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Social Media for Scholarly Communication in Central Asia and Its Neighbouring Countries

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ABSTRACT

The current digital era has led to a surge in the use of Social Media in academia. Worldwide connectivity has brought to the fore a scarce participation of Central Asia and adjoining regions in scientific discussions. Global perspectives in science may not be recorded due to such communication disparities. An equal representation of all ethnic groups is essential to have a rounded picture of the topic at hand. The extent of use of social media platforms in various regions is determined by social, economic, religious, political, cultural and ethnic factors, which may limit participation. The paper aims to examine the use of social media by academicians in the Central Asian countries, China and Mongolia. It also focusses on the linguistic skills of the Central Asian, Chinese and Mongolian population and their eagerness to be involved in global discussions. Understanding the factors limiting participation from specific regions is the first step in this direction.

Keywords: Social Media; Language; Internet Access; Central Asia; Access to Information

Introduction

The 21st century, also known as the Information Age, where unprecedented advancements in technology have been observed and recorded.¹ In this era, technology has been harnessed by sundry of people, from toddlers to the geriatric population.^{2,3} A large proportion of the population has moved to use of the Internet due to the evolution of smartphones.⁴ The Internet has eased access to information relevant to academia, business, politics and entertainment.⁵ Moreover, wider connectivity has made socialising more convenient, thus reducing the distance between people to the click of a button.⁶ Additionally, the coronavirus disease 2019 (COVID-19) pandemic has shifted maximum scientific communications to social media.^{7,8} Physicians have shifted to the use of social media platforms (SMPs) to carry out virtual consultations, facilitating continuity of care in the pandemic.⁹

In such transformative times, most countries around the world have rather lenient rules when it comes to social media use.^{6,10} However, due to the lack of supervision, the information on the Internet especially that information being circulated on SMPs has the tendency to be inaccurate and biased.¹¹ Therefore, it is wearisome to find authentic and dependable data from a single source.

While most of the developed nations have liberal access to SMPs and the Internet, contrastingly, some nations have monitored and regulated their use.¹² Inevitably, the information available becomes biased due to various religious, political or cultural reasons.¹¹ This may inhibit the exposure and opportunities available to the population of such countries, evidently so in the Middle-East. Recently, the access to SMPs has become easier in such countries, due to improved technology and awareness.¹³

The social media practices and policies in Central Asia, Mongolia and China are poorly understood. Possibly due to cultural, religious and political factors, the Central Asian scientific community is devoid of seamless access to the Internet and thus, remain absent from scientific discussions. This inevitably keeps them from representing their nation on a global level and contribute to advancements worldwide.

Language differences are another major impediment to participation of citizens of these countries in global scientific discussions. The academic curriculum is heavily reliant on local languages for medium of instruction thus, the students are less fluent in English which is popularly used for scholarly communication worldwide.¹⁴ Thus, there exists a deep chasm between the Anglophone and Non-Anglophone countries, more so in Central Asia and adjoining regions.¹⁵

The COVID-19 pandemic has coerced the world to shift online. The wider use of social media for academic discussion and post-publication promotions among scientists worldwide has led the digital platforms to assume an ever-expanding role in science.¹⁶ Understanding the factors limiting participation from specific regions is the first step in improving online presence and enhancing participation for a rich scientific experience through greater information exchange. This paper aims to examine the social media use and practices in a large region encompassing Central Asia and the adjoining countries, which together constitute a large user base of the worldwide web. Additionally, we propose solutions that may possibly bridge this chasm in scientific communication.

