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# **Cultural Divide Among Digital Generations: HVIC, Motivations, and Cultural Differences in Social Media Use in China**

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## **Abstract**

Prior research has unpacked multiple dimensions of social media use and its individual- and contextual-level consequences. However, what has been relatively understudied is the extent to which social media use interacts with users' cultural value orientations, as well as how cultural differences in social networking behaviors influence digital social inequalities. One of the influential theoretical frameworks to approach the cultural dimension of social media use is the conceptualization of individualism and collectivism (INDCOL) (Hofstede 1984; 2001; Markus & Kitayama; 1991; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995). While previous studies have suggested significant influence of individualism and collectivism (INDCOL) on social media use, there is still insufficient knowledge to illuminate how different INDCOL dimensions are associated with distinct types of motivations and behaviors. The purpose of this study is to fill this gap by investigating horizontal/vertical individualism and collectivism (HVIC), motivations for being connected, and social networking behaviors among young and mid-aged social media users in China. A total of 429 Chinese (male = 195, female = 232, 2 unspecified) 70s-born and 90s-born social media users were recruited through an online survey. Multiple statistical procedures (e.g., t-test, ANCOVA, and SEM) were employed in the data analysis. Our results showed that: (1) the younger Chinese cohorts showed significantly higher levels of individualism, but not collectivism, than the mid-aged ones; (2) with all control variables (e.g., demographics and internet skills), the mid-aged cohorts showed less individualistic, and more collectivistic, social media activities than the younger generation; and (3) with all control variables, the vertical dimension of HVIC significantly predicted the cultural dimension of social media use. This study provides an empirical reference to illustrate the mechanism of culture-technology interaction, as well as contribute to deepened understandings of the connections between socio-technical context, cultural dimension of social media use, and digital social inequalities.

## **Key Words**

HVIC, social media, motivations, social networking behaviors, digital social inequalities

# **Development and Validation of Digital Skills Scale for Farmers' Group: A Sample Survey Based on Farmers in Gansu Province, China**

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## **Abstract**

Digital skill is an important element in the study of the digital divide and an important predictor for the digital divide. In the past two decades, scholars have used different methods to measure digital skills of specific populations. There are many digital skills scales for adult Internet users and children in developed and developing countries, but there is a lack of research on digital skills measurement focusing on farmers or any other specific occupational groups. In this paper, the Digital Skills Scale for Farmers (DSS-F) was developed by combining the Internet usage habits of farmers with the Digital Literacy Survey in Rural China. A stratified random sample (N=684) of farmers in Gansu Province, China was used as a case study, and an exploratory factor analysis (EFA) and a validation factor analysis (CFA) were performed to ensure the validity and reliability of the scale after the initial research framework was developed. The final validated DSS-F consisted of 24 items in 7 dimensions, which were divided into Operational Skills (including software operation and basic operational skills), Information Skills (including information management and orientation and navigation skills), Social Skills (including social interaction and communication skills), Creative Skills (including content integration and content creation skills), Safety Skills (including privacy protection and risk prevention skills), Problem-solving Skills (including problem identification and problem solving skills) and Digital Farming Income-increasing Skills (including technology awareness and technology application skills). The scale provides theoretical and practical implications for improving the digital literacy of farmers and bridging the digital divide between urban and rural residents.

## **Key Words**

digital skills; scale measurement; farmers' group; digital divide.

# Digital creative practice from the margins: How Gen Z negotiates online expression

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## Abstract

Young people are enthusiastic users of new technologies (Banaji & Buckingham, 2013; boyd, 2007) and the Global North has considerable literature on their digital and social media uses, negotiation of online risks and benefits, digital skills, literacies and citizenship, and parental mediation (Beyens et al., 2019; Clark, 2011; Cortesi et al., 2020; Livingstone, 2008). In most Global South countries, including India, low cost mobile phones, cheap data plans, and vernacularisation have furthered access, especially among the urban poor, increasing engagement in digital leisure activities (Arora, 2019; Deshbandhu, 2020; Rangaswamy & Arora, 2016). However, little research is available on how these young people use digital and social media for meaning-making and creative expression. While most research happens in Western, Educated, Industrialised, Rich, and Democratic (WEIRD) contexts, most people live in considerably diverse situations and need to be studied (Alper et al., 2016; Henrich et al., 2010; Sarwatay et al., 2021).

Research must consider local inequalities and challenges such that knowledge produced is sensitive to issues of inclusion and diversity and prioritises children's rights, especially in the digital age (Alper et al., 2016; Banaji, 2016; CRC, 2021; Livingstone & Third, 2017). In this work, we unpacked how young users from India creatively express themselves on social media while negotiating digital divides, parental mediation, and risks and opportunities online. We used workshops and in-depth interviews with participants (14-18 years) from government, government-aided private, and unaided private schools - i.e., across diverse socioeconomic backgrounds - in India to understand how they accessed devices and software, and managed parental anxieties and expectations, while creating and curating their identities and expressions online.

These young people use technologies that are not always built for their contexts, ages, or cultural backgrounds. They belong to the exciting tribe of the "next billion users," young people especially from resource constrained contexts who have fast come online for the first time due to affordable mobile phones and data plans (Arora, 2019) and as such need to be studied. This work not only adds to our understanding of young users' digital creative practices, but also particularises the



challenges they face in doing so, thus contributing to the slowly growing literature on young people's social media cultures in the Global South with special focus on innovative solutions they devise to negotiate their creative expression online.

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### **Key Words**

Digital practice, online expression, digital divides, parental mediation, Gen Z

# South Korean Digital Information Divide: Present and Future

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## Abstract

Due to the large-scale application and spread of mobile Internet and its deep integration with PC wired internet, the divide between the vulnerable groups and the general public in terms of hardware device ownership has been greatly reduced. This means the traditional digital divide has been effectively improved, but not means that the problems facing the vulnerable groups have been completely solved. Instead, they are currently caught in another kind of divide, which is the digital information divide. Most of the existing literature only pays attention to the phenomenon of digital divide, but lacks in-depth exploration of the digital information divide between vulnerable groups and the general public. Based on a South Korean survey report-the Survey of Digital Information Divide, this paper gives a detailed explanation of the concept of digital information divide, and analyses the digital information divide of the South Korean vulnerable groups mentioned in the report. There are three main findings in this paper: First, the traditional digital divide index, which takes the indicators of device ownership, the degree of ICTs application and Internet access as the core, is no longer suitable for the social reality and cannot reflect the real divide between various groups. The digital information divide index, which this paper focuses on, mainly measures individual capabilities, can more truly reflect the divide between vulnerable groups and the general public. Second, the digital information divide is related to the vulnerable groups' digital information acquisition ability, digital information utilization ability and digital information ability. Among these three abilities, the vulnerable groups' digital information utilization ability and digital information ability are much weaker than the vulnerable groups' digital information acquisition ability - the first two indicators are around 70, while the last one is over 90. Therefore, improving these two capabilities is the key to narrowing the digital information divide. Third, within the vulnerable groups, farmers, fishermen and the elderly are more vulnerable than the disabled and low-income groups. According to the reported data, the ability of the first two groups is much lower than that of the last two groups, which means that farmers, fishermen and older groups need more social attention and policy focus to help them escape from the status of digital refugees. Based on the current situation of the digital information divide between the vulnerable groups and the general public in South Korea, this paper summarizes the contributing factors of digital information divide from three levels, namely, the inherent factors, the social factors and natural factors, and we also puts forward several countermeasures to narrow the digital information divide, which involves the endeavor of government, third party and individual of the vulnerable groups.

## Key Words

Digital Information Divide, Access Ability, Utilization Ability, Vulnerable Groups

# Leveraging social capital: how older adults make use of social connections to position themselves in a digital world

## Authors

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## Abstract

Although older adults have not been ignored in the digital inclusion discussion, recent research in Belgium has shown that this age-group remains more vulnerable for exclusion despite the effort to introduce them to digital technology (ZOOM, 2022). Ageing and technology cannot be seen as unrelated, rather they intersect and create specific technological social practices for older adults (Wanka & Gallistl, 2018). The role of social connection or network for digital inclusion has been well-documented (i.e. Helsper, 2012). To understand the digital inclusion of older adults it is necessary to examine the various practices and social norms surrounding ageing. To this end, our research answers the question: how do older adults use their social connections to understand their ageing experience in a digital world?

We interviewed 76 Dutch-speaking older adults with different levels of digital technology use in Belgium. Through an empirical analysis we were able to distinguish several themes. The first theme of the *'coupled bonus'* explores the different ways in which older adults divide the digital labor. The second theme discusses the *'motivational influence of children and grandchildren'* for digital inclusion. The third theme concerns the use of *'proxy-users'* to engage with digital technology on behalf of non-users. This enables non-users' disengagement with digital inclusion and engenders dependency on children. And the final theme examines the *'capitalizing of digital capital'* by users to obtain a preferred social position as 'ageing well'. This is achieved by using ageist beliefs to construct a digital ageing identity and is predicated on the fact that they maintain their independence.

The findings suggest that older adults are motivated to avoid dependency by engaging their social capital to be able to use digital capital. This allows users to have a different ageing experience from non-users. The ageing experience of non-users is characterized by a reliance on their children and a re-negotiation of their identity as their independence is lost. However, there is an inherent vulnerability for users as they are constantly at risk due to a loss of partner or an insurmountable digital challenge. Additionally, older adults without a partner and/or children are presented with a heavier digital burden in both user and non-user. As users, they are solely responsible for the digital labor and the maintenance of digital skills and as non-users they are dependent on non-familial help. The vulnerabilities displayed by both user and non-user need to be mitigated. Indeed to truly understand and to pursue successful interventions for older adults, there is a need to further examine the practices and social norms surrounding the ageing experience in the digital context.

## Key Words

Older Adult, Digital inclusion, Ageism , Social Support

# **Socio-Cultural Capital and Digital Divide: A qualitative study of how social and cultural capital are related to digital knowledge of senior Chinese**

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## **Abstract**

Why are the older adults so hard to teach when it comes to using phones or other devices? Many people, even seniors themselves, would say that they are old and they do not have the ability to learn things quickly. However, the exact same group of people are still able to pick up many other skills. This led the researchers to ask the question again and search for a different answer.

Ageism is a bias that exists widely in the Chinese society. It has often created a misunderstanding that older adults are not as capable as younger people in many ways. Several studies on the digital divide among older adults in China also see the reduced abilities as reasons for seniors to have less digital skills or knowledge. It has been seen that the physical and mental illness have often been seen as the cause of the gap in digital skills. However, the gap in their understanding of digital devices cannot be explained by illness or physical difficulty alone. The researchers therefore conducted this study to understand another factor that has led to the digital divide.

From the field works that have already taken place, the researchers found the following preliminary results: the difference in cultural capital of older adults has an impact on their ability to understand their digital devices; social capital impacts the digital knowledge of the participants; digital knowledge is a mean to increase their social capital for senior participants.

Method: The researchers have started field works in Shanghai and Jiangsu, China to study the digital divide among older adults (aged over 60) since 2019. The 38 participants were reached through snowball sampling and are in frequent contact with the researcher. A series of 13 semi-structured interviews have been conducted in November, 2022 in Shanghai and over 15 further ones are scheduled in February and March this year. The researchers code the data according to Grounded Theory using NVivo and Excel.

## **Key Words**

digital divide; social capital; cultural capital; digital capital; older Chinese

# Inequalities in digital disconnection experiences in Portugal

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## Abstract

The growing body of research on 'digital disconnection' originates especially in the Global North (Chia et al., 2021; Hesselberth, 2018; Syvertsen, 2020), and emphasizes the responsabilization ideology, as well as the impact on personal wellbeing (Madsen & Moe, 2021), through privileged practices such as digital detox. As it is conceptualized as voluntary interruption of the use of digital media, a lens of social differences among digital disconnection scholarship can be found only in scarce contributions, such as the logics of disconnection as distinction (Portwood-Stacer, 2012 on leaving Facebook in early 2010s); social stratification (Fast et al., 2021 on different norms to use devices according to spaces); on "power relations divides and inequalities that traverse" media repertoires in the Global South (Treré, 2021); and on digital inequalities (e.g., how these influence Facebook disconnection, Micheli, 2021). On a survey study in Switzerland, Nguyen et al. (2022) found that differences in disconnection experiences across the population were mostly attributable to age.

We argue that looking at digital disconnection experiences can provide insights into inequalities in outcomes. To this end, the study will use the concept of digital capital, as it is a form of capital that bridges the offline and online realms (Ragnedda & Ruiu, 2020). This paper reports on an ongoing study that looks at digital well-being and their unequal distribution (Ragnedda, 2017; Helsper, 2021) by investigating digital dis/connection experiences. The study builds on Ragnedda and Ruiu's (2018) understanding of the third digital divide, conceptualised as the capacity to transform the online experience into social benefits. We consider a model of social inequalities including the structure of economic and cultural capital; labour inequalities; class inequalities; spatial inequalities; cultural inequalities; gender, age, lifestage (Ganito & Jorge, 2018) and disability to analyse how these affect digital media uses and attitudes. To that end, the study also considers device, social media and app use, resulting activities and content consumed, as well as digital well-being (Nguyen et al., 2022). Moreover, the study analyses dimensions such as perceived digital overuse (Gui & Buchi, 2019; Stephens et al., 2017 in Gui & Buchi, 2019) and motivations to disconnect (Kania-Lundholm, 2021; Buchi et al., 2019; Birnholtz, 2010).

The survey study is conducted in Portugal, a semiperipheral country with stark social inequality, and seeks to gather data from a sample of 800 respondents. Our hypotheses point to the

interaction of different dimensions of social inequality in the experiences of digital media disconnection.

**Key Words**

disconnection, survey, inequalities, wellbeing

# **A Life Course Perspective on Media Use and Digital Inclusion of Chinese Older Adults**

## **Authors**

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## **Abstract**

Aging population is one of the main trends of transformation of contemporary societies. China makes no exception, by the end of 2021, there are about 267 million people over 60 years old in China.

The COVID-19 pandemic accelerates the use of digital technologies, as social interaction, health care, and bill-paying become increasingly digital, it seems more urgent for older adults to embrace new technologies. However, the digital divide within older Chinese remains substantial, due to disparities in economic status, literacy level, social relationships, and life background, the elderly as digital immigrants appear to be significantly differentiated in the process of digital inclusion.

Recent studies tend to focus on the older people's digital practices in their later years (Zhou, 2018; Boz & Karatas, 2015), while neglecting their subjectivity experiences. Social inclusion is a process that occurs gradually over the life course (Chen & Sun, 2012), and the media practices of the older people cannot be treated separately from their life course. In light of this, this paper employs a life course perspective to investigate the media use trajectory of older adults, so as to systematically analyze the reasons affecting their digital inclusion.

This study aims at answering the following research questions: What are the differences in media use among older adults with different life courses? What factors in their life courses inhibit the process of digital inclusion, and what factors promote it?

To answer these questions, we developed a research project in Shijiazhuang in Hebei Province, China, and utilized participant observation and semi-structured interviews as methodologies. From November 2021 to May 2022, we observed the media practices of 36 volunteers aged 60–83, of which 18 men and 18 women, to understand their habits and preferences of media using. Subsequently, we conducted 3 collective and 30 face-to-face interviews involving the same participants.

It was discovered that social circumstances, social interactions and individual motivation are important factors influencing older adults' media use. First, shifts in social perceptions, changes in media technology, and the occurrence of special social events are macro factors that contribute to changes in older adults' media use habits. Second, family relationships and peer relationships influence their media preferences and frequency of use. Thirdly, physical and psychological conditions and special life experiences influence their acceptance of new things. In the early, middle and late stages of life, these three factors continue to accumulate and jointly influence the



digital inclusion willingness of older people in their later years. As a result, the older adults are divided into exclusion type, marginal type, and expectant type according to their willingness and degree of digital inclusion.

**Key Words**

digital inclusion, media use, life course, older adults, digital divide

# **Conceptualizing Digital Divide through Actor-Network Theory: Examining the Interplay between Technology, Society, and Power**

## **Authors**

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## **Abstract**

Digital Divide is typically seen in terms of unequal distribution of digital resources and access to digital technologies among different populations. There have been other conceptualizations that have defined Digital Divide through the prism of Capability — whether citizens can realize the full potential of resources made available to them. This paper argues that Actor-Network Theory (ANT) offers a unique perspective for conceptualizing the Digital Divide by examining the relationships between technology, society, and power. The central concept in ANT, Actants, refer to both human and non-human entities that have agency and participate in networks of relationships. This can include people, machines, organizations, and other objects.

ANT views technology as a series of networks composed of various actors, including humans, non-humans, and technical objects. These actors interact with each other in a co-constitutive manner, meaning that technology shapes society, and society shapes technology. Power dynamics between actors in the network can explain why digital resources and access to technology aren't shared in the same way. For example, government policies, telecommunications companies, and multinational corporations wield significant power over the distribution and access to technology. In turn, these groups influence how digital resources are shared and used in society. The physical characteristics of technology, such as its size and design, as well as its accessibility and usability, can have a significant impact on who has access to it and how it is used. The digital divide can be seen as the result of a combination of power dynamics and materiality. Enrolment refers to the process of convincing and incorporating various actors into the network, making them a part of the technology's functioning.

Translation, another important concept in ANT, refers to the process of negotiating and transforming the meaning and function of technology within a network. In the case of the Digital Divide, translations can occur in ways that either reinforce or challenge existing power dynamics. For example, community-led initiatives that aim to provide digital access and resources to marginalized populations can serve as a form of translation that challenges the existing power dynamics in the network.

In addition to enrolment and translation, other related concepts such as network, materiality, power, and agency also play a significant role in shaping the Digital Divide. The concept of agency, for instance, refers to the ability of actors to act and make decisions within the network. In the context of the Digital Divide, agency can be seen as an important factor in determining who has access to digital technologies and how they are utilized. Hence the relationship between the Digital Divide and Actor-Network Theory can be understood in terms of enrolment, translation, network,

materiality, power, and agency. These concepts offer a deeper understanding of the ways in which technology, society, and power interact to shape the unequal distribution of digital resources and access to technology.

**Key Words**

Digital Divide, Actor-Network Theory, Technology, Society, Power

# Contextualized Interaction between Communication Subjects and Media Technology: The Impact of Social Media Use on Digital Literacy of Left-Behind Children in China

## Authors

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## Abstract

With the development of society and media technology, social media has increasingly permeated into people's daily lives. In this regard, more and more studies have found that long-term use of social media will have an impact on personal cognition, attitude, behavior, and other aspects (De Choudhury et al, 2011; Mahadi et al, 2016; Shahbaznezhad et al, 2021). Based on this phenomenon, European scholars creatively put forward the mediatization theory to distinguish it from traditional media theory and emphasize the shaping power of media on modern society (Friesen & Hug, 2009). In the increasingly mediated society, digital literacy has become one of the important competence for individuals to amplify the positive effects of digital media and resist the negative impact of mediatization. In previous studies, scholars paid more attention to the connotation of digital literacy and the influencing factors of digital literacy at the social structure level. However, relatively few studies focus on the influencing factors related to digital media.

