves into the mental health implications of the pandemic on students in Saudi Arabia. Emotional isolation coupled with the physical separation could have intensified the need to cling to familiar bonds, justifying the primary focus on family connections for those students who stayed abroad. On the other hand, students who returned to their home countries had the opportunity to tap into

a broader network, not just limited to immediate family, which is reflective of the findings in Au, Lam, and Chan's (2015) work that addresses barriers and issues in social media education. For students in closer proximity to their networks, the physical closeness could have possibly opened doors to rekindle older ties, emphasizing the diverse ways in which individuals leveraged social media based on their geographical positioning during the crisis.

While such use of social media might not be considered central to the participants' academic experiences, it was clearly crucial for maintaining their mental and emotional health, reducing social isolation and loneliness. For half of the participants, it also facilitated their ability to cope and ensured they received the social support they needed:

I felt connected to everyone, the university, my friends, my family. This helped me to feel less isolated and I could cope better. It helped me so much to feel okay (Maha).

I spent time with my mum every day, talking through what we had been doing. She is everything to me, she is my best friend. I didn't feel isolated, even though I was far from my family, because I was talking to my mum every day. I felt better and reassured when I talked to her (Layla).

Furthermore, communication with family and friends wasn't the only use of social media highlighted by participants. Some also emphasized its importance in facilitating communication between university staff and students. However, it became clear that many were referring to video conferencing applications like Zoom and Skype, rather than traditional social media platforms. Participants also mentioned communicating with staff via email and online learning systems such as Blackboard. The use of the social networking site Twitter was discussed by four participants as a channel for communication between the university and students. However, it was suggested that during the Covid pandemic, the use of Twitter for this purpose had actually decreased. As Maha elaborated:

...Twitter wasn't used as much as before Covid, because it would be used to advertise events and all of the things that

were going on in the university before, but during Covid, there was less to advertise and so it wasn't really used as much.

Many participants highlighted their use of WhatsApp, emphasizing that this platform was established by students for their peers without any formal university involvement. Such findings echo earlier research, suggesting that students often initiate the use of social media platforms for educational purposes (Aleksandrova and Parusheva, 2019). Surprisingly, three participants reported that their respective universities did not harness the potential of social media either before or during the Covid-19 pandemic. This suggests that, despite the evident advantages of social media as a channel for communication, its potential remained largely untapped by these institutions during this critical period.

On another note regarding communication, a unanimous observation was the consistent outreach from the Saudi Ministry to its students studying abroad. Throughout the Covid-19 pandemic, the Ministry leveraged social media and video conferencing tools to maintain communication. The predominant channels of communication were emails, Twitter, and Zoom. For the students, this proactive outreach was invaluable. It provided them with a sense of support and reassurance during an otherwise tumultuous period. As Fahed explained:

Through Twitter and email, all students were contacted to see how they were coping with Covid and to fill in a form if facing any challenges.

In analyzing the experiences of the participants, it's evident that the onset of the COVID-19 pandemic accelerated an already-emerging trend of reliance on digital platforms for both social and academic purposes. Tudor's research on the global uptick in the use of web and video conferencing software during the pandemic period (Tudor, 2022) seems to be reflected in the participants' overwhelming use of tools like Zoom and Skype. These tools not only served as academic lifelines but also crucial emotional anchors, redefining the boundaries of the "classroom" to encompass both formal instruction and informal emotional support.

Tur and Marín's (2015) exploration into the role of social media, particularly Twitter, in enhancing educational outcomes, is mirrored in the accounts of the participants. While the use of Twitter for university event promotions witnessed a decline during the pandemic, as noted by Maha, its potential as an academic communication platform, as suggested by Tur and Marín, remained evident. Its utility extended beyond mere event promotion to a vital channel for outreach and connection, as evidenced by the proactive engagement from the Saudi Ministry.

