



Research article

Cultural persistence and change in university students' social networking motives and problematic use

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A B S T R A C T

This cross-cultural study assessed the problematic use and motivations of social networking sites (SNS) among university students in China, Malawi, and the UK. A sample of 975 students completed the 10-item WeChat Excessive Use Scale and 20-item measure of SNS motivations across friendship, convenience, social support, information, and entertainment dimensions. Results showed that SNS problematic use was significantly lower in the individualistic UK compared to collectivistic China and Malawi. Critical cultural differences also emerged in usage motivations. Chinese and Malawian youth scored higher on social motivations like friendship and support compared to the UK. However, the entertainment motive was associated with the problematic use of SNS across all groups, reflecting the globalised digital culture. While Malawi's collectivism ordinarily emphasises social cohesion, this sample showed weaker associations between problematic SNS use and social support motivations. Material constraints limiting access may reduce online social reliance compared to China. Findings reveal both persisting and evolving cultural dynamics as new technologies spread globally. Uses and gratification theory helps explain these nuances. Ultimately, universal and culturally specific facets of social networking motivations must be considered in addressing the global problematic use of social media.

1. Introduction

Social networking sites (SNSs) are virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests [1]. Social networking sites (SNS) problematic use and addiction is a relatively new phenomenon emerging after the existence of social networking sites. SNS addiction is broadly described as persistent and recurrent use of social networking sites, often leading to declining daily work and education activities [1]. Social networking sites allow users to create public profiles, interact with real-life connections, and connect with others sharing similar interests [1]. As these platforms have increased, so have concerns about potential addiction and excessive use [2]. SNS addiction involves persistent, recurrent use of these sites, leading to impairments in daily functioning and work/education activities [1]. Like substance addictions, SNS addiction manifests via mood modification, salience, tolerance, withdrawal, conflict, and relapse [3]. On the other hand, problematic use is when someone fulfils three of six of these components. Theorists posit that such problematic use arises from maladaptive cognitions, preferences for online interactions, and positive outcome expectations [4]. Biopsychosocial factors underlie this phenomenon, as with other behavioural addictions [5].

Despite growing research, cross-cultural comparisons of SNS problematic use remain limited. Problematic use manifestations may differ internationally, necessitating contextualised understanding [6]. Some scholars posit social networking addiction as a global phenomenon, given that problematic and addictive use components hold cross-culturally [7]. However, cultural differences in motivations may mediate addictive tendencies. This study responds to calls for cross-national research by comparing problematic SNS use

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and motivations between China, Malawi, and the UK. Thus, the study aimed to assess and compare the social networking sites (SNS) problematic use and motivations between university students in the collectivistic cultures of China and Malawi and the more individualistic culture of the UK.

1.1. Social networking problematic use

Studies among university students, who tend to be frequent social media users, reveal high rates of addictive social networking behaviour in Africa, with prevalence estimates ranging from 8 % in Ethiopia [8] to 1.3 % in Nigeria [9]. Afolabi et al. [10] reported a prevalence of 49.7 % among Nigerian undergraduates. In Ghana, a study by Otu [11] found that 1.8 % of university students were severely addicted, linking this to loneliness, shyness, neuroticism and low self-esteem. Similar correlates were observed in Kenya, where 4.3 % of students met the criteria for severe addiction [12].

In China, estimates indicate that 6.3 % of adolescents exhibit symptoms of social networking addiction, with males more at risk [13]. A study of high school students found addiction levels as high as 34.9 %, attributing this to poor self-control, lack of social activities and influence of peers [14]. Prevalence is notably higher among Chinese youth in urban areas compared to rural regions [15]. UK-based studies report lower rates, with estimates indicating that up to 5.2 % of adolescents are addicted to social networking [16]. Female youth are identified to be at higher risk, possibly due to more significant mobile usage [7].

Problematic SNS use has consistently been linked with poor academic achievement across studies from Africa [17], China [14,15] and the UK [18]. This outcome has been associated with distractions, reduced studying hours and disrupted sleep schedules due to excessive online activity. Mental health impacts like depression, anxiety and stress are also correlated across these regions [19–21]. Social isolation appears to mediate, as those addicted have smaller offline social circles. Other common correlates are physical health effects like headaches, eye strain, and poor sleep quality [22].

