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# A Study of digital literacy among the marginalizes in Thailand: Issues, challenges for implementation and the way forward

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**Abstract:** The concerns about digital literacy in Thailand especially relevant to fake news, disinformation, and misinformation keep increasing and creating a multifaceted challenges to various sectors of Thai society i.e. financial, commercial, politics, society, and health-related. Among the areas identified include digital contents creation, dissemination, and social media enabling various information with complex challenges such as the proliferation of fake news, disinformation, and misinformation affected more kinds of negative effects currently. This study employs mixed-research method quantitative (survey questionnaire) and qualitative (Focus group discussion, observation, interview) data collection and analysis. A total of 315 samples and key informants were involved as well as grouped under 5 categories: marginal youths, elderly, community leaders, teachers, also government workers focusing on digital literacy knowledge and skills relevant to fake news. It also highlights the relevant contexts i.e. regulatory frameworks and mechanisms driven by key agencies in Thailand. Two main results were revealed that reflected the objectives of the study accordingly: The first objective is (1) overview of digital literacy and how to achieve it. The findings summarized from survey questionnaire include 1.1) even regulations exist found inadequate enforcement and low public awareness call for more effective and collaborative communication from all partners starting from the government agencies; 1.2) urgent need for public awareness communication campaigns emphasizing all the marginalized groups. Youths expressed in the interviews about their contribution to help reduce all kinds of fake news; 1.3) support more friendly ICT context provision such as availability, affordability, accessibility, usability, and useful information. The second objective is (2) mechanism for digital skills empowerment. The feedback from key informants include: 2.1) strengthening digital literacy skills among all marginalized groups to be a smart citizen then can help protecting themselves, their families and their communities; 2.2) all agencies from policy to local i.e. community leaders, educational institutions, private sectors, social media companies, civil society, and others must synergized more contributions; 2.3) educational institutions must design digital literacy academy with digital new-skills for the marginalizes, ensuring them for their safety and future job demands; 2.4) private sectors should support and co-designing digital products and services that address all current needs; 2.5) local government, and all partners should take an active collaboration and enforcement. The study concluded with implications and suggestions for future research in line with SDGs.

***Keywords:*** *Digital literacy, Fake news, Misinformation, Thai's marginalizes groups, SDGs.*


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## 1. Overview of Digital Literacy Contexts in Thailand

The digital age has brought about a rapid and profound transformation in the ways in which information and knowledge are being created, disseminated and used. While rapid technological advancements have led to unprecedented access to information, have expanded avenues for activism, and strengthened the voice of disenfranchised groups, they have also given rise to a complex challenge: the proliferation of fake news, disinformation, and misinformation. Southeast Asia is one of the most social media active regions in the world, and Thailand, like many other countries in the region, has not been immune to these issues, with concerns about the impact of false information on society, politics, and public discourse. Before diving into the issues, it is crucial to understand some relevant terms used in this study (Sara Gabai and Kamolrat Intaratat, 2024.

> Fake News calls *"Khao Plom"* in Thai language is widely used and is defined by MDES as 'information that appears on social media platforms or in a computer system, and that is entirely or partially false, causing damage to citizens and the country' (Sombat Poonsiri, 2022).
>
> Fake News is the best thing that has happened for decades. It gives mainstream quality journalism the opportunity to show that it has value based on expertise, engagement and experience. It is a wake-up call to be more trained to add value to people's lives. "While seeking to be 'truth tellers', journalists cannot always guarantee 'truth'. Nevertheless, striving to get the facts right, and producing content that accurately (UNESCO, 2018)
>
> Digital literacy involves the confident and critical use of a full range of digital technologies for information, communication and basic problem-solving in all aspects of life. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet (UNESCO,2021).
>
> Fact-checking means double-checks facts and figures, before publication. Fact-checking seeks to make public figures accountable for the truthfulness of any statements (UNESCO, 2018).

## 2. Relevant Frameworks of Digital Literacy in Thailand

The Ministry of Information and Communication Technology (MICT) was proposed the Computer-related Crimes Act (CCA) in 2007 aims to curtail online scams and pornography, and was used in subsequent years to punish those importing "distorted", "forged", and "false" information into a computer system (Sombat Poonsiri, 2022). Then in 2016, the MICT has changed its name to be the Ministry of Digital Economy and Society (MDES) aim to holistically care more than its first Computer Crime Act. In 2019, the Anti-Fake News Centre was established together with some more further regulations i.e. the Cybersecurity and National Intelligence Bills to facilitate state surveillance of "fake news", the Technology Crime Suppression Division to care for all kinds of cybercrimes and threats, including "fake news" in 2020. Then in 2022, the Personal Data Protection Act is the latest.

## 3.The Marginalizes and Digital Situation in Thailand

Thailand has achieved upper-middle-income status in 2011, it still faces multiple challenges. The rapid demographic changes are reducing the percentage of the workforce, necessitating measures to boost productivity, invest in skills enhancement, and reinforce the healthcare system. Additionally, limited access to education and financial services, coupled with barriers linked to geographical location, socio-economic background, gender, ethnicity, health and disability, further aggravate disparities. Vulnerable groups, including adolescents, youth, women, people with disabilities, ethnic minorities, migrants, and the LGBTI community, have been identified by UNFPA as being at the greatest risk of exclusion in Thailand (Sara Gabai and Kamolrat Intaratat, 2024).

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According to data from The Office of the National Digital Economy and Society Commission (2022), in Thailand there are 86.90% men and 85.90% women Internet users, with a gap of only 1%. Since 2006, The Research Center of Communication and Development Knowledge Management (CCDKM) under the umbrella of Sukhothai Thammathirat Open University (STOU), has been committed to increasing the social and economic impact of information and communication technologies (ICT) at the grassroots and in marginalized communities in Thailand and the ASEAN region. Working with numerous partners, including government agencies, intergovernmental organizations, UN agencies, the private sector, non-governmental organizations, and civil society organizations, CCDKM promotes media development in the region and e-learning initiatives to advance the sustainable development of disadvantaged communities. To date, thousands of trainers and more than a hundred thousand marginalized people in the region, particularly in Thailand, have been trained using the telecentres or the community digital center currently situated all over the country. Topics covered in the training programs and academies include: local tourism, food design, community English, financial literacy, community social enterprise, digital media literacy, intangible heritage utilization and preservation, e-commerce solutions, silver economy, rural innovation, e-courses (Smart MOOC) designed as a "sandbox" to bridge all the marginalizes' local wisdom and experiences to Thai MOOC where they can continue their own designed education and skills. All courses are co-designed and co-partnered among all the certified agencies i.e. the former Ministry of Information and Communication Technology (MICT), Thailand Professional Qualification Institute (Public Organization), the Ministry of Education, the Ministry of Agriculture and Cooperatives, United Nation agencies i.e. ITU, UNWOMAN, FAO, UNESCAP, APCICT and others. Nevertheless, digital literacy knowledge and skills among all those marginalizes in Thailand still not fully accessible and available due to the lack of collaboration among all the relevant agencies. Some evidences are follow;

The marginal youths found some statistics from key relevant stakeholders i.e. ITU, 2022; UNESCO, 2021 shown disparities in desktop computer, computer notebook availability : students in Southern Thailand had to share computers more frequently (19 students per computer) compared to those in Central Thailand (16 students per computer). Moreover, the success of e-learning and digital literacy initiatives hinges on qualified teachers, technical staff and robust online learning support (ITU, 2022). Other challenges reported by students when engaging in e-Learning activities include: costly Internet fees, inappropriate learning environment, and the lack of digital devices to access the Internet (ONDE, 2022).

In formal education setting, data from schools under the Office of the Basic Education Commission revealed that 97.47% of schools in Thailand (28,889) are connected to the Internet. A mere 0.8% (242) lacked Internet access (these schools are situated in less urbanized regions), while 1.7% (509) had missing connectivity information (ITU, 2022). The same study has also shown variations in internet connectivity across the country's provinces. For instance, Central and Southern Thailand boasted better school connectivity than the Northern and North-eastern regions. Since early 2017, efforts by the National Broadcasting and Telecommunications Commission (NBTC), responsible for broadcasting policy and regulation, and the Ministry of Digital Economy and Society (MDES), in charge of Internet policy with the Electronic Transactions Development Agency (ETDA) as its executive arm, have been greatly invested in extending broadband internet access to rural non-commercial areas. Through initiatives like the village broadband project Net Pracharat and the Universal Service Obligation (USO), 74,987 Thai villages have gained connectivity according to the National Digital Economy and Society Commission in 2022. As of 2020, approximately 9 million of Thailand's 71 million population access the Internet through free programs. Moreover, in 2021, the National Telecom announced plans to provide 300,000 free public Wi-Fi hotspots across the country in 2023 (Freedom House 2023).