Vandeyar's (2020) discussion on the "academic turn" of social media in higher education seems to echo in the participants' narratives. The organic establishment and use of platforms like WhatsApp for peer support and academic discussions underline Vandeyar's assertion of the evolving role of social media in academic landscapes. Such platforms, typically reserved for personal conversations, were quickly adapted and optimized for educational purposes, showcasing students' resilience and adaptability.

Vital et al. (2022) investigated the impacts of the pandemic on students in Mexico and underscored the significance of technological outreach in maintaining academic continuity and emotional well-being. This emphasis on technology-mediated support is a universal experience, not confined to any particular geography, as seen in the narratives of the participants who received consistent outreach from the Saudi Ministry during these challenging times.

The observation of Zincir (2017) regarding knowledge workers' use of social media as personal knowledge management tools can be juxtaposed against the students' experiences. While the study focused on knowledge workers, parallels can be drawn with students leveraging these platforms not just for knowledge sharing but also for emotional sustenance, thereby expanding the definition of "knowledge management" to include emotional well-being and resilience.

Once forms had been filled in, students then received the support they needed. This included medical help and support with mental health issues. As two participants explained:

When I heard about the possibility of treatment for anxiety, I applied for it and was able to get support in London... When I went to the GP for treatment, it was going to be very expensive, but my country agreed to pay for it for me. I had six sessions of cognitive behavioural therapy. I was very grateful to them for the treatment and it continued when I went home (Abdulaziz).

The people who were not well and needed medicine, the Embassy made sure they had their medication delivered to them (Rowan).

The primary messages communicated to the students included notifications about the opportunity for a cost-free 'evacuation' from the UK, alerts regarding the provision of PPE such as gloves and sanitizers, mental health support, and the dissemination of information and reassurance. All participants commended the support they received from the Ministry. This aligns with prior research on the subject, which shows a strong level of trust and satisfaction concerning the government's handling of the pandemic (Al-Bar, 2022). The participants appeared to deeply appreciate the efforts of the government and were vocal about the comfort and security these measures provided during such trying times. As Khaloud articulated:

They were amazing, they supported us so much. They had my back. They were so good, especially offering to evacuate all students to go home. It was a great thing to do. And they offered resources when they were gone from everywhere.

It seemed that the use of social media in this case, helped to ensure that as many international students as possible were reached and that they felt supported during what was a difficult time for many.

Social media as a valuable learning tool

While most participants talked about utilizing the university's learning system, library catalog, and Google Scholar to access sources for their studies, several found social media to be an invaluable learning tool. Specifically, Twitter was highlighted by four participants as a significant source of research support and resources.

I used Twitter for information for my study. I followed other students who would post information and articles on Twitter (Fahed).

YouTube was vital for several participants. For Rowan, although Twitter was her go-to social media platform during Covid for research and gathering information, YouTube was equally beneficial. She used it to learn about living abroad and navigating life as an international student.

Social media was also cited in the context of conducting empirical research. Mohammed, one of the participants, highlighted the significance of social media in facilitating his data collection. Instead of his initial plan of face-to-face interviews, he utilized social media platforms to connect with participants and conduct interviews. He stated:

It was very good that we have this choice to carry on the research because my dad was not well, so I wanted to finish and go back to Saudi, so being able to carry on with the research really helped.

Participants also highlighted the use of social media as a learning tool beyond their studies, which enabled them to develop their skills during the Covid-19 pandemic. As Layla explained:

I found Instagram so impressive because before, I was not a good cook, but now, because I have been sitting at home and watched Youtube and Instagram reels on a daily basis, I learnt to use skills that I didn't have before.

Notably, for two participants, social media also became a source of income. Rowan had a boutique, and she mentioned that through Instagram, she was able to expand it during Covid, given the extra time she had. Similarly, Khaloud created an Instagram account where she amassed followers through her cooking posts. Due to her substantial following, she became an enticing prospect for advertisers, which consequently generated income for her via the platform.

