Cross-Cultural Analysis of Social Media Addiction Likelihood and Social Media Designs in the US and China

Eva Ong[1] and Paris Lee[2#]

[1]Concord College, Malaysia
[2]University of Liverpool, UK
[3]Advisor

ABSTRACT

Social media platforms or Social Network Sites (SNSs) are platforms we incorporate into our daily lives. They connect individuals from around the globe, present us with information, and provide content tailored to our interests. However, social media addiction in certain communities like the youth has become widespread. In order to understand where social media addiction stems from, we must first explore the motivations behind its use and the design features that social media companies incorporate into their platforms to make them addictive.

In this review, we will discuss how motivations for social media use are not homogeneous and differ by culture. As risks for social media addiction differ based on use cases and design, this review serves to see how social media design in China differs from those in the US based on their cultural differences. It will be seen that collectivist communities tend to have higher rates of social media addiction; however, this is amplified through social media platforms' employment of certain design features that play to these cultural features. As a result, these companies have increased the likelihood of social media addiction in already susceptible communities.

Introduction

Social media platforms or Social Network Sites (SNSs), like Facebook, Instagram, Wechat, and Tiktok are platforms that we are not only familiar with but use daily, with over 2.93 billion users on Facebook every month(Dixon, 2022). WeChat, the largest Chinese social media platform, doesn't fall far behind with over a billion monthly active users (Montag et al., 2018). Social media platforms are used to keep people connected and integrate services like games, personalized news and recommendations, and even mobile payment services in the case of WeChat (Montag et al., 2018). However, with an exponential rise in the usage of social media, there has also been an increase in the misuse of and addiction to social media.

Although the Diagnostic and Statistical Manual of Mental Disorders does not include social media addiction as a disorder, there have been many attempts to measure it. The most popular method being the Bergen Facebook Addiction Scale (BFAS), despite not being developed with all types of social media platforms in mind. The BFAS was developed by Andreassen and colleagues, determining the level of addiction using a 5-point Likert scale with questions based on the six criteria: salience, tolerance, mood modification, relapse, withdrawal, and conflict. A version was then modified to pertain to all social media platforms BSMAS (The Bergen Social Media Addiction Scale). In which, social media addiction was defined as "being overly concerned about social media, to be driven by a solid motivation to log on or to use social media, and to devote so much time and effort to social media that it impairs other social activities, studies/job, interpersonal relationships, and/or psychological health and well-being (Andreassen,

2015). The psychometric robustness of the BSMAS was tested in Chinese studies, displaying good transitional properties (Chen et al., 2020; Leung et al., 2020).

China was chosen as the country for comparison due to the differences in their social media markets as compared to that of other countries. Few traditional western media enter the Chinese market due to restrictions by the Chinese government, thus many large Chinese social media platforms are created for the Chinese market instead of adapted to fit it. Although certain countries have their own locally favoured social media platforms like Kakaotalk in Korea, they do not have the clear distinction that is present with Chinese social media markets, as western social media platforms are still in competition with these apps and influence them. As a result, China was chosen as it allows for a larger contrast in platform design and model, making for a more reliable comparison.

In this literature review, we will be utilizing Hofstede's definition of culture, "Culture is the collective programming of the mind that distinguishes the members of one group or category of people from other" (Hofstede, 2011).

Analysis

General Addictive Features of Social Media

When examining the causes of social media addiction and identifying high-risk communities, both the reasons for usage and the addictive features of social media platforms should be considered. A study conducted on Malaysian students revealed that they used Facebook for information, maintaining relationships, academic learning, product inquiry, and meeting people. In contrast, Youtube was used for entertainment, information, academic learning, and product inquiry showing that different social media platforms are tailored to certain usage patterns (Moghavvemi et al., 2017).

Despite differences in usage patterns, many social media platforms have overlapping structural attributes that reinforce addictive behaviour(Andreassen, 2015). This includes but isn't limited to design features like intermittent variable rewards, social rewards, infinite scrolling, and user investment. Intermittent variable rewards are often associated with casino slot machines, but are also heavily seen in notifications and when scrolling through content (Eyal, 2012). Whereas social rewards (Montag et al., 2019), such as the 'thumbs up', 'like', or comments are featured on social media platforms universally. Many likes on a post have been shown to result in stronger activity in the ventral striatum, an area of the brain involved with processing rewards (Sherman et al., 2016). Infinite scrolling occurs when users don't naturally reach a stop in the flow of content, instead content is constantly loading providing seemingly infinite content. This results in people scrolling more than they typically would before they notice, with users spending 10.5 minutes more per week on Facebook when the feature was in place (Neyman, 2017). User investment also plays a major role in why users do not leave the app for alternatives. As humans put a higher value on the things they have constructed themselves, the longer a user has remained on the app and the larger the base that has been built whether it's in terms of followers or image, the less likely they are to leave even when a better alternative is presented (Neyman, 2017).