In this paper, we select "left-behind children" as study subjects. As one of the marginalized groups in Chinese society, left-behind children have not received much academic attention for a long time in the study of digital literacy. In the Chinese social context, a left-behind child refers to a minor under the age of 16 who has two parents going out to work, or one of the other parents who have no guardianship capacity. Left-behind children generally feature as: (1) having high levels of loneliness; (2) living in a relatively isolated living environment; (3) lacking guardian care (Fan et al, 2010). This makes left-behind children more dependent on digital media such as social media, and correspondingly, relatively more influenced by the process of mediatization.

Therefore, we try to explore how the use of social media such as the dominant social software in China, WeChat, affects the digital literacy of left-behind children through a questionnaire survey. Using duration of use (hours per day), online social range (the number and category of friends), function usage (chat, get information, pay online, shop online et al) as the independent variables, and digital literacy as the dependent variable, **we find that:**

- There is no significant correlation between duration of use and digital literacy ( $\beta=0.062$ ,  $t=0.333$ ,  $p=0.745>0.05$ ).
- Online social range negatively affects digital literacy ( $\beta=-0.462$ ,  $t=-3.039$ ,  $p=0.01<0.05$ ).
- Function usage positively affects digital literacy ( $\beta=0.596$ ,  $t=4.297$ ,  $p=0.006<0.05$ ).

After that, we selected 20 left-behind children in Eryuan Yuhu Junior Middle School as interview subjects and interviewed 2 local teachers as supplements. Combined with the research findings of in-depth interviews, we attempt to use mediatization theory to explain why there is a positive or negative association between the use of social media and digital literacy of left-behind children.

**We argue that:**

Left-behind children, as communication subjects, interact with media technology in contexts constructed by reality and social media. In this interaction process, the technical characteristics of social media interact with the subjective characteristics of left-behind children to form different communication situations. As a result, the use of social media has a positive or negative impact on the digital literacy of left-behind children according to different contexts.

**Key Words**

digital literacy, social media, mediatization theory, marginalized group

# **“I Make Video, therefore I am”: Cases Study about Positive Digital Inclusion Behavior and Production Strategy of Vulnerable Groups as Video Creators in Bilibili.com**

## **Authors**

Mr. Wu Yonglong - School of Humanities and Communication, Dongbei University of Finance and Economics

## **Abstract**

Internet are expected to build a more equal human society against the background of modernity. However, with the virtual worlds and the real world continuing integrate together, there is another thorny issue occurs: the unsolved-challenge of digital divide has spread into the world of vulnerable groups. How to settle the digital divide among the vulnerable groups could effect to the harmonious development of globe society. In light of that, this study is trying to enter into the vulnerable groups and construct an inner frame of communication model to answer: What video-making strategies is adopted by the vulnerable? And how does it ultimately affect the bridging of the digital divide?

In research section, Marta and Fernando believe that disabilities and low income people are the two groups that most likely to be excluded in the digital realm (2022). However, this research believes that people who are temporarily disadvantaged due to certain events should be taken into consideration like those who have difficulty responding to human flesh search due to a lack of digital skills. Eventually, four research subjects were selected on video websites Bilibili.com: *“Jiang Ge’s mother”*, *“migrant worker Mr.Chuan”*, *“Lu Yingliu”* and *“psychological counselor Zhu Mingjun”*. These four research subjects correspond to disadvantage groups of low income, vulnerability due to certain event, congenital and accidental physical disability. After that, by adopting content analysis and sentiment analysis on over 4,000 captured comments and 500 video contents, this research take into consideration of their identity of real life, their digital production and the feedback of viewers, etc.

Ultimately, it is found that by showing daily behaviors, or “meaningless” behaviors like eating instant noodles, the vulnerable groups construct what James Carey called “a ritual view of communication” framework (1989) with their viewers through creating a personal and micro perspective of narratives. This inner non-transmission view of communication frame can be extended to other vulnerable groups, because according to Teresa and Isabel, “psychological interact with the social and cultural context” and “both contribute to address the role of technology in people’s life” (2016). Moreover, it is found that the vulnerable groups do not adopt passive digital survival strategy as commonly believed. Instead, by the assistance of ICTs, they prefer to take an initiative approach to self-connected into the mass communication system and indirectly, the emotional connection data are contributed to digital inclusion of their group. For example, *“psychological counselor Zhu Mingjun”* drew attention of a chair manufacturer through

the video of demonstrating of his own life and led to a gaming chair specifically for paralyzed individuals. This act could be seen as a example of the vulnerable individuals providing active digital inclusion support for the groups of their belonging.

In general, by reaching out to the vulnerable groups, this study explores how them making videos on the website Bilibili.com. Ultimately, it is found that the ritual view of communication of the vulnerable not only connects them to the mass communication system, but also gains strength for individuals and their group, that is: "I Make Video, therefore I Am", and eventually, bridging the digital divide. Under the background of Chinese society, we hope this research could contribute to the global digital inclusion policy making and social care.

### **Key Words**

Digital Inclusion; Ritual View of Communication; Vulnerable Group Communication

# **Digital barriers and empowerment: an empirical study of daily digital media usage and outcomes among the blind and visually impaired in China**

## **Authors**

Mr. Qi Liu - Communication University of China

Ms. Yujia Li - Communication University of China

## **Abstract**

A 'digital divide' threatens to exacerbate already-wide gaps in socio-economic and cultural inequalities among groups within and among countries. Therefore, reducing the digital divide is an important issue. However, little academic attention has been paid to the digital divide among disabled people. China, the largest developing country in the world, has more than 17 million blind and visually impaired people, accounting for about one-fifth of the total number in the world. The number of this group is still likely to increase with the aggravation of social aging. Therefore, it is of great significance to conduct research on the digital inclusion and social inclusion of Chinese blind and visually impaired. Based on the theoretical framework of the three-level digital divide, through the research methods of participatory observation, in-depth interviews and focus groups (online and offline), this article gives an in-depth description of the digital media practices in the daily life of the blind and visually impaired in China (Location: Beijing, Guangzhou, Nanning, Dali, Xi 'an; Age: 10-67 years old). The study found that: 1) China's well-designed network infrastructure and low media material cost have basically enabled the blind and visually impaired in China to access the Internet. However, due to problems such as digital media software adaptation, they still have access barriers. 2) Chinese blind and visually impaired develop strong skills and high-level competence to use digital media. They actively use the Internet to obtain information, maintain relationships, learn new knowledge, carry out work, consume and invest, and help travel, showing the characteristics of autonomy and diversity. It can be said that the blind and visually impaired people in China have already lived in a 'media-saturated' society, and smartphones have become their 'media prostheses'. 3) the proper access and use of ICTs remedied the shortage of the construction of physically accessible space in China, greatly improve the overall living situation and life chances of the Chinese blind and visually impaired group, expand their social engagement and career options, enrich their spiritual and cultural life, and help them realize their self-worth. 4) a small number of Chinese blind and visually impaired people with digital capital have gained more competitive advantages in social life, which constitutes a new power dominance relationship for other members, which means that a new digital divide has emerged within the blind and visually impaired group in China. Finally, it is worth noting that this article mainly focuses on Chinese blind and visually impaired people living in cities, given the huge gap between urban and rural areas in China, the difference in the digital divide between them still needs further research.

## **Key Words**

blind and visually impaired, China, third-level digital divide, usage, outcomes



# Algorithms Divide as a Limiting Factor for Government and Youth Communications in Social Media

## Authors

Dr. Anna Gureeva - Lomonosov Moscow State University

Ms. Polina Kireeva - Lomonosov Moscow State University

## Abstract

Research on the role of digital platforms in the state-youth media communication is very important and relevant today. The purpose of this study is to conceptualize digital platforms as influential subjects of state and youth communication in the context of deep mediatization, and to examine their contribution to deepening digital divide. The authors describe the features of their subjectivity using the example of Russia's largest social network VK. The problem of the digital divide is a natural phenomenon for Russia, given its significant geographic, economic, cultural, societal differences (Gladkova, Vartanova, Ragnedda, 2020). The empirical verification of the hypotheses was conducted by the methods of expert interviews (5 in total), content analysis of state authorities' posts (257 in total) and a pilot survey among university students (97 in total, 18-25 age).

Social media provides users with direct access to an unprecedented amount of content. To streamline the flow of information, digital platforms use algorithmic output of new posts in users' feeds. Algorithms select content based on collected data on users' previous interactions on the platform (Hunt R., McKelvey F., 2019). Algorithms and AI are important topics in social inequality research. Knowledge inequalities in algorithms divide mean that users have different levels of understanding and knowledge about the role of algorithms in shaping our perception about the reality.

Algorithms follow users' preferences, showing them what they expect to see, and thus contribute to forming closed communities of like-minded people around a common narrative – the "echo chambers", which are ideologically homogeneous communicative environments in which users' opinions and views are reinforced through repeated interactions with like-minded sources (Cinelli et al, 2021). The structure of the mediatized communication space consisting of multiple "echo chambers" creates additional barriers in the interaction between the state and young citizens.

The VK newsfeed is personalized: the feed algorithm rearranges the order of news, displaying the most relevant to users posts above the rest. Prioritizing considers the following criteria: number of comments, likes, views, clicks on links and viewing time per post. VK users have an opportunity to shape the information field themselves, following only the accounts they like and avoiding others. VK allows users to hide irrelevant posts using the button "It's not interesting", downgrading other similar news in the feed.

As entertaining, engaging content dominates in youth media consumption (Dunas, 2021), it will be abundant in their newsfeeds, while the amount of other posts will be minimized. The results of content analysis reveal that informational publications prevail (more than 85%) in the VK accounts of the five federal ministries and agencies responsible for the implementation of youth policy in Russia. Thus, algorithms can ignore posts about government initiatives, because they do not meet the demands of young people. This hypothesis could be partly confirmed by the pilot survey results: 54% of young people rarely or never see government posts in their feed, sometimes – 24%, on a regular basis – 22%.

**Funding:** The research is supported by the grant of the Russian Science Foundation (project No. 23-28-01865).

**Key Words**

government and youth communications, social media, algorithms divide

# **The third level of digital divide in Spain: eHealth in the post pandemic**

## **Authors**

Dr. Carolina Escudero - University of Missouri

## **Abstract**

After the pandemic, the healthcare sector has experienced an accelerated progress with the incorporation of Information and Communication Technologies (ICT's) for actions and protocols. However, these innovations represent a challenge in terms of the mistrust caused by the technical complexities that this new system poses in older adults, in addition to the fact that it has not yet been adapted to the different populations that inhabit the country, which could deepen the so-called digital divide.

This study analyzes the digital health services used by citizens in Spain to improve their quality of life (third level of digital divide). The research focuses on the third level of digital divide, by analyzing eHealth strategies and accessibility in the country. Interviews to two (2) medical doctors, data from Eurostat, surveys and other reports, showed an acceleration in the creation of digital health portals and applications. In this way, Spain could position itself within the group of countries considered to have high performance in terms of eHealth services, but this does not ensure that people trust these initiatives or that it is an inclusive and easily accessible plan.

Based on the literature review –Eurostat 2022, Digital health plan Spain 2021 and two (2) surveys–, three dimensions have been constructed to identify the level of inclusion in the eHealth portals: the perception of time (faster), the perception of content of interest and the perception of resolution. However, no actions are identified that seek to generate an inclusive access in four types of population: older adults; people at risk of exclusion, ethnic minorities and the population of rural areas.

As a result of this study, it is concluded that the population, in general terms, has a positive view of eHealth services, especially after the pandemic where they found solutions, support and quick responses. However, it is highlighted that the eHealth policies implemented to date in Spain are not taking into account different types of populations, and their needs, generating marginalization, which deepens their exclusion and the digital divide.

## **Key Words**

Spain - eHealth - Post-pandemic - Digital Divide - Exclusion

# Smart Cities: A critical communications for social change intervention

## Authors

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Prof. Sandra Jeppesen - Lakehead University Orillia

## Abstract

As of 2007, “more than half of the world’s population now live in urban areas — increasingly in highly-dense cities” (Ritchie & Roser, 2018), and by 2050 it is projected that nearly 70% of the world’s population will live in cities. As cities concentrate the bulk of human production and reproduction activities, changing ways of living in cities - including transportation, housing, consumption, work - is crucial for meeting climate change mitigation and human development goals. Cities are places for both cutting edge technologies and extreme poverty. Cities can also be seen as complex communication networks and ecologies. They are networks of interlinked nodes that interact by exchanging information and exerting mutual influence. But the network is not enough an analogy to understand the city as they are living systems constituted by physical spaces, living organisms, and objects that are connected through social practices enacted through communication.

The idea of "smart city" as become an umbrella term for tech companies and local management to describe a range of technologies which would allegedly make life in cities more convenient and safe for its dwellers whilst making urban services and structures more effective. However, under the smart city guise, big tech companies extract data, contribute to the segregation of vulnerable communities in urban spaces, and exert control over human lives and geographies. Creating a “smart city” is not (or should not be) only a matter of fixing technicalities and employing appropriate technologies, often catering to the needs of *certain* citizens. A communications angle reveals contradictions and tensions present in data-driven technocentric approaches to the smart city. It can, for instance, look into human, political and collective impacts of AI and big-data in areas such as crime prevention, transport, accessibility; explore how the connections between smart city projects and gig economy contribute to the precarization of life in cities, and assess the limits for political participation in e-governance projects.

Communication studies have an important contribution to make to analysis, discussions, and the understanding of sustainability in urban environments pointing to possibilities and avenues for social innovation. From the perspective of critical communication studies it is possible to challenge techno-instrumental appropriations of space through data, interactive maps, transport and delivery apps, crime prevention technologies, among others. This kind of critical scholarship-action emerges from resistant communities and practices in the peripheries of knowledge production. Communicative intelligence for smart cities is thus decolonial in its essence because it identifies and resists extraction, exploitation, and oppression. Community communication perspectives,

theories, and practices can inform a more dialogic and humanist understanding of the smart city to question systems of objects that tend toward ends that alienate places and its inhabitants.

In this presentation, we propose three key entry points to substantiate the critique of data driven smart city projects and initiatives from the perspective of communication: collective development of public spaces in relation to public communication, grassroots data appropriation for deliberative processes, and solidarity as a strategy for community life.

**Key Words**

Smart city, community communication, urban data, urban development

# Linking health information use, information support to self-efficacy among Chinese adults: The mediating role of health information literacy

## Authors

Ms. Jinxu Li - Texas A&M University

## Abstract

**Introduction:** Perceived self-efficacy plays an essential role in people's health behaviors (O'Leary, 1985), but little previous research focused on factors that predict health self-efficacy (Zou, 2021). Additionally, people face many challenges in accessing quality health information and making health decisions in the current media environment. Mastering the information environment through information literacy can be a crucial strategy for reducing uncertainty (Lloyd & Williamson, 2008). Health information literacy is an important factor in examining the digital divide in the health domain. Guided by channel complementarity theory and information support theory, this study explores the predictors of health self-efficacy in terms of different health information channel use and different information support; and examines the mediating role of health information literacy.

**Methods:** The samples were recruited from a market research firm (Wenjuanxing) in China. 1051 respondents participated in this study. Health information use measures included traditional media use (newspaper, radio, television, and magazines) and online media use (official and unofficial online media). Information support measures included three levels: interpersonal, professional organization, and non-professional organizational. A knowledge quiz measured health information literacy with ten questions (e.g., how to calculate BMI, how to judge and deal with false advertising of diabetes), total score range of 0-13. All scales in this study were 5-point Likert and passed reliability and validity tests.

**Results:** Of 1051 participants, 524 (49.9%) scored more than 10 (out of 13) and could be considered as having health information literacy. Respondents' exposure to online media for health information (mean = 3.89) was higher than their exposure to traditional media (mean = 2.54). Moreover, respondents received the most information support through professional medical organizations (mean = 4.32), followed by information support through interpersonal contacts (mean = 3.61), and minor information support through non-medical professional organizations (mean = 3.32).

Hierarchical linear regression results showed that online media use ( $\beta = .170, p < .001$ ) was positively related to health self-efficacy. Interpersonal information support ( $\beta = .128, p < .001$ ), professional organization information support ( $\beta = .309, p < .001$ ), and non-professional organizational information support ( $\beta = .078, p < .01$ ) were positively related to health self-efficacy. Mediation tests showed that health information literacy mediated the relationship between traditional media use and health self-efficacy (indirect effect =  $-.030, 95\% \text{ CI} = [-.046, -.016]$ ). Health information literacy partially mediated the relationships between Internet media use and

health self-efficacy (indirect effect = .021, 95% CI = [ .011, .034]) and between information support and health self-efficacy (indirect effect = .022, 95% CI = [ .008, .041]).

**Conclusion:** The results of this study extended the role of information support and channel compensatory theories in predicting factors influencing health self-efficacy. Furthermore, the applicability of these two theories was empirically tested in the Chinese context. The findings identified the positive role of online media use, the three types of information support on health self-efficacy, and the mediating role of health information literacy. In terms of practical implications, this study provides several recommendations for the work of future health communication and health interventionists. For example, health self-efficacy can be promoted by providing more accurate and effective online information and health information literacy education.

Limitations and future directions will be discussed in the presentation.

**Key Words**

health information use; information support; self-efficacy; health information literacy

# **Mediating Effects of Media Discrimination and Self-Esteem: A study on the Relationship between Digital Media Accessibility and Digital Media Equity Improvement for Visually Impaired People in China**

## **Authors**

Dr. Linxuan Gao - School of Journalism and Communication, Renmin University of China

Dr. Tian Jing - School of Journalism and Communication, Renmin University of China

## **Abstract**

Compared with the traditional media era, the development of digital media technology has profoundly changed the daily life of the visually impaired in the way of information symbol exchange and multi-sensory interaction. On the one hand, it is used by the visually impaired to safeguard group interests, increase social participation, and address the inequities faced by the group. On the other hand, it is also fraught with cyber violence and many of its functions cannot be used by the visually impaired, thus making them feel new injustices. Based on this, this paper attempts to investigate the relationship between the accessibility of digital media (MA), perceived digital media discrimination (MD), self-esteem (SE) and perceived fairness improved effect of digital media (FE) in the process of digital media use and integration for the visually impaired group from a cognitive-behavioral perspective.

This study develops a theoretical model with Stimulus-Organism-Response (SOR) theory and proposes the following hypotheses: (a) MA is positively correlated with FE. (b) MA is positively correlated with SE. (c) MA is negatively correlated with MD. (d) SE mediates the effect of MA on FE. (e) MD mediates the effect of MA on FE.