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Anyhow, even of the rapid digital transitional progress in Thailand, digital literacy found increasing especially among all the marginalized groups starting from the out-school youths, the last mile residents, the handicaps, the child labor, and others. Tangible evidences found majority of them gained a very least access to their fundamental information followed by all kinds of education, training, and any welfare that affected majority of them exposed more and more left behind in any kind of development and social inclusion. Most of them gain less education and stay in the low-income households. These groups also include the early school leavers, the unemployed youths, the young parents, the handicapped youths (In United Nations Children's Fund & College of Population Studies, Social Research Institute, Chula Unisearch, 2023). Majority only complete lower secondary education, followed by upper secondary education. However, it is important to note that while youth in tertiary education tend to have greater opportunities to find employment, a significant number remain unemployed signifying an existing skills mismatch in the labour market (Chantapong & Lertpienthum, 2018).

Besides, the elderly group is currently being the massive emerging new marginalized group globally including Thailand. The Global Connectivity Report shows that in all regions of the world, people between 15 and 24 years old are more active on the Internet compared to other age groups (ITU, 2022). With the aim of promoting digital inclusivity and closing the generation divide, The Office of the National Digital Economy and Society Commission (ONDE) and the National Statistical Office (NSO), have furthermore been invested in measuring the percentage of individuals aged 55-74 using the Internet. While findings show that only 63.10% of elderly people use the Internet in Thailand, there is an increasing realization that digital connectivity can help reduce social isolation among elderly people, facilitate their access to online public services, and enhance their productivity to remain in the workforce. Accelerating the acquisition of digital literacy skills among this target group has, therefore, become an imperative for the Thai government as reflected in ongoing programs to build and develop the capacities of the elderly population to be active players in the "Silver Economy". Besides, according to the United Nations (2021), approximately 34% of the elderly live in poverty, many of them live under the poverty line with less than 5-6 US$ a day even of their monthly support by the government around 20 US$ per person while under the high cost of living and inflation. All those difficulty contexts have been leading most of the elderly into more and more widen dependences and disparity in the society. Furthermore, the United Nations Population Fund reports that by 2050, the elderly demographic is projected to rise to 20 million, representing almost 36% of Thailand's population, a trend largely attributed to the stark low fertility rates since the year 2000 (In United Nations 2021).

## 4. Research Methodology

Mixed-research Method using quantitative and qualitative techniques has been used to collect data from the current highest risked marginalized groups in Thailand : the out-school youths, and the elderly. Then focus group discussion among 15 key informants from all key relevant stakeholders : the community leaders, the teachers, and government workers who are currently relevant with fake news which affected to the marginalizes' quality of life, careers, and opportunities which also creating some kinds of conflicts within the families, the communities, and the societies as a whole such as the political sector, the labor sector, the education sector, the market or industry sector and especially the media sector itself.

## 5. Findings

### *5.1. Demography*

Of the 150 youths, and the 150 elderly from the marginalized communities specifically those residing in low-income residences. Majority of them are young girls follow by young boy. Bangkok is

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the highest number of respondents followed by its neighboring provinces i.e. Nonthaburi and Pathum Thani. Majority of them gain a Lower Secondary School. Anyhow most of them reported being employed in formal sectors follow by the informal one. Their most monthly income is 10,000 Thai Baht (below the minimum wage) follow by within the 10,000 to 20,000 Baht range.

*5.2. Digital Literacy Situation*

(1) The marginalized youths found quite being media-savvy by using a range of platforms for news access followed by the general broadcasting and public services media i.e. television, radio, print publications, community radio. Social media is their main news and information sources follow by the free online news portals and search engine.

Majority of youths primarily use smart phones as their main communication devices, including for online access. Popular applications among these youths include Line, Facebook, and Instagram, with Twitter and some WeChat. Additionally, when surfing online, computers and laptops are utilized by some youths, while tablets are less frequently used.

Regarding device ownership, majority of youths own a smart phone. A smaller portion owns computers and laptops. Majority of youths reported that they seldom borrow digital devices, including those provided by their community. However, when they do borrow, the devices are mostly computers, laptops, and tablets.

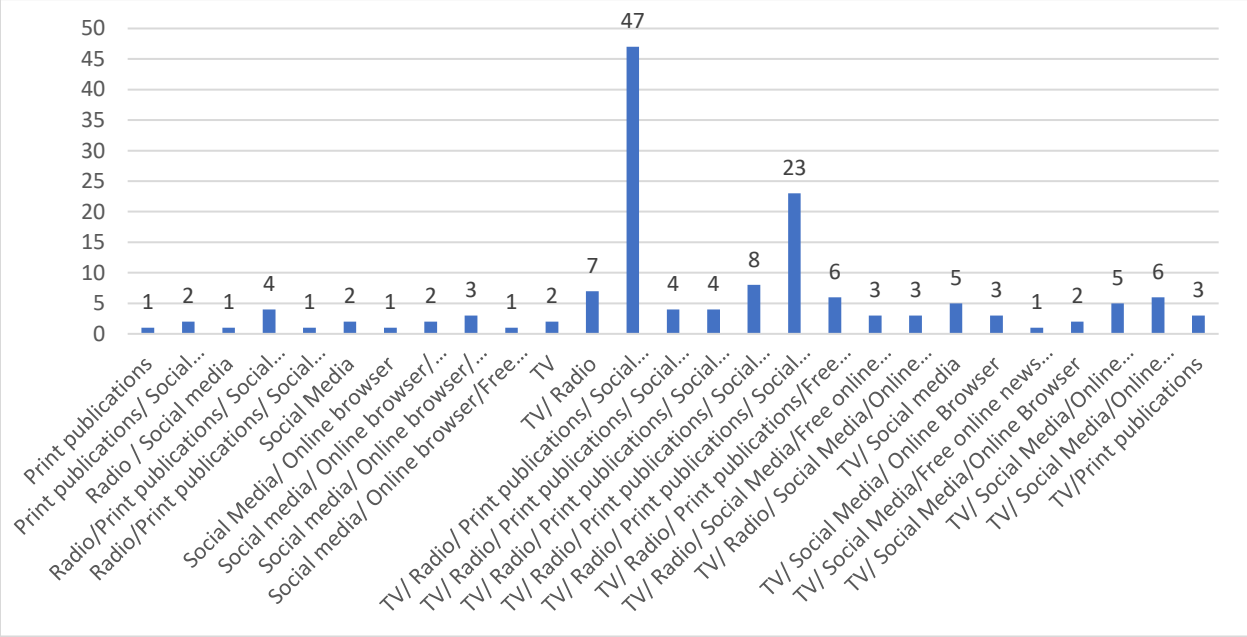


**Figure 1**.
Media channels and platforms used by marginal youths.

(2) The elderly group found radio, including community radio, ranks as the top preference for accessing news followed by a significant portion from television and social media. Additionally, a smaller group of elderly group identified online browsers as an important means of accessing news and information.

Similar to the youths, majority of elderly groups primarily use their smart phones as their main communication devices. The most popular applications are Line, Facebook, Instagram, Messengers,

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WhatsApp and WeChat respectively followed by Tik Tok and Telegram. These findings indicate that Thai elderly are not alienated by digitization; rather, they are increasingly embracing digital technological opportunities for social networking, rapid communication, and to engage with the "silver economy."

In terms of device ownership, majority of the elderly own a smart phone, while only a small minority own a computer or laptop. Borrowing devices or using those provided by the community is not a common practice among the elderly. Only a few reported borrowing mobile digital technology or using community-provided devices such as mobile telecommunications, computers, laptops, and tablets.