All of these features are incorporated into social media platforms universally, even if not specifically programmed onto the platform, for example, "following someone back" is commonplace on social media platforms like Instagram and Twitter, thus inducing social reciprocity. This can also be seen with "blue ticks" and "read" features in Whatsapp and Instagram, as both parties understand the meaning of these functions, there is a social pressure to reply fast as the message has been read. (Montag et al., 2019)

Of the overlapping addictive features, the feature that contributes the most to causing social media addiction, as well as other problems associated with social media (political polarisation and filter bubbles)(Pariser, 2011), is the advertising business model in place. Social media platforms utilize user data to present information and content tailored to the user's liking (Montag et al., 2019), this results in users spending more time on the platform(Montag &

Hegelich, 2020), allowing for more advertisement showings and accumulating more user data, making advertisements more personable and targeted. Although social media platforms in China have popularised the usage of tokens and the purchase of virtual currency as a means of monetization, many social media platforms still heavily rely on the advertising business model, resulting in a large incentive to create addictive platforms.

Social Media Addiction Impacts and Likelihood

A survey conducted on 100 university students, showed that 10% lost count of how many times they tweeted per day. (Saaid et al., 2014) With such high usage, many studies have tried to categorise the impacts of social media addiction. Many overlapping problems presented include social comparisons (Boer et al., 2021), negative impacts on self-identity (Zhou, 2020), impaired sleep (Andreassen, 2015), and loneliness(Arora & Okunbor, 2015), all leading to lower mental health and life satisfaction(Boer et al., 2021). Social media addiction can also feed into a loop, with people using it to reduce the effects of loneliness, but instead feeling lonelier as a result of it(Arora & Okunbor, 2015).

Throughout the years, there have been many papers identifying classes of people that would be at higher risk of being affected by social media addiction. This is typically done by comparing reasons for usage between groups or users' personalities, notably the big 5 personality traits (extraversion, agreeableness, openness, conscientiousness, and neuroticism)(McCrae & John, 1992). Extraversion, the level of sociability of a person, is typically seen by how talkative they are. Agreeableness, how collaborative an individual is, is tied in with how concerned they are for others' well-being and feelings. Conscientiousness is viewed as how self-disciplined the individual is, the responsibility they can carry, their stability, and how organized and reliable they are. Neuroticism is the likelihood of an individual being anxious, worried, and just unstable emotionally. Lastly, openness is how open they are to trying new things, and the level of curiosity they have.

There have been western studies finding that social media addiction was inversely proportional to conscientiousness(De Cock et al., 2013), this is also present in other general addiction studies. Correlation between users' personalities and Chinese media was also found in a study on WeChat, which showed a positive correlation between neuroticism and WeChat usage, and a negative correlation between agreeableness and WeChat usage(Montag et al., 2018).

When it comes to reasons for usage, one model puts forth the theory of communication preferences(Caplan, 2007), stating that individuals who prefer to communicate online as a way of alleviating negative moods or finding support are at a higher risk of the outcomes associated with social media addiction. Relationship maintenance also played a large role in social media use, with many studies featuring that it's the main motivation for social media usage(Joinson, 2008; Kuss & Griffiths, 2011). The idea of utilizing social media for relationship maintenance is also reinforced through the concept of the fear of missing out(FOMO), as FOMO has been linked to higher social media use as well as higher levels of problematic usage(Elhai et al., 2020).

But as the features of each social media platform and their user base differs, it is not surprising that studies focusing on other media feature different results for usage, such as impression management for Bebo(Dunne et al., 2010), self-expression for Pinterest(Mull & Lee, 2014) and Youtube(Gülnar et al., 2010), and informational needs for Twitter(Johnson, 2009). As social media platforms and motivations for use aren't homogenous, this review serves to see how social media usage in China differs from those in the US based on cultural differences and compare the addictive design features in place as a result of this.

Cultural Theories and Their Links

Hofstede's Cultural Theory and its Link with Social Media Usage

Many studies regarding cross-cultural differences both offline and online are based on Hofstede's cultural dimensions featuring power distance, related to the different solutions to the problem of human inequality; individualism/collectivism, related to the integration of individuals into primary groups; masculinity/femininity, related to the division of emotional roles between women and men; uncertainty avoidance, related to the level of stress in a society in the face of an unknown future; long term/short term orientation, related to the choice of focus for people's efforts: the future, present or past; and indulgence/restraint, related to the gratification versus control of basic human desires related to enjoying life(Hofstede, 2011).

The U.S and China show significant differences in cultural characteristics(Luo et al., 2021), particularly in individualism versus collectivism with the scores being the furthest apart. The US scored 91 on the individualism/collectivism scale, thus one of the most individualist cultures in the world. It's commonplace to interact with people they aren't familiar with however, it's harder to develop deep friendships, making them more self-reliant('Country Comparison', n.d.). China, inversely, had a score of 20, where people act in the interest of the group rather than themselves('Country Comparison', 2021). The power distance between the two countries is also large, with China scoring 80 and the US scoring 40('Country Comparison', 2021). This large power distance in China has resulted in a social hierarchy(Hofstede & Bond, 1984) and respect for authority, which itself has a large impact on interactions. This will be further explored in Guanxi.