Based on a questionnaires survey of 181 visually impaired people, all of the above hypotheses were tested. On the one hand, digital media accessibility can improve the perceived fairness improved effect of digital media by reducing the perceived media discrimination of the visually impaired. On the other hand, digital media accessibility can boost the perceived fairness improved effect of digital media by increasing the self-esteem of the visually impaired.

The results of this study corrected the previous cognition of a simple positive linear relationship between media accessibility and fairness improved effect of digital media. In the case of the visually impaired group, their perception of equity is more susceptible to the overall social environment beyond technology due to the limitations of physical reasons. Despite the fact that they need to use digital media for practical reasons, their perceptions of fairness still be affected by media discrimination. And the lack of access to digital media may make them feel more physically restricted, leading to a sense of loss and lack of confidence, which will affect their self-esteem.

Besides, this study found that there are still some visually impaired people who are unable to use digital media and the skills they acquire to use are relatively rudimentary. Because the designers



and producers of digital media and software are generally able-bodied, it is difficult for them to fully respond to the needs of the visually impaired, even if they pay close attention to their needs, which leads to invisible digital media discrimination. In this context, digital media rarely becomes a way for them to further enhance social inclusion, explore personal potential and create value.

Therefore, to reduce discrimination, it is necessary to develop a "normal" network of actors by closely integrating body, technology and society. Perhaps for the visually impaired, both the normalization of media use and the normalization of social life need to start with the enhancement of self-esteem, which requires more support from the whole society.

**Key Words**

visually impaired group; media discrimination; digital equity; media accessibility; self-esteem

# **Tangible Outcomes of Internet Use: An Impact Evaluation of a Digital Literacy Training Program in India**

## **Authors**

Dr. Nidhi Bansal - Malaviya national institute of technology Jaipur

Ms. Heena Choudhary - Malaviya national institute of technology Jaipur

## **Abstract**

Digital literacy training (DLT) improves the user's digital skills and enables them to perform more online activities, thus leading to better opportunities across all domains of life. However, there is a limited understanding of how these skills or activities translate into actual outcomes. This study attempts to understand how effective digital literacy training programs (DLTPs) serve as solutions to mitigate the impact of the digital divide, particularly among marginalized rural populations. In addition, using the corresponding fields' model, we are interested in researching what type of tangible or intangible outcomes of Internet usage is achieved by such populations post-training, as outcomes are becoming increasingly crucial in the digital age. In-depth interviews were conducted with the beneficiaries of a DLTP who received the training in the time frame of a year. [Ma2] The results showed that despite the training, people with higher socio-economic and demographic backgrounds benefit more from digital engagement, not only in terms of usage but also in the type of Internet outcomes achieved in various domains. If individuals with lower socio-economic backgrounds are to take more significant advantage of digital engagement than those with higher socio-economic backgrounds, existing training designs and pedagogies are required to be improvised concerning the socio-economic background of the learners. It is essential to focus on bridging existing and newly emerging digital divides to ensure equal opportunities and a shared future for all. The findings contribute to developing best practices for overcoming digital inequalities in policy-making, social activism, and academic contexts.

## **Key Words**

Digital Inequality; Third-level Digital Divide ; Internet use; Outcomes; Training

# **Situating psychological and relational wellbeing in adolescents' social contexts and digital practices**

## **Authors**

Prof. Susana Batista - NOVA University of Lisbon

Prof. Cristina Ponte - NOVA University of Lisbon

## **Abstract**

This presentation examines adolescents' subjective wellbeing in the context of their individual and social characteristics and digital experiences. Based on the analysis of 3,899 respondents in a longitudinal survey in six European countries (as part of the ySKILLS project), we identify different profiles of psychological and relational wellbeing built upon their sense of self-efficacy, life-satisfaction, family, and friend support. We then explore their relations to their life contexts, on the one hand, and digital experiences, on the other hand, considering also how they evolved in a one-year interval. Our findings reveal how cognitive, physical, social, and digital experiences are related to distinct kinds of subjective vulnerabilities. Emotional vulnerable profiles live in worse material, physical and social conditions, but their digital experiences are diverse. Self-reported digital skills and knowledge are lower among those with weaker peer support. We conclude with specific recommendations to promote an integrated approach to improve digital skills.

## **Key Words**

Digital skills; wellbeing; adolescents

# **Digital refugees? Displaced youth's digital lives between vulnerability and wellbeing**

## **Authors**

Prof. Myria Georgiou - London School of Economics and Political Science

Ms. Alia Zaki - London School of Economics and Political Science

Dr. Verónica Donoso - European Schoolnet

## **Abstract**

This presentation examines teenage refugees' engagement with digital technologies in the context of displacement and resettlement in European cities. Drawing on a multimethod qualitative study conducted in Belgium, Greece and the UK, the study illustrates how young refugees use communication technologies to manage transnational lives, often in contexts of perpetual change, heightened vulnerability and continuous uncertainty for the future. Our findings reveal that young refugees precariously balance digital risks and opportunities as they rebuild lives away from their original homeland. We specifically show how digital technologies frame their lives in three ways: regulating relationships locally, nationally and transnationally; mediating experiences before, during and after their uprooting; and managing their literacies, these being digital and educational. Analyzing the significance of digital technologies in young refugees' lives, we identify the opportunities and risks these technologies present in supporting displaced youth's wellbeing and hopes of rebuilding a home.

## **Key Words**

Digital skills, refugees, young people,

# **Gendered perspectives on digital skills and digital activities: Comparing non-binary and binary youth**

## **Authors**

Dr. David De Coninck - KU Leuven

Prof. Leen d'Haenens - IMS, KU Leuven

Ms. Joyce Vissenberg - KU Leuven

## **Abstract**

Gender is increasingly considered as a multidimensional concept with a growing number of young people identifying as non-binary (genderfluid, an umbrella term for gender identities not conforming to the male/female dichotomy). Non-binary youth more frequently engage with a variety of digital risks such as misinformation, cyberbullying, and co-rumination than binary youth. No research so far has investigated how digital development differs between non-binary and binary youth. We focus on differences in digital skills and digital activities. Non-binary youth tend to make greater use of the internet for content creation and mental and physical health information than boys and girls. Disparities in terms of entertainment and social relationship use are also found. Findings on digital skills indicate that non-binary youth closely mirror boys in this regard. We conclude with recommendations for future research to help bolster our understanding of how digital contexts may predict the development and wellbeing of non-binary youth.

## **Key Words**

Digital skills, non-binary youth, gender, wellbeing

# European adolescents' digital skills' role in wanted and unwanted receiving and sending of sexts

## Authors

Ms. Michaela Lebedíková - Masaryk University

Prof. David Smahel - Masaryk University

## Abstract

Most research on adolescent sexting investigates its potential harmfulness and fails to acknowledge the positive potential of safe sexting. Such potential can be facilitated by equipping youth with skills that allow them to navigate sexting safely, but research is still needed to identify such skills. In opposition to existing research, we identify concrete digital skills (technical, communication, and content production) and explore their relation to different frequencies of wanted and unwanted receiving and sending of sexual messages, while controlling for age, gender, depressive symptoms, and sensation seeking, in a sample of 2,953 adolescents from three countries. Our results show different roles of skills in each behavior, most importantly only a limited role of technical skills in protecting from unwanted sexts. Together, the results show the importance of a nuanced approach considering the responsibility of other people involved in sexting and the need to shift from individual responsibility and victim-blaming.

## Key Words

Digital skills,

# **Supporting vulnerable youth's wellbeing through digital skills: Examining the impact of intervention strategies**

## **Authors**

Prof. Margus Pedaste - University of Tartu

Ms. Natalia Edisherashvili - University of Tartu

Ms. Marit Puusepp - University of Tartu

Prof. Lukasz Tomczyk - Jagiellonian University

## **Abstract**

Many youths insufficiently master the digital skills they need to engage in an increasingly digital environment, and this may threaten their wellbeing. Various efforts to develop intervention programs aimed at stimulating these skills have been undertaken. Yet, evidence-based claims about the impact of such interventions for positive outcomes relating to youth's wellbeing are diverse, and insufficient attention has been paid to the outcomes of such interventions for vulnerable target groups, while they may be the ones who would benefit most from such interventions. By means of a systematic evidence review, the current research takes a first step towards a better understanding about what makes an intervention effective in stimulating digital skills and in reaching positive outcomes for target groups and their caregivers. The systematic evidence review identifies the driving factors fostering digital skills as well as the characteristics of effective interventions programs, with special attention to vulnerable youth.

## **Key Words**

Digital skills, intervention programmes, systematic evidence review, vulnerable youth

# **The persistence of the digital divide: Through the lens of libraries outside the global North**

## **Authors**

Ms. Cathleen LeGrand - University of Leeds

## **Abstract**

This paper continues a consideration of the digital divide that centers notions of precarity and instability to help shape the understanding of the divide as a nuanced continuum rather than a binary of “have” and “have not” (Livingston & Helsper, 2007). This paper is drawn from preliminary findings of ongoing doctoral fieldwork completed in two locations outside the global North (one in the Caribbean and one in southern Africa). This research considers a digital divide through the window of libraries, knowledge institutions on the front lines of information/media access for diverse groups that include elite organizations, underprivileged communities, and disconnected individuals. Libraries themselves have a complicated history: as projects of the colonial enterprise and as community-enhancing spaces with empowering and liberatory potential. Findings emerge from a close examination of the practical realities of digital inclusion and connection and contribute insight into how a digital divide manifests and persists.

Practical fieldwork conducted in different kinds of libraries—academic, school, and public—in two countries illuminates multidimensional asymmetries in digital inclusion. One asymmetry is in the labor required to gain and maintain digital connection. Gonzales’ (2016) notion of technology maintenance exposes the constant work of keeping devices and connections operational. This is labor and care asymmetrically distributed to the poor and marginalized.

For many, digital devices and connections are only available in specified locations: a worksite, a university, a friend’s home, an internet cafe, a library. Those seeking such connections may have to relocate themselves to these sites, perhaps at very specific times of day. The condition of “digitally included” has geographic and temporal elements; it may be temporary, periodic, precarious, localized, expensive, laborious to maintain. Digital inclusion exists within a certain space-time: here and now; here but not there; now but not later. The enabling requirement of relocation, of mobility—of overcoming the geographic and temporal barriers of disconnection—can also be understood as labor: the labor of navigating the transportation of oneself within the context of the local built environment.

Another dimension of asymmetry is in the different options for connection that are available to those lacking financial or technological resources. Their methods of bridging a digital divide may be non-official and makeshift or may take forms often considered illicit or deviant: sharing passwords, standing outside a building to catch a wifi signal, sneaking a contraband mobile phone into your schoolbag. Our understanding of digital inclusion must reckon with the knowledge that it may only be earned by actions labeled by dominant power structures as “piracy.”



The preliminary findings shared in this paper illustrate precarious connectivity and the “dependable instability” (Gonzales, 2016, p. 235) of digital inclusion. Understanding of digital divides should be shaped by practical reality rather than by techno-optimistic promises. This reality includes complex and diverse mechanisms of disconnection that persistently challenge the attainment of digital inclusion and the constant labor of staying included.

**Key Words**

Digital inclusion, global South, precarity, libraries

# The Impact of Digital Capital on the COVID-19 Vaccination Intention Among Chinese Elderly: The Mediating Effects of e-Health Literacy

## Authors

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## Abstract

The COVID-19 pandemic has caused significant loss of life worldwide and raised public health concerns, leading to a demand for increased vaccination rates. However, from the perspective of the digital divide, demographic characteristics and internet inequality have an impact on access to health information and healthy decision-making (Yoon, et al., 2020), particularly among the elderly population. China is undergoing a rapid aging process, and as of the end of 2021, the number of elderly people over 65 years old has reached over 200 million, accounting for 14.2% of the total population. Meanwhile, according to CHARLS data, only 72.4% of older Chinese people had received booster vaccinations as of August 2022, with a decline in vaccination rates as age increases (Wang et al., 2023). Some studies have found that female, unmarried, and older urban residents have lower vaccination rates (Wang et al., 2023).

Additionally, digital capital is a newly developed concept that is intertwined with social capital and the digital divide and is defined as the accumulation of digital competencies and technology (Ragnedda, 2018; Ragnedda et al., 2020), indicating social resource inequalities. The digital society presents challenges for individuals who lack exposure to digital devices and are unfamiliar with online information seeking (Brørs et al., 2020). Previous studies have examined that how e-Health literacy moderates the relationship between social media use and public preventive behaviors (Li & Liu, 2020).

Therefore, our study introduces a novel model to examine how digital capital influences the older COVID-19 vaccine acceptance behavior and investigates the mediating effects of e-Health literacy. We accepted that Ragnedda (2020) developed a scale to measure digital capital and Norman (2006) developed the e-Health literacy scale, which combines three factors (information seeking, information appraisal, and information use) to measure it (Reder et al., 2019). Based on that, we proposed four hypotheses: **H1:** The level of digital capital is positively correlated with the elderly's willingness to vaccinate against COVID-19; **H2-H4: Online health information seeking(H2), appraisal(H3), applying(H4)** play mediating roles between digital capital and COVID-19 vaccination intentions, respectively.

To test our hypotheses, we conduct a cross-sectional survey in Hubei Province in February, where the first city (Wuhan) was struck by COVID-19 first. We aim to collect at least 300 valid questionnaires. We will establish a structural equation model using AMOS, with digital capital as the independent variable, COVID-19 vaccination intention as the dependent variable, and e-health literacy as the mediating variable. The mediation effect will be analyzed using the bootstrap

method. Our preliminary analysis indicates that gender, income, age, and access to digital devices affect digital capital. Limited e-Health literacy skills may impact public health awareness and decision-making.

The expected contribution of this study is to explore and understand the patterns of varying levels of digital capital and e-Health literacy on health-related decision-making. We also propose suggestions for improving the elderly's access to digital resources and ability to use digital information, thereby enhancing their e-Health literacy and addressing concerns and misconceptions about vaccines.

**Key Words**

Digital Capital, Vaccination Intention, e-Health Literacy, Digital Divide, Health Decision-making.

# **Perceptions and Meanings of Digital Risks in a Post-Pandemic scenario among Young People in Mexico City**

## **Authors**

Mr. Rodrigo Cardoso - National Autonomous University of Mexico

## **Abstract**

The uses of Information and Communication Technologies (ICTs) has reflected a significant growth over the past decade. In the case of Mexico, young people are the demographic group that exhibits the highest proportion of Internet connectivity in their homes and daily life through multiple devices. There have been multiple and varied research approaches to identify the expressions of the digital divide, mainly nowadays related to the access, usage and appropriation and benefits. These efforts have been able to produce new data that can be used to create better policies and strategies related to the digital everyday experience for young people, especially considering that their usage starts and increases significantly since early ages. However, the COVID-19 pandemic and the confinement measures adopted in many countries, Mexico one of them for over a year, disrupted their social life and were forced to translate most of it to digital environments where the digital divide became more evident even within individuals from the same scenarios. The pandemic confinement measures modified in-house agreements of time and places for the use of technologies like screen time, playing videogames, use of social media or even something as basic and important like having their first personal smartphone which opens many new possibilities. This happened in a context of digital and social divides intensified by an unexpected event that forced all the individuals at home to intensify their usage of technologies even if they didn't want it, know how or even if they didn't have the resources at the time.

This work is presented as an update from an ongoing doctoral research. The main focus of this proposal is on exploring the perceptions and meanings attributed to digital risks by 15 to 18-year-old young people from a public school in Mexico City. The perception is conditioned by diverse factors such as gender and social class, which intensifies or render invisible the risks, while the meanings related to the perceptions are frequently manifested through actions and strategies aimed at mitigating or protecting against potential risks. While most studies on risk focus on a quantitative approach, this effort aims at the understanding of the process that conducts them to perceive, mean and act on digital risks considering both a digital divide and a post-pandemic context. Both are analyzed as a phenomena that result from their appropriation trajectories of ICT's in their everyday lives which are explored through semi-structured interviews that were conducted in a public school where most students come from marginalized sectors and were highly impacted by the COVID-19 pandemic in their everyday lives.

## **Key Words**

Young People, Digital Divide, Digital Risks, Post-Pandemic, Perceptions, Meanings.

# **The triple disarticulation: The generation mechanism of young visually impaired users' weak agency in use**

## **Authors**

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Ms. XinXin Huang - School of Journalism, Fudan University

## **Abstract**

After the goal of poverty alleviation has been achieved, China's rural areas have entered a post-poverty era. The disappearance of absolute poverty does not mean the complete disappearance of poverty. Information differentiation inexorably distinguishes between the information-rich and information-poor, and the information-poor are the weakest in contemporary society. The continuous development of information communication technologies (ICTs) has brought access to information for the information-poor, especially among the visually impaired. In fact, subjective factors, institutional factors and social factors also affect the use of smartphones by visually impaired groups. The youth visually impaired group is a pioneer in the use of smartphones by the visually impaired, representing almost the highest level of smartphone use in this group. Therefore, this study took young visually impaired people as the research object, and used the analysis method of qualitative research to process the accessibility experience feedback of 15 visually impaired users' smartphone APP. This study found that young visually impaired people have an obvious lack of agency in smartphone use at both cognitive and behavioral levels. That is, the weak agency. Therefore, the focus of this paper is why young visually impaired people have insufficient agency to use smart phones when the Internet and media technology are so popular. That is, how this weak agency is generated.

The triple articulation theory sees media consumption as composed by the meaning of media technologies as objects, media texts, and the context. This paper draws upon the concept of a triple articulation and finds that the weak agency of smart phone use of young visually impaired users is related to the failure of triple articulation. That is, the triple disarticulation. The triple articulation of object, text and context separates mobile phones from the daily lives of young visually impaired people, leading them to believe that the inability to use mobile phones deeply will not affect daily life. So, their agency is reduced, eventually their use process is delayed or even terminated. Therefore, this study uses "object-text-context" as the analysis framework to explore how the smartphone usage behavior of visually impaired users is disarticulated from their daily lives, thus weakening their agency.

First of all, smart phones as objects are disarticulated from the daily lives of visually impaired users. Visually impaired users have encountered triple digital discrimination in the practice of digital platforms: access discrimination, renewal discrimination and daily use discrimination. The first disarticulation between smart phones as objects and the daily life practice of visually impaired users promotes the generation of weak agency. Secondly, smart phones as texts, still cannot solve

the obstacles faced by visually impaired users when reading text. Because it is inconvenient to use screen reading software, the screen reading function cannot express the emotion of the other party, and visually impaired users subjectively believe that Internet overload information is not needed. smart phones as text, disarticulated from their daily lives. This is the second disarticulation that promotes the generation of weak agency. Third, the smart phone as a context is disarticulated from the daily media practices of young visually impaired people. ICTs do provide new ways for visually impaired people to participate in society, but their communication is still mainly with offline acquaintances and other visually impaired friends. Visually impaired users are immersed in the "small world of the blind" they have constructed, and even when they encounter difficulties in using smartphones, they tend to consult other blind users instead of people with normal vision. The third disarticulation is the mobile phone as a context, losing close relationship with their daily life practice, which promotes the generation of weak agency.