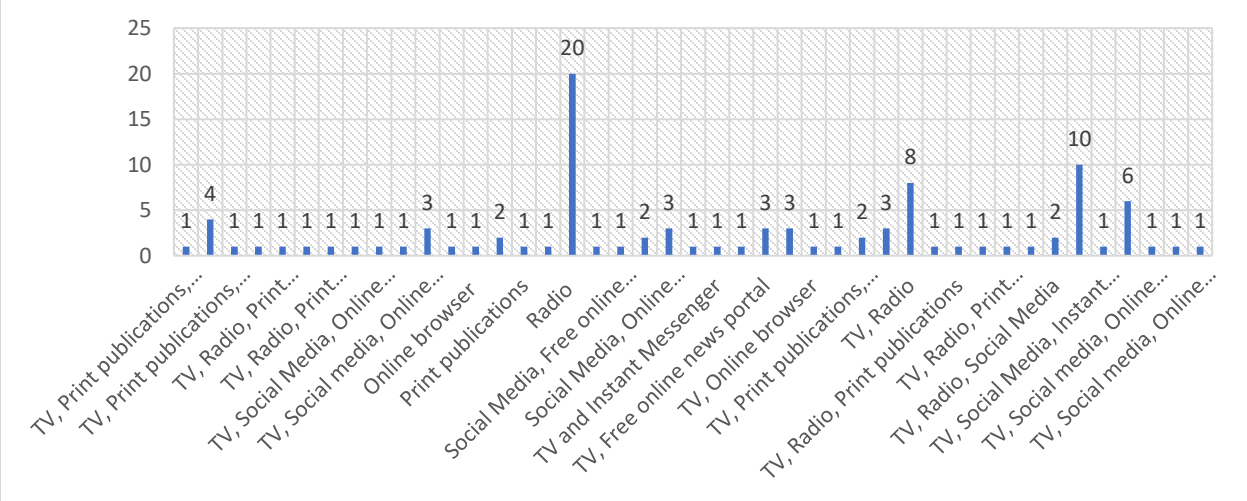
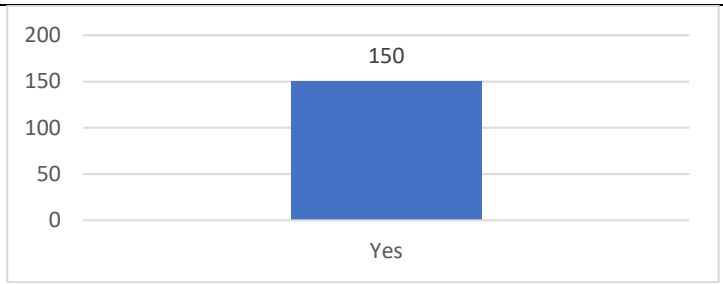



**Figure 2**.
Media channels and platforms used by the elderly.

*5.3. Digital Media Skills*

(1) Youths' Digital Media Skills in table 1 shows that the majority of youth have mastered the following digital media skills, and need limited support from someone else:

**Table 1**.
Youths' digital media skills.

| | |
|---|---|
| Reply to chats in the messenger platform and other instant messaging apps |  |



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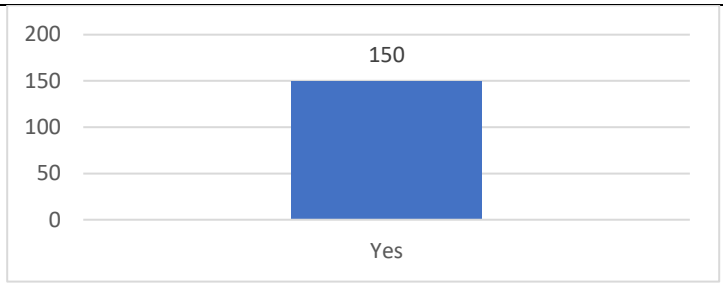
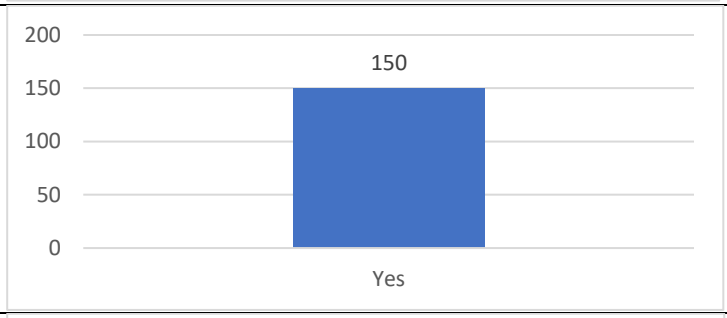
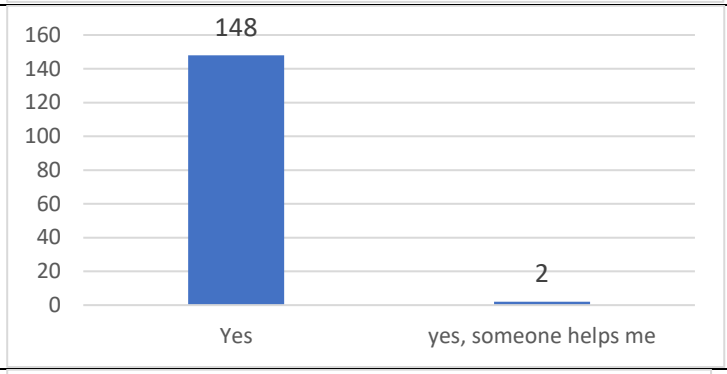
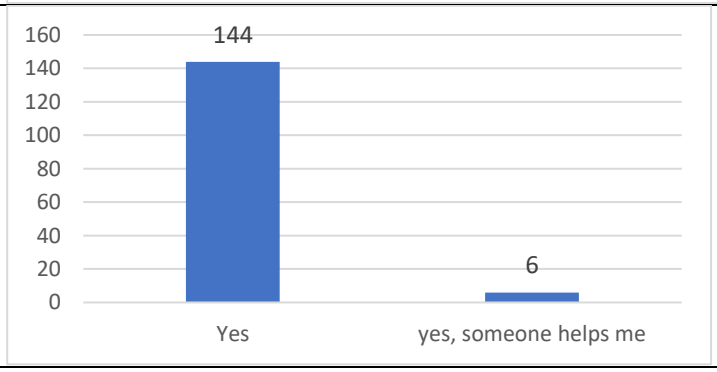
| | |
|---|---|
| Take pictures using their mobile phones |  |
| Record videos using their mobile phones |  |
| Block connections and friends on social media |  |
| Copy and save screenshots on their mobile phones |  |

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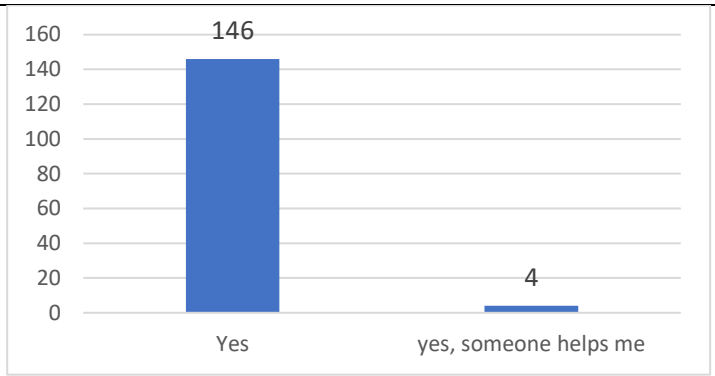
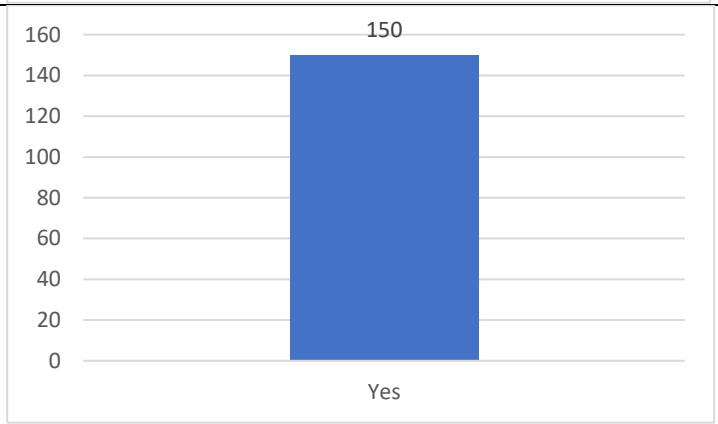
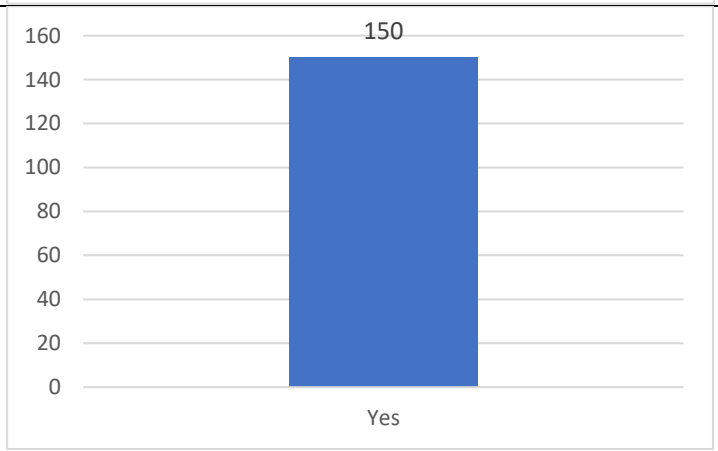
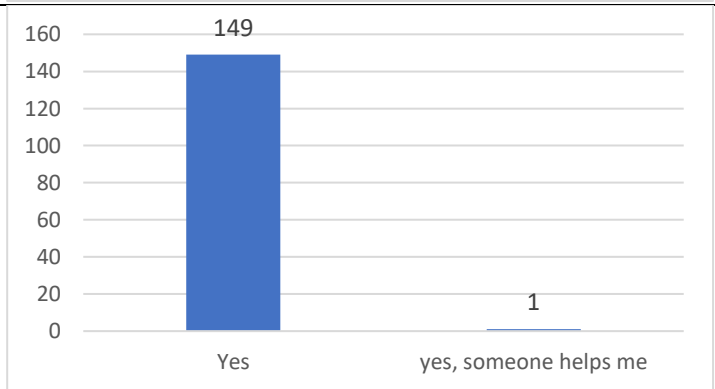
| | |
|---|---|
| Forward news/ information with others using instant messaging applications such as Line, WhatsApp and Telegram |  |
| Create and send voice messages using instant messaging applications such as Line, WhatsApp and Telegram |  |
| Send image/ video using instant messaging applications such as Line, WhatsApp and Telegram |  |
| Send documents using instant messengers |  |