The ubiquity of internet-enabled mobile devices has been identified as a critical determinant of addictive social networking across studies, particularly in China and the UK [7]. Personality traits like neuroticism increase susceptibility to addiction globally [20,23,24], as do poor self-control [25] and low self-esteem [20]. In Africa and China, social factors like peer influence and the need for social assurance are also strong predictors, especially among college students [14,17]. Family dynamics also play a role, with parental neglect linked to a greater risk of addiction [26].

1.2. Cultural differences in motives for social networking

The motives behind social networking site usage vary across cultural contexts. In collectivist cultures like China and Africa, social influences and needs for belongingness strongly motivate engagement with social networking platforms. Chinese youth emphasise using social media to connect with peers, seek social assurance and reinforce in-group ties [26,27]. Social networking is integral to Chinese adolescents' identity formation and socialisation [28]. Similarly, African studies reveal that social media usage is driven by youth's desires for social connections, belonging, and communalism [29,30]. Platforms like Facebook allow for forging new relationships and maintaining existing ones [31]. However, in individualistic societies like the UK, the social drivers of networking differ. While connecting with friends remains important, motivations like self-presentation and self-expression tend to be more individually focused [32,33]. Social media provides platforms for UK youth to build their self-image and share their views [34]. These individualistic cultural orientations are reflected in usage motives.

Power distance also influences youth experiences with social networking across cultures. In China's high power distance culture, social media is used to follow opinion leaders, celebrities and influencers [26,27]. Young users are motivated by aspirations for status and trendiness, consuming content shared by influential public figures [28]. Similarly, research shows that African youth use platforms like Twitter and Instagram to track high-status individuals from sports, politics and entertainment [29,35]. However, social media motivations are more peer-oriented in the UK's lower power distance environment. UK youth view platforms as equalisers, using them predominantly to interact with friends [32,33]; thus, networking motivations centre on peer connections and information-sharing.

Usage for academic purposes is another culturally varying motivation, with the prevalence highest among Asian youth. Chinese students report using social media to share educational resources, collaborate with peers, and interact with teachers [27,36]. In Africa, students similarly leverage platforms to exchange academic information, though to a lesser degree [31]. However, in the UK, educational motives could be more robust, with social drivers taking precedence among youth [33]. Entertainment motivations also differ cross-culturally. Chinese and African youth highlight using social media for entertainment and passing time [27], which can foster addictive usage patterns [34]. However, UK studies reveal weaker entertainment motivations, with youth prioritising socialising and self-expression [32].

Finally, cultural values related to communication styles shape social media motivations. Due to collectivist norms discouraging conflict, Chinese youth adopt more indirect, non-confrontational approaches on social platforms [28]. In contrast, UK youth share opinions and beliefs more directly, reflecting individualistic cultures encouraging open self-expression [32]. African studies reveal a mix of direct and indirect communication styles among youth on social media [29].

1.3. Uses and gratifications theory

The uses and gratifications theory was initially conceived by Elihu Katz, Jay Blumler, and Michael Gurevitch in the 1970s [37] to understand people's motives for engaging with media and the gratifications derived from use. It marked a shift from passive to active audience conceptions. The theory suggests the audience actively selects and utilises media platforms like social networking sites to

fulfil individual needs and goals, ranging from information acquisition to socialising to entertainment. As mass communication technologies have rapidly advanced, contemporary researchers have adapted and expanded the uses and gratifications framework to examine motivations behind people's dynamic social media engagement and participatory culture across devices and demographics. For instance, scholars highlight key social and process motivations underpinning networking, such as relationship maintenance, content sharing, self-presentation, and passing the time [38]. The theory continues evolving to explain new media behaviours and effects like social networking site addiction amidst proliferating choices.

For instance, studies of Asian youth grounded in uses and gratifications highlight relationship-building, social assurance, information exchange, peer connection and status-seeking as prevailing motivations reflecting the region's predominantly collectivist, higher power distance cultures [28,39]. The emphasis on in-group harmony and conformity encourages networking for social affirmation and belonging. However, African youth showcase similar collectivistic drivers, using social technologies to foster communal ties and exchange informational resources, aligning with enduring cultural traditions [30]. Friendship maintenance transcends geography. By contrast, Western research reveals stronger motivations for self-presentation and self-expression that fit with individualistic cultures that value autonomy [34]. Social media provides channels for constructing personal identity and sharing beliefs. Drivers around entertainment and process gratifications like convenience and efficiency also emerge across Western samples, reflecting values of recreation and pragmatism [40].