In terms of how these cultural differences affect social media platforms, individualism/collectivism seems to be the most relevant dimension(Chau, 2008), thus we will be going more in-depth on that sector. Members of individualist societies tend to view themselves as separate and different from others. However, this doesn't mean that they just take care of themselves, they also extend this care to immediate family members typically. On the other hand, members of collectivist societies view themselves as an important and integral part of their social network, placing a strong emphasis on maintaining this network. Although this network is also placed on immediate family members, like in the case of individualist societies, they also include extended families. Additionally, the groups that collectivists are in are super strong, highly protective, and will oppose other groups(Mesquita & Janxin, 2007).

The impact of individualism and collectivism on social media addiction was explored in a meta-analysis where the estimated addiction prevalence was 31% for collectivist counties but only 14% for individualist countries(Cheng et al., 2021). This large difference can be explained by the fact that people raised in collectivist countries place the connection between themselves and others as most important, increasing the need to attend to and fit in with others(Markus & Kitayama, 1991), making them more likely to have interdependent self-construal. Studies have shown that individuals with interdependent self-perception tend to be more susceptible to FOMO(Dogan, 2019) - which as mentioned above is linked to higher levels of problematic social media usage. This could be a factor in the 2.5-hour increase in social media usage time for Chinese users in comparison to their American counterparts(Chu & Choi, 2010).

Another reason for their higher usage times and vulnerability to addiction could be attributed to the fact that individualists tend to use social media to mainly satisfy internal demands like mood modification, on the other hand, collectivists use social media due to both internal and external demands, such as seeking peer approval or support(Chan & Cheng, 2016; Kim et al., 2011), increasing the motivations for usage even further(Cheng et al., 2021).

72.2% of Chinese users mainly use social media to interact with friends(CNNIC, 2016), coupled with the fact that they spend more time on social media and are at a higher risk of social media addiction, it's expected for them to have more connections. However, Chinese users have reported having an average number of 194 friends, whereas American users have 477 friends on average(Chu & Choi, 2010). This difference might be attributed to quality vs quantity, as collectivists typically have closer relationships with other individuals on social media(Choi et al.,

2014). Conversely, this can also be attributed to guanxi, and the hurdles need to build and maintain relationships in Chinese culture, thus resulting in lower numbers of connections.

Guanxi and its Link with Social Media Usage

It has been seen that some of the differences in social media usage patterns can be attributed to cultural differences, as presented by the Hofstede model. However, to fully understand social media usage in Chinese individuals, we must delve into constructs closely linked to Chinese culture. One such construct is Guanxi(Lisha et al., 2017), a Confucian concept which composes of ganging(affection), renqing(favor, composing of goods but also providing opportunity or affection)(Zhang & Hong, 2017), and xinren(trust)(Jukka et al., 2017). Mianzi(face), is also closely related to Guanxi, referring to someone's social image, mainly in regards to preserving their social image(saving of face). People can build face "by following the norms or society"(Romeo, 2016), which in turn aids in building new guanxi with others.

Guanxi is the process of getting connected and entering exclusive social circles(Lisha et al., 2017), after which members obtain support from others to satisfy their needs(Lee et al., 2001). There are many different types of social connections and circles, such as family, neighbors, friends, and others. Some are related by birth and others are due to them sharing commonalities like schools, neighbourhoods, or companies(Zhang & Hong, 2017). But as a whole, it refers to the development and maintenance of relationships that form through bonds and common grounds(Romeo, 2016).

As maintaining good guanxi can help to strengthen social ties and group dynamics(Vodanovich et al., n.d.) as well as provide social support and gain which is crucial in a highly collectivist country like China(Lisha et al., 2017), there is a focus on building and maintaining guanxi. Chinese individuals do this through forming dyadic relationships(Michailova & Worm, 2003) and building trust(Yen et al., 2011). As WeChat is the primary social media platform for Chinese people to build dyadic relationships with others3, guanxi is significant to social media, despite being initially developed as a business networking concept. Chinese interactions in social situations and dyadic social interactions are often guided by guanxi as well, thus guanxi can be used to better explain the social media usage patterns of the Chinese population(Hwang, 2015).

In the components of guanxi, renqing and mianzi help form guanxi, whereas ganqing helps to build and maintain the guanxi(Lisha et al., 2017). As a result of mianzi, norms of social reciprocity in Chinese communities are intense(Hwang, 2015), benefiting social media platforms as there is added pressure to remain on the app to reciprocate others' actions such as following back or replying fast.