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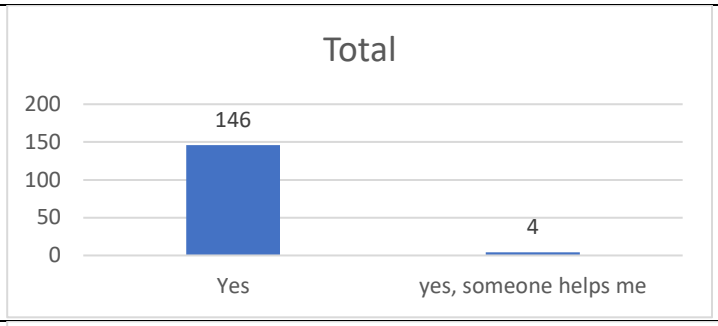
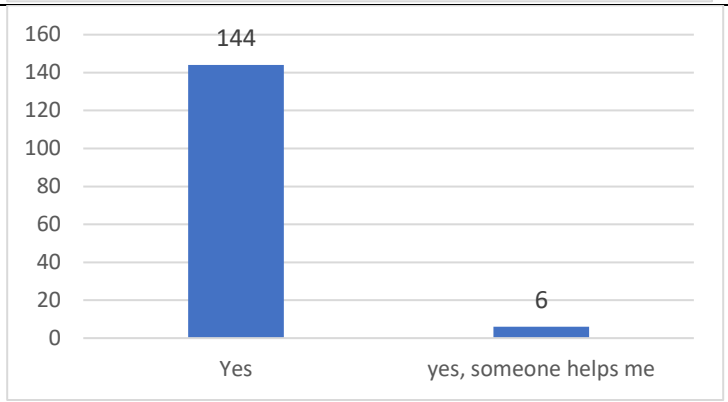
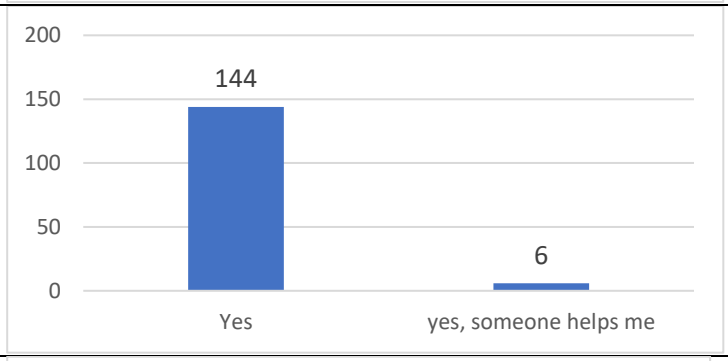
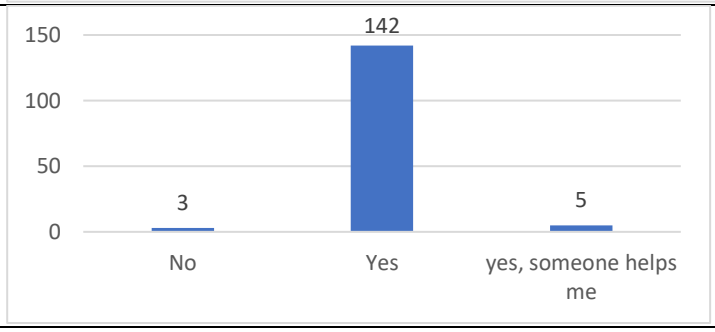
|---|---|
| Block and repost people and phone numbers on instant messengers |  |
| Write and send emails |  |
| Send and forward documents through emails |  |
| Create posts on social media accounts |  |

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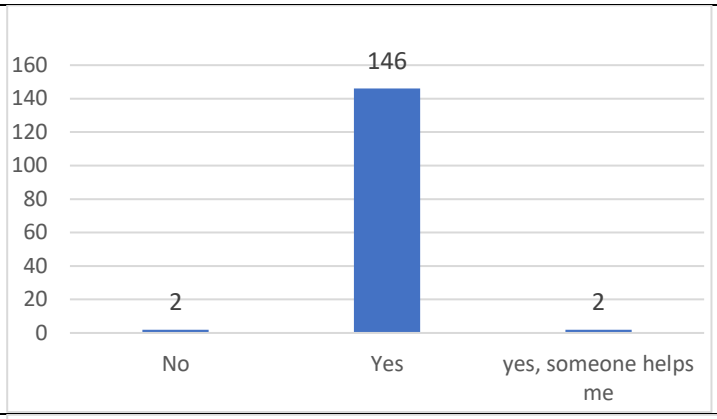
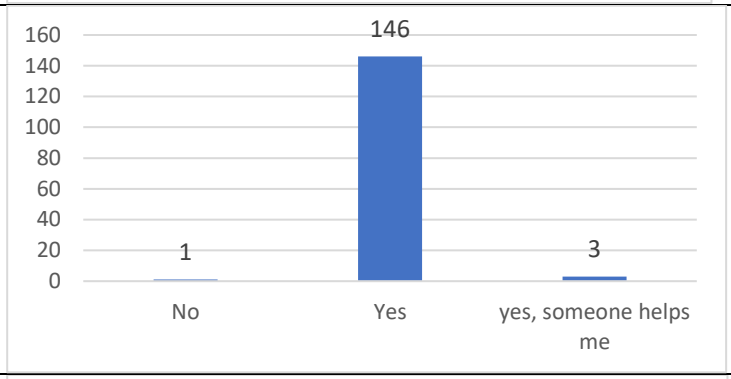
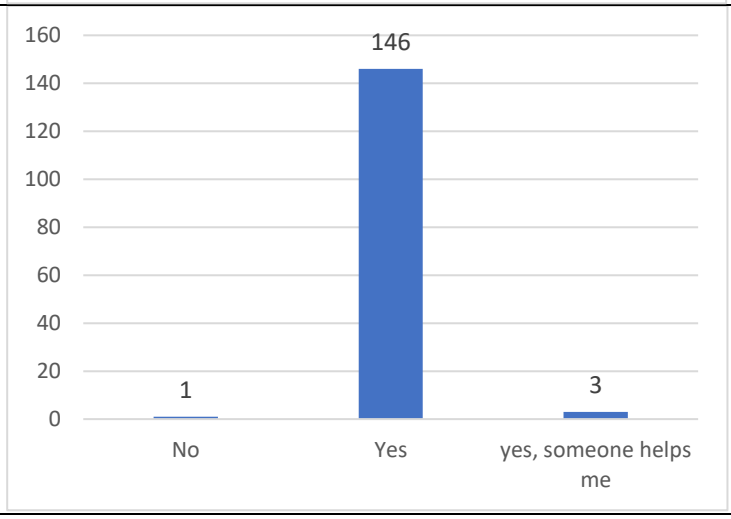
|---|---|
| Comment on social media posts |  |
| Repost contents (text, images, videos) on social media |  |
| Report a post or an account on social media |  |

(2) Elderly's Digital Media Skills shows that majority of them primarily communicate and share information through applications such as Line, Facebook which is the most popular among them, followed by voice calls, SMS, and WhatsApp. Regarding social media usage, the respondents identified Facebook and TikTok as their most frequently used platforms.