Comparing problematics use tendencies based on these motivational differences also proves informative from this multidimensional, cross-national perspective. For example, addiction risks may escalate where social motivations like peer acceptance predominate in collectivist cultures due to mental health implications if belongingness needs become over-reliant on online sources [19]. On the other hand, obsessive self-presentation could indicate disorders in Western contexts [7].

The uses and gratifications theory, emphasising understanding the active and goal-driven ways people utilise media, provides a valuable framework for cross-cultural inquiry into the motivations behind youth social media engagement across diverse settings. By focusing on users' needs, motives, perceived gratifications, and individual differences in usage patterns, researchers can use this approach to analyse both culturally specific and widely shared drivers of networking behaviour. Cross-country comparisons of social networking motivations based on uses and gratifications reveal variations tied to values like individualism-collectivism and power distance while highlighting global similarities centred on fundamental social desires.

2. Methods

2.1. Data collection

The study was conducted in China, Malawi and the UK. Data were collected for 1066 respondents from two university campuses in the East of China in China ($n = 360$), three universities in central and southern regions in Malawi ($n = 327$), and the University of Essex Lab in the UK ($n = 376$). Those who did not complete most parts of the questionnaire ($<80\%$) were excluded from the analyses from China (22/6.4%), Malawi (11/3.4%), and the UK (22/5.6%). We further excluded respondents older than 30 years as this was the age cut-off for the study despite getting older respondents (33 from the UK). The resultant dataset thus had 975 respondents.

2.2. Measures

The study utilised the WeChat Excessive Use Scale, developed by Hou et al. [41], to measure the problematic use of SNS. The scale has ten items rated on a 5-point Likert-type scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often and 5 = Very often). We replaced WeChat with social networking sites (Weibo, WeChat and Xiaonei for China and Twitter and Facebook for Malawi and the UK). The final score can be obtained by summing participants' responses to the ten items ranging from 10 to 50, with higher scores indicative of excessive use of social networking sites. Some questions included: I feel happy and satisfied when I network with friends on Twitter or Facebook, and I can never spend enough time networking with friends on Twitter or Facebook. In this study, the scale's reliability was Cronbach's alpha 0.861 for China, 0.797 for Malawi and 0.866 for the UK. The study also utilised 20 questions on motives for using social networking sites. These questions were adapted from Kim et al. [39]. The questions were rated on a 5-point Likert-type scale. Sample questions included; 'I use social network sites to ...' meet new people, find others like me, talk with people with the same interests, hang out with people I enjoy, use it anytime, anywhere, and use it conveniently. In this study, the scale's reliability was Cronbach's alpha 0.834 for China, 0.839 for Malawi and 0.898 for the UK.

2.3. Data analysis

Data was analysed using descriptive statistics for sample demographics and social media use habits. Regression analysis was used to explore the relationship between social media addiction and motives while taking into account the age and gender of respondents. Associations between motives for social media use and problematic SNS use were further explored by comparing different countries/.

2.4. Ethics statement

The study was conducted with complete adherence to ethical standards expressed in the Declaration of Helsinki. The Human Research Ethics Committee of the University of Science and Technology of China (USTC) approved the study (2015-N(H)-069). For the other countries, permission was sought from relevant authorities in institutions where data were collected. Participants above eighteen

years old who agreed to participate in the study provided written consent.

3. Results and discussion

3.1. Demographics and social networking sites used

Table 1 shows the age and gender distribution for samples from different countries included in the study.

As Table 1 shows, the distribution of participants according to age and gender was similar. In all three countries, there were more females, and the overall mean age was 21 years. This similarity in distribution is essential because it means any differences obtained from the analysis concerning SNS problematic use and motives for using social networking sites would not be attributed to differences in demographic distribution.

Participants in Malawi and the UK were asked to tick all social networking sites they use, including Facebook, Twitter and WhatsApp. Participants in China were asked to choose among Xiaonei, Weibo and WeChat; these were considered similar in functionality to the respective sites in Malawi and the UK (see Table 2).

Table 2 shows that the usage of social networking sites in China is evenly distributed among the three social networking sites. The lowest usage was on Weibo, with 77.5 %, whilst the highest was Xiaonei, with 99.7 %. For Malawi, most participants used Facebook, 91.8 %, and only 26.3 % used Twitter. For the UK, most participants used Facebook 92.8 % and a relatively low percentage 45.8 % used Twitter.

