Digital divide in the Digital Age – A qualitative study of distance learners of IGNOU

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Abstract: The digital age has opened up new and exciting opportunities for Open and Distance Learning (ODL) in universities. But, is going digital reinforcing the existing social inequalities? This qualitative research examines the three levels of digital divide and digital inequality among learners at India's National Open University, IGNOU. The findings suggest an existence of a basic level of accessibility to both digital devices and internet connection among the learners. However, when considering the quality of access, there is a gap between those with the bare basics, and those with multiple devices and good connectivity. On the face of it, all the learners appear to be frequent and comfortable users of these technologies, but their skills seem to be limited only to technical and operational aspects. When considering skills related to digital information, critical information, social and content creation, it is not as obvious and mostly doubtful. The findings further suggest that most learners' strategy to safeguard from online harm are limited to protecting devices from viruses and financial scams. There is uncertainty regarding avoiding harm from a personal safety, security, wellbeing, and mental health point of view.

Keywords: digital divide, digital inequality, distance learners, digital age, digital literacy, digital skills, IGNOU, internet usage, online activities, educational technology.

Highlights

What is already known about this topic:
- Digital divide discourses have moved from issues of physical access to questioning who benefits the most from the digital world and who is getting left behind.
- Existing social inequalities are often replicated as digital inequalities in the online world

What this paper contributes:
- In the context of learning, this paper presents some understanding of where today's ODL learners stand as they study in a highly digitized environment.
- The study draws attention to the need for digital skills beyond technical and operational skills

Implications for theory, practice and/or policy:
- Highlights the role ODL institutions can play in providing quality learning materials in different formats.
- The need to examine, provide guidance and necessary help to those who may be getting left behind as learning becomes more and more digital

Introduction

Distance Education was started as a way to provide access to education for the deprived, underrepresented, and disadvantaged. Because, in most societies, they are the ones without the opportunity or the resources to receive on-campus education in conventional institutions. The use of Information and Communication Technology (ICT) was seen as a possible tool for providing access and reaching these unreached. Huge infrastructures were built to facilitate these processes. However, reality was far from the ideal, as challenges of access and optimal use of these technologies plagued the system.

The digital revolution of the 21st century brought back a renewed sense of hope for learning possibilities. On the surface, affordable smart mobile devices with internet facilities seem to have solved the issue of access to a large extent. Saykılı (2018) observed that, "the impact of the new media, particularly digital connective technologies to deliver courses from a distance has triggered a new interest towards open and distance learning opportunities including the advent of Open Education Resources (OER) and Massive Online Open Courses (MOOCs) that attempt to provide learning access to a wider audience" (p. 2). Given this renewed hope, policies, governments, businesses, and institutes are pushing towards a digital solution to many of the learning issues, particularly in the developing countries.

To a great extent, the COVID-19 pandemic triggered a shift to online learning by opening the world to see distance learning as an acceptable alternative. At the same time, it also became evident how precarious the nervous system of the networked society is, as more than 1.5 billion students and youth globally were unable to access education (Kuhn et al., 2023). While there is no doubt that digital technologies can be utilized to reduce certain inequalities, they are also linked to reproductive mechanisms which reinforce existing inequalities (Rothe et al., 2023). Learning is a set of personal and also interpersonal activities and is deeply rooted in social and cultural contexts (Beetham & Sharpe, 2007). When it comes to learning and technology use, a generalized application based on a narrow understanding of context can be damaging rather than beneficial. In such a context, it is paramount to study and understand where today's Open and Distance Learners (ODL) stand in terms of not just access, but also how they use these technologies under different social and personal circumstances.

It was long perceived that the problem of digital divide would be solved when a country's physical access to infrastructure and digital technology reaches its saturation point. This divide between the "haves" and the "have-nots" is often referred to as the first level of digital divide where providing infrastructural and physical access was given the primary focus. Prima facie, it might seem like access is no longer an issue but deeper investigation reveals that there are much more complexities. Therefore, there is still a need to continue research in the first level of digital divide for a developing country like India with its vast and diverse population. More and more research confirms that physical access alone does not lead to optimal use and outcomes. Hence, alongside physical access there is also a need to investigate the second and third levels of digital divide.