Negative physical and mental effects of increasing personal use

Previous research suggests that time spent on online social networks can have a negative impact on academic performance (Paul et al., 2012). Indeed, there was evidence of a correlation between the adverse effects of social media usage on participants' health and, subsequently, their studies. The detrimental consequences of Covid were evident among participants, particularly regarding the fear and distress they felt during this challenging period. For instance, Maha cited sleep issues resulting from the continuous exposure to Covid-related information. Beyond this, social media itself displayed negative repercussions. While all participants acknowledged the significant benefits they derived from social media accessibility during their studies amid the Covid-19 pandemic, all eight expressed concerns about their addiction to, or heavy dependence on, these platforms for information, entertainment, and communication. Asham commented:

I was so addicted, I didn't feel like I did before as I was sitting on it all the time, I couldn't sleep. My eyes were on the phone all the time.

The adverse effects on health subsequently influenced the ability to study or focus on work. Six participants also highlighted additional issues. The most prevalent criticism of social media during that period, consistent with prior literature (Ali et al., 2022; Almaki, 2022), was the incessant exposure to fake news through this channel. However, what this study underscored was the ramifications of such fake news on students. Four participants detailed how it evoked significant fear, stemming from accessing an overload of information about ongoing events, confronting alarming statistics,

understanding the magnitude of deaths, and the widespread panic about food shortages.

The integration of social media as a crucial learning tool during the pandemic, as depicted by the participants' experiences, mirrors the findings of various studies. Castro-Romero (2015) explored the growing importance of social media in higher education contexts, especially in countries like Mexico and South Korea. Similarly, in the narratives, platforms like Twitter and YouTube were cited not just as recreational tools, but as essential resources for academic research and skills acquisition. The role of Instagram, particularly, as an educational platform has been highlighted by Puigvert et al. (2022), emphasizing its utility during the pandemic in fostering science education among vulnerable groups. In line with Layla's experience of acquiring cooking skills through Instagram, this indicates a broader trend of utilizing social media for informal education and skill development during restrictive times.

However, the ubiquitous presence of these platforms also led to potential adverse effects on users' mental and physical health, particularly during the pandemic. Previous studies, like that of Sundarasan et al. (2020), have documented the psychological ramifications of the pandemic, such as sleep disturbances and heightened anxiety levels among university students, outcomes echoed by participants like Maha and Asham. The Social Media Research Group (2016) underscores the role of social media as a rich source for social research, but with a caveat. The participants' accounts about the overwhelming nature of information, exposure to "fake news," and the resultant fear it induced aligns with Tsao et al.'s (2021) findings, which emphasize the mixed information landscape on social media platforms during the COVID-19 period. The inundation of, often unreliable, information about the pandemic and related issues could exacerbate the already significant distress faced by students. These findings resonate with Selwyn's (2012) discussion on the complexities of social media usage in higher education, emphasizing both its potential benefits and pitfalls, and underscores the need for discerning media consumption practices among users.

The mental repercussions of addiction and information overload were noted by several participants. They reported frequent episodes of crying, pervasive sadness, and feelings of anxiety and depression. Abdulaziz detailed both the mental and physical symptoms he endured, including sleep disturbances, anxiety, and depression. He believed that his social media usage and the constant influx of information about the COVID-19 crisis contributed to these symptoms. Additionally, his inability to continue data collection for his research might have further intensified his emotional distress. As a result of his heightened anxiety, Abdulaziz sought medical intervention and chose to defer his studies temporarily. Other participants also mentioned physical symptoms related to excessive screen time, such as headaches and fatigue. Khaloud, for instance, mentioned that her amplified reliance on screens took a toll on her physical well-being.

It took the energy from my body and gave me such negative thinking, just from constantly seeing what was happening in the news. I was a member of a website which continuously sent you the numbers of people dying every day, so every day I would wake up to these horrible numbers.

Thus, there were evident negative consequences for the participants due to their increased use of social media. While the majority mentioned how it impacted them physically or emotionally, there was an underlying sentiment that social media wasn't the sole contributor to these issues. In fact, for many, it seemed more beneficial than detrimental.