3.2. Difference in SNS problematic use among China, Malawi and the UK

On SNS problematic use, the study found that participants from the UK scored significantly lower than those from China and Malawi. Participants from Malawi scored higher than those from China, although the difference was not statistically significant (see Table 3).

The finding that participants from the UK showed lower levels of social networking addiction than those from China and Malawi warrants further examination. A few factors could explain the lower addiction levels observed in the UK sample. As found by Meng et al. [42], a higher prevalence of digital addiction was found in the Eastern Mediterranean region and low/lower-middle income countries. Additionally, as social networking platforms like Facebook have reached near saturation usage levels in the UK, they may be viewed as more helpful than novelty services in the UK compared to other countries [33]. Prior research also found that individuals from collectivist cultures spent more time using social networking services than individuals from individualistic cultures [28,43]. This aligns with the higher scores in China and Malawi compared to the more individualistic UK.

3.3. Differences in motives for SNS use in China, Malawi and the UK

The study assessed the differences in motives for SNS use across the three countries (see Table 4).

Table 4 shows no significant difference in convenience and entertainment as motives for SNS use across the three countries. For friendship, the difference was significant between the UK and China, whilst that between Malawi and China was insignificant. For information seeking, the difference between Malawi and China was significant, whilst that between the UK and China was insignificant. Interestingly, there was a significant difference in Social Support as a motive for SNS use across the countries, with China scoring higher than Malawi and the UK. This motivation difference highlights how new media transcends traditional cultural boundaries [40]. As emerging economies modernise, entertainment and leisure media use rise, narrowing gaps between cultures [44]. This aligns with research showing that individualistic cultures favour efficiency and pragmatism in social technologies [28].

Friendship and social support motives were higher for China and Malawi than for the UK. This resonates with research showing that social media fulfils belongingness needs in collectivistic cultures [39]. The cultural emphasis on relationships and interdependence promotes online friendship development and support-seeking [28]. As scholars note, social technologies may foster new forms of sociality and belonging across Western youth counter to cultural stereotypes [45]. Social networking reduces barriers to large social networks for collectivistic and individualistic cultures [39], resulting in multidirectional cultural diffusion.

Finally, this finding that Malawi scored higher on information seeking provides another example of how cultural dimensions influence motivations. As previously argued, as a more collectivist, higher power distance society, information in Malawi may be more localised. This limits access to alternative viewpoints. Social media gives Malawian youth rare exposure to global knowledge and

Table 1
Basic demographic characteristics.

Country	N (%)	Mean Age(SD)	Gender n(%)	
			Male	Female
China	338 (34.7 %)	20.5 (1.1)	160 (47.3 %)	178 (52.7 %)
Malawi	316 (32.4 %)	21.1 (3.2)	148 (46.8 %)	168 (53.2 %)
UK	321 (32.9 %)	21.5 (2.8)	135 (42.1 %)	186 (57.9 %)
Total	975 (100.0 %)	21.0 (2.5)	443 (45.4 %)	532 (54.6 %)

SD - Standard Deviation.

Table 2
Distribution of social networking sites used.

	Total-N	Facebook/Xiaonei n(% of total)	Twitter/Weibo	WhatsApp/WeChat
China	338	337(99.7)	262(77.5)	320(94.7)
Malawi	316	290(91.8)	83(26.3)	250(79.1)
UK	321	295(91.9)	147(45.8)	243(75.7)

Table 3
Relationship between SNS Problematic Use and population characteristics and SNS motives.

Variable in model	Beta (95 % CI)	
	Unadjusted ^a	Adjusted ^b
Gender		
Male (Ref)		
Female	1.15 (0.27, 2.04)*	0.79 (0.03, 1.55)*
Country		
China (Ref)		
Malawi	1.38 (0.21, 2.45)*	2.14 (1.19, 3.09)*
UK	-1.45 (-2.52, -0.39)*	0.53 (-0.46, 1.52)
Age		
Age	-0.20 (-0.38, -0.03)	-0.04 (-0.19, 0.11)
Motives for SNS Use^c		
Convenience	0.77 (0.64, 0.91)*	0.32 (0.18, 0.46)*
Friendship	0.72 (0.60, 0.84)*	0.33 (0.20, 0.46)*
Social Support	0.79 (0.68, 0.90)*	0.43 (0.31, 0.55)*
Entertainment	0.97(0.84,1.10)*	-0.15 (-0.26, -0.03)*
Information seeking	0.34 (0.22, 0.47)*	0.58 (0.44, 0.72)*

^a Unadjusted bivariate model between outcome (SNS problematic use) and each variable.