The main point of conclusion is how to re-articulated smart phones with the daily life practices of visually impaired people, so that media practices can be deeply embedded in their daily lives and stimulate their agency in mobile phone use. Specifically, from the perspective of triple articulation, Internet enterprises and relevant government departments should improve barrier-free design, ensure the coverage of barrier-free optimization of Internet information products, improve relevant systems, strictly implement relevant barrier-free construction standards, strengthen media literacy education for visually impaired users, and give play to the positive role of "small world for the blind" in promoting information exchange and media practice. With the re-articulation between smart phones and daily life, the agency of the visually impaired is activated, and the digital and intelligent gaps between the information vulnerable and ordinary people are narrowed.

### **Key Words**

Information vulnerable groups; The visually impaired; Digital divide

# **“That’s not like what I expected”: media access and culture adaption of young Chinese sojourner in U.S.**

## **Authors**

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Mr. Like Zhao - Beijing Union University

## **Abstract**

It's considered that young people are easier to become proficient in the use of new technologies since they master higher media literacy skills especially the ability to access which allows them to better understand how new media and technology work and quickly adopt new ideas. However, when young people enter a new cultural environment, things are different.

The author visited the United States from 2018-2019 and met many international students and visiting scholars from China who can be regarded as sojourners, living temporarily in a foreign country, and must achieve academic objectives within a limited period of time. The "sojourner" is not only a migration of geography scenes, but also a digital representation of self in a transcultural context, constructing a new hybrid, multidimensional, and dynamically fluid identity.

After experiencing culture shock, their attitudes toward culture barriers are reflected in their adoption and use of new social media. Some of them even acted like late majority or laggards as Rogers(1971) mentioned.

This paper has adopted methods of observation and in-depth interviews to figure out 1) how the internal divides emerge among young Chinese sojourners and 2) the relationship between new digital media access and cultural adaptation among young sojourners in a cross-cultural communication environment. The author conducted semi-structured interviews with 18 people, including 10 females and 8 males with an average interview length of 60 minutes. The interviewees mainly consisted of undergraduates, postgraduate students, and visiting scholars, and their ages ranged from 17 to 36 years old. All of the interviewees had lived in China for 10 years or more so they have the same national culture and societal culture and are at the stage of understanding the heterogeneous culture.

The development of ICTs has reduced the barriers of time and space with long-distance communication, thus facilitating the maintenance of the home-ethnic culture. While It has become increasingly difficult to separate sojourners from home media. The research shows that the booming of social media limits Chinese young sojourners' development of media literacy in a multicultural context to some extent. They could be divided into 3 groups: 1) active explorers, who are eager to participate in different social platforms and connect with others through social media ; 2) other-oriented users, who were encouraged to access new media by peers ; 3) Tech-retreaters, who believed new media become an irresistible intruder to their lives.

At the same time, the use of host media still plays an important role in acculturation. In this study, social media and cross-cultural adaptation are interacting with each other. Sojourners with higher access to host social media had better socio-cultural adaptation, and those with strong cross-cultural adaptation were relatively more willing to use and participate in new social media.

**Key Words**

New Media Access, Culture Adaption, Sojourners, Chinese youth



# Open research practices: Ethical and legal considerations in sharing sensitive Twitter data

## Authors

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## Abstract

This research grew out of a larger interdisciplinary AHRC project, #Contesting Islamophobia: Representation and Appropriation in online activism, that combines computational methods (producing large datasets from Twitter data) with social scientific methods of qualitative research. Due to implicating individuals in the spread of Islamophobic hate speech on Twitter, the data we produced has both ethical and legal implications. This prompted us to ask questions about how we could share this data so it both complies legally with Twitter's policies and adheres to best ethical practice, and how the data could be shared so it has a high degree of usefulness and therefore re-use for researchers? These questions are urgent to address, in a landscape where guidelines on fair use and best practice using social media data are changing rapidly (Townsend and Wallace, 2016; Taylor and Pagliari, 2018).

Aiming to define how open research affects social media research practices therefore, the project involved an initial scoping study as well as interviews with researchers, archivists, and librarians working with large datasets of social media data – specifically Twitter data. The initial scoping review summarised contemporary open research practices – how datasets are shared and where – as well as the laws and policy surrounding and affecting how social media research is conducted and datasets shared. This scoping study indicated tensions between researchers and social media platforms over issues of copyright, consent, and the accessibility of data. Questions arising from these tensions were explored in more detail in the interviews, where we discussed how researchers working with social media data are presented with problems of navigating legal and institutional codes of practice, social media platforms' terms and conditions, and multidisciplinary ethical approaches. Throughout the interviews, participants discussed their own approaches, emphasising the need for open research data sharing practices due to a lack of benchmark social media data. However, we also found how, across different institutions, faculties, and academic positions, there were significant disparities for researchers and practitioners navigating open research ethics and resources, with separate issues arising from the degree of sensitivity of the data. In this paper, we will be discussing both the initial findings of the project and the best practice guidelines produced by it, as well as drawing attention to limitations faced by social media researchers aiming to share their data publicly. These issues speak to the conference theme given the increasing digitization of society and its associated socio-political implications. It is of particular significance to the Digital Divide working group due to the implications of sharing sensitive data

gathered off digital platforms for the users of these platforms, particularly marginal groups. This raises questions as to whether open research practices are ethical at all. It also raises issues around unequal access to shared data sets across digital divides. We feel the participants of this working group will be interested in debates around ethical data sharing and interested in the practicalities of sharing their findings in ethical ways.

**Key Words**

Open research, Data sharing, Twitter, Ethics, Sensitive data

# The Motivation of Health Misinformation Sharing among Older Adults in China: A Qualitative Study from Cultural Perspective

## Authors

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## Abstract

**Background:** With digitalization, health misinformation spreads rapidly and becomes barriers for public health. Older adults are more susceptible to interfering with misinformation than younger adults (Guess et al., 2019). Moreover, once older adults have accepted misinformation, they are more likely to fuel misinformation distribution in their interpersonal communication and re-circulate the health misinformation online, deserving academic attention (Guan, 2020). Relational correction is one of the most effective ways to reduce health misperception after older adults share health misinformation. However, within a culture where Chinese people have more serious concerns for mutual face, it could be inappropriate to correct older adults (Du, 2017), leaving older adults with health misinformation and hindering their opportunity to improve health literacy. Given that older adults sharing health misinformation is an issue of concern, and relational correction in Chinese context is an important idea that has not been fully explored, our research explored the motivation for sharing misinformation among older adults and presented a better understanding of the potential resolutions of correction from a cultural perspective.

**Methods:** Focus groups and in-depth interviews (N= 79) have been conducted based on an interview guide (Appendix B). Each interview lasted 45-75 minutes and had an informed audio record. At the end of the interview, participants' demographic information (Appendix A) were asked. Sessions were audio-recorded and transcribed. Data were analyzed using content analysis and comparative method. The thematic findings were applied to the PEN-3 Cultural Framework.

**Results & Implications:** In the relationships and expectations domain, positive perceptions (perceptions that encourage sharing) affecting health misinformation sharing were tradition of family members caring for each other, common interest with the recipient of the information and digital hoarding symptoms. Negative perceptions (disincentives to sharing) consisted of the fear of harmful outcomes, self-identity constraints (e.g. Communists should not send ambiguous messages), sense of boundaries (unwilling to bother others). Positive enabler was fake propaganda by health product companies. Negative enablers were legal requirements. Nurturers consisted of information needs of others, social response and degree of relationship closeness. The behavior of correcting health misinformation is less likely to occur due to cultural factors such as filial piety culture, avoidance of social conflicts, and human relationships. This affects the quality of online health information and does not help older adults improve their health literacy. This paper explores the issue of health information sharing motivation and relational correction avoidance

among older adults in a Chinese cultural and social context, which gains insight into addressing health misinformation issues in the elderly.

**Key Words**

**Keywords:** older adults, health misinformation sharing, PEN-3 model, relational correction

# Crossing the Divide: Social Comparison and Social Media Addiction of Different Social Class in China

## Authors

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## Abstract

Social comparison has become an important social psychology in social media era (Dredge & Schreurs, 2020). Although this phenomenon is common, the process and results of comparison are varied across individuals. It could be influenced by individuals' social background, such as their social class. Social class differentiation in contemporary China brought about by drastic social transition have attracted the attention of many scholars. How the transition brought about by technological changes influences and reconstructs people's comparison psychology and the mobility of social classes, has become an important issue. Therefore, this study aims to investigate how social comparison in social media leads people in different social classes to social media addiction through the mechanism of subjective well-being and social capital.

The data were collected from a nationwide survey by proportionate stratified sampling, through China's biggest online questionnaire platform, WJX.CN. The final sample consisted of 4865 Chinese mainland residents from 22 provinces, five autonomous regions and four municipalities directly under the Central Government. The data were subjected to statistical analysis using the PROCESS plug-in in SPSS. A moderated mediation model was constructed to explore the mechanisms and boundaries of social comparison on social media addiction.

Results showed that the mechanisms of social comparison orientation (SCO) leading to social media addiction are varied across social classes. Through the downward comparison, higher classes achieved self-enhancement, gained more subjective well-being, and became more addicted to social media. However, lower classes tended to make upward comparison to find their own disadvantages, which would motivate them to accumulate social capital and consequently leading them to be more addicted to social media. Previous studies have focus on the relationship between social comparison and social media addiction, but most of them suggested that social media addiction would influence individual's SCO (Jiang & Ngien, 2020). By shifting the perspective, this study explored how the SCO of higher/lower social classes affects their social media addiction. Results showed that in the process of social comparison, higher classes emphasized more on obtaining subjective well-being to compensate for their emotion loss, while lower classes were more concerned about increasing social capital to achieve class leaping. Gradually, they became addicted to social media in constant satisfaction. These findings both revealed the interactive relationship between social comparison and social media addiction, and enriched research on new media and social class mobility. Furthermore, this study also enlightened us to analyze more

specifically how technology works in different contexts in the future, with an expectation to maximizing the positive effects of technology.

**Key Words**

Social Capital, Social Class, Social Comparison, Addiction, Subjective Well-Being

# The Value Divide as the Third-level Digital Divide: A Study of the Elderly's Media Use Differences

## Authors

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## Abstract

The discussion of the digital divide reflects concerns about social inequalities caused by inadequate access to information technology. Norris (2001) understands the concept of the digital divide on three levels: the first global divide that concerned with the gap in Internet access among different countries; the second social divide that concerned with the gap between the rich and the information poor in information access ; the third democratic divide that emphasizes the gap between people's participation in public life and their use of digital technologies. With the evolution of Internet technology, scholars' interpretation of inadequate access that leads to digital divide is gradually deepening. Van Diik(2002) has divided "access" into four categories: mental access, material access, skills access, and opportunity access. Previous literature mainly concentrates on the physical level of access, such as material access and skills access, but overlooks the significance of mental motivation that dominates the mental access and opportunity access. Many studies have also highlighted the impact of categories including 'the personal attitudes and motivations', 'the internal environment consisting of the person's perception', 'self-image and level of motivation', and 'the personal element' on bridging the digital divide from different perspectives (Environ,2021; Heng&Banerji,2011; Lythreathis et al.,2021). In this sense, this level can be interpreted as the 'value divide' first proposed in this research that focuses on the difference in people's perception of digital value.

According to Schwartz's classical psychological model, value, with the emphasis on shared conceptions of what is good and desirable, can be divided into 4 higher-order values, 10 basic values, and 19 refined values. This research introduces this value model to test the value divide among urban older people aged 55 and over on their use of smartphone news apps and their political participation. This study will adopt the questionnaire combined with in-depth interview methodology to further explore the correlations between various demographic factors such as age, gender, educational background, profession, etc., and their personal digital value. All the questions of the questionnaire and interview will be designed according to the following items:

- 1. Self-transcendence: Digital media helps or enhance (1)Benevolence in frequent personal contact; (2) Universalism of all people and of nature;*
- 2. Conservation: Digital media recognizes, maintains or promotes (1)Conformity; (2)Tradition; (3)Security;*
- 3. Self-enhancement: Digital media promotes (1)Achievement;(2)Power;*
- 4. Openness to change: Digital media realizes (1)Hedonism;(2)Stimulation;(3)Self-direction;*

The data collected will be analyzed with the use of SPSS, then the representative samples will be invited to receive in-depth interview.

**Key Words**

value, the elderly, mental access, opportunity access and news app use



# To Be in Sight: An Investigation of Digital Discrimination Against the Visually Impaired in Infrastructural Mobile Applications

## Authors

Prof. Mingrui Ye - Communication University of China

## Abstract

Since the research on digital divide emerged around 1990s, the *gaps* most discussed have been primarily centred on the dimensions that are either socio-culturally, economically, politically, ethically, or demographically and geographically defined. Comparatively, fewer attentions around digital access are paid to the gap between the disabled and the non-disabled, partially because of the limited development of technologies and the priority to taking care of the majority of population at the early time.

The last decade, however, has witnessed the rise of digitalised society, with people unprecedentedly connected by the digital network and with the digital access turning to be an indispensable part in our daily life. Two social consequences thereby must be noted. On the one hand, some apps with their behind platforms have been deeply embedded in our social system, playing a role as part of the informational infrastructure in modernized world, and they ought to be taking the responsibility for all the members of society. With the development of technologies like ASR and AI, for another, users with disability are expected to be better served in terms their daily use of digital devices. Given the above, the purpose of this paper is to examine the potential barriers to the users with visual impairment when they access to and make use of the infrastructural mobile apps. In this research, 17 apps out of many, which are taking the dominant market position on China's internet, are selected for inspecting, and the services they mainly provide fall into six categories: social networking, shopping, e-payment, maps, food delivery, and news and information services.

This research consists of 42 in-depth interviews with respondents who are identified as active smart phone users with visual impairments in various degree and aged from 21 to 35. It is found that the visually disabled can easily access to all the apps under inspection, but following that, the digital discrimination against this group of users then emerges from their further use of these apps. Findings from this study indicates varied forms of digital discrimination indwelling in these apps, which can be divided into three types: 1) *the socially exclusive discrimination*, which can be seen as the subsequent effects given by existing social exclusion of the disabled group, 2) *the market-oriented discrimination*, manifested as unsustainable support on accessibility options on account of very limited commercial return,

and 3) *the technologically institutional discrimination*, observed from the incapacity of most some apps with digital devices, primarily due to lack of institutional cooperation within the industry, which needs the developers of assistive technology, the manufactures of digital devices and the application developers collaboratively working together.

**Key Words**

digital divide, digital discrimination, disability, visual impairment, infrastructural application

# The rise of “intermediaries” on Douyin: algorithmic knowledge, user empowerment and digital inequalities

## Authors

Ms. Hui Lin - King's College London

## Abstract

This study investigates the role of algorithmic experts as intermediaries that help users learn algorithmic knowledge on Douyin. "Algorithmic experts" refers to people who provide their expertise on algorithmic knowledge for profit and instruct streamers about achieving wider exposure (Bishop, 2020). As Douyin emphasises the prominence of algorithms in the user experience, these algorithmic experts as intermediaries become increasingly significant in bridging the platform and individual users.

This study examines the effects of the intermediaries on user empowerment and digital inequalities. It addresses whether algorithmic experts would empower users by teaching them professional strategies and decentralising the power of the platform and whether they could help eliminate digital inequality resulting from an algorithmic knowledge gap. When gaining algorithmic knowledge, users may likely understand how to deploy algorithms to achieve visibility and develop self-entrepreneurship. However, users' understanding of how to capitalize on algorithms does not mean they are empowered to control Douyin. Algorithms are never neutral, which may reflect the widespread biases that persist in individuals (designers or programmers) and society at large (Barocas & Selbst, 2016). In this sense, algorithms are adopted by Douyin as a tool to reinforce its power. This means teaching users algorithmic strategies through intermediaries would strengthen the manipulative power of the platform. But we should acknowledge that algorithms are not fixed to have a one-way impact on users; instead, they are, in turn, affected by users, which can be altered in response to users' subjective engagement inputs such as "search, like and comment" (Bucher, 2018). In this sense, this study asks, "to what extent are intermediaries on algorithmic-driven platforms empowering users?" Moreover, if users can grasp algorithmic knowledge from intermediaries, digital inequality related to algorithmic literacy would be eliminated, as Cotter (2020) argues that sociocultural background persists in shaping media usage, thereby influencing digital inequality in algorithmic knowledge. Thus, this study also seeks to answer whether the digital inequality resulting from algorithmic knowledge gaps can be diminished.

Adopting both semi-structured interviews with algorithmic experts and online questionnaires with users, this study argues that algorithmic experts help facilitate negotiations between users and the platform. In line with Bishop's research, these experts gain algorithmic theories through their working experiences at platform companies, subjective judgments, and personal media-using experiences. But algorithms in Douyin need to suit the needs of different entities in the Chinese media ecosystem, including the government, social values, and business requirements. This means that intermediaries can only assist users in learning a small portion of algorithmic knowledge in

order for them to become relatively visible, rather than revealing the logic of algorithmic mechanisms. Therefore, decentralisation of platform power through teaching algorithmic knowledge to users has limited help. In contrast to Cotter's (2020) conclusion that educating algorithmic knowledge would eliminate digital inequality, this study argues that digital inequality cannot be eliminated only through algorithmic knowledge education.

**Key Words**

algorithmic experts, user empowerment, algorithmic knowledge, digital inequalities

# **Digital divide: a comparison of digital cultivation of rural and urban “left-behind children” in China**

## **Authors**

Ms. Menglu Zhang - The University of Manchester

## **Abstract**

The left-behind children (LBC) refers to the children who are being taken care of by their grandparents or relatives, mostly in rural areas, while their parent(s) work in another city. The massive domestic migration flow and urban expansion since economic reform and opening-up in China, are accompanied by a vast number of LBC. According to data from the Ministry of Civil Affairs (MCA) of the People’s Republic of China (2018), 6.97 million LBC shapes massive gaps in digital uses between cities and rural areas. Upward social mobility of left-behind children (LBC) is restricted by the overlapping systematic inequality from their rural ‘Hukou’ (Household registration status), under-resourced education quality, lack of parenting, and cultural inequality in their everyday virtual engagement. However, only a few research tracks digital use in the context of left-behind children while providing more life chances for children is the major motivation for the migration of rural workers.