A study regarding guanxi and technology acceptance in the case of WeChat found that ganqing positively impacted the perceived usefulness of the platform and the intention to continue using it. On the other hand, Mianzi harmed the intention to continue but increased the perceived usefulness of the platform to users(Lisha et al., 2017). The increase in perceived usefulness could show that WeChat was seen as a platform to gain mianzi by the Chinese audience, thus enabling them to further build guanxi with others. This decrease in the intention to continue could be the result of them fearing that they would lose mianzi(face) faster online(Wang, 2016).

E.T Hall's Concepts and its Link with Social Media Design

Moving on to cultural concepts that offer an explanation for differences in UI design and how users interact with the platform, E.T Hall's concepts of time, space, and context are frequently incorporated in studies exploring UI design(Caplan, 2007; Romeo, 2016).

One of the variables in the concept, time is a spectrum comprised of two ends, polychronic and monochronic. Monochromatic cultures are associated with doing things one thing at a time, time planning, and are more focused on short-term relationships(Hall, 1990). On the other hand, people in polychronic cultures tend to do many things at once, change plans, and focus on building more long-term relationships(Hall, 1990). There's also space, which represents

an individual's boundaries like privacy, or individual ownership. The most important in the case of social media communications is context - how people communicate and obtain information. It refers to how information is being stated and relayed to others, either by explicitly stating the meaning of the message as seen in low context or relying on the context to convey the meaning as seen in high context (cannot reference, beyond culture). The US leans towards being a monochromatic, low-context culture, whereas China is the opposite, being a polychronic, high-context culture.

This can be reflected in how Chinese users text their peers. As the Chinese community uses more high-context communication, they utilize more icons and voice messages when communicating. This is likely to get more context and expression in conveying their message, to ensure smoother communication(Romeo, 2016). This supports the model proposed by Reinecke, in which he suggested that a high image-to-text ratio in UI was preferred by collectivist societies(Reinecke & Bernstein, 2013).

Overall Cultural Influences on Social Media Design

Overall Design

The motives and usage of social media tend to mirror the cultural background and values of the user(Chu & Choi, 2010; Qiu et al., 2013; Reinecke & Bernstein, 2013), this can aid in explaining the differences in social media design and the difficulty of expanding social media platforms to users with different cultural backgrounds.

The overall design of WeChat is that of high privacy measures, a closed community(Wang, 2016), illustrated by its "adding friends" feature, where users add friends typically by WeChat id or through their phone numbers instead of the ability to search them up by names like on Facebook or Instagram. The comment feature in WeChat also enforces privacy, as an individual can comment on a friend's post, but other members wouldn't be able to see this comment unless they are also friends with the individual, regardless if they are friends with the original poster(Vodanovich et al., n.d.). This was likely designed in mind with the low trust and familial collectivism within the Chinese community(Atuahene-Gima & Li, 2002; Gold et al., 2002). This has been proven effective as, a study has now shown that Chinese individuals prefer WeChat because of its private social media features, this also resembles the exclusive circle of social connection present in Guanxi(Gan & Wang, 2015).

UI Design

When it comes to UI/UX design, it's been shown that general user interfaces designed for Chinese communities tend to differ from the west(Marcus & Baradit, 2015). Certain UI designs adapt to a country's culture based on Hofstede's and E.T Hall's concepts, in order to increase the success of localisation and adoption in the country(Reinecke & Bernstein, 2013). As a whole WeChat follows an "everything-in-one" system(Romeo, 2016), its main feature being arguably its "integrated user experience", the jack-of-all-trades(Cheng & Nielson, 2016), even combining a digital payment service.

Specific Design Features

In January 2014, 'hong bao' became the new feature of WeChat(Montag et al., 2018). Inspired by the Chinese tradition for the elderly and married couples to give money in red packets to children or unmarried individuals during Chinese New Year to encourage prosperity, it enabled people to send virtual red packets to friends on WeChat. In addition, it gamified it by allowing people to "toss" a red packet to a chat group, and turn it into a lottery game for the people within the group, allocating the prize money in a randomized or identical amount(H. Sun, 2020), allowing users to obtain nothing as well. The addition of this gamification feature coupled with variable rewards increased the usage of

the 'hong bao', with 768 million users sending and receiving the red packets during the 2018 Chinese New Year(Montag et al., 2018). The feature also differed from the traditional red packets, as it wasn't necessary for the elderly to gift to the younger, or the wedded to gift to the unwed, this not only allowed more people to take advantage of this feature but allowed for anyone and everyone to build social relationships(Vodanovich et al., n.d.).

The feature incorporated guanxi(Holmes et al., 2021; Wang, 2016), more specifically renqing and ganqing, as users would be able to return renqing(favours) to others(Lisha et al., 2017), further building dyadic relationships. On the other hand, the feature also had its critics. Some Chinese elderly still view digital transfers of favours and renqing as inappropriate(Lisha et al., 2017), holding more traditional grounds. Certain users felt isolated by the feature, using it to virtually connect during the holiday, instead of connecting face-to-face during the live festival. Outside of China, western communities(Dutch) also feel slightly uncomfortable with this feature, stating that they didn't "see the value of sending money for people to fun", and would feel like they should send the same amount of money back(Romeo, 2016). This could be due to the fact that they didn't grow up with the red packet tradition and thus are unfamiliar and uncomfortable with this concept. All in all, this shows that this feature is rooted in Chinese Guanxi culture and can't be replicated to produce the same results in western societies.

