



## Information Seeking Behaviour of International Students in China During COVID-19 Outbreak

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### Abstract

*The rapid spread of COVID-19 in China and worldwide created substantial uncertainty and the need for information. Past research shows that people seek more information during uncertain situations to reduce uncertainty. This study examined the information-seeking behaviors of international students in China during the COVID-19 outbreak, guided by media system dependency theory. An online survey collected data about media sources accessed, source credibility perceptions, and information interests from 252 international students in China during the pandemic onset. Results revealed students used multiple sources, but relied heavily on the internet, especially news websites and WeChat, for COVID-19 information. They viewed these online sources as much more credible than traditional media. Students were most interested in consuming information about the outbreak within China. The findings provide new insights into international students' information dependencies and needs while experiencing a health crisis abroad. This group's heavy use of online sources and platforms like WeChat have important implications for directing risk communication efforts during global health emergencies.*

**Keywords:** COVID-19, information, Internet, WeChat, News websites, International students, China

### Introduction

On December 31, 2019, the World Health Organization (WHO) country office in China received an alert from authorities in Wuhan, the capital of Hubei province, about a pneumonia outbreak of unknown cause. According to early reports, the mysterious new illness was marked by fever and respiratory symptoms in affected individuals (WHO, 2020; Sohrabi et al., 2020). This novel coronavirus, eventually identified as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), represented a major public health threat given experts' limited understanding and the rapid spread. By January 23, 2020, Chinese officials had locked down Wuhan and neighboring cities by suspending transport links, urging residents to avoid contact, and canceling public gatherings (Zhe & Gang, 2020; Altakarli, 2020; Xiong 2020). Despite these unprecedented containment efforts that restricted over 57 million people (Staff, 2020), SARS-CoV-2 had reached all regions of China by early 2020 (WHO, 2020). Alarmed by the scale and severity, the WHO declared a Public Health Emergency of International Concern on January 30, followed by a pandemic declaration on March 11, 2020 (WHO, 2019). By October 13,

million deaths across 188 countries and territories, with more than 37.8 million cases, though over 26.2 million people had recovered (Coronavirus Cases, 2020).

The strict lockdowns in Wuhan and other Hubei cities prompted extensive media coverage of the COVID-19 outbreak, both within China and internationally. Chinese and foreign media continuously reported on the miseries, fears ("Coronavirus doctor," 2020), and vulnerabilities ("Coronavirus Wuhan Diary," 2020) of people enduring lockdown conditions. This pervasive reporting fueled an uncertain, panic-stricken environment as the public remained unsure of when the novel coronavirus could be controlled. According to prior research, uncertainty around events drives increased information seeking as people attempt to reduce their uncertainty (Case, 2002). The COVID-19 pandemic represents an ideal case study of this phenomenon given the global uncertainty and alarm sparked by the mysterious new illness. While previous studies have examined Chinese citizens' information behavior during health crises like SARS (Tai & Sun, 2007; Vieten et al., 2009; Lyu, 2012), few have focused specifically on international

students studying in China. This study aims to address that gap by exploring the information seeking behaviors of international students in China during the COVID-19 outbreak.

The purpose is threefold: (1) identify key sources used by international students to access COVID-19 information during the pandemic, (2) examine their perceptions of source credibility, and (3) determine which pandemic-related topics most interested them. Investigating the experiences of this population can provide insights into how foreign students navigate health information needs abroad, while contributing new evidence to crisis communication research.

### International Students In China

China has emerged as a top global destination for international students in recent years due to its thriving economy, increased prestige and influence of Chinese universities, and abundant scholarships. The recruitment of foreign students into Chinese higher education began in 1950 with just 33 enrolled students from Eastern European socialist countries (Ding, 2016). This coincided with China's reforms and openness to the world, setting the stage for rising international enrollments over time (Yu, 2010). According to China's Ministry of Education, the number of international students reached 492,185 in 2018, a 6.86% increase from 2017 (Ministry of Education of China, 2019). Of these, 258,122 were degree-seeking students. About 63,041 international students held Chinese government scholarships, while the majority (429,144 or 87.19%) were self-funded (Ministry of Education of China, 2019).