Conclusions and recommendations

The research aimed to understand the role of social media in the lives of Saudi international students studying in the UK during the pandemic. This was to offer valuable and often overlooked experiential insights, which could guide higher education institutions in their use of social media. As indicated, social media emerged as vital for international students in maintaining mental health and well-being. It helped combat social isolation, allowed consistent contact with peers for academic collaborations, and

ensured communication with the Saudi Ministry. This usage ensured that students had access to personal, financial, academic, health, and medical support. However, it seemed that higher education institutions did not maximize the potential of social media for communication, information dissemination, and support during the pandemic. This could be attributed to the robust educational systems in place, which often mirrored social media functionalities. The widespread adoption of video conferencing platforms like Zoom might have further diminished the perceived need for social media. Rapid transitions might have also limited universities' capacities to set up structured mechanisms for effective social media engagement. Nevertheless, leveraging platforms like Twitter, which were popular among Saudi international students, could have provided enhanced learning opportunities and support.

Higher education institutions possess the potential to enhance their adoption and integration of social media in their educational framework. This would not only prepare them for unprecedented situations like a pandemic but also cater to the evolving needs of the digital age. This research underscores that while social media is crucial for all students, it might be indispensable for international students distanced from their homes, families, and communities. As social media continues to grow as a communication medium, universities stand to benefit by being proactive in this domain, ensuring they adequately support their international students. Another key insight from this study is the necessity of providing guidance on the optimal use of social media. Given the extensive use of these platforms during the pandemic, offering advice and directives from educational institutions could have shielded students from some negative repercussions of excessive social media exposure. It's imperative for host institutions to support their international students academically, socially, and emotionally. Enhancing engagement with social media, coupled with guidance on its judicious use, can foster a supportive environment while mitigating potential adverse effects.

References

- Alamro, A. (2021) 'Training needs in light of the degree of awareness of modern teaching strategies and their application in the tertiary level during the Covid-19 pandemic' *Education Research International*. Volume 2021. Article 8521514. <https://doi.org/10.1155/2021/8521514>
- Al-Bar, A. (2022) 'Success factors for managing the emerging Covid-19 pandemic crisis in the Kingdom of Saudi Arabia' *Journal of Humanities and Social Studies*. 67(1444) 175-250.
- Aleksandrova, Y.G. and Parusheva, S.S. (2019) 'Social Media Usage Patterns in Higher Education Institutions – An Empirical Study' *International Journal of Emerging Technologies in Learning*. 14(5) 108-121. 10.3991/ijet.v14i05.9720.
- Ali, A., Siddiqui, A. A., Arshad, M. S., Iqbal, F., & Arif, T. B. (2022). Effects of COVID-19 pandemic and lockdown on lifestyle and mental health of students: A retrospective study from Karachi, Pakistan. *Annales medico-psychologiques*, 180(6), S29–S37. <https://doi.org/10.1016/j.amp.2021.02.004>
- Aljedaani, Wajdi, Mona Aljedaani, Eman Abdullah AlOmar, Mohamed Wiem Mkaouer, Stephanie Ludi, and Yousef Bani Khalaf. (2021). "I Cannot See You—The Perspectives of Deaf Students to Online Learning during COVID-19 Pandemic: Saudi Arabia Case Study" *Education Sciences* 11, no. 11: 712. <https://doi.org/10.3390/educsci11110712>
- Almalki, M.J. (2022) 'A Cross-Sectional Study of the Satisfaction with, Adherence to, and Perspectives toward COVID-19 Preventive Measures among Public Health Students in Jazan, Saudi Arabia'. *International Journal of Environmental Research and Public Health* 19, 802.
- Al-Rasheed, A. (2021) 'The challenges faced by undergraduate women during the Covid-19 pandemic in Saudi Arabia'.

Education Research International. Volume 2021. Article 8841997. <https://doi.org/10.1155/2021/8841997>

Alyoubi, Azizah & Halstead, Elizabeth & Zambelli, Zoe & Dimitriou, Dagmara. (2021). The Impact of the COVID-19 Pandemic on Students' Mental Health and Sleep in Saudi Arabia. *International Journal of Environmental Research and Public Health*. 18. 9344. 10.3390/ijerph18179344.