Avoided Design Features

Design features, notably the "blue ticks" present on platforms like Whatsapp, check when messages are sent, delivered, and read. This invokes social pressure to reply faster, as one can see when their messages are being ignored or have already been seen, thus causing pressure to reply fast and the expectation of fast replies as well(Montag et al., 2019).

This has been quite effective on western platforms, expanding to the "seen" feature in Instagram, making users feel the need to stay on the site for longer to ensure a fast reply. Although at first, this feature seems like it would be well translated into the Chinese community with its community pressure to use social media, Chinese users actually did not like the feature as it confused them on the social cues that came with it, should they reply faster or wait some time? This resulted in Chinese users purposefully ignoring messages and not opening them until they have crafted a response. As ignoring messages typically goes against Guanxi and paints a bad Mianzi, by not opening the message until ready to reply, Chinese users, are trying to retain guanxi and save face(Romeo, 2016). Thus, it's understandable that this feature isn't on WeChat, as users will avoid opening the platform as they are scared that they might accidentally open the messages, resulting in lower use time.

Algorithmic Design

In terms of algorithms, individualist-oriented social media platforms tend to prioritise individual events, the opposite is seen for collectivist social media platforms. This could be seen from a study comparing content on Tiktok and Douyin. Family events and indoor settings were widespread on Douyin, whereas outdoors and interactions with friends and strangers were more likely to show up as recommended videos on Tiktok(Sun et al., 2020). Although Douyin and Tiktok are both from the same company, ByteDance - their target audience is vastly different with Douyin being only available in China. However, this difference could be attributed to the different types of videos users upload and interact with, for example people from individualist cultures might choose to upload more individualist content and interact more with it due to cultural norms and vice versa, instead of biases in the algorithm.

Features that were not Compared

It's important to note that certain features were ignored when researching Chinese social media platforms, such as people nearby features for WeChat as similar western social media platforms also feature this or the general UI and

features provided for messaging as it's fairly universal across all social media platforms. These features weren't included as it was likely that these features weren't based on cultural theories or Guanxi, as they were able to be universally integrated.

Conclusion

As the use cases for social media platforms and the motivations for usage between cultures differ, with collectivists adhering to both group and personal motives and individualists focusing largely on personal motives, this can be used to explain the differences in the causes of social media addiction. Thus, more cross-cultural studies are needed to understand the underlying usage reasons and addictive designs between different countries' social media platforms. A deeper understanding of these variables can manifest into the identification of different forms of social media addiction, as to find a better, more inclusive remedy for it.

To conclude, it can be seen that although similar in base nature, social media platforms are vastly different in their motivations, usage, audience, and design. Thus, social media platforms and social media addiction cannot be generalised to one major platform like Facebook, WeChat, or Tiktok. The same is said for platforms aimed towards a demographic that eventually expand out to global markets, like in the case of Western-targeted platforms. As although these platforms undergo localisation when entering new markets, many studies only focus on the base aspects of the platform instead of potential adaptive features, limiting the transitional properties of the research.

Social media addiction is due to many factors, from the general addictive features, the business model at hand, and the individual themselves(their culture, their personality). As current social media companies have the incentive to increase usage times as well as the ability to see how specific features and designs perform through A/B testing. It's unsure if developers had features in place that were designed to utilise cultural practices to increase use time and KPIs or if the feature was a result of better community responses seen through their A/B testing.

Regardless of how these design features arose, companies are able to tailor their platform based on user preferences so that their target audience spends longer on the platform. This not only leads to negative effects like feedback loops but increases the likelihood of addiction as it plays into their culture as well as societal norms and concepts like Guanxi. It's already been seen that China is a highly collectivist community, where maintaining ties is crucial. As a result, it's not surprising that social media addiction rates are higher when compared to that of individualist countries. However, by tweaking platforms to amplify these collectivist norms and strengthen motivations for usage, they further enhance the probability of social media addiction within these already susceptible, higher-risk communities.

Limitations

As there are many social media platforms with different niches and features, it was hard to provide a holistic picture of all the social media platforms in China and the US. More cross-cultural studies are needed to identify usage differences between social media apps of the same niche or feature, such as image-sharing and chat Instagram, mainly image-sharing Pinterest or largely chat-based platforms to their Chinese counterparts like XiaoHongShu, QQ, and Weibo. As these apps will likely have similar base features, they would serve as a more accurate comparison between different cultures. Especially when compared to studies solely comparing the largest platforms of their respective communities, like Facebook or Wechat. As they might attribute certain differences to culture, when it could be the result of different use cases due to their niche.

Further research can also incorporate more usage of local cultural norms and concepts found in China and their respective country of research like Keqi in China or Blat in Russia. It will also be beneficial to see if there was a concept similar to Guanxi present in the western world, and how that might influence social media designs.