More than half of China's international students hail from other Asian countries. Africa sends the second largest contingent, followed by Europe, the Americas, and Oceania. The top five sending countries are South Korea, Thailand, Pakistan, India and the United States. This diverse influx contributes to the educational and cultural fabric of contemporary China. Understanding the experiences and needs of this important student population, including their information seeking behaviors during crises like the COVID-19 pandemic, can help Chinese universities provide better support.

**Table 1: Number/percent of international students by continent**

Continent	Number	Percent
Asia	295,043	59.95%
Africa	81,562	16.57%
Europe	73,618	14.96%
America	35,733	7.26%
Oceania	6,229	1.27%

Source: (Ministry of Education of China, 2019)

Chinese universities offer a wide array of degree and non-degree programs for international students, taught in both English and Chinese (Chinese Service Center for Scholarly Exchange, 2020). A major draw is the availability of full and partial scholarships from national and local sources. Top programs include Confucius Institute Scholarships, Chinese Government Scholarships, and local government initiatives like Jiangsu Province's Jasmine Jiangsu Scholarship (Yang & de Wit, 2019).

The Chinese government also leverages educational and economic partnerships to attract international students from target countries. However, these students can face cultural adjustments upon arrival in China. A primary challenge is the Chinese language, which is ubiquitous in media and official communications (Li, 2015). Limited English or other language information sources can exacerbate difficulties accessing news and services. Universities should be cognizant of these challenges and information barriers facing their diverse international student bodies, especially during campus and community crises.

### Media System Dependency Theory

The theoretical framework guiding this research is media system dependency theory, originally proposed by Sandra Ball-Rokeach in her 1974 paper "The information perspective" presented at the American Sociological Association annual meetings (Ball-Rokeach, 1974).

Media system dependency theory suggests individuals have a dependency relationship with media that impacts the likelihood of media effects occurring (Ball-Rokeach, 2008). Dependency is defined as "a relationship in which the satisfaction of needs or the attainment of goals by one party is contingent upon the resources of another party" (Ball-Rokeach & DeFleur, 1976). In this case, media depends on society, and this dependence is measured by how individuals utilize media to fulfill information needs. People require information from media sources to achieve their goals.

The theory also explains individual media use at the micro level by analyzing structural dependency relations at the macro level. It posits media use is a goal-oriented activity, and media effects result from the degree of dependence people have on mass media to satisfy goals (Tai & Sun, 2007). During uncertain situations, individuals become more dependent on media to reduce uncertainty. This increased dependency leads people to seek out information from available sources. If current sources are perceived as inadequate, people may turn to alternative media channels to fulfill information needs.

Media system dependency theory has been applied in past health risk and crisis communication research. It provided an appropriate framework for this study's exploration of international students' COVID-19 information seeking from various media platforms during the uncertainty of the early pandemic outbreak. The theory guided the research questions and hypotheses examining student media dependencies and perceptions of source credibility.

### Sources of Information

People obtain information from various channels, including mass media and interpersonal sources. Understanding how and why people select certain sources to meet information needs offers insight into information-seeking behaviors. Research shows people may utilize different channels depending on their specific information needs (Case, 2002). They can also turn to alternate sources when seeking different types of information (Case, 2002).

Information needs fluctuate across situations. During uncertain environments, people often shift to alternative sources to satisfy heightened information requirements (Tai & Sun, 2007). Ambiguity surrounding a topic or event can intensify information-seeking from additional channels. People also seek out new sources when they perceive their primary information source to be

providing unreliable or non-credible information (Tai & Sun, 2007).

Studying individuals' selection and evaluation of information sources is crucial for media researchers aiming to understand nuances of human information-seeking tendencies. This holds true during global health crises like the COVID-19 pandemic, when many turned to online platforms and social media to stay informed amid uncertainty.

A 2015 study on online news use during South Korea's MERS outbreak found people shifted to online news, interpersonal networks, and social media when they perceived traditional media as not providing truthful information (Jang & Baek, 2019).

Similarly, constrained information flow during China's 2003 SARS epidemic led citizens to use short message services (SMS) and the internet to access health crisis information as alternatives to mass media (Tai & Sun, 2007).