^b Adjusted model includes all the variables presented in the table.

^c Multiple response variables, a participant has a score for each motive.

Table 4
Linear regression results comparing motives for SNS use in China, Malawi and UK.

	Motives for SNS use – Coefficient (95 % CI)				
	Convenience	Friendship	Social support	Information	Entertainment
China ^a					
Malawi	-0.46 (-0.94,0.03)	-0.02(-0.52,0.49)	-0.86(-1.41,-0.31)*	2.28(1.75,2.80)*	0.32(-0.16,0.80)
UK	0.48 (-0.01, 0.97)	-2.56(-3.07,-2.05)*	-2.44(-3.00,-1.89)*	0.51(-0.02,1.04)	-0.15(-0.63,0.34)

*Significant estimate/difference.

Models are adjusted for gender and age.

^a Reference group.

perspectives beyond their immediate community. In contrast, individualistic, low power distance societies like the UK have fewer barriers to information access. Mainstream media, educational systems, and public discourse expose citizens to diverse information sources. Therefore, for UK youth, social media may be less crucial for broadening informational horizons.

3.4. Relationship between SNS motives and SNS problematic use in China, Malawi and the UK

We assessed the relationship between SNS motives and problematic SNS use across countries. Results from unadjusted models show an association between SNS motives and SNS problematic use, and the significance persists when other variables (gender, age) are added to the model.

Further post-estimation results exploring the association between SNS problematic use and SNS motives for different countries show that, in general, higher scores for each SNS motive are associated with higher SNS problematic scores (See Table 3 & Fig. 1). We further looked at the differences in associations in the problematic SNS scores between the countries (Malawi vs China and UK vs China) with regard to the five motives for SNS use. We found that association differences vary across the spectrum (Table 3). For instance, UK and Chinese participants scoring highly on the SNS problematic use scale have higher Friendship and Social Support scores. In contrast, for the lower SNS problematic use scores, Malawian participants had higher motive scores.

As shown in Figs. 1 and 2, on information seeking, the study found that although Malawi scored higher than China and the UK in the association between higher problematic SNS use and motive scores, the difference was not significant. This finding highlights the universal appeal of social platforms for knowledge and news. While local constraints on accessing information differ cross-culturally,

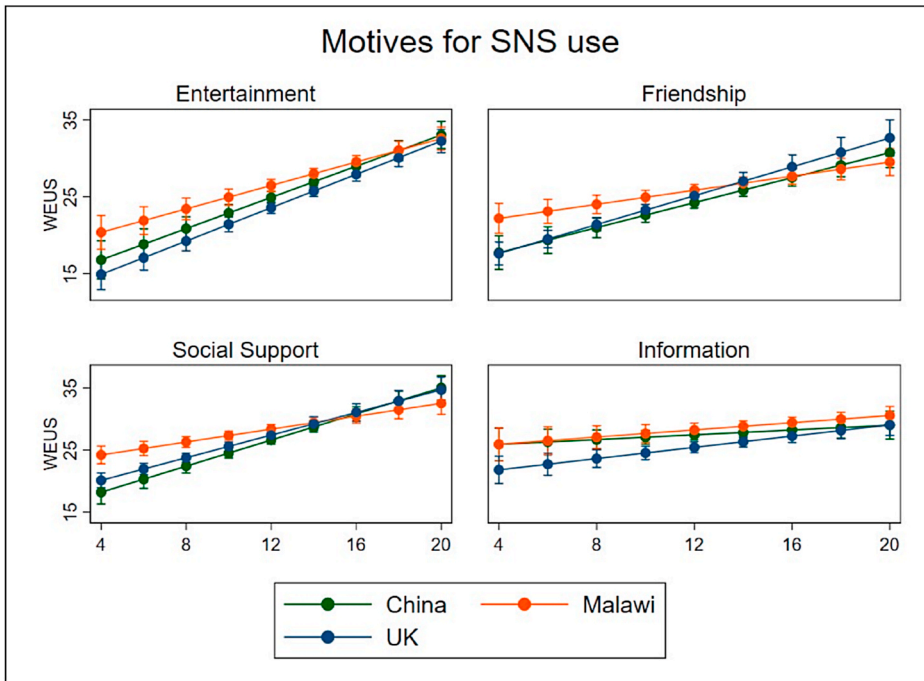


Fig. 1. Relationship between SNS problematic use (WEUS) and motives for SNS use across China, Malawi, and the UK.