A second type of digital divide appears when the population can freely access resources (Hargittai, 2002), and yet there is inequality in terms of digital skills, motivations, use and opportunities (Van Deursen & Van Dijk, 2019; Ragnedda & Ruiu, 2017). When it comes to learning process, what matters is no longer having access but, rather, being able to use it effectively for the purpose of learning (Pagani et al., 2016). Helsper (2021) defined Digital Skills as the abilities that allow someone to make the most out of their use of ICTs by taking up opportunities and avoiding harm. She further emphasized that lack of skills is seen as the most important barrier to fruitful engagement. In the context of learning through/from online spaces, Helsper emphasized that knowing how to network, deciding who to trust and what is important, learning which interactive is effective, how to exchange ideas, and understanding why information is shared are all important. Adopting an earlier research by Helsper, Schneider, et al., (2021), the four dimensions of digital skills was developed by Livingstone, Mascheroni & Stoilova (2023). These are technical and operational skills, information navigation and processing skills, communication and interaction skills, and content creation and production skills.

The third-level of the digital divide is the inequalities in outcomes or benefits which can be derived from using digital technologies (Helsper, 2021). It refers to the gaps in individuals' capacity to translate their internet access and use into favorable offline outcomes in various domains such as economic, social, political, institutional, and educational fields of activity (Deursen & Helsper, 2015). This appears when two individuals have autonomous and unlimited access to the Internet and possess the abilities required, but are not able to obtain the same benefits when using it (Tirado-Morueta et al., 2018). This form of digital divide is also about inequality in reinvesting in the social realm, valuable information and knowledge acquired online. Such returning benefits or the deprivation of the same when online are influenced by previous position in the social system (Ragnedda & Ruiu, 2017). In the case of India, Ziipao (2023) pointed out that social categories such as Schedule Caste (SC), Schedule Tribes (ST), low-income groups, and minorities have not only been historically excluded from socio-politico-economic spheres but are also digitally excluded.

Using the levels of Digital Divide as the guiding conceptual framework, this study broadly aims at understanding the present higher education learners in the Indian context, specifically those enrolled in the Open and Distance Learning University, IGNOU. With its credential as the only National Open University of India, IGNOU has an open-door admissions policy for most of its courses. That is, unlike other conventional universities, students are not screened through a competitive selection process. This results in a student population that is more diverse in their age, ethnicity, and academic skills.

Review of Literature

In today's fast-advancing technologized world, it is appalling to see that the digital divide of the first level continues to plague many societies and individuals. According to Statista (Basuroy, 2023), despite the large number and a consistent increase in accessibility, internet penetration in India was under 50 percent. This is below the worldwide average. Ziipao (2023) noted that Purul, a rural village in the hills of North East India, got an internet tower to provide seamless connection to the virtual world/digital

space in 2019. However, he also stressed that the accessibility to the digital world depends on the erratic supply of electricity. He emphasized that bridging the digital infrastructure gap is the first step towards digital inclusion. In a study on a rural district in the southern state of Tamil Nadu, India, Srinivasan et al., (2021), identified six major problems of rural students in accessing online education during the pandemic. The problems include inadequate technology, unacquainted academic atmosphere, digital disconnect, physical well-being, distractions inherent in the medium, and digital illiteracy.

A study among the urban ODL learners of IGNOU found that most of them have access to the internet from desktop/laptops and used it very frequently at home (Awadhiya et al., 2014). A similar research by Arthur-Nyarko et al., (2020) revealed that while majority of distance learners in a Distance Education University in Ghana affirmed their readiness to use digital learning materials for learning on mobile phone, there was a lack of access to digital technologies such as tablets/iPad, desktop computers and laptops. Choudhury et al., (2023), in their survey in Open and Distance University (KKHSOU) in Assam, India, showed that the most convenient digital device used by the learners was the Android phone (88.8%), followed by the laptop (41.8%). From the point of view of the teachers' readiness, Miglani and Awadhiya (2017) found that open university teachers across Bangladesh, India, Malaysia, Pakistan and Sri Lanka have the mobile device, skill readiness to impart m-learning and also positive perceptions for m-learning. However, as also pointed out by Arthur-Nyarko et al., (2020), there are challenges at access levels and high cost of the internet. Choudhury et al., (2023) also observed that the unavailability of required gadgets, bandwidth problems, poor network connectivity, cost of data packs, and frequent changes in the price of data packs are creating problems particularly for online learners in accessing the E-SLMs and video lectures. A study conducted across 20 villages in a district in Haryana (India), found that all the villages were equipped with mobile phone connectivity. Yet, the study also revealed that while 95 percent of the sample population used social media on their phone, only 12.36 percent use mobile phone for the purpose of education. These educational activities were also limited to browsing college websites, viewing results, examination date sheet etc. and none of the respondent reported using mobile for downloading and browsing information related to course content (Dimri & Mishra, 2017).   All these poses a major challenge as quality of access makes a big difference in the educational outcomes of the learners.