Traditionally, people relied on mass media for health information. Now the internet has become a common source, though little research examines how seekers utilize it compared to offline sources (Cotten & Gupta, 2004).

Unlike traditional media, online sources can hyperlink articles, connecting audiences to more information across platforms and media. This aligns with media activation theories where consuming information stimulates further seeking.

Few studies have explored international students' information seeking in foreign countries. One found this group uses both offline (e.g. university health services, hospitals) and online (Google, websites) sources for health information (Alzougool et al., 2013).

This study aimed to provide new evidence on international students' information behavior during a health crisis abroad, specifically dependence on online sources and social media when facing uncertainty. Findings contribute empirical insights to the niches of risk/crisis communication and international student experiences.

### **Credibility of Sources**

Media researchers have extensively studied the credibility of various information sources. Early work identified two key components of credibility as trustworthiness and expertise (Hovland & Weiss, 1951). Later researchers suggested additional factors like safety, qualifications, accuracy, fairness, completeness, and distinctions between media and interpersonal sources (Gaziano & McGrath, 1986). These dimensions have been leveraged to assess source credibility across contexts.

Since mass media provide information to large publics, maintaining credibility is essential for influence (Lee, 1978). Studies find most people frequently get news from television, which they rate as more credible than newspapers (Abel & Wirth, 1977; Lee, 1978). However, newspapers gain credibility for local news. For national/international news, television retains higher credibility (Gaziano & McGrath, 1986).

While more seek health information online, credibility concerns persist (Escoffery et al., 2005). Seekers appear unaffected by low/high internet source credibility (Bates et al., 2006) and do not scrutinize based on qualifications (Ye, 2010).

Interpersonal contacts like doctors and family are considered highly credible for health info (Worsley, 1989; Pecchioni & Sparks, 2007). This research aimed to extend insights on source credibility perceptions during a health crisis, specifically international students' reliance and trust in online/social media amid uncertainty.

Based on the review of relevant prior research, this study proposes two hypotheses:

H1: International students in China relied primarily on the internet to access information related to COVID-19.

H2: International students in China perceived information from internet sources as more credible and reliable compared to other media sources when seeking information related to COVID-19.

Existing literature establishes the internet as an increasingly important source for health information seeking, though some credibility concerns persist. This study aimed to provide new empirical evidence on international students' actual reliance on online platforms amid a health crisis, as well as their perceptions of internet credibility versus traditional media. The hypotheses focused specifically on assessing the role and trust placed in internet-based sources by international students during the uncertainty of the pandemic's early stages.

## **Methods**

The data for this research paper was collected through a cross-sectional online survey administered to international students enrolled in various universities across China. The survey was conducted between February 28, 2020 and March 10, 2020, during the early stages of the COVID-19 outbreak in China.

The questionnaire was designed to include three main sections. The first section collected demographic data about the respondents including gender, age, and education level. This information allowed for description of the sample composition and for statistical controls during data analysis.

The second section of the survey focused on the media sources students were using to get COVID-19 related information during the pandemic. Students were given a multiple choice list of traditional media (TV, radio, newspapers), internet-based platforms (news websites, TV channel sites, blogs, discussion forums), and social media platforms (Facebook, Twitter, Instagram, YouTube, WeChat, Weibo, other). This section also asked students to indicate which specific news topics related to COVID-19 they were most interested in learning about.

The third section of the survey aimed to gauge students' perceptions of source credibility for COVID-19 information. Students were asked to select which platform they considered most credible compared to others for getting pandemic-related updates. Separate questions were asked regarding internet-based platforms and social media platforms.

To administer the survey, a web-based Chinese language questionnaire was created using the WeChat mini program "问卷" (pinyin: wènjuàn), which translates to "survey" in English. Web surveys allow efficient access to target an educated population with internet access (Greenlaw & Brown-Welty, 2009). Additional benefits include cost and time savings, large reach, and anonymity for respondents (Cobanoglu et al., 2001; Yoon & Kim, 2014).