Social Media in Academia

SMPs are used in academia to communicate real time events like conferences or to collect, publish and disseminate scientific information.¹⁷ Altmetrics function as indicators of reach and influence of a particular social media presence.¹⁸ Thus, the influence can be monitored, studied and improved to improve results and reach.¹⁸ Although the use of Facebook is prevalent in certain scientific communities, it has a greater foothold in social communication with family and friends than for academic exchange.^{19,20} On the other hand, Twitter is the torch bearer for academic communication, with a large presence of academic users on the platform.¹⁷ Twitter and science blogs are considered efficient platforms to connect among researchers.¹⁹ Inherent to its nature of a microblogging platform, Twitter may be perceived as time consuming for network building and frivolous. However, the undisputed diversity and influence of the platform has led to wider use for building a professional profile, networking, communication, and dissemination of ideas and opinions.^{17,21} Recently, much importance has been ascribed to social media strategies and handles of various academic journals have assumed greater importance to cater to online readership.²²⁻²⁵ Mendeley, Academia.com and ResearchGate are also used by the scientific community but sparingly in comparison to other SMPs.¹⁹

The use of infographics for public health advisories, newer and ever evolving guidelines in the pandemic period, rapid and wider dissemination of information, and post-publication promotion of published medical literature on social media is the new normal, with greater advancement into a digital era of medicine which has been furthered by the social distancing norms due to COVID-19.^{26,27} An increased connectivity has led to movement such as Plan S and the Open Access Initiative, which are working towards making scientific literature widely and immediately available at zero costs to the readers to match the demands of the scientific community.²⁸ The Sarajevo Declaration has promulgated guidelines to improve of the quality of the scientific literature in the Mediterranean and Balkan regions.²⁹ Similarly, the absence of Central Asia and adjoining regions from scholarly discussions must be identified and improved.

Central Asia ranges from Caspian Sea in the east to Mongolia and China in the west and Afghanistan and Iran in the South to Russia in the North. This includes the nations of Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan and Uzbekistan. In this opinion piece the authors explore the use of social media in Central Asia, China and Mongolia, which together constitute a large potential user base of digital platforms.

China

According to the China Internet Network Information Centre Reports of 2020, 817 million Chinese netizens are active users of the Internet and mobile phones.³⁰ The popular SMPs like Facebook, Twitter and YouTube are inaccessible to them. Hence, they use SMPs developed by local organisations. WeChat, QQ, Weixin and Sina Weibo are popular SMPs that have a user interface catering to the habits and culture of its Chinese users.^{31,32} WeChat is the most popular SMP of which 90% are academic scholars.^{33,34} However, the medical content on this platform is touted to be concerning, due to frequent publication by unprofessional public accounts, lack of homogeneity and high frequency of advertisements.³⁵ Therefore, improvements have been suggested before its use can be expanded for research or clinical services. Qzone is a Facebook analogue having a significant user base along with Kaixin and Renren.³¹ Contrary to popular belief, these local platforms perform in a competitive and quickly changing market.³¹

Academically, educational institutes are nonchalant. Their social media presence is used for announcements, publications, language learning tools and comprehensive information relevant to the nation.³¹ The English language being a second language in most educational institutes, is not a deterrent for China.³⁶ The various SMPs are designed for group chats, discussions and sharing of information. Researchers study the society and its behaviours and use the SMPs to promote published articles.³³ Altmetrics research has also been on the forefront.³³ The social media presence of the Chinese netizens is also different from the rest of the world as they are actively involved in creating and sharing content contrary to the western culture of extracting relevant information.³⁶ However, age and education do play in role in social media presence. The Chinese youth opine that SMPs provide a casual, interactive platform and are not designed to sufficient exacting information regarding their topic and therefore, the singular use of SMPs is ineffective.³³ The master's and doctoral students do use the Internet for academic purposes in the library, but the role of a librarian is pivotal in exposing the students to the educational benefits of the Internet.³⁷ Moreover, SMPs are accessed by the young population as a break from work and therefore work-related content doesn't gain much traction.³³ Contrastingly, the medical professionals trust social media and use it for professional purposes.³⁸ They trust traditional media and professional journals and use SMPs for post-publication promotion and popularization. It has also been observed to build a better patient-physician relationship.³⁹

The Chinese started the Golden Shield Project in 2008 which prevents the sharing of information that may cause national security threat.⁴⁰ The rigid internet censorship in China has earned its name to be “The Great Firewall of China.” Moreover, The Chinese's preference for local platforms has limited presence of scholars on the platforms with global popularity. Thus, many academics do not participate in, or publish scientific content on platforms that are used by most other countries.