Drawing from 25 former LBC and 8 of their external supporters (teachers and services providers) from NGOs, providing different angles to analyse the social struggles of LBC from their social origins and milieu. My research finds that the family’s value and guidance of technology use, especially social media and internet use, plays a vital role in LBC’s accumulation of digital capital for their future careers and fit in to the cultural environment after they succeed in upward social mobility. Rural LBC’s digital behaviour shows a polarised situation in that they either do not have access to and awareness of using digital media or overuse it that eventually effecting their academic performances and life chance. While some urban LBC were guided by their teachers and carers to use digital equipment and attend online workshops, exacerbating the gap between rural and urban LBCs. While NGOs' role in remedying the digital divide between rural and urban echoes the urgent demand for accessibility and digital literacy for rural LBC. It is also emphasised in my research that the majority LBC are the actual user of mobile devices in the family since the grandparents’ generation lack digital literacy, which leads a power shift within a family. The uneven possession and accumulation of digital capital also play a role in the second socialisation of the grandparents' generation that exacerbates the systematical inequality by emphasising generational gaps.

## **Key Words**

Digital Cultivation; Left-behind children; Digital divide; Urban-rural divide

# **DIGIUSOS – Young People and Digital Transition: Uses, Challenges and Opportunities in the Autonomous Region of the Azores**

## **Authors**

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## **Abstract**

DIGIUSOS project aims to produce a study-diagnosis on the use of digital technologies (devices, platforms and content) by people aged 15-29, in the Autonomous Region of the Azores (Portugal), covering the formal and informal contexts. A systematized mapping of this population's practices, capital and digital skills has not been carried out yet, inhibiting the design of effective public policies for digital empowerment, and the consolidation of best practices for sustainable social inclusion and civic participation.

Over the last decade, the digital transition has been one of the recurring themes on the agenda of European institutions. Regarding this, young people, seen as central actors in this field, have gained prominence in the definition of goals and policies, seeking to mitigate uncertainties about the future, triggered by successive crises such as climate change, technological changes, social exclusion, populism or disinformation.

The European Union's Youth Strategy 2019-2027 provides a set of goals to develop young people's full potential in several areas. Although not legally binding, they expose the relevance of reflection and action around equality, inclusion, education, work, access and criticism of information and democratic participation, stressing the importance of the use of technologies, practices and digital literacy for those processes. The practical implementation of such goals requires a diagnostic work of the social contexts and the target population, allowing the identification of profiles, skills and inequalities in access and use for the establishment of assertive action strategies.

The Azores Archipelago has a population that is globally less aged than the Portuguese national average. It is marked by socio-economic asymmetries, school dropouts, unemployment and lack of qualifications, making young people a sensitive group to understand, in context, the Digital Divide and Digital Inclusion phenomena.

In this communication we will present, for the first time, original data and lines of reflection resulting from the application of an online questionnaire in the municipality of Ponta Delgada (São Miguel Island) (n=270). Results also include the output of 13 focus groups (81 young people) on digital uses and practices encompassed in five clusters: i) Digital Experience; ii) Platforms, data and AI; iii) Digital Communities; iv) Digital Literacies; v) Individual and Common Future.

## **Key Words**

Digital transition, Digital capital, Digital literacy, Public policy, Youngsters

# Co-learning of youth and elderly to reduce digital divide: Taiwan's experience

## Authors

Dr. Shun-Chih Ke - Chinese Culture University

## Abstract

According to the V-Dem report released by the University of Gothenburg in Sweden in 2021, Taiwan is the country that receives foreign false information most frequently, and has ranked No.1 for 9 consecutive years. The best way to prevention of false information is to enhance the digital literacy, that is, to enable the public to have the ability to identify the correct message and stop disseminating false information.

Taiwan is already an aged society, 17.3 percent of population is aged 65 and above. The average Internet access rate of the public is as high as 91%, among which the Generation Z (under 25 years old) is 100%, but the Generation Y (over 56 years old) is only 60.9%, which shows the digital divide between the young people and the elderly.

The digital divide between the young and the elderly is not only the difference in media usage behavior, but also the ability to interpret information. Many studies pointed out that the elderly lack the ability to identify the information; and the research by Nadia Brashier also states that older adults shared seven times more false information than younger adults during the 2016 U.S. presidential election.

In order to reduce the digital divide of the elderly, this study takes college students to teach media and information literacy of the elderly as the theme. On the one hand, through face-to-face communication to investigate the ability of information literacy of the elderly; and on the other hand, through the teaching activities designed by college students, enhance mutual understanding between generations, and also increase digital literacy of the elderly.

This project implemented in 2020. About 120 students organized 16 groups went to different communities to teach digital literacy to the elderly groups. In the result, 131 valid questionnaires were collected. The important findings are as follows.

1. All 16 groups of college students agree with the plan that the young and the elderly study together. Most of the young people lack the experience of getting along with the elderly. Through this activity, they have the opportunity to understand the real appearance of the physical and mental state of the elderly, not the stereotypes conveyed from media, also learn the skills of getting along with the elderly, and have more empathy for the elderly.
2. The digital literacy ability of the elderly has been improved after receiving the literacy teaching of the young people.

3. The most used media by the elderly is still TV (77%), followed by mobile phones (65%). In urban areas, the use of mobile phones has even surpassed traditional media.

4. The top three media literacy skills of elderly are "I will share information with others", "Understand information security and privacy rights" and "Understand media ownership and its impact". The three lowest levels of literacy were "Using and reflecting on digital technology to solve problems", "Analyzing and integrating large amounts of data", and "Integrating media information to produce content".

**Key Words**

digital divide, media and information literacy, digital literacy, elderly, Taiwan



# How Do Blind and Visually Impaired People Play Mobile Games: The Game Architecture and Interactive Experience

## Authors

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Prof. Qiaolei Jiang - School of Journalism and Communication, Tsinghua University

## Abstract

The rapid development of information and communication technologies (ICTs) reshapes the media usage and social life of the blind and visually impaired (BVI) people. Digital games have become one of the four major demands of BVI people to access the Internet in China. “Listen and Play in Jianghu” is the first massively multiplayer online role-playing game (MMORPG) for BVI people and became very popular with one million downloads within 4 years in China. Taking “Listen and Play in Jianghu” as an example, combining insights of media as architecture and the theoretical approach of interactivity as a media affordance, this study examines the underlying architecture of gaming space and specific interactive experiences among the BVI players.

Ethnographic research and in-depth interviews were adopted to explore the architectural features and using experiences of “Listen and Play in Jianghu”. One of the authors downloaded the game on June 21, 2021, and has played it since then. Besides, in-depth interviews with 20 BVI players were conducted. Findings show that 1) “Listen and Play in Jianghu” has unique interface and architectural elements, which are very friendly to BVI players. There are only two operational menus, the main and shortcut menus. In the process of playing, the interfaces are completely black. Only when players want to switch different operational menus can some golden circles appear, representing different functions. 2) sound constructs the 3D space of the game and creates an immersive experience. First, different kinds of sound provide cues for players such as natural ambient sound, character dubbing, object sound, voice-over, and the sound of characters’ moving. Second, sound shapes the sense of space and time. Players can tell direction and distance by different sounds from the left or right ear canals. What’s more, Particular sound such as a chicken crowing helps the players perceive time in the game. Third, sound shapes the sense of scenes. Many kinds of sounds work together to produce accurate and realistic soundscapes. 3) Players rely entirely on hand gestures and voice input to complete interactions within the game. 4) combining auditory and tactile information, players can create cognitive maps of different scenes in the game and achieve the target location. 5) BVI players link “Listen and Play in Jianghu” and multiple other social media platforms to facilitate better interactions within and outside of the game.

This study extends the current research by exploring game architecture and investigating interactive experiences among BVI people. As for practical implications, the study can help more people to understand the media behaviors of BVI people and identify differences and similarities among different populations. Furthermore, by integrating auditory, tactile, and voice input, “Listen and Play in Jianghu” could help BVI people access and enjoy gaming, which encourages game

designers to develop more accessible and inclusive products to improve BVI people's digital and social inclusion.

**Key Words**

mobile game, space, interactivity, digital and social inclusion

# **How does digital inclusion research serve national strategy? Evidence from China**

## **Authors**

Ms. Shiwei Jia - Renmin University of China

## **Abstract**

With the rapid development of information technology, the problem of digital divide has become more and more serious. Digital inclusion, as a coping strategy to address the digital divide, has become a global issue. Many countries have integrated digital inclusion into their national strategies, including China. This paper focuses on the correlation between the government's digital inclusion policy and academic research. In this paper, 25 selected policy documents related to digital inclusion are used as research samples, and taking the academic hotspots of digital inclusion as the content coding basis. It attempts to answer the question of what theories or concepts of digital inclusion are applied to national strategy research? The results show that China's digital inclusion policy lags academic research, and more attention is paid to measures to bridge the access gap and usage gap, while measures to bridge the third digital divide are less mentioned. Specifically, China has implemented the Broadband China Strategy since 2012, focusing on the promotion of fiber-to-the-home in cities and towns and universal broadband services in administrative villages, in conjunction with measures to increase broadband network speed and reduce fees, to ensure that everyone can access the network. At the same time, promote the construction of information barrier-free, and provide suitable digital resource acquisition channels for information vulnerable groups, such as aging-friendly transformation of digital devices and network applications. In terms of bridging the use gap, national policies clearly propose digital literacy and skills training measures, and carries out community digital skills training activities, and guides community residents to make good use of digital products and services. Due to the lack of measures for bridging the third digital divide in China's policies, this paper proposes that academic research should strengthen the discussion of the third digital divide, and use academic research to lead the formulation of national policies to deal with more types of digital divide challenges and ultimately promote the digital divide.

## **Key Words**

Digital Inclusion; National Strategy; Academic Research; Digital Divide

# Discussing the Dimensions of Digital Inclusion from Theoretical Perspective: A Systematic Literature Review

## Authors

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## Abstract

The rhetoric across the 'digital divide' is considered a domain of knowledge where many multi-layered phenomena such as digital inequality, digital capital, epistemic divide, and digital inclusion have been curated and cultivated. The concept of digital inclusion/exclusion emerged with scholarly work on multiple levels of differences regarding aspects of digital media and tools. When we talk about digital inclusion, many folds of occurrences such as inequalities in society, unequal distribution of resources, unequal access to resources, and unequal participation in society (Van Dijk, 2005) have been looked upon in conjunction with each other to understand it. However, the digital divide, digital inequality, and digital capital implicitly investigate the idea underpinned by digital inclusion.

According to scholars, digital inclusion is a multi-layered phenomenon. Digital inclusion has been divided by Helsper (2008) into four categories: use, access, skills, and attitudes. Participation in various arenas of real-life discourses can be assured by digital inclusion. Van Dijk (2005) stated seven categories of participation: economic, educational, social, spatial, cultural, political, and institutional. Digital inclusion and social inclusion have been embedded into the realm of social order. Social inequalities are increasing after the rapid penetration, acceptance, and use of various digital media. In that sense, the techno-optimistic view considers that digital inclusion could be socially included in various ways. Hence, digital inclusion has turned into the potential for groups or people who are vulnerable to social exclusion. To ensure an equal future for everyone, digital inclusion is the new demand in society.

There are diverse factors (digital capital) that have to be looked at to identify the digital inclusivity of an individual. Not every person has the same level of internet access, ICT tools, and the same level of knowledge/information/skill set to make the same benefit of available digital technology. Thus, digital capital (cumulative effect of digital resources and competencies) defines the digital inclusion of a person. Consequently, digital inclusion shapes engagement and participation in other realms of society.

Although there is a large body of research work on digital inclusion from the point of view of social inclusion (Reisdorf & Rhinesmith, 2020) and the digital divide (Livingstone & Helsper, 2007), there has been limited account of theoretical perspectives. To bridge the gap, this research would understand the research trend, concepts as well as dimensions from the theoretical perspective. While doing so, it would frame the domain of the digital divide.

Using a systematic literature review method, following a PRISMA approach, this research paper would discuss different dimensions of digital inclusion, challenges to digital inclusion,

methodological approaches in the scholarly work, theoretical references, and regional comparisons. All the exploration would be tied with the thread of theoretical understanding. The research articles would be selected from different databases of social sciences on the basis of their importance in conceptual understanding.

**Key Words**

Digital Inclusion, Dimensions, Digital Capital, Digital Inequality, Theoretical Understanding.

# My View of Smartphones: Exploring the Mature Concept of Smartphones among Chinese Elderly

## Authors

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Ms. Yingxi Yang - School of Journalism and Communication, Renmin University of China

## Abstract

How to help the elderly cross the "digital divide" is an important issue of concern for Chinese academia and society. However, most of the aging adaptation of smart devices and training for the elderly in China is carried out by younger people, which leads to a problem: young people always translate their own habits and needs of using digital media in the current digital society to the lives of the elderly and make aging adaptations according to their needs, or make intergenerational feedback to the elderly in comparison with their own digital skills. But in fact, older people's understanding of the functions and logic of using digital media such as smartphones is an acquired process, and they do not grow up with digital media as young people do, and there are cognitive differences between the two generations. If we do not truly understand the characteristics of older people's cognition and perceptions of digital media and only treat them as laggards, we will not be able to truly understand their media-related behaviors from their perspective and bridge the digital divide.

This study explores the media perceptions of older adults in relation to smartphones. The audience's rudimentary understanding of media is projected into real life and directly related to their media-related behaviors. This study argues that older adults' perceptions of media are "metacognition" related to media. Metacognition is very important for effective learning and quick comprehension of a concept or thing (Tsai et al., 2018). Metacognition is the perception of cognition, which refers to the re-perception, re-memory, and re-thinking of the activity itself during cognitive activity and consists mainly of knowledge and regulation of the cognitive activity itself (Schraw, 1998). When metacognition is linked to media technology, it should include personal knowledge of the behavioral activities associated with the technology, knowledge of the technology itself, knowledge of self-regulation of related behaviors, and the ability to summarize and regulate media use through experience. Older adults' media-related metacognition is a product of their practice of interacting with media and will continue to reverberate through media practice.

Because digital media did not emerge during older adults' formative years, this study argues that older adults' cognition-building process with digital media is similar to that of children's exposure to new things. According to Vygotsky (1987), there are three forms of children's conceptual understanding of things. First, conceptual development begins in the "everyday" (everyday). He gives the example of children's daily practices and use of tools, such as brushing their teeth after eating, which is an everyday concept. The scientific concept is that brushing prevents tooth decay.

The everyday concept is derived from examples and experiences rather than a complete system of thought, while the scientific concept is part of a cohesive system of thought. The integration of everyday concepts and scientific concepts can lead to mature concepts. The older adults' everyday and scientific concepts of digital media are formed by the multiple influences of their own media practices, life environment, and individual factors, and the integrated mature concepts based on these two concepts may further guide the older adults' smartphone media practices and specific usage behaviors. Therefore, it can be said that older adults' daily and scientific concepts of smartphones are actually their smartphone-related "metacognition," which is crucial to their cell phone use and literacy learning.

This study further conceptualizes older adults' mobile phone-related concepts into "everyday concepts" and "scientific concepts" to analyze the "metacognition" of older adults guiding their smartphone-related media practices. It also attempts to address the following three questions:

1. What are the daily and scientific concepts of smartphones among the elderly? What exactly are mature concepts, or are they some kind of integrated perceptions prior to mature concepts?
2. Where do these concepts come from? What factors influence the generation of concepts?
3. How do the various conceptions of smartphones among older adults influence practice?

Twenty-four older adults, ages 60–92, were recruited for this study, and semi-structured interviews were conducted with their cell phone usage log data. The interview time was approximately 45 minutes to 1.5 hours per person, while a total of 126 days of cell phone usage log records were obtained. The interview text information was processed through the qualitative analysis software NVivo 12 to generate codes and categories. The relevant coding categories and findings will be further presented in future papers.

### **Key Words**

Elderly media use, Smartphones, Media practice, Mature Concept

# **Children as E-Workers: An Exploratory Study on the Phenomenon of Children Chair Grab Game in the Short Video Platform of China**

## **Authors**

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Dr. MIAO YAN - National University of Malaysia

## **Abstract**

This paper studies the problem of low-age digital child labor in China's short video platform. Children who have not yet had the ability to use the short video platform independently often are unconsciously filmed by their guardians in short videos that are accidentally recorded or deliberately packaged. These short videos are for the purposes of social entertainment, recording growth, or obtaining traffic. This process forces children to become digital child laborers. Through text interpretation of the contents of 31 children's accounts in China's Tik-Tok short video platform, this study found that the survival of low-aged digital child workers in China's short video platform is worrying. It is necessary to reaffirm the ethical boundaries of digital child labor and explore the construction of a new type of children's digital work form that transcends media centrism and is more humane.

The research purpose of this paper is to explore the possible social crisis caused by this phenomenon of young digital child labor from the legal and ethical aspects by analyzing the types, characteristics, and connotations of short video texts of children's accounts in China's Tik-Tok short video platform, emphasizing the harm to children themselves, and from the main body of children's short video accounts, short video platform, audience will explore effective solutions to the phenomenon of young digital child labor from three aspects. The main research questions in this paper are as follows: (1) What is the current situation of children's participation in digital labor in China's Tik-Tok short video platform? What are the types and characteristics of these accounts? (2) What is the legal and ethical dilemma of digital child labor in China? What harm may it cause to society and children themselves? (3) How to reduce the passive dissimilation impact of digital child labor in China and build a new digital work form for children?

The research method of this paper is participatory observation. Participants must be registered on the Tik Tok platform in China to record and shoot children aged 0-14 as the main content of the account. This study was conducted on Tik Tok, China, from June to December 2022. A purposeful sampling method was adopted, with a total of 31 samples. The true identities of these children were kept secret through anonymization, and the real names of participants were not used. Before the collection of short video observation, the written consent of the adult guardian of each child's account was obtained. The participatory and non-participative observation styles used in this study follow the procedure of Morales&Caffen Parsons (2017). First, observe the participants' short videos about the observer's interest (the children's short video content they present), then the



narrative stage of the children's life, learning and other content in the participants' short videos, and then describe the problem to prompt other experiences and clarify areas in this regard. Some information related to minors' privacy has been edited in the record to avoid any unethical information disclosure.

The research conclusion of this paper is that children's play has the attribute of digital labor in the process of media presentation. Digital child labor continuously provides unpaid digital labor for short video platforms and is controlled and exploited by the capital of short video platforms. The short video works of young digital child labor in the Tiktok platform often use game-based narrative strategies to achieve humorous effects through imitation of daily life, thus gaining the attention of fans. At present, young digital child labor is mainly divided into "media contact type digital child labor" (0-6 years old) and "physical participation type digital child labor" (6-14 years old). The former requires the guardian to take video and upload short video platforms, and the latter has the basic operation ability of short video content, but still needs the guardian to assist in shooting. Children's participation in digital labor has had a negative impact on children's own growth and socialization, which psychologically induces individual addiction, vulgarization, and even anxiety and emotion, and induces the risk of children's adulation, gaming and stigmatization as well as the crisis of childhood disappearance.