Prior to distribution, the survey was pre-tested with 10 international students to evaluate question design and online functionality. The finalized questionnaire was distributed into various WeChat groups for international students in China on February 28, March 2, March 5, and March 8. In total, 252 international students voluntarily completed the online survey by March 10, 2020. Participants could opt out or exit the survey at any time. No compensation was provided.

## Results

The survey provided demographic and academic data about the 252 respondents. The majority were male (65.1%, n=164) compared to female (34.9%, n=88). Most respondents fell into the 26-35 age range (37.7%, n=95), followed by 36-45 (30.6%, n=77), 18-25 (28.2%, n=71), and 45+ (3.6%, n=9). In terms of academic status, 46% (n=116) were master's students, 31% (n=78) doctoral students, 17.1% (n=43) undergraduates, 3.6% (n=9) post-doctoral, and 2% (n=5) Chinese language diploma students. One respondent did not provide academic status.

### The Main Sources For COVID-19 Related Information

Table number 5 presents the frequency and percentage breakdown of the main sources international students reported using to get COVID-19 related information during the pandemic.

The data shows internet-based platforms were the most commonly used source, with 192 respondents (38.7%) selecting this option. Social media was also a popular source, used by 154 respondents (31%).

Traditional media sources were less frequently used. Only 53 respondents (10.7%) identified television as their main source, while 25 (5%) said newspapers and just 6 (1.2%) selected radio. Finally, 66 respondents (13.3%) indicated their primary source was interpersonal channels such as discussions with friends, family or professors.

The table demonstrates that students overwhelmingly turned to online sources, especially internet platforms and social media, to get information related to COVID-19. Television still played a role for some students, but traditional print and radio were relatively insignificant. Combined with interpersonal channels, the data shows international students utilized a mix of sources during the uncertainty of the pandemic's early stages.

**Table 2: The Main Sources For COVID-19 Related Information**

Sources	Number of Responses	Percent
Television	53	10.7%
Radio	6	1.2%
Newspaper	25	5.0%
Internet-based platforms	192	38.7%

Social media	154	31.0%
Interpersonal channels	66	13.3%

Note: Multiple choice; n = 252

Table number 6 shows that Facebook was the most popular platform, with 92 responses, making up 18.4% of the total. Twitter had 45 responses (9.0%), followed by Instagram with 24 responses (4.8%). YouTube had a significant share as well, with 76 responses (15.2%). Less popular platforms included Weibo with 17 responses (3.4%), WeChat with 199 responses (39.7%), and 48 respondents (9.6%) who use other platforms. Overall, the results indicate a high usage of mainstream Western platforms like Facebook, Twitter and YouTube. However, WeChat, a Chinese platform, also had a very high response rate of nearly 40%. This likely reflects the global nature of social media usage in today's digital world.

**Table 3: The most used social media platforms**

Social media platform	Number of responses	Percent
Facebook	92	18.4%
Twitter	45	9.0%
Instagram	24	4.8%
YouTube	76	15.2%
Weibo	17	3.4%
WeChat	199	39.7%
Other	48	9.6%

Note: Multiple choice; n = 252

Table number 7 shows that news websites were the most popular, with 152 responses making up 36.9% of the total. TV channels' websites had 90 responses (21.8%), followed by blog websites with 66 responses (16.0%). Online discussion forums had a similar share with 68 responses (16.5%). 36 respondents (8.7%) reported using other internet platforms. Overall, the findings indicate that people rely heavily on news websites and TV channels' sites to get information online. Blogs and discussion forums, while popular, comprised a smaller percentage of usage. This suggests that respondents view news/TV outlets as more authoritative sources compared to user-generated platforms like blogs and forums. The minimal use of "other" platforms indicates that most people stick to major, well-known sites for their online information needs.