Mongolia

As of 2015, 1.3 million (47%) Mongolians had access to the Internet.⁴¹ The access to Internet is determined by a large array of factors including the regional background, the socio-economic status, the literacy status and, finally, self-motivation. The migration of the youth from rural to urban setting is common. In Ulaanbaatar, the capital of Mongolia, free wireless Internet is provided to the dormitory residents of University.⁴² The lack of space in the dormitories is a disadvantage for the rural students not accommodated in the dormitories. Teachers responsible for higher secondary education, use Facebook and YouTube to complement their teaching.⁴² For quick contact with their students and dissemination of information teachers popularly use Facebook. Thus, students living in private accommodation with fluctuating Internet access in difficult terrains are at a major disadvantage.

The widespread use of the English language on SMPs places the Non-Anglophone countries like Mongolia at an inherent disadvantage.⁴³ The use of the English language saw a significant change after the shift of the Mongolian political structure, from a socialist to a democratic regime, with fewer English teacher, more so in the rural areas, causing disparity in the access to English instruction for rural dwellers.⁴¹

However, the English language has crept its way into the Mongolian culture.⁴² The strife to perfect their English language is prevalent in the youth as they are of the belief that their English-speaking skills will provide them with better academic and career opportunities.⁴¹ Mongolian physicians and doctors easily adopt health policies which promote computer skills and English language among doctors.⁴⁴ SMPs witness the codeswitching of the two languages which is sometimes viewed as an abandonment of one's own culture by the conservative elements of society.⁴⁵

Afghanistan

The number of Internet users in the Afghanistan is difficult to estimate due to the irregular use of Internet service providers. In some regions, overestimation of Internet users is possible due to the expatriate population. The irregular use may be accounted for by the common practice of sharing of a single Internet service provider by multiple individuals.⁴⁶ Also, the sky-high costs of laptops, mobile phones and desktops keeps many people from investing in InfoTech. Thus, cybercafés are a convenient, inexpensive and commonly used in Afghanistan.⁴⁶ This makes it onerous to make an accurate estimation of Internet users in Afghanistan.

However, social media is used by students for academic purposes. Social media gains foothold in academic discussion portals, revision templates, and for access to visual and audio education tools to improve students' knowledge on topics of interest. Social media is also used to reach teachers and improve communication.⁴⁷ Facebook is the most widely used SMP in Afghanistan and most adjoining countries.⁴⁸ SMPs are also used by the people for communication, political participation, social trust and civic engagement.⁴⁷

The English language was introduced to the people of Afghanistan after the Taliban rule. After the change in political structure, students were encouraged to learn and master the English language due to its ubiquitous nature. Children are taught English from the fourth grade according to the 2011 curriculum.⁴⁹ Some students also take courses after high school and during university. The US Embassy and the British council in Kabul, are a large English presence. Many initiatives like the English Access Micro-scholarship Program, E-teacher Scholarship Program, Afghanistan-Pakistan English Teacher Exchange Program and the English Language Specialist are being carried out by the US Embassy at Kabul.⁴⁹

Iran

Dismally low Internet speeds were recorded in Iran in the past. Good Internet connection was a privilege, and most people used dial ups until 2012. As many as 1,600 private Internet service providers have been licensed by the Iranian Ministry of Communication and Information Technology, as of August 2013.⁵⁰ Conditions have improved since then.⁵⁰ As many as twenty million people use the Internet on a daily basis, with the relatively younger population contributing the maximum.⁵¹ Facebook, Myspace, Google+ are common SMPs along with Balatarin and Cloob being popular local ones. Blogging has become rather popular in Iran due to low costs and user flexibility.⁵¹ Facebook is the most popular among these and attracts academicians as well.^{50,52}