As suggested by the studies above, access through mobile phones among students' populations in many developing countries have been somewhat achieved. The focus has now shifted to other types of the digital divide such as attitudinal access, skills access and usage, and benefits access (Tirado-Morueta et al., 2018). For example, Bhandari (2018) suggested that generally, women tend to experience digital inequality in any society, whether it is in developed or developing countries. However, using the International Telecommunications Union (ITU) data on ICT access, she observed that the gender-segregated mobile phone access data showed a more complex picture. She found that it is not always straightforward that men have more access than women, because in about 20% of the sample from 51 countries, men actually have less access to mobile phones than women. Another study found that older teenagers, boys and those from higher Socio-Economic status (SES) households have greater

access to the internet as compared to girls when measured by number of access locations and years online. Also it was found that across different SES boys have been online for longer (Livingstone & Helsper, 2010). Another factor, besides SES, could be the cultural and institutional attitudes as suggested by Ono and Zavodny (2007). Their study revealed that despite similar levels of economic and infrastructure development, digital gender inequality is far more prevalent in Singapore, Japan and South Korea than Sweden and USA. They attributed this to the cultural and institutional attitudes towards women in these countries which is less egalitarian.

In an exploratory study in the Netherlands where digital infrastructure is well equipped and also near-universal access, it was seen that the internet proved to be more beneficial for those with higher social status in relation to their offline outcomes in several important domains, including education. The implication of this is that the existing offline inequalities could potentially be exacerbated due to this divide (Van Deursen & Helsper 2015). For example, digitally advantaged individuals may be able to obtain goods and services at better prices than their less advantaged counterparts, thus, enjoying a digital consumer dividend (Bhatnagar & Ghose, 2004). It was also found that people who belong to the ethnic majority and live in large cities tend to have higher levels of digital capital (Gladkova et al., 2020).

As far as digital skills of learners are concerned, a study was conducted to find out the e-readiness of senior secondary school learners in Delhi, India, during the COVID-19 lockdown. It found that in the delivery of online learning, teachers as well as learners lacked digital skills, and it recommended strengthening digital skills as a possible roadmap ahead (Bhaumik & Priyadarshini, 2020). It may be mentioned that these particular age groups would currently be in the higher education system. Insufficient skills have also been found to play a role in limiting success or efficiency in undertaking specific online tasks (Deursen & Helsper, 2015). Research also showed that young people not only lack valuable skills, but also struggle to translate these into tangible outcomes, especially if they are socio-economically disadvantaged (Helsper & Eynon, 2010). It has been found that knowledge of informational digital skills has a positive and significant effect on academic performance. This includes content-related dimension of internet ability necessary to select, evaluate and re-use digital information. The same research also found that the effect of ICT literacy is stronger for students with a lower socio-economic background, suggesting that digital might act as a substitute for poor family background, facilitating the acquisition of academic ability (Pagani et. el, 2016). Livingstone et al., (2023) observed that different dimensions of digital skills are linked to distinct outcomes among young people (12 to 17 years) and yet, there are not always beneficial outcomes as greater digital skills are also directly or indirectly linked to more exposure to online risks. However, they also suggested that gaining information skills are found to be generally linked to beneficial outcomes.