**Table 4: The most used internet based platforms**

Internet-based platforms	Number of responses	Percent
News websites	152	36.9%
TV channels websites	90	21.8%
Blog websites	66	16.0%
Online discussion forums	68	16.5%
Other	36	8.7%

Note: Multiple choice; n = 252

Hypotheses 1 proposed that the International students in China were mostly relying on internet to get information related to COVID-19. It was supported by this finding

### The Most Credible Sources Of COVID-19 Related Information

The results also showed that news websites were the most popular, with 152 responses making up 36.9% of the total. TV channels' websites had 90 responses (21.8%), followed by blog websites with 66 responses (16.0%). Online discussion forums had a similar share with 68 responses (16.5%). 36 respondents (8.7%) reported using other internet platforms. Overall, the findings indicate that people rely heavily on news websites and TV channels' sites to get information online. Blogs and discussion forums, while popular, comprised a smaller percentage of usage. This suggests that respondents view news/TV outlets as more authoritative sources compared to user-generated platforms like blogs and forums. The minimal use of "other" platforms indicates that most people stick to major, well-known sites for their online information needs.

**Table 5: The Most Credible Source For COVID-19 Related Information**

Source	Number of responses	Percent
TV	14	5.6
Radio	1	0.4
Newspaper	2	0.8
Internet-based platforms	125	49.6
Social media	97	38.5
Interpersonal channels	13	5.2

Note: n = 252

Looking specifically at social media platforms, the survey asked respondents which ones they use for news and information. WeChat was by far the most popular platform, with 168 responses comprising 66.7% of the total. Facebook had 21 responses (8.3%), followed by YouTube with 30 responses (11.9%). Twitter and Weibo had small shares of the responses at 6.0% and 2.4% respectively. Just 3 respondents (1.2%) said they get news from Instagram.

The dominance of WeChat indicates its status as the leading social platform for news in this sample, likely due to its widespread adoption in China. Facebook and YouTube hold smaller but notable shares as news sources, reflecting their broader popularity worldwide. But platforms like Twitter, Instagram and Weibo seem to play very minor roles for news consumption here. Overall, the results suggest a reliance on just a handful of major social platforms like WeChat, Facebook and YouTube for news, while other platforms are less commonly used. This may indicate consolidation of news consumption to a few popular social apps rather than a dispersed approach across many options.

**Table 6 The most credible social media for COVID-19 related information**

Social media	Number of responses	Percent
Facebook	21	8.3
Twitter	15	6.0
Instagram	3	1.2

YouTube	30	11.9
Weibo	6	2.4
WeChat	168	66.7
Other	9	3.6

Note: n = 252

Looking at internet-based platforms specifically, news websites were by far the most popular source for news, with 122 responses making up 48.4% of the total. TV channels' websites were second most popular with 37 responses (14.7%). Blog websites and online discussion forums were less common news sources, each comprising around 13-14% of responses. The "other" category also captured a share of 13.9% of responses.

The predominance of news websites for getting news online reflects their strength as authoritative, comprehensive sources of journalism. TV channels' websites also draw significant traffic by extending their broadcasting brands online. However, user-generated platforms like blogs and forums are utilized much less for news, suggesting they lack credibility compared to professional news outlets. The substantial share for "other" platforms suggests respondents are visiting a variety of niche or lesser known sites for news as well. But the clear preference is for news websites above all other options, indicating their status as the go-to sources for news online.

**Table 7: The most credible Internet based platform for COVID-19 related information**

Internet-based platforms	Number of responses	Percent
News websites	122	48.4
TV channels websites	37	14.7
Blog websites	23	9.1
Online discussion forums	35	13.9
Other	35	13.9

Note: n = 252

These findings support second hypotheses of this study which stated that the international students in China were mostly relying on internet to get information related to COVID-19.

### The Most Sought Information Related To COVID-19

When asked what types of news articles people are most interested in reading about the coronavirus outbreak, the results show a primary focus on the outbreak within China. Articles about the coronavirus outbreak in China received 107 responses, comprising 42.5% of the total. Fact check information was the second most popular topic, with 85 responses (33.7%). Interest was lower for articles about the outbreak outside China, which had 30 responses (11.9%), and precautionary measures, with 19 responses (7.5%). Only 11 respondents (4.4%) were interested in other article topics.

These findings reflect high interest in news about the epidemic's country of origin. People likely want to stay updated on the progression of the outbreak in China and how it is being handled. There is also strong interest in verifying information about the virus through fact checks. However, the global spread of coronavirus and personal protective measures draw relatively less interest. This suggests that respondents are more concerned with

understanding the situation in China itself versus learning about international or localized impacts.