Facebook is primarily used by the youth to increase their knowledge about scientific topics and global literature.⁵³ The academic use of Facebook is very high, to exchange views and share multimedia.⁵⁴ Facebook also provides an equal platform for men and women, by having equal representation of both.⁵⁰ However, beliefs that the Western culture may lead the youth of the country astray and against the ideologies of the republic led to a ban on its use throughout the country, and any use of Facebook is considered defiant behaviour.⁵⁰

Moreover, the penetration of English in the Iranian society is limited. The financial budgets for tourism are limited, and contact with the Western countries is scarce, serving as a major impediment to exposure to the English Language in the population, further limiting academic engagement with other countries.⁵⁵

Kazakhstan

Reports suggest 2.1 million citizens of Kazakhstan use a fixed Internet connection. A rise in Internet use noted after the introduction of 3G, and subsequently 4G connectivity. Kazaktelekom, an Internet service provider is run majorly by the government.⁵⁶ V Kontakte.ru, Urimtal, Blogbasta.kz and Odnoklassniki.ru are the popularly used SMPs in Kazakhstan with 4.5 million registered users.⁵² However, Facebook and Twitter are used by a handful of citizens in the region. Twitter is viewed as a platform for maintaining social connections and for promotion of oneself, with the general population as well as celebrities and political leaders maintaining an inactive status on the platform.⁵⁶ Facebook is more actively used and updated with a better presence of celebrities and political leaders. Blogbasta, is a new platform for entries and comments on the current political, social, cultural and economic trend. Blogbasta largely caters to the youth of the country, with Russian being the prime language due to the influence of adjoining Russian culture on Kazakhstan.⁵⁷

Scholars in Kazakhstan have identified the need for a change in a healthcare system. The updating of the healthcare system based on the Alma-Ata Declaration in 1978, to a technologically able healthcare system, is being considered by the Kazakhs. The “Health-City”,

a new project taken up by in Kazakhstan, is a private, community-based and standardised primary health care system that is being driven by the SmartHealth innovative technology.⁵⁸

A strict censorship of SMPs in Kazakhstan in the past has given way to current practice of sharing apolitical information on the Internet, largely in sync with the policies adopted by neighbouring countries in Central Asia.⁵⁶

The Kazakh youth exhibit a perspicuous desire to learn the English by various means, including use of SMPs and entertainment channels in English.⁵⁹ The motivation for learning the language is largely due to its ubiquitous use, opening the channels of communication with the rest of the world, which is oftentimes considered a prerequisite to provide greater opportunities and earn a better living. Bolashak a presidential scholarship programme is a pathbreaking avenue for access to English. Besides, codeswitching is prevalent in the Kazakh cyber population.⁵⁹

The exposure of Kazakh researchers to scholarly articles in English have been limited even though they complete their theses and academic degrees in English.⁶⁰ Poor English writing skills and absence of local or regional indexed periodicals compels them to submit their articles to Russian journals which have better presence on an international platform.⁶¹ A large number of 'predatory' journals unfortunately record the largest number of articles from Kazakhstan.⁶⁰ Publishing in low-quality English journals following questionable editorial policies, poor quality control and commercialised processing of submissions facilitates 'fast' publication threatening the growth of the scientific community in Kazakhstan. Almaty and Astana record the most indexed articles.⁶⁰ Scopus tracks about 46 leading academic and research institutes in Kazakhstan.⁶⁰ The country, Kazakhstan records the highest number of scientific articles and medical literature in Central Asia. This was most evident after the Law of Science was adopted in 2011.⁶¹ This is assumed to be an effect of the new regulations requiring a PhD student to publish at least one article in a non-zero impact factor journal included in the Web of Science (Clarivate Analytics) or in a journal cited in the Scopus database.⁶⁰

However, the researchers still face problems as they seldom refer to scientific literature for research and clinical practice and are a novice at writing and editing skills making it easier for their papers to be regarded as unsatisfactory.⁶¹ Editing courses and expert guidance will reduce the number of retractions and delisting that the articles from Kazakhstan face.