Although this review combines the comparison between cultures and social media usage and design through cross-cultural studies comparing design to usage, usage to culture, or design with culture and more. There is currently no physical studies tying all three components together, even though have an interdependent relationship, with usage affecting how the design features are created and vice versa and culture having an overarching influence on both.

Lastly, even though companies are rare to disclose how their ranking algorithms work, it would of great resource if we could understand if the algorithms were truly ranking certain content higher based on the community they are targeting or if it's more heavily shown because users upload more of a certain type of content on the platform or because they are interacting with that content more as a result of their cultural influences. This would enable us to classify content recommendation differences as either a design feature or a usage-based feature.

Acknowledgements

References

Andreassen, C. S. (2015). Online Social Network Site Addiction: A Comprehensive Review. Current Addiction Reports, 2(2), 175–184. https://doi.org/10.1007/s40429-015-0056-9

Arora, S., & Okunbor, D. (2015). Social media applications: Are the youth addicted? 2015 International Conference on Cyberspace (CYBER-Abuja), 229–235. https://doi.org/10.1109/CYBER-Abuja.2015.7360512

Atuahene-Gima, K., & Li, H. (2002). When Does Trust Matter? Antecedents and Contingent Effects of Supervisee Trust on Performance in Selling New Products in China and the United States. Journal of Marketing - J MARKETING, 66, 61–81. https://doi.org/10.1509/jmkg.66.3.61.18501

Boer, M., Stevens, G. W. J. M., Finkenauer, C., de Looze, M. E., & van den Eijnden, R. J. J. M. (2021). Social media use intensity, social media use problems, and mental health among adolescents: Investigating directionality and mediating processes. Computers in Human Behavior, 116, 106645. https://doi.org/10.1016/j.chb.2020.106645

Caplan, S. E. (2007). Relations among loneliness, social anxiety, and problematic Internet use. Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society, 10(2), 234–242. https://doi.org/10.1089/cpb.2006.9963

Chan, M. S., & Cheng, C. (2016). Explaining personality and contextual differences in beneficial role of online versus offline social support: A moderated mediation model. Computers in Human Behavior, 63, 747–756. https://doi.org/10.1016/j.chb.2016.05.058

Chau, P. (2008). Cultural Differences in Diffusion, Adoption, and Infusion of Web 2.0. Journal of Global Information Management, 16.

Chen, I.-H., Strong, C., Lin, Y.-C., Tsai, M.-C., Leung, H., Lin, C.-Y., Pakpour, A. H., & Griffiths, M. D. (2020). Time invariance of three ultra-brief internet-related instruments: Smartphone Application-Based Addiction Scale (SABAS), Bergen Social Media Addiction Scale (BSMAS), and the nine-item Internet Gaming Disorder Scale-Short Form (IGDS-SF9) (Study Part B). Addictive Behaviors, 101, 105960. https://doi.org/10.1016/j.addbeh.2019.04.018

Cheng, C., Lau, Y., Chan, L., & Luk, J. W. (2021). Prevalence of social media addiction across 32 nations: Meta-analysis with subgroup analysis of classification schemes and cultural values. Addictive Behaviors, 117, 106845. https://doi.org/10.1016/j.addbeh.2021.106845

Cheng, Y., & Nielsen, J. (2016). WeChat: China's Integrated Internet User Experience. Nielsen Norman Group: UX Research, Training, and Consulting. Nielsen Norman Group. Retrieved 31 July 2022. https://www.nngroup.com/articles/wechat-integrated-ux/

Choi, S. M., Chu, S.-C., & Kim, Y. (2014). Culture-Laden Social Engagement: A Comparative Study of Social Relationships in Social Networking Sites among American, Chinese and Korean Users [Chapter]. Cross-Cultural Interaction: Concepts, Methodologies, Tools, and Applications; IGI Global. https://doi.org/10.4018/978-1-4666-4979-8.ch005

Chu, S.-C., & Choi, S. M. (2010). Social capital and self-presentation on social networking sites: A comparative study of Chinese and American young generations. Chinese Journal of Communication, 3(4), 402–420. https://doi.org/10.1080/17544750.2010.516575

CNNIC (2016). "2015 nian Zhongguo shejiao lei yingyong yonghu xingwei yanjiu baogao" [2015 research report on user behaviour of Chinese social applications]. http://www.cnnic.net.cn/hlwfzyj/hlwxzbg/sqbg/201604/P020160722551429454480.pdf

Country Comparison. (2021, June 21). Hofstede Insights. https://www.hofstede-insights.com/country-comparison/

De Cock, R., Vangeel, J., Klein, A., Minotte, P., Rosas, O., & Meerkerk, G. J. (2014). Compulsive use of social networking sites in Belgium: prevalence, profile, and the role of attitude toward work and school. Cyberpsychology, behavior and social networking, 17(3), 166–171. https://doi.org/10.1089/cyber.2013.0029