### **Key Words**

Children; Short Video; Low-aged workers; China

# **A Human Resource Perspective: China's Children Digital Inclusion Policies in 2000-2022**

## **Authors**

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Mr. Anran Wang - London School of Economics and Political Science

Prof. Ellen Helsper - London School of Economics and Political Science

## **Abstract**

Digital inclusion has been the central agenda in Western policy makings to address the digital divide and promote digital literacy, especially for young people from underprivileged minority communities. Policymakers believe that children digital inclusion is the key to ensuring that everyone has equal access to digital technologies and thus has equal access to economic, political, and social opportunities. How does this western-originated concept apply to and be implemented in policymaking related to digital inclusion in developing countries? How might the digital policies for children in emerging economies showcase a different vision toward digital inclusion literature? Analysing China's children digital development policies regarding digital education, infrastructure and literacy in the past two decades, this study explores the transforming digital inclusion rationale of the Chinese state. Our policy analysis indicates that the Chinese state attributes digital inequality to the development imbalance derived from the urban/rural divide and integrates inclusion measures into the national development strategy. By nationwide digital device provision and digital literacy curriculum reform, the state addresses children digital inclusion from a strategic future-oriented human resource perspective. The findings show that digital skills, such as navigating and programming, and digital literacy, such as creative thinking and digital social responsibility, have become the two critical capacities of human resources in the policy discourses and imagination of the digital future. The human resource framing transforms social-identity-based digital inequality into the regional development imbalance and the barriers to national development. By comparing the human resource framing with the mainstream conceptualisation and practice of digital inclusion, this study argues that the former highlights a future-oriented and nation-development resolution to digital inequality while the latter addresses the current inequality derived from past and existing structures. We argue that reducing digital inclusion into human resource capacity risks enlarging digital inequality for its capacity-based education and labour evaluation system. In addition, the human resource framing makes schools and teachers the key agents and stakeholders in children digital inclusion while leaving little space for children agencies and the role of the family.

## **Key Words**

digital inclusion, China, digital inequality, development, digital policies

# The Digital Inclusivity of Online Youth Work: 3 Key Issues in the Field

## Authors

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## Abstract

Online initiatives focusing on youth work, or non-formal education, are on the rise, especially since the start of the covid-19 pandemic. Online activities allow youth workers to train and connect with young people virtually, overcoming barriers like time and place, and offering young people low-threshold activities (Vermeire et al., 2022a). In this paper, we explore the successful approaches to setting up inclusive and impactful online youth work specifically aimed at vulnerable youth.

Nowadays, many youth organizations set up online or blended (hybrid) practices to reach their target group (Vermeire et al., 2022b). However, we found that in Belgium-Flanders, the target group for most online youth work is 'regular' youth. Socially vulnerable and digitally excluded young people, e.g. youth from immigrant backgrounds or those living in poverty, are often not considered or paid attention to in educational settings. They experience inequality of opportunity regarding educational matters, specifically in online settings (Van den Broeck & De Bonte, 2021). Youth work plays a crucial role here. Non-formal education has advantages that formal education does not possess, such as the freedom to set your own goals, offer peer-to-peer activities, etc. (Vermeire et al., 2022b).

Through a comparative case study analysis, we delved deeper into the theme of online youth work aimed at vulnerable youth. The case studies, located in Flanders-Belgium, were conducted through an in-depth analysis of the field through online desk research and 13 interviews with representatives from the youth practices.

We identified five themes that Flemish youth workers find of considerable importance while setting up their practices, i.e. accessibility, expertise, youth participation, sustainability, and collaboration. Interestingly, these findings are all strongly related to the social and digital inclusion of young people. Here, we noted three main challenges concerning creating digitally inclusive practices, namely 1) to provide young people with the means to actively participate during the activity, e.g. by providing hardware, but also by including them in the creation process of the online initiative, 2) to inform and involve youth workers about digital inclusion and how they can increase digital literacy amongst participants, as youth workers are in a perfect position to support young people on these matters, and 3) to provide youth workers with the information and means to seek help from other actors working on (digital) inclusion.

Most importantly, youth participation in the creation process is key to developing something that provides what the target group really needs. Often, the more meaningful an educational practice

feels to the target group, the more positively it influences the effectiveness of that practice. Thus, overcoming these obstacles, not only positively influences young people's digital citizenship but also their soft skills and possibly even their self-confidence and social inclusion. The latter by, for example, providing access to a support system or the opportunity to develop their skills in a safe environment.

This research identified best practices and developed recommendations for (inter)national policy and the youth field, aiming to support youth practitioners in setting up digitally inclusive practices.

**Key Words**

online youth work, digital inclusion, youth participation, digital citizenship

# **How Older Adults Date Online with Their Children's Assistance: Bottom-up Technology Transmission within Chinese Families**

## **Authors**

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## **Abstract**

### **Background**

In China, the emergence of online dating platforms has led to an increased demand for romantic relationships among older adults. However, the lack of access to mobile Internet and limited digital skills has excluded these individuals from participating in such activities, highlighting a crucial yet under-examined dimension of the digital divide. It's significant for the elderly to re-enter the marriage market and satisfy their later life in the face of aging, and the Internet could be a feasible approach to finding their true love.

To bridge the digital divide, previous studies have proposed the bottom-up technology transmission theory, referring that old adults can integrate into the digital world better with the help of their children. But the effectiveness of this theory hasn't been proved in the realm of online dating. Based on the digital divide theory and bottom-up technology transmission theory, this study examines how elderly people engage in online dating with their offspring's support from initial access to in-depth use, and the transferring decision-making power between two generations.

### **Methodology**

A semi-structured qualitative interviews study was conducted with a sample of 12 families, in which older adults (aged 52-69 years old) had found potential partners online with the assistance of their children. Each participant's interview was approximately 60 minutes in length.

### **Findings**

Findings revealed that children are playing a complicated role in the online dating practice of the elderly, and the whole process could be divided into three distinct stages.

First, the elderly get initial access to the Internet with the persuasion and help of children, which has allowed them to transcend traditional concepts and explore the varied opportunities of the online dating market. However, their reliance on younger generation also leads to offspring's greater control over the mate selection decisions.

Second, older adults acquire further material support from their children. In this stage, children have become agents in the paying and displaying part, involving ghostwriting parents' personalized

information on the dating platform. This can provide the elderly with high-quality partner resources, while simultaneously granting their offspring a stronger voice on the matter of online matchmaking.

Third, when conducting online dating practice, more competition and negotiation of dating decision-making power appears. The power is contingent upon the elderly's economic level and digital literacy. Those with lower economic and digital literacy are more likely to rely on their offspring, with the power transferred to the children. Whereas, those with higher family status and digital literacy have more confidence to negotiate and compete with their children, albeit briefly handing out power to offspring in previous stages.

### **Conclusion**

This study examines older adults' adoption and use of dating apps within the sociocultural context of China. It expands the scope of the digital divide to the scenario of online dating, and it also contributes to demonstrating the implications of bottom-up technology transmission for bridging the divide by reshaping the elderly's subjectivity. The online dating practice mirrors China's unique sociocultural environment, traditional concepts, and evolving family structure. It revealed unexpectedly complicated competition and negotiation of decision-making power between younger and older generations.

### **Key Words**

Online dating, older adults, Chinese family, bottom-up technology transmission

# **YouTube and Rabbit Holes: Are we even living in the same reality? Researching how Norwegian youth use YouTube**

## **Authors**

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## **Abstract**

YouTube is one of many platforms competing for young people's attention, creating an overflow of content and an illusion of indefinite choices. At the same time, individualized consumption of media is making youth more vulnerable to fall prey to strong algorithms (Woolley & Sharif 2022).

New research shows that economic differences are increasing in Norway (Hansen & Tofte 2021) enhancing digital inequality, with some demographic groups lacking access and sufficient digital skills to ensure equal development and opportunities for all (Bakken 2022).

Other studies find a clear connection between social class and media-habits (Hovden & Rosenlund 2021) and social class and taste (Jarness 2017), giving reasons to believe that economy and social class can influence how youth use YouTube.

In this paper I ask if YouTube content and user practices on the platform are given symbolic value (Bourdieu 1979/1995), and I investigate the possibility that a hierarchy of taste and user habits is used to strengthen the experience of group membership through the creation of symbolic boundaries (Lamont 2015). Revealing itself through distinctions, and the valuing of content and media habits, rejecting some of it, while embracing and making their own habits and preferences the norm.

I draw upon both interview data and donated YouTube logs (van Driel, Giachanou, Pouwels, Boeschoten, Beyens & Valkenburg 2022). The logs are fed into the YouTube algorithm, reconstructing the online fields of study. This data is then combined with field notes consisting of communication with informants during the recruiting process and the interviews.

Two sets of interview data are analyzed and used in combination with the YouTube logs and field notes. One set is mapping media habits and preferences through the Q-methodology (Forrester, Cook, Bracken, Cinderby & Donaldson 2015). The other set consist of semi structured interviews (Fujii 2017) with integrated elements of the walk along method (Jørgensen 2016) and the scroll back method (Robards & Lincoln 2017).

In this way the informants comment on their donated YouTube-logs and YouTube profiles during the interview.

Informants are Norwegian high-school students from urban areas, age 16-19.

## **Key Words**

YouTube, Rabbitholes, digital divide, symbolic goods, symbolic boundaries, youth culture

# **The Path of Least Resistance: Facilitating Digitally Inclusive Health and Better Nutrition Behaviours by Bridging the Digital Divide**

## **Authors**

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## **Abstract**

Technology is the most concrete truth about the modern human existence. Humans of today cannot envisage an existence that does not depend on technology for even the most routine of tasks. With the progress of civilisation being inextricably linked to advancements in technology, there is also an acute need for these advancements to be accessible to all. Technology affects all areas of human development. The comprehensive focus of Sustainable Development Goals is directly relevant to the context of India. The vision of a Digital India also centres on the fundamental areas of digital infrastructure as a core utility for every citizen, governance and service on demand, and digital empowerment of citizens. Like the education sector, another aspect of development that straightforwardly gets affected due to a disparity in tech access is food and nutrition literacy and their consequent behaviours. One of the most pertinent Sustainable Development Goals is 'Zero Hunger', and it is an imperative for human progress. Digital technologies are an important tool to tackle with world's nutrition problems. It is what World Economic Forum calls the "social determinant of health". From behaviour change to capacity building, these tools aid greater, faster, wider and at times more impactful reach. In the case of nutrition literacy, gaps in knowledge and digital tech accessibility impede positive behaviour change. However, the realisation of technological independence is still ridden with the struggle against digital divide. The diverse makeup of a nation like India presents huge chasms and development is far from being uniform for all. For India to be able to make any concrete contributions towards the attainment of Sustainable Development Goals at the global level, its billion plus population needs to be digitally equipped and advantaged, and realise the achievement of Sustainable Development Goals at the national level first.

This paper tries to find out the systematic application of information and communications technologies in the central Indian state of Madhya Pradesh (India), the nutritional data to support informed decision-making by individuals, the health service providers, and primary health institutions, in order to provide better actionable awareness around nutrition, especially for women and children and improve health and wellness for all.

It also attempts to capture the difference between technology savvy frontline ASHA (Accredited Social Health Activist) workers and their ability to deploy a mutually understandable language with which to assess and articulate functionality in areas of nutrition in particular and health in general.

The objective of this paper is to explore how this digital divide hampers the knowledge of right nutritional understanding and its application at state level in India with a specific reference to the



state of Madhya Pradesh, thereby obstructing behavioural change and development in the desired direction. The methodology involves structured interviews and community focussed group discussions, particularly with young mothers and health providers. Our analysis shows a strong correlation between client-oriented & provider-oriented technologies and nutrition message articulation and consumption for the communities.

**Key Words**

technology, accessibility, nutrition, communication, development, behaviour change, SDGs, digital health

# Too digital, too fast? An analysis of the inclusivity of service delivery in the banking sector in Belgium

## Authors

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## Abstract

We increasingly live in a digital society. Digital technologies and the Internet have enabled governments and companies to shift to a digital-first or even digital-only philosophy in service design and delivery (Agostino et al., 2021). The accelerated expansion of digital technologies and new business models enable the development and provision of specific types of services and force a review of the traditionally two-sided relationship between service providers and citizens. Some digital services, such as those offered by the banking sector, are essential. Citizens' low use or non-use can lead to discrimination regarding accessing and exercising human rights (Faure et al., 2022). According to the Universal Declaration of Human Rights (United Nations, 2020), everyone has the right to equal access to services in the country where they reside.

However, many people still do not have access to the digital world or lack the skills and competencies to navigate digital service offerings (Asmar et al., 2020). Issues such as the lack of accessibility of digital services, the complexity of the language and online procedures and, above all, the gradual elimination of offline alternatives for accessing services, i.e., physical branches and ATMs, can pose a threat to human rights (Faure et al., 2022).

Our research focuses on the intersection between digital inequalities, human rights, and the banking sector in Belgium. The main research question is: *Are the basic human rights of citizens to access banking services still guaranteed in today's digital society?* The study is based upon a two-folded approach: *What is the digital norm of service offering of banking sectors?*, and *How do people experience the digital norm of the banking sector?* The former entails a quick-scan analysis of the digital character of the service delivery of 24 banks based in Belgium, complemented by expert interviews (Van Audenhove et al., 2016). The latter consists of in-depth interviews with citizens (N=30) on their personal experiences of digital and non-digital banking services. By combining insights from both approaches, the study will result in a set of recommendations on how to increase the inclusive nature of service delivery in the banking sector and on interventions needed to increase the adoption and use of digital banking service delivery amongst the population.

## Key Words

digital inclusion, digital inequalities, digital divide, service delivery, human rights

# **The Influence of Algorithmic Knowledge Divide on Information Acquisition and its Influencing Factors——Based on an Empirical Survey of Chinese Mobile Users**

## **Authors**

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## **Abstract**

Algorithms have gradually become the new gatekeepers (Frank, 2019), which govern the relationship between users and information and determines the scope and content of information visible to users. However, algorithms are far from neutral devices and often work to perpetuate structural inequalities in unforeseen and fundamental ways (Anne et al., 2021). There are also hidden problems such as algorithm bias (Nima, 2020). Traditional digital divide theory pays more attention to the impact of practical digital technologies (Lutz, 2019), yet does not discuss algorithm literacy and technology. Therefore, this study takes the algorithmic knowledge, a part of algorithm literacy, as a core concept, and raises questions: Is the algorithmic knowledge divide the new form of digital inequality? How does the algorithmic knowledge divide affect users' information acquisition? What are the influencing factors of algorithmic knowledge and how do they influence?

This study builds on a model of users' information acquisition, algorithmic knowledge levels, and their influencing factors. And thereby explore the new form of the digital divide from an algorithmic perspective in Chinese context. The Tik Tok video app and the Jinri Toutiao news app, which have a large user base and abundant information, are selected as platforms for research. The study uses probability proportional to size (PPS) sampling to obtain samples close to the demographic structure of all mobile users in China. The research establishes an algorithmic knowledge scale applicable to users of two applications. The survey collects 1598 questionnaires and is supplemented by in-depth interview. Polynomial regression is used to analyze the relationship between algorithmic knowledge divide and different levels of information acquisition. The study uses the structural equation model (SEM) to analyze the influencing factors of algorithmic knowledge, taking algorithmic knowledge as a dependent variable. Demographic variables include economy, education, region and gender. Media reports on algorithms, algorithm faulty prediction, app usage frequency, number of followers, user involvement and other factors are set as independent variables, to analyze the influence of latent, single and interactive variables.

The research findings demonstrate that first, algorithmic knowledge has a significant positive impact on users' information acquisition. Users with less algorithmic knowledge are more likely to obtain homogeneous information and be confined to echo chambers, which leads to epistemic divide. Second, algorithmic knowledge is positively correlated with economic and educational levels, media reports, faulty prediction, user involvement, and user intervention behavior on the algorithm. The frequency of app usage positively moderates the effect of economic level on the user's algorithmic knowledge. Third, the media report on algorithms is a significant factor in

bridging the algorithmic knowledge divide. Finally, strategies to increase algorithmic knowledge to promote digital inclusion are proposed.

This study discovers and verifies the influence of the algorithmic knowledge divide on information acquisition, and explores a new form of digital divide, making up for the lack of related research. Through analyzing influencing factors of algorithmic knowledge, the study explores how to improve algorithmic knowledge, which is more suitable for the future of all, to reduce the digital divide, and provides empirical and theoretical supplements for the subsequent research on algorithm literacy and digital inclusion.

**Key Words**

algorithmic knowledge, information acquisition, digital divide

# **Tethered Disparities: Youth Mobile Lifestyle in Rural and Urban China**

## **Authors**

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## **Abstract**

Smartphone pervades every aspect of our lives now. This is no exception in China, which has witnessed exponential penetration of smartphone adoption in the past 20 years. State upgrade of the national technological infrastructure has brought wireless connectivity to virtually every corner of the country. In parallel with this accessibility of smartphone connection comes with a milieu of environmental and situational factors that exacerbate the digital disparities and varied manifestations of digital exclusion along rural and urban lines, which lead to varied outcomes in different areas of adolescent social and personal wellbeing. For decades, academic deliberations on digital inequality have focused on the (often conceptualized binary) access (or lack thereof) to digital technologies (also known as the first-level digital divide) and the promotion of important skillsets (often called the second-level digital divide) (Büchi & Latzer, 2016). More recently, increasing attention has been paid to the patterns of uses and outcomes (benefits) of digital technologies (the third-level of digital divide) (Livingstone et al., 2021; Van Deursen & Van Dijk, 2014; Wartella et al., 2016).

Our research aims to dissect the various dimensions (at three levels) of digital divide among adolescent and young smartphone users in rural areas and cities as manifested in availability of information types, APPs, phone features (1<sup>st</sup> level), skillsets, literacy levels, algorithmic awareness (2<sup>nd</sup> level), and the level of gratifications and other associated outcomes (3<sup>rd</sup> level) for serving a variety of entertainment and social needs. A typical pattern is that rural youth spend more time on the smartphone, but they have access to a much narrower list of APPs and resources. Wireless gaming and entertainment take precedence, and the level of pathological (i.e., addictive and excessive) dependency is often much higher among rural teens. Our perspectives and analysis are enlightened by a survey we conduct across regions, supplemented by national trends and statistical reports from diverse sources in recent years. The survey, with questions pertinent to aspects of the three levels of digital divide, will be conducted among middle school and high school students in rural (metropolitan), suburban and rural areas. Our plan is to gather a minimum of 850 (but with a high-end aim of over 1,000) responses using a stratified sampling approach.

We pay particular attention to patterns of inclusion/exclusion related to these issues: access to different types/brands of smartphones; routine adoption and daily use of apps and features; parents' education and socio-economic status; gratifications of specific informational and functional needs via smartphone services; role of parents (supervision or lack thereof), adolescents' engagement with alternative (non-smartphone) activities; school-related use of the smartphone; the impact on school performance; mobile gaming frequency and tendency; additive

tendencies; social support from smartphone-enabled social networks; and potential consequences (outcomes) on mental and physical well-being. Both inter-regional and cross-national comparisons will be conducted in our analysis and discussions, and findings will be contextualized in the backdrop of China's overall socio-political environment and the country's youth-led technoculture.