**Table 8: The most sought information related to COVID-19**

News articles	Number of responses	Percent
Corona virus outbreak in China	107	42.5
Corona virus outbreak outside China	30	11.9
Fact check information	85	33.7
Precautionary measures	19	7.5
Other	11	4.4

Note:  $n = 252$

## Discussion

This study explored international students' media use and information seeking behaviors during the early stages of the COVID-19 outbreak in China. The findings provide new insights into this population's reliance on online sources and social media amid an uncertain health crisis abroad.

Overall, the results strongly support media system dependency theory and prior research indicating individuals turn to the internet and social media when facing an ambiguous information environment. Faced with uncertainty about the novel coronavirus, international students overwhelmingly depended on online platforms and social media as their primary sources of pandemic-related information. This aligns with the theory's premise that uncertainty leads to greater dependence on media channels that can fulfill elevated information needs.

Specifically, 38.7% of students identified internet-based platforms as their main COVID-19 information source, while 31% relied primarily on social media. In contrast, only 10.7% used television frequently, and negligible numbers utilized print or radio. This demonstrates a pronounced shift towards online channels compared to traditional media when seeking crisis information, reflecting increased dependence on the greater breadth, immediacy, and interactivity of the internet.

Dependency was further evidenced by students' preferred platforms within the online sphere. For internet sources, news websites were overwhelmingly favored, chosen by 36.9% of respondents. Similarly, WeChat dominated social media use at 66.7%, leveraging its ubiquity and networking functions in China. Reliance on these major platforms shows concentrated dependence on authoritative, far-reaching online outlets when uncertainty is high.

The findings also back the theory's assertion that perceptions of source credibility can motivate greater media dependence during ambiguous events. When asked which sources they considered most credible for COVID-19 updates, 49.6% of students selected internet-based platforms. WeChat again led social media, rated most credible by 66.7% of respondents. Dependence on these online channels was likely reinforced by their perceived credibility versus traditional outlets like TV, print and radio.

However, interpersonal channels were one area where findings deviated from prior research. Just 13.3% of students used in-person discussions as their primary information source, despite close ties facilitating exchange. This may indicate international students face greater barriers leveraging personal networks abroad when urgent updates are needed. Reliance localized online instead.

Overall, media system dependency theory strongly explains international students' COVID-19 information behaviors. Faced with uncertainty, this group increased dependence on internet platforms and social media that offered credible, accessible and shareable crisis information. The findings provide novel evidence of online dependence among foreign student populations during health emergencies and give direction for further research.

## Limitations and future recommendations

This study explored information seeking behavior of international students living in China during COVID-19 outbreak. It gives interesting insight into their use of media sources to get COVID-19 related information, however, it had few limitations which are described below.

- The sample was limited to 252 international students, which may not be fully representative of the entire international student population in China. A larger and more randomized sample could improve generalizability.
- The study was conducted relatively early during the COVID-19 outbreak in China. Information seeking behaviors may have evolved as the pandemic situation developed over time. A longitudinal study could track changes in media dependence across different stages of the crisis.
- The survey relied on students self-reporting their media use. More objective measures like usage tracking or journal logging could validate and supplement self-reported behaviors.
- Demographic factors like students' home countries, Chinese language abilities, or length of stay in China were not analyzed. These could influence media use and should be examined.
- The study did not explore access issues, misinformation exposure, or barriers faced by students when seeking COVID-19 information. These context factors may impact behaviors.
- Reasons behind students' media preferences and credibility perceptions were not probed. Motivations could be further studied through interviews or open-ended questions.

## Recommendations For Future Research

The future research on this very subject can adopt a different strategy and approach to discover new pattern in the information seeking behavior of international students residing in China during health crisis. Those could:

- Conduct a longitudinal study following a cohort of international students over time to analyze how information seeking evolves across different stages of a health crisis.
- Use a mixed methods approach combining surveys with interviews or focus groups to obtain both quantitative trends and qualitative insights into student motivations, barriers and experiences.