Dogan, V. (2019). Why Do People Experience the Fear of Missing Out (FoMO)? Exposing the Link Between the Self and the FoMO Through Self-Construal. Journal of Cross-Cultural Psychology, 50(4), 524–538. https://doi.org/10.1177/0022022119839145

Dunne, I., Lawlor, M., & Rowley, J. (2010). Young people's use of online social networking sites – a uses and gratifications perspective. Journal of Research in Interactive Marketing, 4(1), 46–58. https://doi.org/10.1108/17505931011033551

Elhai, J. D., Yang, H., & Montag, C. (2020). Fear of missing out (FOMO): Overview, theoretical underpinnings, and literature review on relations with severity of negative affectivity and problematic technology use. Brazilian Journal of Psychiatry, 43(2), 203–209. https://doi.org/10.1590/1516-4446-2020-0870

Eyal, N. (2012). Want To Hook Your Users? Drive Them Crazy. TechCrunch. https://social.techcrunch.com/2012/03/25/want-to-hook-your-users-drive-them-crazy/

Gan, C., & Wang, W. (2015). Uses and gratifications of social media: A comparison of microblog and WeChat. Journal of Systems and Information Technology, 17, 351–363. https://doi.org/10.1108/JSIT-06-2015-0052

Gold, T., Guthrie, D., & Wank, D. (2002). Social Connections in China: Institutions, Culture, and the Changing Nature of Guanxi (Structural Analysis in the Social Sciences, Series Number 21). Cambridge University Press.

Gülnar, B., Balcı, Ş., & Çakır, V. (2010). Motivations of Facebook, You Tube and Similar Web Sites Users. Bilig. 54.

Hall, E. T. (1990). The Hidden Dimension. Anchor.

Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. Online Readings in Psychology and Culture, 2(1). https://doi.org/10.9707/2307-0919.1014

Hofstede, G., & Bond, M. H. (1984). Hofstede's Culture Dimensions: An Independent Validation Using Rokeach's Value Survey. Journal of Cross-Cultural Psychology, 15(4), 417–433. https://doi.org/10.1177/0022002184015004003

Holmes, K., Balnaves, M., & Wang, Y. (2021). Red Bags and WeChat (Wēixìn): Online collectivism during massive Chinese cultural events. Retrieved 22 July 2022, from https://www.hca.westernsydney.edu.au/gmjau/?p=1770

Hwang, K. (2015). Face and Favor: The Chinese Power Game. American Journal of Sociology. https://doi.org/10.1086/228588

Johnson, P. (2009). Uses and gratifications of Twitter: An examination of user motives and satisfaction of Twitter use.

Joinson, A. (2008). Looking at, looking up or keeping up with people?: Motives and Use of Facebook. 1027–1036. https://doi.org/10.1145/1357054.1357213

Jukka, M., Blomqvist, K., Li, P. P., & Gan, C. (2017). Trust-distrust balance: trust ambivalence in Sino-Western B2B relationships. Cross Cultural & Strategic Management, 24(3), 482–507. https://doi.org/10.1108/ccsm-01-2016-0019

Kim, Y., Sohn, D., & Choi, S. M. (2011). Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. Computers in Human Behavior, 27(1), 365–372. https://doi.org/10.1016/j.chb.2010.08.015

Kuss, D., & Griffiths, M. (2011). Excessive online social networking: Can adolescents become addicted to Facebook? Education and Health, 29, 68–71.

Lee, D., Pae, J. H., & Wong, Y. H. (2001). A model of close business relationships in China (guanxi). European Journal of Marketing, 35(1/2), 51–69. https://doi.org/10.1108/03090560110363346

Leung, H., Pakpour, A. H., Strong, C., Lin, Y.-C., Tsai, M.-C., Griffiths, M. D., Lin, C.-Y., & Chen, I.-H. (2020). Measurement invariance across young adults from Hong Kong and Taiwan among three internet-related addiction scales: Bergen Social Media Addiction Scale (BSMAS), Smartphone Application-Based Addiction Scale (SABAS), and Internet Gaming Disorder Scale-Short Form (IGDS-SF9) (Study Part A). Addictive Behaviors, 101, 105969. https://doi.org/10.1016/j.addbeh.2019.04.027

Lisha, C., Goh, C. F., Yifan, S., & Rasli, A. (2017). Integrating guanxi into technology acceptance: An empirical investigation of WeChat. Telematics and Informatics, 34(7), 1125–1142. https://doi.org/10.1016/j.tele.2017.05.003

Luo, C., Chen, A., Cui, B., & Liao, W. (2021). Exploring public perceptions of the COVID-19 vaccine online from a cultural perspective: Semantic network analysis of two social media platforms in the United States and China. Telematics and Informatics, 65, 101712. https://doi.org/10.1016/j.tele.2021.101712

Marcus, A., & Baradit, S. (2015). Chinese User-Experience Design: An Initial Analysis. In A. Marcus (Ed.), Design, User Experience, and Usability: Users and Interactions (pp. 107–117). Springer International Publishing. https://doi.org/10.1007/978-3-319-20898-5_11

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224–253. https://doi.org/10.1037/0033-295X.98.2.224

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. Journal of Personality, 60(2), 175–215. https://doi.org/10.1111/j.1467-6494.1992.tb00970.x

Mesquita, B., & Janxin, L. (2007). The cultural psychology of emotions (pp. 734–759).