Furthermore, also found that 68 confirmed they have an email account, while the others stated they do not have one. However, all confirmed having a social media account, highlighting the widespread adoption of social media among the elderly, even in underprivileged groups.

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**Table 2.**
Elderly's digital media skills.

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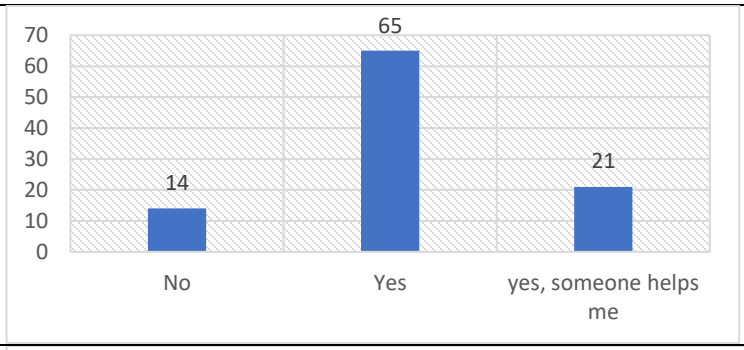
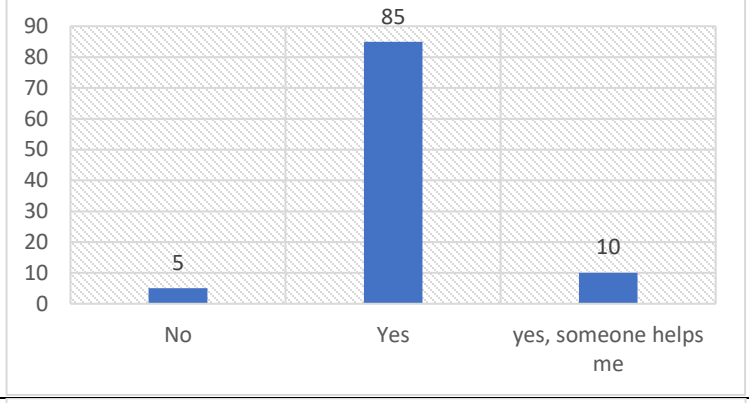
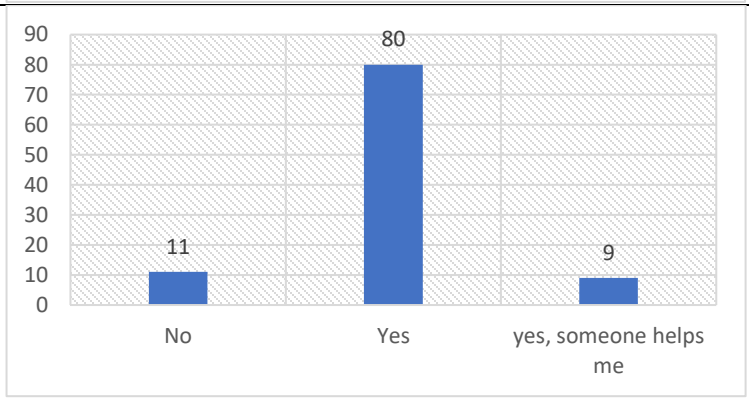
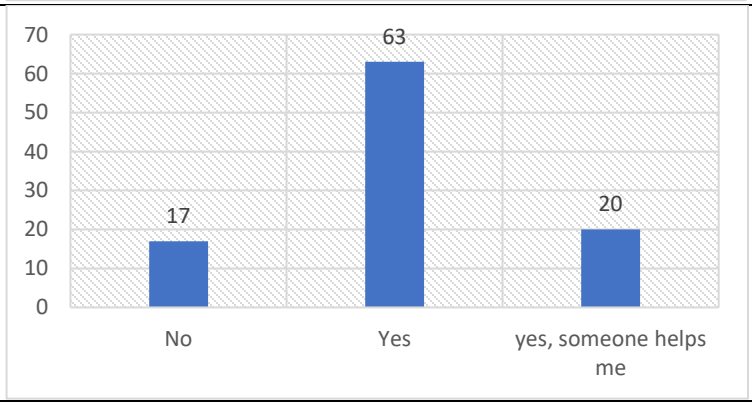
|---|---|
| Reply to chats in the messenger platform and other instant messaging apps |  |
| Take pictures using their mobile phones |  |
| Record videos using their mobile phones |  |
| Block connections and friends on social media |  |

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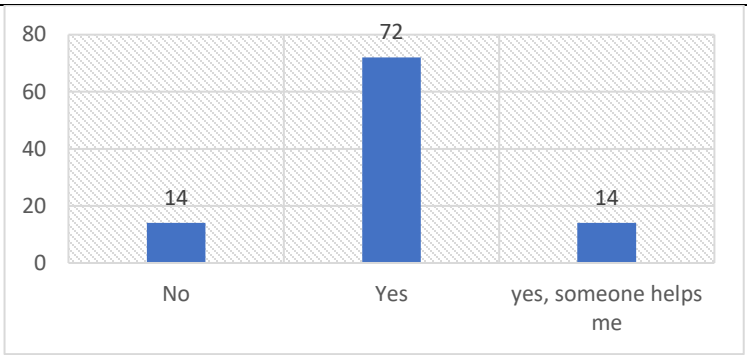
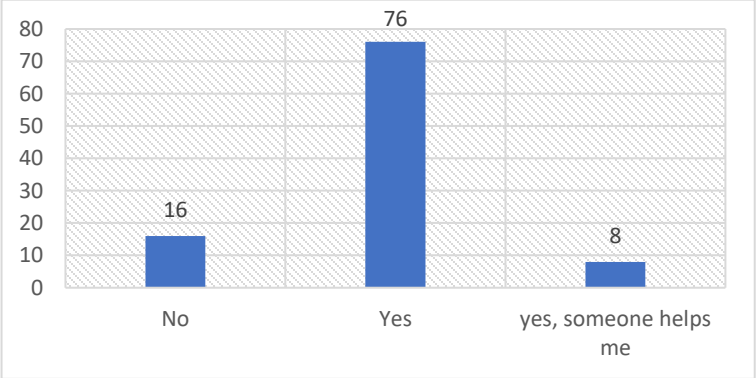
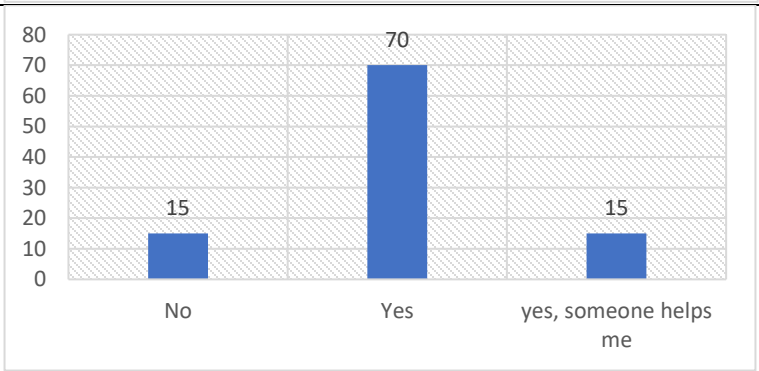
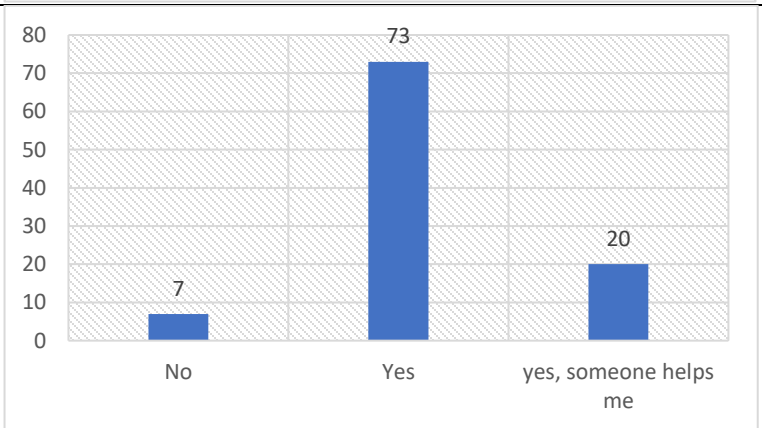
|---|---|
| Copy and save screenshots on their mobile phones |  |
| Forward news/ information with others using instant messaging applications such as Line, WhatsApp and Telegram |  |
| Create and send voice messages using instant messaging applications such as Line, WhatsApp and Telegram |  |
| Send image/ Video using instant messaging applications such as Line, WhatsApp and Telegram |  |