- Examine relationships between demographic factors like home country, language proficiency, and length of stay in China with media use preferences.
- Analyze international students' strategies and challenges dealing with misinformation about health crises spread through online and social media channels.
- Assess the effectiveness of university communications to international students during campus or community crises, and how information gaps could be addressed.
- Expand the sample to include more universities and a larger, randomly selected group of international students in China to improve generalizability of findings.
- Compare media systems dependence across international student populations in different host countries and across different crisis situations to identify commonalities or differences.

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#### References

1. Abel JD, Wirth MO, (1977) Newspaper vs. TV credibility for local news. *Journalism Quarterly*, 54(2), pp.371-375.
2. Altakarli, N. S. (2020). China's response to the COVID-19 outbreak: a model for epidemic preparedness and management. *Dubai Medical Journal*, 3(2), 44-49.
3. Alzougool B, Chang S, Gomes C, Berry (2013) Finding their way around: International students' use of information sources. *Journal of Advanced Management Science*, 1(1), pp.43-49.
4. Ball-Rokeach, S. J. (1974). The information perspective. In annual meeting of the American Sociological Association, Montreal, Canada.
5. Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A dependency model of mass-media effects. *Communication Research*, 3(1), 3-21. doi 10.1177/009365027600300101
6. Ball-Rokeach, S. J. (2008). Media system dependency theory. *The International Encyclopedia of Communication*.
7. Bates BR, Romina S, Ahmed R and Hopson D (2006) The effect of source credibility on consumers' perceptions of the quality of health information on the Internet. *Medical informatics and the Internet in medicine*, 31(1), pp.45-52.
8. Case DO (2002) Looking for information: A survey of research on information seeking. *Needs and Behavior (2nd edn)* (Academic Press, Amsterdam, The Netherlands, 2007).
9. Chinese Service Center for Scholarly Exchange. 2020. Education of International Students In CHINA. Available at: <http://www.cscse.edu.cn/publish/portal0/tab132/info8898.htm> (Accessed 31 April 2020).
10. Cobanoglu, C., Moreo, P. J., & Warde, B. (2001). A comparison of mail, fax and web-based survey methods. *International journal of market research*, 43(4), 1-15.
11. Coronavirus Cases. (2020). Retrieved October 14, 2020, from <https://www.worldometers.info/coronavirus/>
12. Coronavirus doctor: 'Everyone is stuck here and can't leave'. (2020, January 23). Retrieved April 8, 2020, from <https://www.bbc.com/news/world-asia-china-51222384>
13. Coronavirus Wuhan diary: Living alone in a city gone quiet. (2020, January 30). Retrieved April 7, 2020, from <https://www.bbc.com/news/world-asia-china-51276656>
14. Cotten SR and Gupta SS (2004) Characteristics of online and offline health information seekers and factors that discriminate between them. *Social science & medicine*, 59(9), pp.1795-1806.
15. Ding X (2016) Exploring the experiences of international students in China. *Journal of Studies in International Education*, 20(4), pp.319-338.
16. Escoffery C, Miner KR, Adame DD, Butler S, McCormick L and Mendell E (2005) Internet use for health information among college students. *Journal of American College Health*, 53(4), pp.183-188.
17. Gaziano C and McGrath K (1986) Measuring the concept of credibility. *Journalism quarterly*, 63(3), pp.451-462.
18. Greenlaw, C., & Brown-Welty, S. (2009). A comparison of web-based and paper-based survey methods: testing assumptions of survey mode and response cost. *Evaluation review*, 33(5), 464-480.
19. Hou J, Ndasauka Y, Jiang Y, Ye Z, Wang Y, Yang L, Li X, Zhang Y, Pang L, Kong Y and Xu F (2017) Excessive use of WeChat, social interaction and locus of control among college students in China. *PloS one*, 12(8).
20. Hovland, C.I. and Weiss, W., 1951. The influence of source credibility on communication effectiveness. *Public opinion quarterly*, 15(4), pp.635-650.
21. Jang K and Baek YM (2019) When information from public health officials is untrustworthy: The use of online news, interpersonal networks, and social media during the MERS outbreak in South Korea. *Health communication*, 34(9), pp.991-998.
22. Lee, R.S., 1978. Credibility of newspaper and TV news. *Journalism Quarterly*, 55(2), pp.282-287.
23. Li, X. (2015). International students in China: Cross-cultural interaction, integration, and identity construction. *Journal of Language, Identity & Education*, 14(4), 237-254.
24. Lu HY (2003) Information Seeking and Media Credibility: College Students' Information Seeking and Perceived Source Credibility during the Crisis of SARS in Taiwan. *Media Asia*, 30(4), pp.220-227.
25. Lyu, J. C. (2012). How young Chinese depend on the media during public health crises? A comparative perspective. *Public Relations Review*, 38(5), 799-806.
26. Ministry of Education of the People's Republic of China (2019) Statistical report on international students in China for 2018.
27. Pecchioni LL and Sparks L (2007) Health information sources of individuals with cancer and their family members. *Health Communication*, 21(2), pp.143-151.
28. Sohrabi, C., Alsafi, Z., O'Neill, N., Khan, M.,