Michailova, S., & Worm, V. (2003). Personal Networking in Russia and China: Blat and Guanxi. European Management Journal, 21(4), 509–519. https://doi.org/10.1016/S0263-2373(03)00077-X

Moghavvemi, S., Binti Sulaiman, A., Jaafar, N. I. B., & Kasem, N. (2017). Facebook and YouTube addiction: The usage pattern of Malaysian students. 2017 International Conference on Research and Innovation in Information Systems (ICRIIS), 1–6. https://doi.org/10.1109/ICRIIS.2017.8002516

Montag, C., Becker, B., & Gan, C. (2018). The Multipurpose Application WeChat: A Review on Recent Research. Frontiers in Psychology, 9, 2247. https://doi.org/10.3389/fpsyg.2018.02247

Montag, C., & Hegelich, S. (2020). Understanding Detrimental Aspects of Social Media Use: Will the Real Culprits Please Stand Up? Frontiers in Sociology, 5. https://www.frontiersin.org/articles/10.3389/fsoc.2020.599270

Montag, C., Lachmann, B., Herrlich, M., & Zweig, K. (2019). Addictive Features of Social Media/Messenger Platforms and Freemium Games against the Background of Psychological and Economic Theories. International Journal of Environmental Research and Public Health, 16(14), 2612. https://doi.org/10.3390/ijerph16142612

Mull, I. R., & Lee, S.-E. (2014). "PIN" pointing the motivational dimensions behind Pinterest. Computers in Human Behavior, 33, 192–200. https://doi.org/10.1016/j.chb.2014.01.011

Neyman, C. (2017). A Survey of Addictive Software Design. 1(1), 12.

Pariser, E. (2011). The Filter Bubble: What The Internet Is Hiding From You. Penguin UK.

Qiu, L., Lin, H., & Leung, A. K. -y. (2013). Cultural Differences and Switching of In-Group Sharing Behavior Between an American (Facebook) and a Chinese (Renren) Social Networking Site. Journal of Cross-Cultural Psychology, 44(1), 106–121. https://doi.org/10.1177/0022022111434597

Reinecke, K., & Bernstein, A. (2013). Knowing what a user likes: A design science approach to interfaces that automatically adapt to culture. MIS Quarterly, 37, 427–454. https://doi.org/10.5167/uzh-73183

Romeo, P. (2016). Cross-Cultural HCI and UX Design: A Comparison of Chinese and Western User Interfaces. https://doi.org/10.13140/RG.2.2.18547.63525

Saaid, S. A., Al-Rashid, N. A. A., & Abdullah, Z. (2014). The Impact of Addiction to Twitter among University Students. In J. J. (Jong H. Park, I. Stojmenovic, M. Choi, & F. Xhafa (Eds.), Future Information Technology (pp. 231–236). Springer. https://doi.org/10.1007/978-3-642-40861-8_35

Sherman, L. E., Payton, A. A., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2016). The Power of the Like in Adolescence. Psychological Science, 27(7), 1027–1035. https://doi.org/10.1177/0956797616645673

Statista. (2022, August 22). Facebook: quarterly number of MAU (monthly active users) worldwide 2008–2022. https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/

Sun, H. (2020). Global Social Media Design: Bridging Differences Across Cultures. Oxford University Press.

Sun, L., Zhang, H., Zhang, S., & Luo, J. (2020). Content-based Analysis of the Cultural Differences between TikTok and Douyin. ArXiv:2011.01414 [Cs]. http://arxiv.org/abs/2011.01414

Vodanovich, S., McKenna, B., & Cai, W. (n.d.). Cultural Values Inherent in the Design of Social Media Platforms: A Case Study of WeChat. 10.

Wang, X. (2016). Social Media in Industrial China. UCL Press. https://doi.org/10.14324/111.9781910634646
Yen, D. A., Barnes, B. R., & Wang, C. L. (2011). The measurement of guanxi: Introducing the GRX scale. Industrial Marketing Management, 40(1), 97–108. https://doi.org/10.1016/j.indmarman.2010.09.014

Zhang, C., & Hong, S.-J. (2017). Guanxi Culture. In The China Business Model: Originality and Limits (pp. 19–40). https://doi.org/10.1016/B978-0-08-100750-1.00002-4

Zhou, H. (2020). A Study on Impact of College Students' Mobile Phone Addictions on Their Self-identities. 2020 International Conference on Modern Education and Information Management (ICMEIM). https://doi.org/10.1109/icmeim51375.2020.00145