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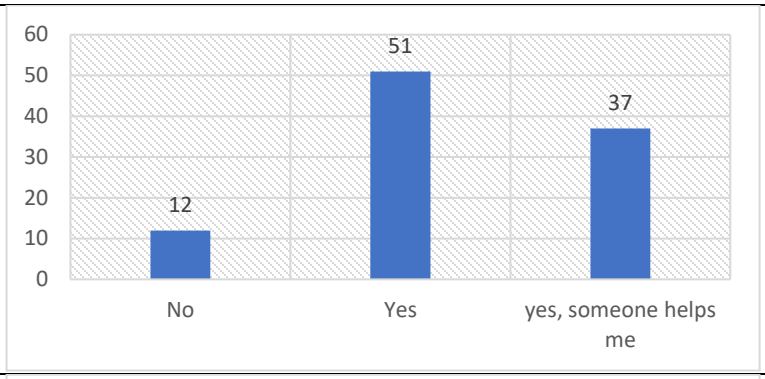
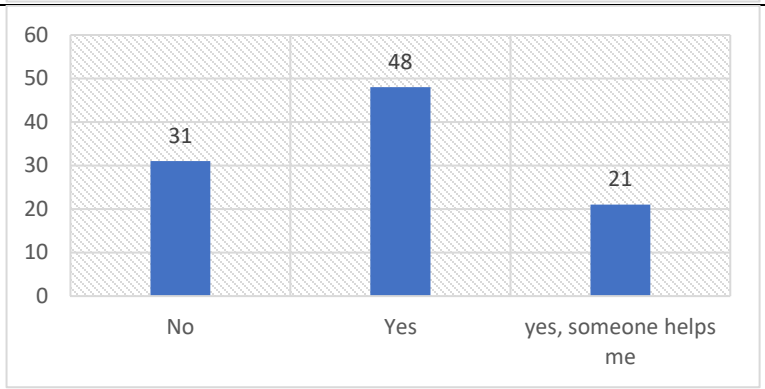
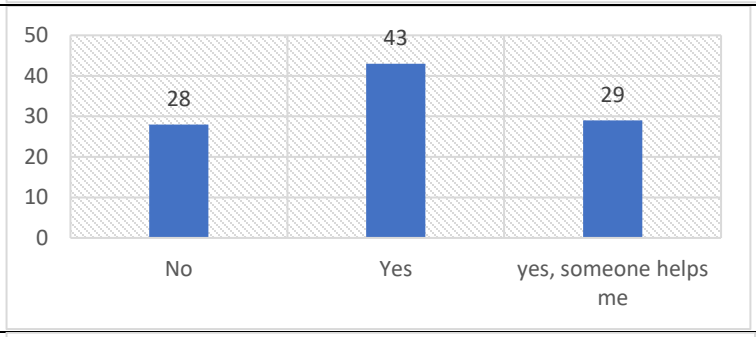
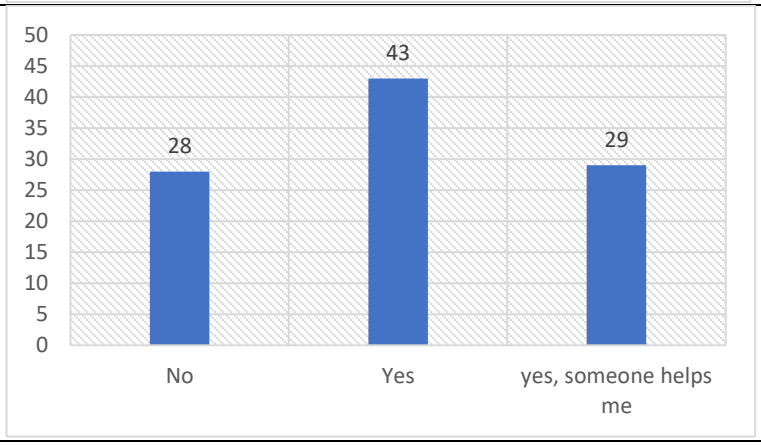
| | |
|---|---|
| Send documents using instant messengers |  |
| Block and repost people and phone numbers on instant messengers |  |
| Write and send emails |  |
| Send and forward documents through emails |  |

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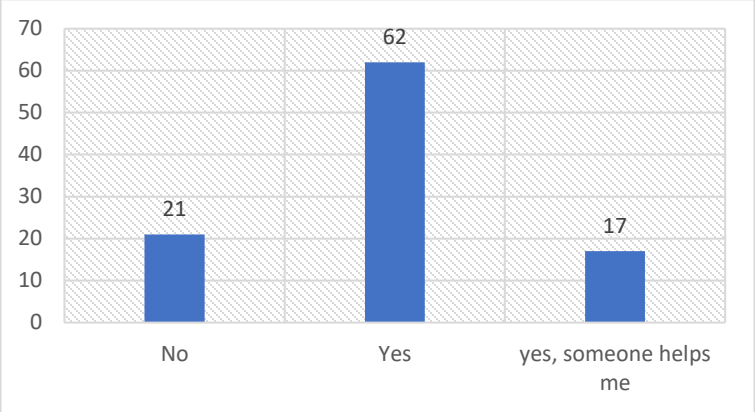
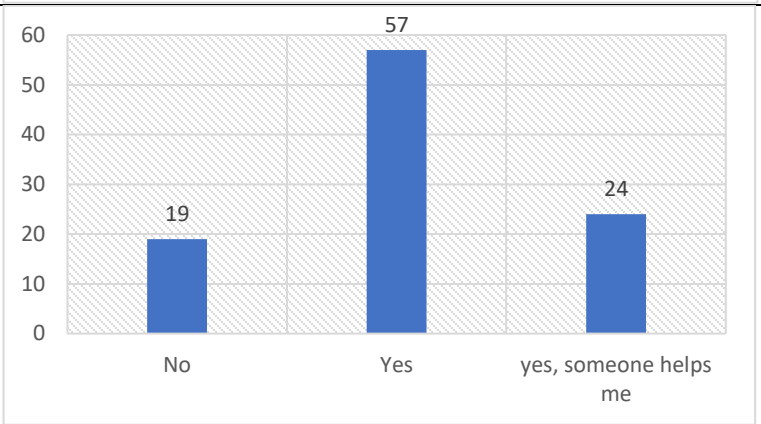
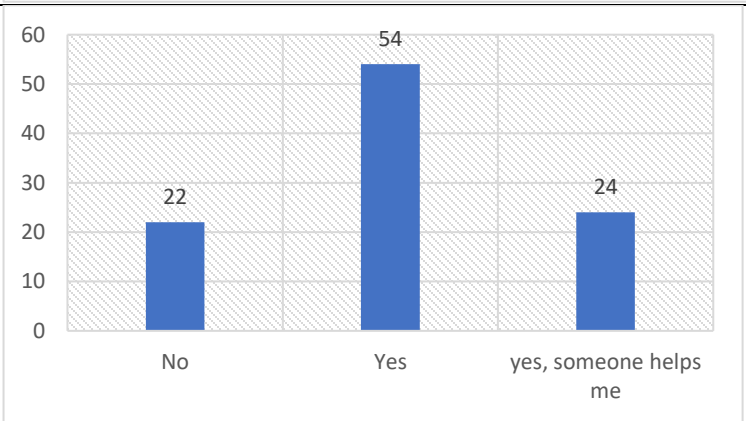
| | |
|---|---|
| Create posts on social media accounts |  |
| Comment on social media posts |  |
| Repost contents (Text, images, videos) on social media |  |