Kyrgyzstan

Kyrgyzstan records the second highest Internet use after Kazakhstan, in Central Asia.⁶² Despite the leniency of the Kyrgyzstan government the use of social media in the nation is less as the freedom of the Internet is fast reducing.⁶² Approximately 2.1 million Internet users were recorded in 2017 in Kyrgyzstan.⁵⁶ However for news and as a source of information radio and television are preferred by the adult locals whereas the youth preferred the Internet.^{63,64} Russian SMPs like Moimir, Odnoklassniki and VKontakte are popular in Kyrgyzstan and of the Western SMPs Facebook is the most popular.⁶⁴ New digital platforms are being developed to support the development of social media in the Kyrgyz nation like the eltor.kg system.⁶⁵

A survey among the educated youth of the nation showed that the social media dependence is rising among them.⁶⁴ WhatsApp and Facebook are the popular social media attractions and are sources of entertainment and tools for socialising.⁶⁴ The academic and career oriented use of social media was seen to be rather shunted. The use of SMPs was determined by computer access and the Internet connection quality in the home of the youth.⁶⁶

Tajikistan

According to the Internet stats of Tajikistan from 2018, 3 million people are Internet users and there is a 31.6% penetration in the country.⁶⁷ Tajikistan is home to various multi-ethnic groups. Russians, Germans, Tajiks, Uzbeks and Kyrgyz live together harmoniously.⁶⁸ The law states that Tajik is the official language of the country, Badakhshan and Yagnob being the other official languages of the country.⁶⁹ Tajik, Russian and Uzbek languages are used for instruction in schools, apart from Turkmen and Kyrgyz education, which is limited to some institutions.⁶⁸

A majority of the Tajiks migrate to Russia for alternative employment, lending great utility to learning Russian among the youth.⁶⁹ Due to the mixed culture, and wide variety of languages prevailing in the region, the use of English is rare in Tajikistan. Learning English in educational institutions is limited, isolating the Tajik population from the rest of the world. The use of SMPs is also limited in the region, reducing contact with the rest of the world. Furthering this effect, a sudden ban on Facebook in 2012 severed communication with the other regions further due to sudden inaccessibility as compared with occasional censorship in the past.⁷⁰

Turkmenistan

The government of Turkmenistan exercises complete jurisdiction over the SMPs used in the country.⁷¹ Facebook and WhatsApp are banned and a SMP called Bizbarde is used instead.⁷¹ YouTube is the most commonly used SMP.⁷²

The use of English is scarce in Turkmenistan. Turkmen is the official medium of instruction and is used on SMPs as well.⁷¹ Other Central Asian languages like Uzbek and Azerbaijani are also used.

Uzbekistan

After the division of The Soviet Nation, Uzbekistan has seen a steep fall in its contribution to the world research literature.⁷³ The nation is largely populated with Russian speaking individuals. The use of Uzbek language is very rare. Even the political leaders speak in Russian. However, along with the rest of the post-soviet nations, Uzbekistan too is reviving their language and culture.⁷⁴ Uzbekistan is known to be the enemy of the Internet along with Turkmenistan and Kazakhstan due to their rigidity with the permitted access to the Internet.⁷⁵ The inaccessibility to English articles and sources of information has wiped Uzbekistan off the science research platform of the world.⁷³

Comparisons between the Userbase and Preferences for SMPs in the Various Central asian and Adjoining Regions

Although the large geographic territory in the regions studied amount to a large potential user base, Internet usership is sparse in Central Asia, China and Mongolia. The SMPs preferred also tend to vary from country to country- with the Chinese scholars resorting exclusively to the use of local SMPs (**Fig. 1**), greater local SMPs in Iran and Kazakhstan, and limited preference for use of global platforms in the other Central Asian countries. As evident in **Figs. 1** and **2**, the SMPs used and the various platforms banned in the different regions are remarkably different.