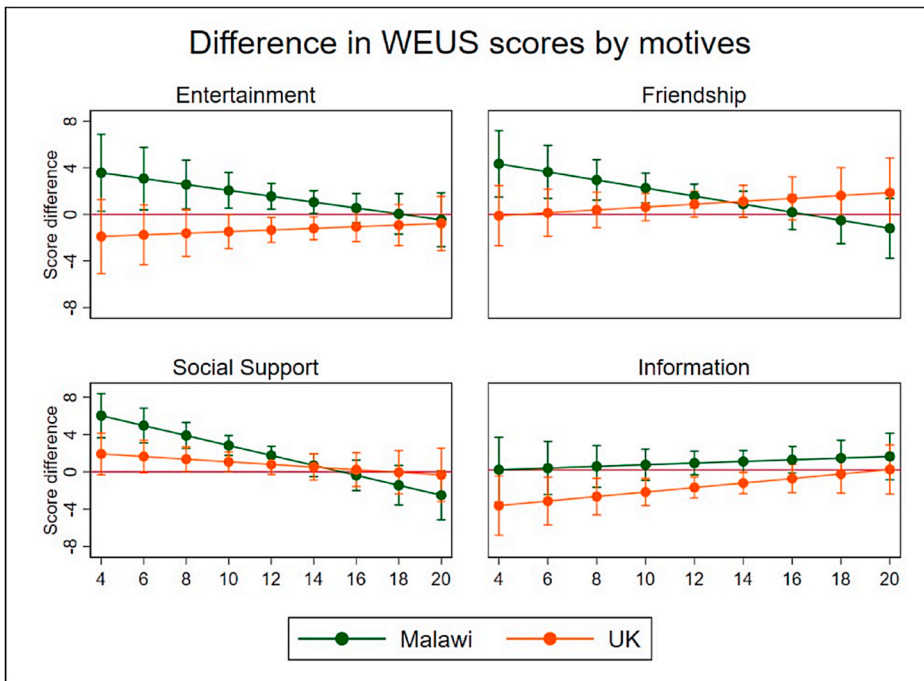


Fig. 2. Differences in Problematic SNS use (WEUS) by motives for SNS between China, Malawi and the UK.

as discussed earlier, the human urge for intellectual growth persists worldwide. When social media provides an unlimited buffet of novel information and perspectives, youth everywhere may overindulge. Across Malawi, China, and the UK, teens and young adults use social networking sites to learn new concepts, follow current events, and satisfy curiosity. However, this innate drive for mental stimulation can foster problematic use when paired with social media’s boundless informational bounty. Even in restricted media environments like China, users bypass filters to access global content, contributing to excessive engagement.

On social support, the study found that although Malawi scored lower than China and the UK in the association between higher problematic SNS use and motive scores, the difference was not significant. This finding highlights another subtle cultural difference. Although social connection is a universal human need, how social support is construed and enacted varies cross-culturally [46]. In collectivist cultures like Malawi, social support may be more implicitly embedded in close in-group relationships rather than an intentional pursuit. Strong offline community ties reduce reliance on online networking for social resources. By contrast, individualistic cultures seek social support through expanded networks. This motivates problematic use as teens compulsively maintain many shallow relationships [45]. Furthermore, Chinese culture emphasises social harmony and saving face, which magnifies pressures to maintain broad social ties online, even problematically.

On friendship, the study found that although Malawi scored lower than China and the UK in the association between higher problematic SNS use and motive scores, the difference was not significant. This finding demonstrates that universal social needs are met, and sometimes overindulged, through online networking. While cultural values shape friendship dynamics, the desire for interpersonal connection persists worldwide. When social media provides endless opportunities for expanding social capital, youth everywhere can fall into excessive usage patterns. Both individualistic Western cultures like the UK and collectivist Eastern cultures like China and Malawi show this consistent linkage. In restrictive environments, social media uniquely expands networking beyond close ties. In loose cultures, it sustains engagement across diffuse networks. Either way, the appeal of endless social bonds entices overuse. This aligns with studies showing that social motives like relationship maintenance, companionship, and social comparison are globally associated with problematic social media habits [47]. While culture shapes how teens socialise, the urge to connect persists cross-nationally.