Azmi, Fatima & Khan, Habib & Azmi, Aqil & Yaswi, Arooj & Jakovljevic, Mihajlo (Michael). (2022). Prevalence of COVID-19 Pandemic, Self-Esteem and Its Effect on Depression Among University Students in Saudi Arabia. *Frontiers in Public Health*. 10. 10.3389/fpubh.2022.836688.

Balakrishnan, Vimala & Gan, Chin. (2016). Students' learning styles and their effects on the use of social media technology for learning. *Telematics and Informatics*. 33. 808-821. 10.1016/j.tele.2015.12.004.

Brown, J. and Kirk-Wade, E. (2021) *Coronavirus: A history of 'Lockdown laws' in England*. Number 9068. House of Commons Library: <https://researchbriefings.files.parliament.uk/documents/CBP-9068/CBP-9068.pdf>.

Castro-Romero, Oswaldo. (2015). Social Media as Learning Tool in Higher Education: The case of Mexico and South Korea. *Sinéctica*. 44.

Cavus, N., & Sekyere-Asiedu, D., & (2021). A comparison of online video conference platforms: Their contributions to education during COVID-19 pandemic. *World Journal on Educational Technology: Current Issues*. 13 (4), 1170-1181 <https://doi.org/10.18844/wjet.v13i4.6329>

Celik, Ilknur. (2014). Social Media for Academics: Motivation Killer or Booster?. 10.1109/ICALT.2014.142.

Cheung, Ronnie & Vogel, Doug. (2011). Ronnie Cheung, Doug Vogel, Can Facebook enhance the communications between

teachers and students? The International Journal of Learning, 17, 35-397, 2011. International Journal of Learning. 17. 35-397.

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>

Greenhow, C., & Galvin, S. (2020). Teaching with Social Media: Evidence-Based Strategies for Making Remote Higher Education Less Remote. Information and Learning Sciences, 121, 513-524. <https://doi.org/10.1108/ILS-04-2020-0138>

Hung, Hsiu-Ting & Yuen, Steve. (2010). Educational use of social networking technology in higher education. Teaching in Higher Education. 15. 703-714. 10.1080/13562517.2010.507307.

Karvounidis, T., Chimos, K., Bersimis, S., & Douligieris, C. (2014). Evaluating Web 2.0 technologies in higher education using students' perceptions and performance. Journal of Computer Assisted Learning, 30(6), 577–596.

Kemp, S. (2022) 'Digital 2022: Global Overview Report' *DataReportal*. <https://datareportal.com/reports/digital-2022-global-overview-report>

Kumar, Vikas & Nanda, Pooja. (2018). Social Media in Higher Education: A Framework for Continuous Engagement. International Journal of Information and Communication Technology Education. 15. 10.4018/IJICTE.2019010108.

Manning, J. (2014.) Social media, definition and classes of. In K. Harvey (Ed.), Encyclopedia of social media and politics (pp. 1158-1162). Thousand Oaks, CA: Sage.

Manning, J. (2016). Social media. In J. C. Nash (Ed.), Macmillan interdisciplinary handbook: Gender (pp. 271-287). Farmington Hills, MI: Macmillan.

Mbatha, B. (2014). Global transition in higher education: From the traditional model of learning to a new socially mediated model.

The International Review of Research in Open and Distance Learning, 15(3), 257–274.

McCarroll, N.; Curran, K. Social networking in education. Int. J. Innov. Digit. Econ. 2013, 4, 1–15.

Moran, Mike & Seaman, Jeff & Tinti-Kane, Hester. (2011). *Teaching, Learning, and Sharing: How Today's Higher Education Faculty Use Social Media*. Boston, MA: Pearson Learning Solutions and Babson Survey Research Group.