Besides inequalities in access and skill levels, there are various other factors that can create inequalities in learning outcomes (Helsper, 2023). For example, level of education and traditional problem-solving skills are also important predictors of economic and educational outcomes for young people, which is independent of the skills that a person may have (Helsper & Smirnova, 2016). Regarding digital non-

users, it was observed there are voluntary non-users among social groups such as young people and therefore are not homogenous and not always involuntarily excluded as many other researchers tend to describe them (Neves & Mead, 2018). Others have also suggested that nonusers could be clubbed into four categories - resisters, rejecters, surrogate users and potential converts (Neves et al., 2015).

Research Methodology

As part of a pilot study for the researcher's Doctoral Thesis, this study was conducted. It is a qualitative research conducted using in-depth interview method. Using convenience sampling, 8 (eight) learners were interviewed at IGNOU Headquarters, New Delhi, and another 8 (eight) learners were interviewed at Regional Center, Jaipur, who were visiting the campus for various reasons. The interviews were conducted on two separate days in the month of October 2023. Written consent was acquired from all the interviewees after explaining to them the purpose of the research. The semi-structured interview guide, having mostly open-ended questions, was developed by the researcher, keeping in mind the broad themes drawn from the theoretical framework in use and also through the review of various literature. The driving theoretical framework for this study is primarily the three levels of the digital divide. Besides, post-digital concepts are also explored.

The interviews were conducted mostly in English and a few in Hindi cum English, or commonly known as Hinglish, which were then translated into English before coding. Interviews were audio-recorded and each interview was later transcribed for coding. Broad themes from the interview guide were used as a general guideline for coding. Within these broad themes, sub-themes emerging from the interviews were identified. Each of the themes and subthemes were analyzed by the researcher and is presented in the findings below.

Out of the 16 (sixteen) respondents, 9 (nine) were female and 7 (seven) were male with ages ranging from 17 (seventeen) years up to 49 (forty-nine) years. There were 3 respondents who were under 20 years, 8 respondents were between the ages 20-25 years and 5 respondents were above 25 years. As far as the social category is concern, 9 respondents were from the General Category, 3 were from the Scheduled Tribe (ST) category, 2 were from the Other Backward Class (OBC) Category, 1 was from the Scheduled Caste (SC) Category and 1 respondent chose not mention his social category. As for the highest education qualification before joining the current course of study, 6 respondents completed 12th Class, 2 respondents had graduated with a professional degree – one in B. Tech and the other in BBA, 4 respondents completed Masters and another 2 respondents also had Post Graduations. As for the programmes enrolled in IGNOU, 9 respondents were enrolled in various under-graduate programmes 3 of whom were enrolled in a professional programme, and 7 of the respondents were enrolled in a Masters level programme.

Table 1: Demographic details of respondents

Respondent	Location	Age	Gender	Social Category	Highest Educational qualification	Current Programme enrolled in IGNOU
Respondent 1	Jaipur	28	Male	General	MBA (Recently completed)	Masters of Business Administration (MBA)
Respondent 2	Jaipur	36	Male	Other Backward Class (OBC)	Masters of Arts (MA)	Bachelors in Library and Information Science (BLIS)
Respondent 3	Jaipur	24	Male	Not Mentioned	B. Tech	Masters of Arts (Philosophy) (MAPY)
Respondent 4	Jaipur	38	Female	General	2 Post Graduations	Masters of Arts (Economics) (MEC)
Respondent 5	Jaipur	20	Male	Scheduled Tribe (ST)	Class 12th	Bachelor of Commerce (BCom)
Respondent 6	Jaipur	49	Female	General	Post Graduate Diploma	Masters of Arts (Psychology) (MAPC)
Respondent 7	Jaipur	17	Male	General	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 8	Jaipur	25	Female	Other Backward Class (OBC)	Bachelor of Business Administration (BBA)	Masters of Business Administration (MBA)
Respondent 9	Delhi	18	Female	Scheduled Tribe (ST)	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 10	Delhi	19	Female	Scheduled Tribe (ST)	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 11	Delhi	28	Male	General	Masters of Arts (MA) (History)	Masters of Arts (Economics) (MEC)
Respondent 12	Delhi	25	Female	General	Masters of Arts (MA)	Masters of Arts (English) MEG
Respondent 13	Delhi	22	Female	General	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 14	Delhi	21	Female	General	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 15	Delhi	21	Female	Scheduled Caste (SC)	Class 12th	Bachelor of Arts (General) (BAG)
Respondent 16	Delhi	22	Male	General	Class 12th	Bachelor of Computer Applications (BCA)