**Key Words**

Digital Divide; Digital Disparity; Smartphone Use; Mobile Lifestyle; Youth; China

# Competitive Photography and Digital Inequality: An Analysis of Instagram's ipostghana

## Authors

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## Abstract

With approximately 2 billion registered users worldwide, Instagram is perhaps best known as a social networking platform for selfies, influencers, and advertisers. However, a small but nonetheless substantial number of users utilize the site primarily to disseminate their more artistically oriented photographs. For the most part, this subnetwork is comprised of amateurs utilizing only mobile devices and free editing apps, yet many of their photos are as aesthetically compelling and as technically sophisticated as those of professional photographers.

Previous research has termed the aforementioned amateur photography as “competitive” photography, which is differentiated from “casual” photography of a relatively more personal nature, such as selfies, as well as from the work of commercial photographers. Competitive photography is artistic, but it is not seen as necessarily deemed to be a part of the conventional art world. Yet sites like Instagram afford virtually anyone, including people using only a mobile device, the opportunity to share their artistic photographs, and receive unique recognition in ways that were simply unheard of only a few years ago.

Daily theme-based competitions on Instagram sites such as *gramoftheday* offer amateurs the opportunity to have their photographs reposted and thus appreciated by a wider, global audience, rather than just the individual's followers. Similar types of Instagram feeds focus exclusively on one particular topic, or can be devoted to reposting photographs taken in a specific region or country of the world. Instagram users utilize hashtags as a way of alerting the editors of such pages about their photos, with the hope that their images will be reposted on the page, along with perhaps some accolades. For some amateur photographers, this recognition may eventually lead to professional opportunities. For others, while there may not be any professionally oriented outcomes, receiving recognition for the quality of their photographs can nonetheless enhance self-efficacy and can translate to improved confidence in other aspects of their lives.

This research is based upon a content analysis of photos included on the ipostghana Instagram page. The ipostghana page is typical of many Instagram feeds that focus largely, if not exclusively, on competitive photography. The researcher compared 100 photos on the ipostghana page in 2016 to 100 photos posted on the page in 2022. Photographs were coded as being either casual, professional, competitive, or an advertisement. They were also coded for the photographer's country of origin. The results indicated a remarkable difference over time, with Ghanaians accounting for less than 30 percent of all competitive photos on the page in 2016, compared to accounting for more than 75 percent of such photos in 2022. In both years, most of the competitive photographs not posted by Ghanaians were posted by travelers from western

countries. This research suggests improvement over time in digital cultural production and dissemination among people living in digitally marginalized regions, shedding some positive light in a world where digital inequalities tend to persist.

**Key Words**

Instagram; Photography; Competitive Photography; Digital Inequality; Ghana



## A lurking digital divide: Internet anonymity

### Authors

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### Abstract

The Internet has by now embraced most peoples' lives individually and collectively. Global users have adopted the Internet to an unprecedented extent, so extensively as to have broadened enormously the range of their activities, tasks, operations and engagements. All the major types of agents and agencies: states, corporations, organizations and individuals, interact and transact regularly over the net. Such developments mean that the internet is largely a key conditioning and determining factor of our time. A significant, staple part of digital normalcy: our 'Digital Human Condition'. Around two thirds of the global population (65%) are currently connected to the Internet which keeps advancing steadily and developing dynamically at a yearly rate of 4,5%.

Overall, digital divides reflect policy making failures to address individual needs, as well as cross-sections of interests. The key public interest must be to serve society in a fairer way. However, the internet has been abandoned mainly to 'digital automatic pilots' or to the devices of the global tech-giants, rather than advancing balancing policy initiatives.

In this vein, looking closer into the terms and premises of Internet user actions, diverse options emerge, as either available to or achievable by different the types and classes of users and the diverse agencies. Such closer focusing reveals further levels of disturbing divides and sources of inequalities, divides which transcend the 'third level types of divides' (Ragnedda, 2017). Such disturbing gaps, skill differentials and 'invasive qualities', do not derive from personal capital such as individual education, talents, capacities etc, but are crucially due to a key structural trait of the internet, the internet's condition of anonymity.

This paper holds that the adoption of the *condition of anonymity* as an irreversible structural trait, at the inception of the commercialized internet phase, introduces the most striking source of inequality ever conceived. Indeed, anonymity is at the root of a *sui generis* aberration that implicitly favours inequalities and domination. This structural division concerns, on the one hand those who enter the net innocently, identifying , and committing themselves to a basic accountability, in case of any mishaps or of damaging the interests of other users. On the other hand are those who opt to join the internet *anonymously* or by using a *pseudonym*. They can hide behind such anonymity, and inflict damage on others incognito, while legally unaccountable for offensive or criminal acts. This is the crux of the characteristic of anonymity for responsible policy-makers. On the face of such a tremendous gap, the paper develops a line of argumentation for the need of a triple regulation of the internet, (contents, functions and structural levels) so as [a] for the rule of law to obtain and be upheld, [b] for the public interest to be served through policy

provisions concerning Global Public Goods, and [c] for innocent users to stop falling prey to incognito predators in the safe haven for criminals: anonymity.

**Key Words**

Digital divide, Anonymity, Structural Internet traits, Policy-making, Internet regulation

# The holistic understanding of factors that shape older adults' engagement in use-by proxy: a focus group study

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## Abstract

**Background:** Older adults represent a digitally disadvantaged group, with a high proportion of Internet non-users and older Internet users who engage in narrow Internet uses and have low levels of digital skills. In turn both older users and non-users often turn to others to perform Internet activities on their behalf. That is a practice known as use-by-proxy, where proxy users act on their behalf. The past research has investigated various aspects and characteristics of users-by-proxy and their relationships with proxy Internet users. However, due to their quantitative nature, they were only able to identify a limited number of factors without providing a comprehensive understanding of the relationships between them. This study is the first to provide a qualitative insight into the engagement factors for use-by-proxy among older Internet users and non-users from the perspectives of both proxy Internet users and users-by-proxy. Moreover, the previous studies focused on a specific group of users-by-proxy (e.g., old couples, older people who seek assistance), whereas our sample is heterogeneous. The aim of this study was to comprehensively investigate the factors that shape engagement in use-by proxy, which is understood as a two-stage process consisting of availability and activation and the relationships among them.

**Methods:** Data for the research came from six focus groups with 40 older adults (mean age 72.7 years), conducted in Slovenia in October 2022. Participants in the study were older Internet users (n=27) and non-users (n=13), who are either users-by-proxy and/or proxy Internet users. Transcripts were analysed according to the principles of content analysis using Atlas.ti 9.

**Results:** The results show that contextual factors (e.g., role relationship with proxy users, family dynamics, availability of proxy users, type of proxy users), personal factors (e.g., motivation to learn internet skills, attitude towards Internet, personal relevance), and current life-situation (e.g., COVID-19 pandemic, retirement) shape older adults' engagement in use-by-proxy, more specifically whether the engagement occurs and to what extent. Interestingly the age of users-by-proxy, their variability in digital engagement, and whether they are Internet users or non-users appear to be less important for activation of use-by-proxy.

**Discussion:** The study identified and categorized factors of engagement in use-by-proxy. Contextual factors that have been overlooked in earlier studies seem to be particularly important. One of the factors in this category that has been demonstrated to be exceptionally important from the

perspective of both users-by-proxy and proxy Internet users is family dynamic, as those practices most often occur among family members. Further, results indicate the importance of relationships and associations between different categories of factors for activation of use-by-proxy, while the contextual factors in particular shape the manner in which proxy Internet users offer help and how it is received by users-by-proxy.

**Key Words**

older adults, use-by-proxy engagement factors, proxy internet use, qualitative study

# **Creating the digital opportunity of community technology center in indigenous communities: The case of Taiwan**

## **Authors**

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## **Abstract**

In the development of modernity accompanied with the wave of globalization, many social problems such as decrease of population and loss of traditional culture have gradually emerged in local communities. The development of indigenous communities have been at a disadvantage situation in social structure. Meanwhile, the spread of information and communications technologies (ICTs) and global interconnectedness has showed great potential to accelerate human progress and bridge the digital divide in many societies. In particular, community technology center was set up in the community designed to provide access to computers and the Internet to members of the community.

In the context of Taiwan, the government has paid attention on the issues of digital inclusion and social inclusion since the mid of 1990s. In order to overcome digital divide, the government initiative the policy of 'Creating Digital Opportunities in Rural Areas', followed by the project of 'Digital Application Enhancement Project in Remote Areas'. Thus, the establishment of 'Digital Opportunity Center (DOC)' as community technology center has become an important venue to ensure the accessibility of ICTs for social and economic development, especially for people with specific needs, including indigenous communities. Furthermore, DOC was expected to cultivate peoples' digital application abilities, information literacy and facilitate the development of local cultural industries in remote and rural areas.

The aim of this study was to explore the ways in which community technology center based in indigenous communities can catalyze community change and the strategies they employed to do so for indigenous people, drawing a case of DOC in the indigenous community in central area of Taiwan. Research question was asked: how did community technology centers work for/with indigenous communities? Research methods deployed include: 'secondary analysis' of publicity materials such as news coverage, booklets, government projects and relevant official documents; and 'in-depth interview' with 2 officials who were in charge of DOC and 15 local people as well as 2 opinion leaders in in the indigenous community.

This study found that the contents of community technology center have evolved from basic ICTs skills to a broader range of social issues in indigenous communities. The center provided not only an access point, but a public sphere for discussing general community development, including the opportunity for community actors to voice their stories, contribute to community issues and expand their social networks. Therefore, this study suggested that community technology center can simultaneously translate community members' participation into meaningful actions to

revitalize traditional culture, increase employment and further develop a sustainable relationship between land, nature and peoples in indigenous communities.

**Key Words**

community development, community technology center, digital opportunity, indigenous community

# **Impact of digital divides in Pedagogical practices during the COVID-19 restrictions in Nepal's tertiary education**

## **Authors**

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## **Abstract**

Nepal implemented a countrywide lockdown on 24 March 2020 as a consequence of the COVID-19 pandemic in the country. Then, a series of lockdown orders and health restrictions were introduced until the end of 2021 that severely affected academic practices from primary to tertiary levels. When all the physical teaching learning and pedagogical process were stopped entirely for months, the government encouraged conducting virtual classes and online examination systems. However, several issues appeared relating to multiple layers of the digital divide from access to ICT devices (which included the ability to afford such devices, and availability of digital infrastructures such as the Internet and electricity), knowledge and the ability to use those ICT devices. The digital divides, on the one hand, severely affected students' and parents' ability to afford, manage and use online teaching classes; on the other hand, teachers, academic institutions, and concerned government agencies did not have enough knowledge and preparation on how to teach courses, how to conduct examinations, and how to engage students effectively during the online sessions. As a result, the academic endeavours of educating students during the pandemic have resulted in a big failure, and, rather, the consequences of COVID-19 reinforced another layer of digital divide among Nepali students and teachers: those who could access and use the online sessions, and those who could not. This paper will critically assess Nepal's challenging experiences of virtual teaching at tertiary level during the pandemic in 2020 and outline some of the lessons learnt and strategies to tackle such challenging experiences.

## **Key Words**

Digital divide, Tertiary education, covid pandemic, ICT devices

# **Digital Technologies and Pakistani Universities: Places of Imagination and Possibilities in the Light of Iqbal's Vision of Education**

## **Authors**

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## **Abstract**

The use of digital technologies is now a feature of most forms of teaching and learning. However, despite its prominence in education, it occasionally receives sustained critical attention and thought especially by the people who are most involved and affected by it. Education technology is a topic though frequently talked about but not reflected upon, as it has become such a commonplace occurrence that for most it has entered the realm of common sense. The use of technology in education tends to be approached in a routine rather than a reflective way by not just the teachers, parents, and students but also by policymakers. Particularly after Covid-19, the debates have been more around the use of technology for teaching online, including the strategies and materials along with distance learning models to address inequalities. The debates concerning technology should not be reduced to its access and usability but must also be in combination with the meaning and objectives of education. Our primary focus should be to think critically about the relationship between education and technology.

This paper will first discuss the basic terms of education and knowledge as understood by the great philosopher, and poet Alama Muhammad Iqbal and the term 'technology' - as the process by which humans modify nature to meet their needs and want. According to Iqbal "Knowledge for the sake of knowledge is a maxim of fools," and observed that the existing education system "appears to proceed on the false assumption that the idea of education is the training of human intellect rather than human will." In light of Iqbal's observations, the paper aims to further explore the existing theoretical debates of the academia in higher education from social sciences in Pakistan that underlie the implementation of digital technologies in education. It proposes that universities can be excellent places to prepare individuals of service who can through creative imaginations create the possibilities for a better future. They just need to have the will to do it.

## **Key Words**

Digital Technology, Education, Tertiary education, Digital inequalities



# From Walled Classrooms to Online: Effect of Pandemic Based online education on Media Teachers and Learners in India

## Authors

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## Abstract

In India, Covid-19 disrupted education like never before. Teaching learning modes underwent a radical change. It was swift, definitive and with far-reaching consequences. One such case in point is Media education shifting from “walled classrooms to Online” in a linguistically and demographically diverse India during the pandemic. Media. As both teachers and students shifted from face-to-face classroom discourse to online teaching-learning practices, it becomes critical to underline the challenges faced and the prospects, of the new developments brought forth. Two years thereon, in post-pandemic times, the reflective question arises: whether “from walled classrooms to online” a technological change or does it have the transformative capacity?

Amidst several obituaries of face-to-face classrooms written, the media educators and students from India have their own stories to tell. Their experiences of online teaching range from the presence of digital inequality, varying levels of technological literacy and digital skills, missing human connection, makeshift ways of practice-based learning followed by the conundrum around evaluation and assessment.

With the aim to map the experiences, practices and perception a cross sectional survey of media teachers (n=290) students (n=1860) from 23 states was done. Conceptually informed by E. Rogers Diffusion of Innovations theory, two data collection tools were developed based on five factors i.e. compatibility, complexity, adaptability, triability and relative advantage that influence adoption of an innovation. Regression analysis was performed to explain how the independent variables contribute to variance. By using multivariate ANNOVA, difference between the means of media teachers and students was assessed.

Now when media teachers and students attempts to form a harmonious relationship with technology amidst digital divide in South Asia , this study presents us with a wider picture from a large dataset to critically examine the emergence of *new communication classrooms* in the networked society and revisit the role of a media teacher to create higher levels of critical media literacy and empowers the learners towards informed political, social and cultural progression

Note: This paper is an outcome of ROTL – research in Online Teaching Learning , a self funded project participatory group of by 11 media researchers in India

## Key Words

Digital divide, post-pandemic, education, Online teaching learning

# Harnessing accessible AI by students in higher education : a study of chatGPT

## Authors

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## Abstract

The role of Information and Communications Technologies (ICTs) as essential tools to assist in learning activities has been accepted by researchers (Huffman & Huffman, 2012, Torres-Ramírez, García-Domingo, Aguilera, & Casa, 2014). More recently, the versatility of **artificial intelligence chatbot** via chatGPT is making a buzz in education.

An AI platform, chatGPT 3 is said to perform human like discussions in this **human machine interaction** situation. It understands and responds to everyday language thereby standing apart from its previous versions that required humans to know technical commands to interact with the machine.

ChatGPT with its Natural Language Processing ability is said to be a game changer in the field of **education**. The **AI** tool with which anyone can have conversations, ask questions can instantly write answers, create essays and write down creative copy and scripts. While on one hand, it can be effectively used to teach, there is also a looming threat that students can rely on it more than ever. This can lead to the students being unable to solve their problems and create their own answers and solutions to their assignments. After the New York city department of Education blocked access to chatGPT in all their department devices and networks a staffer said, “While the tool may be able to provide quick and easy answers to questions, it does not build critical-thinking and problem-solving skills, which are essential for academic and lifelong success.” Kathy Hirsh-Pasek and Elias Blinkoff (2023) comment that used in the right way, chatGPT can be a friend to the classroom and an amazing tool for students.

Young, Hausler & Sandders (2008) say that individuals differ in their learning styles. With the present generation of digitally oriented students (McCormick, Holland & Szydlo, 2010) in higher education this study on the effect of emergence of Chat GPT’s Artificial intelligence **chatbot** on students’ learning style will shed light on the influence of AI on learning. This study examines the use of chatGPT for educational purposes among the students. The study seeks to examine the use of chatGPT for educational purposes among students in institutions of higher education in India. The objectives of the study are : to find out the purpose(s) of using chatGPT for study/assignments, to examine how chatGPT is aiding learning and to explore their perspective in its usage for learning.

The sample for this quantitative study will be students enrolled in institutes of higher education in media related graduate, post graduate programs. An online survey will be used to collect data and focus group discussions will be conducted to get a deeper understanding of whether they deem it as an aid to improve knowledge and learning or an aid to complete assignments.

**Key Words**

Media education, Human machine learning, technology

# **Virtual Teaching for Real Learning Impact of COVID 19 Pandemic on Private University Education in Haryana**

## **Authors**

Dr. MAITHILI GANJOO - Manav Rachna International Institute of Research and Studies

## **Abstract**

The episode of COVID-19 has made us realize that change is certain. On 23 March 2020, government in India announced a countrywide lockdown for 21 days that was extended to over three months. This led to the confinement of 1.3 billion people of India as a preventive measure against the COVID-19 pandemic; compelling the cessation of all academic establishments across India. COVID-19 altered education systems throughout the country. To keep the academic cycle running, the method of teaching transformed from a traditional standard framework to a virtual and online structure. It has functioned as an impetus for the educational institutions, schools, and universities to change the methodology and decide on stages and methods of digitalization that were before seldom utilized. The private universities in the country especially took a lead in quickly changing over to the online teaching format. Further, electronic exams (E-exams) have been considered as a method of assessment. The education sector just as students have been battling to get by in this crisis with an alternate method and attempting to adopt advanced strategies to adapt up to the challenges made because of this pandemic. A portion of the difficulties looked at in virtual classes were network issues, absence of training, and absence of mindfulness. While, access to proper infrastructure and quality online teaching material were the basic hurdle that both students and teacher had to cross, another important and more complicated hurdle was conducting online exams and eventually their assessment, so that the students could be promoted.

This study will be conducted in three private universities of Faridabad; Haryana, and will explore the impact of the technological intervention in the pedagogical design in order to find out the positive well as the negative aspects of this intervention. The study will examine issues of access, availability, cost, health implications, learning and assessment among students, and feasibility, monetary benefits, pedagogical changes, challenges among the teachers, to comprehensively assess the impact of the lockdown due to Covid 19 pandemic in 2020.