Ortiz-Ospina, E. (2019) 'The rise of social media'. *Our World in Data*. <https://ourworldindata.org/rise-of-social-media>

Papademetriou, Christos & Anastasiadou, Sofia & Konteos, George & Papalexandris, Stylianos. (2022). COVID-19 Pandemic: The Impact of the Social Media Technology on Higher Education. Education Sciences. 12. 261. 10.3390/educsci12040261.

Paul, J.A.; Baker, H.M.; Cochran, J.D. Effect of Online Social Networking on Student Academic Performance. Computers in Human Behavior. 28. 2117–2127. 10.1016/j.chb.2012.06.016.

Petrosyan, A. (2023) 'Worldwide digital population 2023'. *Statista*. <https://www.statista.com/statistics/617136/digital-population-worldwide/> 24/03/23

Puigvert, L., Villarejo-Carballido, B., Gairal-Casadó, R., Gómez, A., Cañaveras, P., & Martí, T. S. (2022). An Instagram Hashtag Fostering Science Education of Vulnerable Groups during the Pandemic. International journal of environmental research and public health, 19(4), 1974. <https://doi.org/10.3390/ijerph19041974>

Richter, F. (2022) 'Zoom consolidates pandemic gains'. *Statista*. May 30, 2022. <https://www.statista.com/chart/21906/zoom-revenue/>

Schlenkrich, L., & Sewry, D. (2012). Factors for successful use of social networking sites in higher education. South African Computer Journal, 49, 12–24.

Selwyn, N. Social Media in Higher Education. *Eur. World Learn.* 2012, 1, 1–10. Available online: <http://sites.jmu.edu/flippEDout/files/2013/04/sample-essay-selwyn.pdf> (accessed on 20 February 2022).

Sobaih, A.E.E.; Moustafa, M.A.; Ghandforoush, P.; Khan, M. To use or not to use? Social media in higher education in developing countries. *Comput. Hum. Behav.* 2016, 58, 296–305. 10.1016/j.chb.2016.01.002.

Social Media Research Group (2016) *Using social media for social research: An introduction*. Government Social Research (GSR)

Sundarasan, Sheela & Chinna, Karuthan & Kamaludin, Kamilah & Nurunnabi, Mohammad & Baloch, Gul & Khoshaim, Heba & Hossain, Syed & Sukayt, Areej. (2020). Psychological Impact of COVID-19 and Lockdown among University Students in Malaysia: Implications and Policy Recommendations. *International Journal of Environmental Research and Public Health*. 17. 6206. 10.3390/ijerph17176206.

Tsao, S., Chen, H., Tisseverasinghe, T., Yang, Y., Li, L., and Butt, Z. (2021) ‘What social media told us in the time of COVID-19: a scoping review’, *The LANCET*. 3(3) E175-194.

Tudor, C. The Impact of the COVID-19 Pandemic on the Global Web and Video Conferencing SaaS Market. *Electronics* 2022, 11, 2633. <https://doi.org/10.3390/electronics11162633>

Tur, G. and Marín, V.I. (2015), “Enhancing learning with the social media: student teachers’ perceptions on Twitter in a debate activity”, *New Approaches in Educational Research*, Vol. 4 No. 1, pp. 46-53. 10.7821/naer.2015.1.102.

Vandeyar, T. (2020) ‘The academic turn: Social media in higher education’. *Education and Information Technologies*. 25: 5617-5635.

Vital, Lourdes & Zamora Antuñano, Marco Antonio & Cruz, Miguel & Rodriguez, Juvenal & fuentes, fabiola & Paredes-García, Wilfrido & Rodriguez Resendiz, Hugo & marisela, & García-

García, Raul. (2022). The Impacts of COVID-19 on Technological and Polytechnic University Students in Mexico. Challenges in Sustainability. 14. 10.3390/su14106087.

Zincir, O. (2017) Knowledge workers' social media usage as a personal knowledge management tool. In Harnessing Social Media as a Knowledge Management Tool; Chugh, R., Ed.; IGI Global: Hershey, PA, USA, 2017; pp. 108–124.