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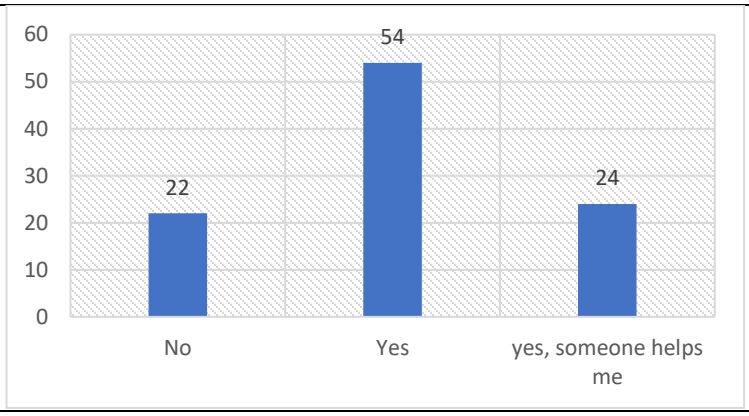
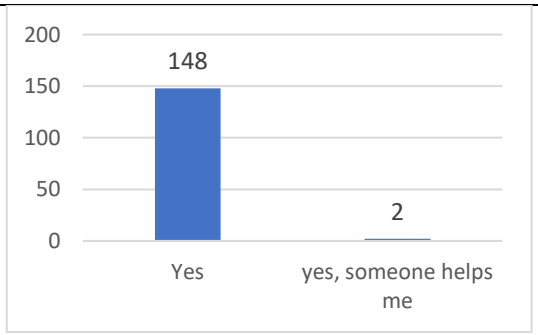
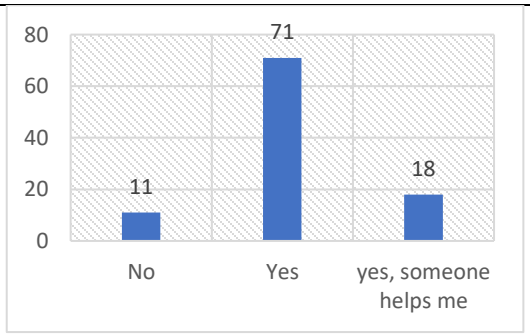
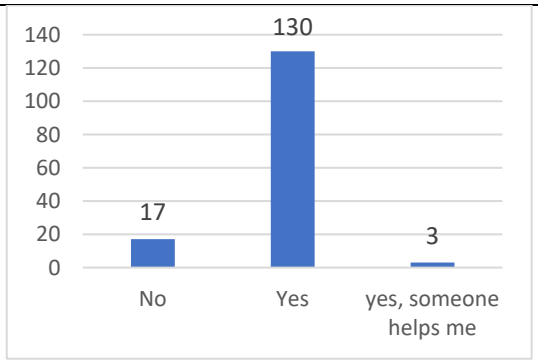
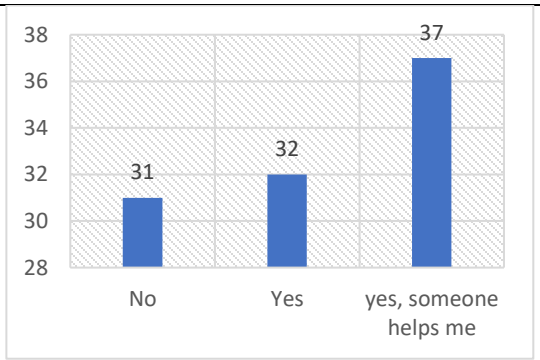
| | |
|---|---|
| Report a post or an account on social media |  |

As anticipated, there is a significant difference in digital media skills between the two age groups, the youth and the elderly. The youth demonstrate considerably higher proficiency in performing the proposed digital activities, whereas the elderly more frequently rely on assistance from others to perform most of these activities, or are unable to perform them at all.

*5.4. Online Services*

Both of the youths and the elderly found their mobile phones usages to access online services i.e. e-banking, e-health, e-hospital, e-government, e-social security, and e-commerce.

**Table 3**.
Online services used by the youths and the elderly.

| **Online services** | **Youths** | **Elderly** |
|---|---|---|
| E-banking |  |  |
| E-health |  |  |

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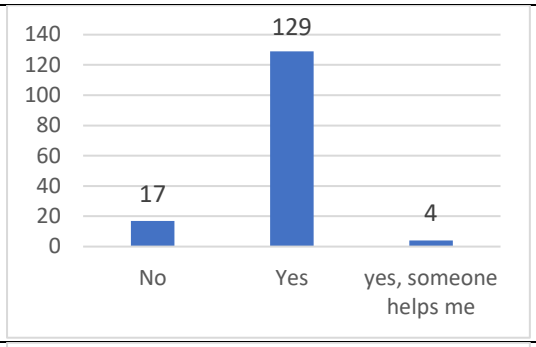
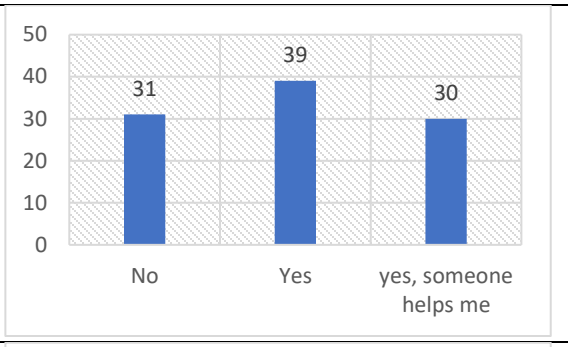
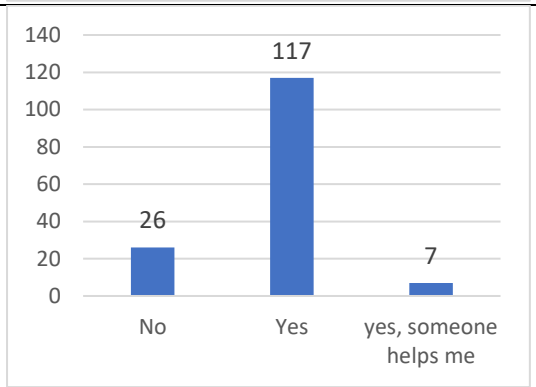
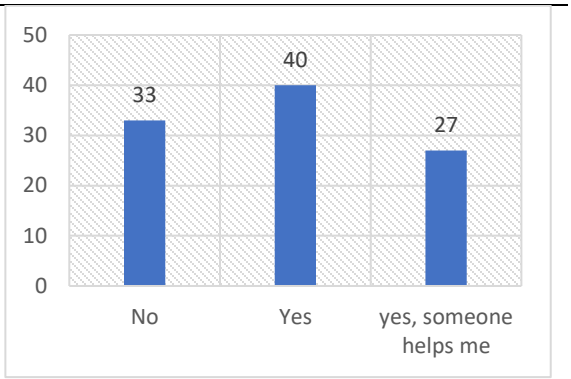
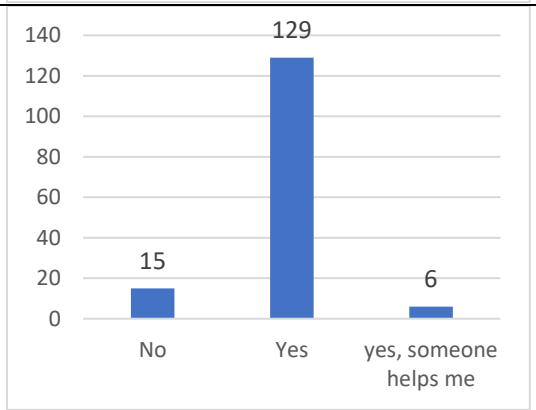
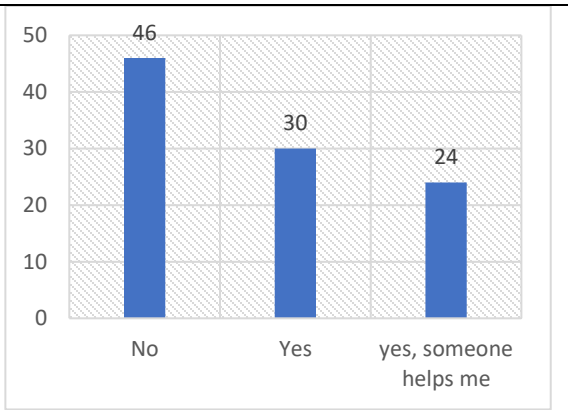
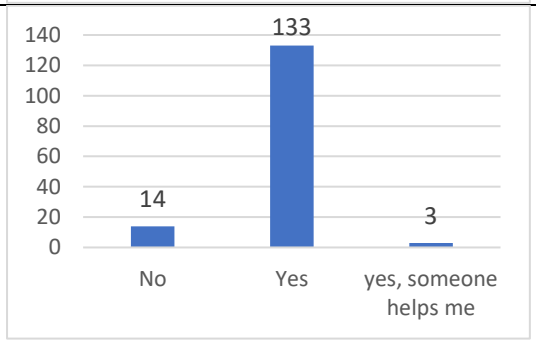
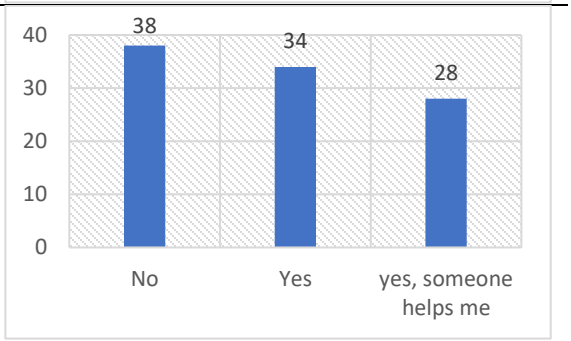
| | | |
|---|---|---|
| E-hospital |  |  |
| E-government |  |  |
| E-social security |  |  |
| E-commerce |  |  |