## **Key Words**

COVID 19, Private University, Online Examination, Virtual Learning, pedagogy

# Opportunities for engaging economic actors in strategies for an inclusive digital transition

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## Abstract

The Covid-19 health crisis of 2020 has provided an impetus for the acceleration of the digital transition of the Belgian economy. At the same time, the proportion of the Belgian population at risk of being digitally vulnerable continues to grow. To ensure an inclusive digital transition, levers need to be created to allow everyone to participate in and benefit from the digital transition. Since the start of the Covid-19 health crisis, several digital inclusion policy actions and plans have been developed in Belgium. While tackling digital inequalities requires comprehensive strategies in various fields, including the economic field, the principal economic stakeholder groups are directly addressed only to a limited extent in the current policy actions and plans in Belgium. Significant economic stakeholders such as SMEs, independent workers and consumers have, for example, been largely left out of the various existing levers to facilitate their inclusion into the digital Belgian economy.

This study aims to identify pathways for directly engaging key economic actors in a comprehensive digital inclusion strategy for Belgium, while addressing their respective needs and obstacles in terms of digital inclusion. A systemic design approach (Blomkamp, 2022) was adopted through a combination of 1) a comparative analysis of the existing actions in the economic field by the various levels of government and the different public and private actors in Belgium, 2) a mapping of the specific obstacles and needs that exist for each category of vulnerable people within the economic field, and 3) a systemic design framework to directly engage key economic stakeholders in the strategy development process.

The results show significant opportunities for engaging administrators, sector federations, employers, employees, jobseekers, consumers, and existing digital inclusion networks, respectively, in the development of digital inclusion actions and plans in the economic domain. By presenting pathways toward the engagement of economic stakeholders in digital inclusion strategies, this study aims to contribute to a growing understanding of the necessary conditions to achieve an inclusive digital transition in Belgium and highlights the importance of expanding actions that aim to tackle digital inequalities into the economic domain. The findings demonstrate that engaging

economic actors in digital inclusion strategies can act as a lever for stimulating an inclusive digital transition that benefits both economy and society.

Reference:

Emma Blomkamp (2022) Systemic design practice for participatory policymaking, *Policy Design and Practice*, 5:1, 12-31, DOI: 10.1080/25741292.2021.1887576

**Key Words**

Digital inclusion, digital transition, digital inequality, digital inclusion policy

# **Digitisation of education in South Asia: A comparative analysis of tertiary education**

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## **Abstract**

The Covid-19 pandemic disrupted the education system and practice worldwide causing the most severe global disruption in history (UNESCO, 2021). The pandemic forced academic stakeholders to adopt ICT devices and digital platforms for continuing education. South Asia comprises of eight countries-Afghanistan,Bangladesh,Bhutan,India,Maldives,Nepal,Pakistan And Sri Lanka. Each of the countries vary in terms of ICT infrastructure and their usage.

As a result of the pandemic, higher educational institutes were even more severely affected, as several universities and colleges in this region were not able to switch from traditional classroom settings to virtual platforms, as easily as in developed countries, due to a variety of digital inequalities. The region faced this gravely undesirable situation as very little preparation had been made for the pedagogical performance of online classrooms, leaving students, teachers, and administrative staff in a sea of digital inequalities, including access to, skills in, and usage of ICTs for virtually unfamiliar students, teachers, and administrative staff.

Although some universities of this region organised synchronous lectures, posted recorded video lectures on their websites, engaged with students on virtual discussion forums, and sent documents via emails. To avoid the consequence of the digital divide during the pandemic, several South Asian colleges and universities adopted multimodal teaching/learning strategies based on the availability (and affordability) of different communication channels. While the pandemic has undoubtedly disrupted education systems, there is also evidence that it has triggered digital transformations. The varied experiences of students, teachers, will be examined in this paper.The similarities and differences in media education and technology will be brought out in this paper.

## **Key Words**

digitisation, ICT, Education, South Asia

# **Nothing about us: exploring the constructive absence of (dis)ability in the South African digital public sphere**

## **Authors**

Prof. Lorenzo Dalvit - Rhodes University

## **Abstract**

The envisaged contribution of the present paper is to problematise the digital inclusion of people with disabilities from the perspective of the geographical and epistemological Global South. The potential exclusion of members of subaltern groups has long been recognised as a limitation and critique of Habermas' normative ideal of the Public Sphere. After being initially credited with filling the participation gap, digital technology has increasingly come under critical scrutiny as a site of further marginalisation, oppression and exploitation. In this paper, I draw on Boaventura De Sousa Santos' critique of the concept of public sphere from a Southern Epistemological perspective. In particular, I draw on different dimensions of sociology of absences to explore constructions of (dis)ability in the digital public sphere, taking South Africa as an example. The profound inequalities inherited from colonialism and apartheid persist today and are often reflected in the online space. A monoculture of ability manifests itself not only in the digital exclusion of people with disabilities (PWD), but also in how they are digitally included. An analysis of purposively selected online resources (websites, portals, news articles, Youtube videos and comments, tweets, Facebook posts etc.) reveals different modes of production of non-existence. First of all, disability is pathologised in terms of Western scientific and medical discourses. In terms of the resulting deficit model, accessibility features are often understood as afterthoughts and best-effort accommodations rather than being recognised as an essential feature of online resources. Secondly, South Africans with disabilities are compared unfavourably to their counterparts in the West, implying that the offline and online challenges they face stem from living in a relatively backward and underdeveloped context rather than resulting from operating in a digital domain shaped by and for able bodies. Thirdly, the classification of people with disabilities as different and inferior, though not openly expressed, is covertly present through stereotypes, misrepresentations and micro-aggressions reminiscent of past institutional segregation. Fourthly, despite accounting for a substantial portion of the population, South Africans with disabilities are under-represented online. Furthermore, as is the case in other parts of the world, they may opt to downplay or hide their condition in an attempt to conform to the majority experience and expectations. Finally, as with so much else in South Africa, digital inclusion depends to a large extent on socio-economic status. For historical reasons, the ability to produce and consume is inextricably linked to race, gender, geographical area, language and other demographic characteristics intersecting with disability. The above considerations point towards what de Sousa Santos calls monocultures of knowledge, of linear time, of classification, of dominant scale and of productivity respectively.

## **Key Words**

(dis)ability, digital inclusion, Global South, South Africa, Public Sphere



# Vulnerable people's digital inclusion: a mélange of theory and practice

## Authors

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## Abstract

The paper breaks current explanatory mechanisms of vulnerable people's digital inclusion or exclusion. It does so through utilization of a proposed theoretical construct in the context of a Social Lab for the purpose of disclosure of different vulnerable people's real-life experiences and related barriers to, benefits of, and tensions and complex dynamics in the digital realm.

Existing scholarship has utilised social theories to explain digital inclusion (e.g., Helsper 2012, 2017, 2021; Ragnedda 2017; Ragnedda & Muschert 2017), without focusing on 'vulnerability' and proposing rather materialistic approaches to the positioning of people in the digital realm. Also, theoretical accounts overlook the operationalisation of theory within the real-life experiences of both similar and dissimilar vulnerable actors, thus lacking transdisciplinary and policy-relevant knowledge. To fill in these gaps, the paper develops an innovative theoretical construct that brings together a) the intersectionality theory (Crenshaw, 1989) and b) Foucault's social theory (1975, 2008), and.

1. places Foucault's social theory and its concepts of change, power, discipline and governmentality in the digital realm and supports their exploration through the intersectionality theory in order to unpack intersectional patterns of digital inclusion or exclusion;
2. goes beyond the common focus of intersectionality theory on race and gender identities, also drawing from Foucault's focus on various forms of social marginalization, and thus enabling the research of different vulnerable groups.

Then, the paper presents how such a theoretical construct can be operationalised in the context of a Social Lab and with the joint participation of stakeholders (i.e., policy, industry and community experts) and vulnerable people (i.e., ethnic minority, disability and elderly communities) for the production of transdisciplinary knowledge on the digital inclusion of those labelled as 'vulnerable'. The theoretically informed work of the Social Lab will involve mutual-learning among participants and will take place at three stages:

Stage 1: Recognition and identification of intersectional patterns of: a) barriers to digital inclusion, b) benefits of digital inclusion, and c) tensions and conflicting experiences of digital inclusion.

Stage 2: Co-creation of related scalable pilot initiatives (at the local, community, industry and policy levels) in the form of recommendations.

Stage 3: Reflection on the lab outcomes, development of Key Performance Indicators and assessment of the scalability of recommendations.

Hence, the paper argues that developing a Social Lab that utilises the proposed theoretical construct in 3-staged progress work, one can generate an transdisciplinary account of the real life

experiences of different groups of vulnerable people and the related barriers to, benefits of, as well as tensions and complex dynamics in their relationships with digital technologies.

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### **Key Words**

Digital inclusion, vulnerable people, intersectionality, Foucault, Social Lab

# **The Impact of COVID and the Digital Divide on Education**

## **Authors**

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## **Abstract**

The COVID-19 pandemic has shone a bright spotlight on the digital divide. For example, an April 2020 Pew Research Institute study revealed that 53% of Americans believed that the internet was essential during the pandemic. Despite the importance of the internet, research by the NEA finds that too many households lack the password to access the virtual classroom. Nearly 25% of all school-aged children were not able to complete their school-related activities because they lack access to a computer, or, with the closure of many public libraries, reliable access to the internet.

There are multiple reasons for this virtual education divide. For some families, computers are too expensive, and even when they can borrow them from schools, broadband access may be too expensive or unavailable. In addition, there are often multiple people in the household that need access to the same device at the same time. The access problem is particularly dramatic for indigenous students, rural students and poor students, as well as disproportionately students of color. Those students also lost as much as two years of educational progress during the pandemic.

Drawing on the analysis of multiple public datasets, paper focuses on the association of broadband access to access to virtual education. There have been lessons learned by educators in the pandemic to lessen the divide, such as developing lesson plans with bad access in mind, teaching digital literacy and pushing for better virtual education tools (such as centralized learning management systems. Still, we argue that as a matter of public policy, if virtual education is going to be delivered equitably in a nation, then more money needs to be devoted to not only delivering broadband to its citizens, but at a way that is affordable and accessible. The National Education Association's suggestion of devoting \$12 billion to the e-rate program would be a promising first step, as well as the funding of universal broadband technology.

## **Key Words**

education, digital divide, access, broadband, learning loss

# **The Organizational Shaping of Inequalities in Intelligent Technologies: Spanning Disciplinary Boundaries**

## **Authors**

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## **Abstract**

Organizational research has become increasingly interested in inequalities. In parallel, research in communication and sociology has investigated digital inequalities in the form of unequal attitudes towards digital media, variegated material access, differentiated digital skills and uses, as well as stratified outcomes of technology use for different social groups. On their own, however, both organizational inequalities research and digital inequalities research have deficits. While organizational research more generally increasingly deals with aspects and contexts of digital transformation, this rarely happens from an inequalities perspective. Digital inequalities research, by contrast, neglects the embeddedness of individuals into larger collectives and seldom considers work-related and organizational factors. Both organizational and digital inequalities research tend to share an instrumental and deterministic view of technology. Bringing organizational inequalities research and digital inequalities research into conversation leads to a better understanding of hidden inequality dynamics, especially when a social construction and shaping of technology perspective is adopted. We show how this is the case for intelligent technologies such as artificial intelligence, robotics, big data, and analytics. Along the engagement process - from attitudes to material access, skills, and use -, intelligent technologies are organizationally shaped to reflect (functional and hierarchical) a) differentiation that follows organizational imperatives and logics and is not per se problematic, b) inequalities that are dysfunctional. Intelligent technologies have in-built values that drive differentiation and inequality. We conclude with a synthesizing discussion that describes the interplay of differentiation and inequality and pays attention to closure mechanisms through the implementation process of intelligent technologies

## **Key Words**

artificial intelligence, digital inequality, intelligent technologies, social shaping of technology

# Health self-management in Portugal: a national survey about digital health use and trust

## Authors

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## Abstract

The broad scope of Digital Health includes categories such as mobile health (mHealth), health information technology (IT), wearable devices, telehealth and telemedicine, and personalized medicine, and it is a transversal area capable of increasing the quality of life of the population. However, the evidence shows that the inclusion of self-management platforms in health in the routine of individuals who access and use them has been inconsistent.

The development of these resources, without taking into account the level of Health Literacy of their users, has been one of the causes pointed out for this panorama. In addition, trust in sharing personal information on health portals or mobile applications has also been the reason for the threat of a new digital divide.

With this research project, it was intended to study the Health Literacy levels of the Portuguese population as a determinant for trust and use of health information technologies. The methodology chosen involved the development of an instrument, the Individual Questionnaire for the Use of Health Information Tools, to identify patterns of use and trust in health information technologies by individuals belonging to the same regional context. These last data were also associated with the level of individual Health Literacy, measured with a specific instrument.

A questionnaire validated and disseminated in person was completed by 1,384 people residing in Portugal and aged over 18 years.

The questionnaire consists of 39 questions and takes, on average, 14 minutes to be answered. Questions were also developed and validated for a quantitative and qualitative assessment, and with a division into 6 well-defined groups: Group I – Socio-Demographic Data. Group II – Presence of Disease: assessment of the presence of a chronic illness or the existence of a chronic illness within the family or professional environment. Group III – Health Status: which contains questions about the degree of information that the respondent has about their health status. Closing this group, the participant is invited to evaluate 5 statements about their difficulty in understanding health information. For this point, a Likert scale with 5 distinct points was used. Group IV – Use of Digital Communication Tools: which contains questions about frequency of Internet use, technological devices used and difficulties experienced in the navigation process. Group V – Use of Digital Tools in Health: in which the respondent is invited to share their routine of using platforms in the health area, namely the National Health System User Portal and mobile applications.

The Health Literacy Level calculated using a rapid assessment test.

The Portuguese reality suggests that low levels of Literacy are associated with low skills in using digital media and low confidence in the use of health information tools. The results showed a minimal and distrustful use of the digital services offered by the Portuguese National Health System. This scenario compromises health behaviors and living conditions, representing a critical factor for the empowerment and qualification of the population.

**Key Words**

digital health, communication, digital divide, self-management, health literacy.

# **From Text to Culture: Uncovering Cultural Representation and Bias in ChatGPT and its Implications for Artificial Intelligence**

## **Authors**

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## **Abstract**

As technology continues to evolve and human-computer interaction becomes more influential in our daily lives, ChatGPT has received increasing attention as a large artificial intelligence model. However, as ChatGPT is trained on vast amounts of textual data to produce human-like textual responses, these models are only as good as the data they have been trained on and are susceptible to the biases and stereotypes present in the data. This can have significant consequences for how ChatGPT represents and portrays cultural groups, raising concerns that it may perpetuate or amplify these biases in the output. Since cultural representations play a critical role in society, reflecting collective values, cultural traditions, and historical background, it is therefore of great significance to examine the extent to which ChatGPT exhibits digital inequalities in the representation of different cultural groups and the implications this has, with a specific focus on exploring the potential for racial and gender bias.

Therefore, the main research questions of this study lie in 1) Identify the ways in which different cultures are represented in the language output of the ChatGPT. 2) Explore the cultural biases and stereotypes that shape these representations. 3) Investigate to what extent the cultural representation of ChatGPT has a negative impact on socially and culturally disadvantaged groups.

This study will use a mix of quantitative and qualitative methods. Specifically, representative cultural elements inputs, such as character images, history, and traditions, will be sampled and evaluated against the output of ChatGPT. This qualitative content analysis will involve manual coding and categorizing the language output into themes related to cultural representation, in order to identify bias instances and to understand how these biases are expressed in the text output. In addition, a survey will be administered to explore how the lack of cultural representation texts generated by ChatGPT has an adverse impact on socially and culturally disadvantaged groups.

This research will contribute to the growing body of literature on the impact of AI language models on cultural representation, and has important implications for the fields of artificial intelligence and human-computer interaction. Furthermore, ChatGPT presents trends that will increasingly be used for cultural representation in various applications that interact with people, such as chatbots, customer service, and information retrieval. Bias in AI systems can have significant real-world consequences, such as the perpetuation of harmful stereotypes and discrimination. By investigating inequalities in ChatGPT's representation of culturally diverse groups, this research has the potential to inform the development of more inclusive and equitable AI systems and provide relevant policy support to related decision-making bodies.

**Key Words**

Artificial Intelligence, ChatGPT, human-computer interaction, cultural representation, chatbots, machine learning



# Journalistic Methods during the COVID-19 Pandemic Reporting: Case of South & South East Asia

## Authors

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Mr. Felipe Salvosa II - University of Santo Thomas

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## Abstract

Various restrictions imposed by governments on the news media at the height of the Covid-19 pandemic forced journalists to develop new or reinforce existing methods of reporting and gathering the news. Journalists found it imperative to check official pronouncements against official or field data, and validate further using international data. Given restrictions on mobility posed by the pandemic, journalists developed virtual lines of communication with news sources, whether official or unofficial. In addition to the usual telephone or mobile phone communications, direct messaging became an acceptable substitute for face-to-face interviews. Despite the challenges posed by the pandemic, both to their personal and professional lives, and consistent with related studies, journalists interviewed went back to their moral obligation and sense of purpose, especially in a pandemic: to tell the truth by providing accurate information and context, and minimize harm to a suffering public. This paper aims to explore methods of news gathering information during the pandemic and to what extent it has strengthened the digital journalism. Qualitative interviews with editors and reporters from the South & Southeast Asia countries such as India, Pakistan Philippines and Malaysia found that journalists were able to cope with the challenges posed by the coverage of the pandemic using creativity and resourcefulness but without sacrificing ethical practice. The researchers documented four based on the in-depth interviews conducted: a.) the use of “verification dashboards”; b.) vertical / horizontal verification; c.) utilizing virtual lines of communication; and d.) ascribing levels of trustworthiness. For instance, if a national government official said action was taken in a local government unit, then verification needed to be done at the latter level (“vertical verification”), and vice-versa. If officials quoted international resources, verification also needed to be done at the latter level. Pronouncements by national officials likewise needed to be laterally cross-checked with other officials or relevant agencies (“horizontal verification”). Official was not necessarily factual. A number of interviewees said they regularly tracked data, statistics, or other type of information from various online sources, such as the Coronavirus Resource Center of Johns-Hopkins University; the data drops, website, and social media accounts of the Department of Health; and reliable global news organizations. The availability of these online resources allowed cross-checking, validation, and verification of official government pronouncements, according to an online editor interviewed by the researchers. These resources collectively was described as ‘verification dashboards’. Finding shows that journalists evaluated source credibility using two primary criteria: expertise and motivation, balanced vis-a-vis

other sources. Institutional or expert sources went through minimal vetting. Determining levels of trustworthiness went through three levels: I) ascribed credibility; II) validated expertise; and III) inclusion in the journalist's pool of expert sources.

Keywords: Digital Journalism, Pandemic, news gathering, journalist, South & South East Asia

**Acknowledgement: Global Risk Journalism Hub**

**Key Words**

Journalistic methods; COVID-19; South East Asia