Prohibited social media platforms in Central Asia

■ 900 million users ■ 1.3 million users ■ 7.3 million users ■ 20 million users ■ 14.6 million users ■ 2.4 million users ■ 3.0 million users ■ 1.2 million users ■ 17 million users

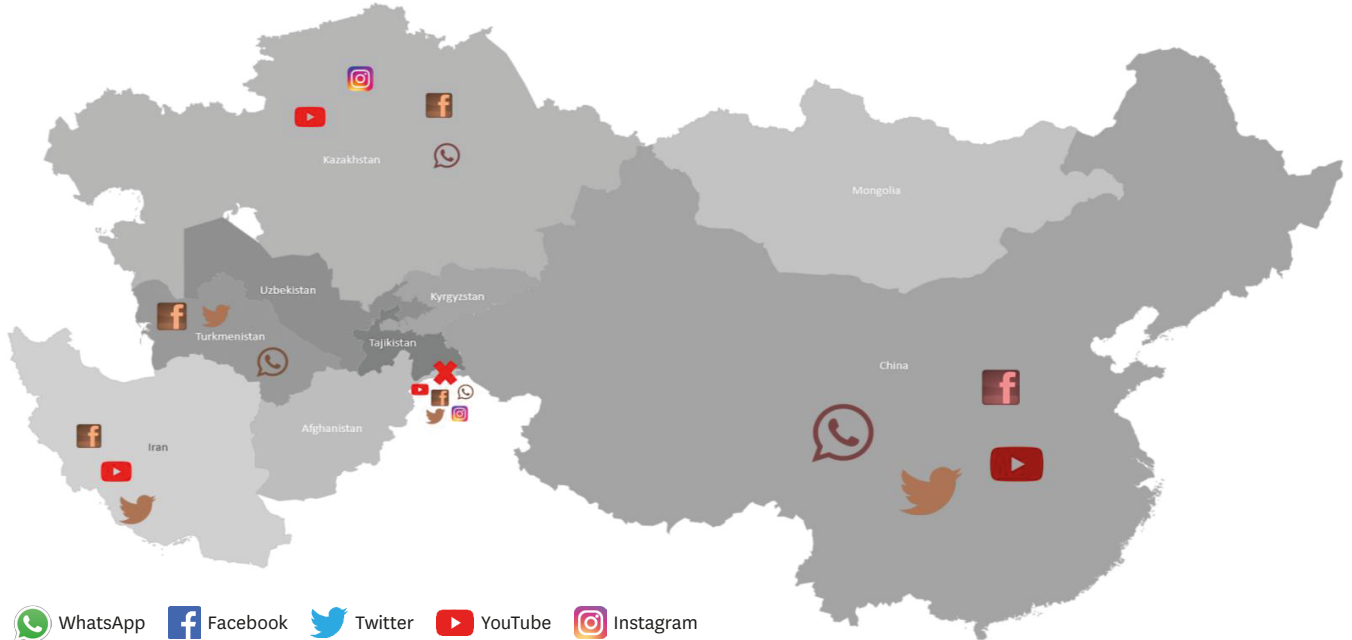


Fig. 1. Platforms with prohibited usage in the region. Disclaimer: The information in these figures is subject to change based on internet access and changing Government policies.

Use of social media platforms Central Asia

■ 900 million users ■ 1.3 million users ■ 7.3 million users ■ 20 million users ■ 14.6 million users ■ 2.4 million users ■ 3.0 million users ■ 1.2 million users ■ 17 million users



Fig. 2. Population user base for Internet usage, and the preferred social media platforms in Central Asia and adjoining regions. Disclaimer: The information in these figures is subject to change based on internet access and changing Government policies.