Among the youths, e-banking and e-commerce are the most popular mobile services used. Majority of them are confident in accessing these services independently, with little assistance from others. E-banking services are also popular among the elderly, along with e-government and e-hospital services.

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However, unlike the youths, a significant portion of the elderly reported needing the support of someone to access these services. Many elderly individuals are still excluded from accessing these services due to a lack of digital skills. For example, e-social security is the least accessed service among the elderly.

*5.5. Government's Response to Digital Literacy and Digital Divide*

Thai government has implemented various initiatives, policies, and regulations to address fake news, as well as to regulate online content. Since the establishment of the former Ministry of Information and Communication Technology (MICT) in 2002, the introduction of the Computer-related Crimes Act (CCA) in 2007, the creation of the Ministry of Digital Economy and Society (MDES) in 2016, and the inception of the Anti-Fake News Centre in 2019, new regulations against disinformation and fake news were enacted in February 2022. The Anti-Fake News Centre operates by collecting information from social media, employing artificial intelligence for initial processing, which is then reviewed by human content evaluators. Findings from key government agencies are—the Public Relations Department (PRD), the Ministry of Digital Economy and Society (MDES) and its Anti-Fake News Center, and the National Broadcasting and Telecommunications Commission (NBTC) as follow;

(1) The Government Public Relations Department (PRD) serving as the government's primary communication agency, has implemented a comprehensive five-year operational plan for 2023-2027. This plan aligns with the National Strategy, encompassing facets of economic and social development, as well as national security policies. The PRD's mission is to provide reliable and beneficial information to the population nationwide, utilizing various formats and channels to cater to the diverse needs and media habits of its audience. It plays a vital role in fostering mutual understanding and contributing to the development of a safer, more innovative learning society. The department manages information across a wide range of media platforms, encompassing both mainstream and online outlets.


**Figure 3.**
Real News Thailand Facebook page

(2) The Ministry of Digital Economy and Society (MDES) and the Anti-Fake News Center have adopted a proactive approach in tackling the escalating issue of fake news. Acknowledging the complex nature of fake news, which often includes fabricated content, dubious sources, or unverifiable references, the Ministry has categorized the primary concerns into four key areas based on 49,725 complaints received from the public. These areas are government policies, health, economics, and disasters. To combat the challenges presented by the spread of fake news, particularly its rapid proliferation online, the MDES established the Anti-Fake News Center, as illustrated in Figure 49. The Center operates as a critical intermediary in the information verification process and plays a vital role in raising

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public awareness about the importance of accurate information. It provides the public with essential tools to identify and safeguard themselves against fake news, thus becoming a central figure in the dissemination of verified information.

This initiative reflects the Ministry's commitment to not only counter misinformation but also to educate and empower the public in recognizing and responding to fake news. The Center's efforts contribute significantly to maintaining an informed and vigilant population, which is crucial in the current digital age where information can be rapidly disseminated and manipulated.


**Figure 4.**
Anti-Fake News Center Thailand (https://www.antifakenewscenter.com).

The Anti-Fake News Center. This Center's role extends beyond combating fake news; it also focuses on educating the public about the importance of accurate information. In managing and controlling fake news, the Center prioritizes the protection of personal data and freedom of expression in accordance with the Personal Data Protection Act of 2019, maintained the interviewed official. This Act guides the Center's policies on user data management, including collection, storage, use, disclosure, and user rights. While specific policies tailored to the various services provided by the Anti-Fake News Center are still in development, the Center's approach includes formulating strategies and regulations to enhance current policies and expand outreach, preparing for future incidents of fake news. The government's control mechanisms include filtering, verification, and removal of fake news, utilizing laws and censorship to restrict inappropriate internet content.

(3) The National Broadcasting and Telecommunications Commission (NBTC) is pivotal in overseeing the use of licensed frequencies across broadcasting, television, telecommunications, satellite, and radio operations. While the NBTC does not directly oversee issues related to fake news, its regulations and consumer protection protocols become relevant in situations like excessive false advertising on television stations. The NBTC supervises license holders but lacks the authority to penalize product manufacturers directly. The NBTC has undertaken various activities and educational

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initiatives to counter the spread of fake news. For example, they have produced educational videos as part of the "Stay Informed About Fake News" campaign aims to educate the media and the general public nationwide about fake news.


**Figure 5**.
Check before sharing – be aware of fake news.

## 6. Conclusions and Recommendations

Ineffective digital literacy has its both direct and indirect effects to the increasing of fake news related to high risks in most of the sectors of the country i.e. in politics, banking, commercial, financial, health-related scams and others. The elderly tend to rely on traditional learning methods and express concerns about personal vulnerability, while the youths proactively use digital tools for verification. Educators and community leaders, on the other hand, emphasize the broader societal impact and the importance of collective educational and awareness efforts.

However, a majority of the marginalized youths and elderly participating in this research report that while regulations exist, perceived inadequate enforcement and low public awareness call for more effective and transparent communication from government entities. Youths, in particular, expressed a desire for stronger measures to combat misinformation. A recurring theme among participants' responses was the need for public awareness campaigns, emphasizing the importance of educating citizens, especially vulnerable groups.

Connectivity's various dimensions – including technological availability, affordability, accessibility, usability, and quality of information communication technologies – are just one aspect of achieving digital inclusion. The latter goes beyond simple accessibility. Strengthening the digital and media literacy skills of marginalized groups is crucial, empowering them to become active creators and responsible consumers of digital content, and harnessing the power of digital technology for sustainable development. Overlooking the need for digital literacy skills could leave many unprepared for the risks associated with technological progress, such as privacy issues, security threats, fraud, and disinformation, as well as the changing employment landscape increasingly being shaped by technological advancements.

National and local government agencies, community leaders, educational institutions, the private sector, social media companies, civil society organizations, and other stakeholders must necessarily collaborate more effectively and synergistically, each contributing their own perspectives and expertise. By co-designing and co-creating policies and initiatives with marginalized people, governments can gain deeper insights into their context-specific needs and vulnerabilities, enabling them to respond more

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effectively to the challenges posed by disinformation with tailor-made solutions. Educational institutions have the opportunity to develop appropriate curricula and implement accessible skilling, upskilling, and reskilling programs for marginalized groups, ensuring that the acquired digital skills equip them for current and future job markets. The private sector should be encouraged to engage with marginalized and underprivileged individuals in co-designing digital products and services that address their diverse needs. Finally, community leaders should take an active and inspirational role, leading by example and collaborating with fact-checkers, academic institutions, local municipalities, and other partners to enhance information accuracy, educate vulnerable groups, and counteract disinformation through localized strategies at community level. There is also the need to involve forgotten minority (Chan, et al., 2024) with more transdisciplinary as well as thematic clusters including equity, diversity and inclusion (EDI) leadership in HEIs (Ng, et al., 2024; Zhao, et al., 2024) in line with SDGs No. 4 (Quality education), 5 (Gender equality), 8 (Decent work and economic growth), 10 (Reduced inequalities), 11 (Sustainable cities and communities) and 17 (Partnership to achieve goals) (United Nations, 2021).

## Copyright:



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