- Kerwan, A., Al-Jabir, A., ...& Agha, R. (2020). World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). *International Journal of Surgery*.
29. Staff, R. (2020, January 23). Wuhan lockdown 'unprecedented', shows commitment to contain virus: WHO representative in China. Reuters. Retrieved from <https://www.reuters.com/article/us-china-health-who-idUSKBN1ZM1G9>
  30. Tai Z and Sun T (2007) Media dependencies in a changing media environment: The case of the 2003 SARS epidemic in China. *New Media & Society*, 9(6), pp.987-1009.
  31. Voeten, H. A., De Zwart, O., Veldhuijzen, I. K., Yuen, C., Jiang, X., Elam, G., ...&Brug, J. (2009). Sources of information and health beliefs related to SARS and avian influenza among Chinese communities in the United Kingdom and The Netherlands, compared to the general population in these countries. *International Journal of Behavioral Medicine*, 16(1), 49-57.
  32. World Health Organization (2019) Rolling updates on coronavirus disease (COVID-19) Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen> (Accessed 30 March 2020).
  33. World Health Organization (2019) Rolling updates on coronavirus disease (COVID-19) Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen> (Accessed 30 March 2020).
  34. Worsley A (1989) Perceived reliability of sources of health information. *Health Education Research*, 4(3), pp.367- 376.
  35. Xiong, Y. (2020, January 26). 15 Chinese cities now in lockdown, affecting more than 57 million people. Retrieved April 10, 2020, from [https://edition.cnn.com/asia/live-news/coronavirus-outbreak-hnk-intl-01-25-20/h\\_30346ac69d7587a4b761883ce4383d70](https://edition.cnn.com/asia/live-news/coronavirus-outbreak-hnk-intl-01-25-20/h_30346ac69d7587a4b761883ce4383d70)
  36. Yang Z and de Wit H (2019) International Students in China: Facts, Paths, and Challenges. *International Higher Education*, (97), pp.18-20.
  37. Ye Y (2010) Correlates of consumer trust in online health information: findings from the health information national trends survey. *Journal of health communication*, 16(1), pp.34-49.
  38. Yoon J and Kim S (2014) Internet use by international graduate students in the USA seeking health information. *Aslib Journal of Information Management*.
  39. Yu, B. (2010). Learning Chinese abroad: The role of language attitudes and motivation in the adaptation of international students in China. *Journal of Multilingual and Multicultural Development*, 31(3), 301-321.
  40. Zeng Z, Hu, X and Mei S (2013) Factors affecting a mobile application's acceptance: An empirical study of user acceptance of WeChat in China.
  41. Zhang X, Wen D, Liang J and Lei J (2017) How the public uses social media wechat to obtain health information in china: a survey study. *BMC medical informatics and decision making*, 17(2), p.66.
  42. Zhe, G., & Gang, W. (2020, January 23). Wuhan shuts down airports, railways to contain new coronavirus strain. Retrieved May 10, 2020, from <https://newseu.cgtn.com/news/2020-01-23/Wuhan-shuts-down-airport-railways-to-contain-spread-of-Coronavirus-NtqkCJC39C/index.html>