Translation Tools Bridging the Gap between Anglophone and Non-anglophone Countries

The Non-Anglophone Central Asian countries have very little access to English instruction with wider use of local languages, in accordance with their culture. However, this has translated into stunted scientific access of the young population, and reducing their exposure to western literature. Some central Asian countries, like Iran do practice translation in various field to access more information, however, the use of human instead of machine translators has various pitfalls.⁷⁶

This linguistic gap can be bridged by a wider use of translation tools such as Google Translate, Citcat, Babel Fish and Bing Translator.⁷⁷ Google Translate is a very reliable machine translating tool and has recently been tested to translate a comparative bag of words, machine translated using the Linear Discriminant Analysis algorithm and a gold standard topic model.⁷⁸ Undergraduate students of various ethnic backgrounds, unfamiliar with the English language find it convenient, easy and fast to use machine translating tools.⁷⁷ Machine translating tools are now catering to ethnic languages as well as this could bridge the language divide prevalent in various parts of the world.⁷⁹

Implications and Benefits of SMP Use in Central Asia

Many scholars of Central Asia advocate the use of social media, especially mobile media as they have witnessed its benefits. They find it useful in connecting with the global community of scholars and audience, finding diverse sources of information and cross-checking information. However, they face difficulties in protecting their privacy and working around prevailing regulations to access the global social media scientific community.⁸⁰

Liberal and improved presence of the Central Asian nations in scientific discussions improves their representation on the global stage and lends a well-rounded perspective. Transparency of the Internet may improve the compliance of Internet users.⁸¹ While the use of SMPs is fraught with confirmation biases due to the inherent nature of the algorithms in place, providing the opportunity to access information is vital to a wider connection, influx of new knowledge, shaping perspectives, information exchange, and mutual growth. A wider user base holds potential to add to the global database of information, more so from the lesser connected regions of the world. Thus, the presence of Central Asian SMP is the need of the hour. In the post-soviet era, the use of the Internet has significantly improved, especially in Kazakhstan and Uzbekistan.⁸²

Post-publication communication may strengthen ties of specialists in Central Asia and Asia Pacific and improve the cohort for further studies and give a broader view on various matters of health and otherwise. With the ongoing COVID-19 pandemic, learning and research has largely moved online. In such times, SMPs hold greater promise in building functional online networks for clinicians, researchers and allied health professionals, aiding those who are isolated from face to face activities.

The utility of SMPs extends beyond academia to patient care, with a large presence of certain sections of the society (including patients) on the cyberspace.⁸³ Patient support groups can offer access to credible information for patients, including reading material, infographics, and

videos to aid medical care, and ancillary advice such as diet, nutrition, physical therapy and self-motivation to those suffering from chronic ailments.⁸⁴ While recent times have seen a surge in misinformation, close censorship may limit the spread of incorrect data and reduce potential for harm.^{80,85} During the COVID-19 pandemic, SMPs have assumed a larger role in providing access to the patient population, and understanding about their concerns and preferences.⁸⁶⁻⁸⁸ SMPs are also being advocated by the professional societies to improve clinical practice and a global connectivity to allow the best available care to be given to any patient.⁸⁸

Conclusion

Use of social media in Central Asia is sparse and the preferred platforms are varied. The SMPs commonly used all over the world are not commonly used in this region, therefore global connectivity is limited and information obtained and perspectives shaped may differ based on the prevalent platforms in the local region. Therefore, these countries do not significantly contribute to the scientific field. The absence of their Internet presence inevitably leads to these countries being overlooked in a global perspective. Some nations in Central Asia do have access to popular social media. However, the rare use of English as compared to their local languages and the lack of exposure limits their use of SoMe. To bridge this language gap, it is essential to improve their access and promote early exposure to the English language as a formal medium of instruction.

Especially, during COVID-19, SMPs are being used rampantly for various research studies. SoMe priorities differ from country to country; SoMe editors should take into account for effective promotion via different SoMe channels. A global representation of various topics will ensure a rounded view on the subject and help the scientific community progress effectively.

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