On entertainment, the study found no differences in the association between higher problematic SNS use and motive scores. This finding demonstrates the power of universal needs in driving excessive engagement online and, thus, motivations for leisure and recreation [38,48]. While cultural values differ, teens globally share common interests in recreational pleasures like humour, games, memes, and videos. Barker and Ota [49] described the internet generation's orientation toward play and happiness that transcends geography. Paddock and Bell [50] argue that culture dynamically evolves with technology's affordances. This intrinsic human drive for enjoyment explains why there was an association between entertainment and problematic social media use worldwide, despite differences in convenience, social, and information motives. While culture may shape preferred entertainment content, the underlying gratification remains constant [51]. Chinese youth enjoy playful anime and social games; UK teens relate to funny memes and clips; Malawians trade jokes and music. However, across all samples, social media supplies an entertainment feast that can lead to compulsive consumption.

The study aligns well with the tenets of the uses and gratifications theory. Several findings reflect enduring cultural differences in social networking motivations based on variations in individualism versus collectivism, as this theory suggests. For instance, Chinese and Malawian youth showed higher friendship and social support motives than more individualistic UK students, consistent with their more collectivist orientations emphasising social cohesion. Similarly, these samples had fewer motivations around self-focused entertainment than the UK. However, entertainment was consistently tied to addictive social networking usage across cultures, perhaps indicating evolving youth orientations toward recreational online activity that cuts across traditional cultural values, as uses and gratifications frameworks would recognise.

There were also surprising social motivations among more individualistic UK students, signalling shifting cultural attitudes as social technologies facilitate networking and belonging regardless of cultural contexts. This demonstrates the mutability and integration of motivations from the perspective of uses and gratifications. Further, material constraints, not just cultural factors, also seem to shape social networking motivations based on availability and access barriers. For instance, despite its collectivism, lower social support motivations associated with problematic use in Malawi may arise from connectivity limitations, making online networking less crucial for social resources.

4. Conclusion

This study compared social networking addiction and motivations among student populations in China, Malawi and the UK. Findings revealed cultural universalities and specificities in how youth interact with and become addicted to social media across diverse contexts. SNS problematic use levels were significantly higher in collectivistic China and Malawi compared to the individualistic UK. This underscores risks across cultures and developmental contexts. However, social motivations like friendship and support were more salient in China, while personal entertainment was associated more with the problematic use of SNS in the UK. Surprisingly, social support also emerged as a critical factor in the UK, highlighting how social technologies shape cultural values. Entertainment motivations were equally high across all groups, reflecting globalised digital practices. Convenience motivations also varied with individualism versus material barriers. While some usage motivations persist along traditional cultural lines, social media also propagates shared motivations worldwide alongside new social norms.

This study significantly contributes to the cross-cultural evidence on problematic social networking and advances theorising in this emerging field. The findings showcase persistent cultural dynamics and changing motivational patterns shaped by new technologies. Uses and gratifications theory provides a valuable framework for understanding how localised values continue to shape social media motivations and outcomes globally. Enduring differences were found across individualistic Western and collectivist Eastern samples in areas like convenience versus social support motives. The motivational approach provides practical insight for reducing problematic SNS patterns through targeted interventions accommodating local needs. Understanding culturally specific and universally shared motives will inform global efforts to address this phenomenon.

Several limitations warrant mentioning. Firstly, the study relied on self-report measures and sampling out of convenience. Using

self-report questionnaires and convenience sampling to assess SNS problematic use and motivations can introduce response biases like social desirability bias. Secondly, this study employed a cross-sectional design, thus offering only a snapshot of social media problematic use and motivations. Future studies should conduct longitudinal research to assess how social media motivations and problematic use patterns evolve as youth mature. Further, they should incorporate direct measurements of cultural values like individualism-collectivism and power distance. In addition, future studies should expand the cultural scope to include more diverse samples beyond China, Malawi and the UK. Including Asian, African, and Western countries would provide richer insights into global variations. Finally, they should analyse digital inequality factors like device ownership, internet access, and tech literacy that may constrain social media motivations and use.

5. Data availability statement

Data will be made available upon request from the corresponding author.

CRedit authorship contribution statement

Yamikani Ndasauka: Writing – original draft, Methodology, Conceptualization. **Fiskani Ndasauka:** Writing – review & editing, Methodology, Formal analysis, Data curation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2024.e24830>.

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