Findings and Analysis

Choosing Open and Distance Learning (ODL)

It is seen that learners are choosing to study in an Open and Distance Learning University for various reasons. As expected, flexibility of an ODL system seems to be one of the most common reasons for the respondents of this research. At least seven of the respondents (1, 2, 3, 4, 7, 8 & 11) are full-time working professionals and therefore chose IGNOU to pursue their studies. Another four respondents (5, 7, 10, 16) opted for IGNOU because they wanted to pursue other training or coaching alongside getting a degree. Respondent 16, who was also doing a coding course when he took admission in IGNOU,

stated, *"Skill is more important, which I am getting from outside, but I wanted a degree too, so I enrolled in IGNOU."* Two respondents (1 & 13) also mentioned financial constraints and another two (12 & 14) cited family's recommendation as a reason for choosing IGNOU. One of the respondents (15) also specified pandemic as the main reason for choosing IGNOU. Another learner (9) cited the situation in the state of Manipur which forced her to come to Delhi and in the midst of it all she could not write the CUET exam. Therefore, she chose IGNOU to pursue her degree instead of wasting a year.

As far as this research is concerned, Distance Learning Universities seems to have become an obvious choice for those who want to pursue lifelong learning as it is seen that out of the 16 respondents, 7 of them are full-time professionals. Besides, learners are also keen on pursuing job oriented skills while earning a degree, as 4 of the respondents specified. This could suggest that Distance Education clientele have gone beyond just the traditional clientele who Panda (2005) had described as the disadvantaged sections of the community who would not otherwise have acquired educational degrees in their entire lifetime.

Access and usage

As far as physical access to digital devices is concerned, all the respondents own and use devices. Interestingly, all the respondents have access to a computer (desktop/laptop) at home besides having a personal smartphone. However, there are those who have multiple personal devices while others share the computer with members of the family. For example, respondent 1 has three personal devices (laptop, computer and phone) and a total of 8-9 devices at home in a family of 4 members. Similarly, in a family of 5 members at home, respondent 6 also reported having a smart TV, 2 desktops, 2 laptops, and a smartphone for each member of the family. Unlike them, respondents 7 & 12 specified that though they have personal phones, they share a laptop with other members of the family. Respondent 10 specified that while they have a computer at home, she hardly uses it as it is mostly engaged by her brother for online games.

There is also a difference in the kind of internet connections available. While respondents 5, 7, 8, 13, 14 & 15 uses a computer (desktop/laptop) and a phone, the only internet connection they have is the phone data which is mostly limited. Respondents 7 and 8 suggested that they use the mobile phone's hotspot when they need to use the internet on the computer. As is seen, while there is access to digital devices of different kinds among the participants of this research, quality of access seems to differ with some having multiple devices with high speed internet connection, and others having to share devices and at the same time having access to limited internet packages on the phone. This is also consistent with other research which highlighted issues of unavailability of required devices and cost of internet as a major challenge (Choudhury et al., 2023; Arthur-Nyarko et al., 2020)

As far as the most used device is concerned, the mobile phone clearly stands out – becoming almost an extension of the self. Respondent 9 stated that she spends almost her entire day on the phone, at

least 10 hours she specified. Respondent 11 too mentioned that on holidays when she doesn't have to attend any online classes, she spends the whole day on the phone. In comparison to using other devices, respondent 2 stated that he uses his phone the most even though he also owns a laptop. Respondent 4 put a reason as to why she preferred the phone over other devices saying, *"Phone is easier and more convenient than other devices".* No doubt, many have suggested and promoted the use of mobile learning in ODL scenarios (Miglani & Awadhiya, 2017; Arthur-Nyarko et al., 2020). However, it is essential to (re)design teaching and learning activities to optimise for mobile learning environments and exploit the various unique affordances it provides (Brown & Mbati, 2015). Also, as pointed out by Awadhiya and Miglani (2016), institutions need to provide adequate institutional support in terms of policy, infrastructure and instructional design for the successful implementation of m-learning. It must also be pointed out that mobile learning is not just about learning on the small screen mobile phone but it also refers to the broader concept of mobility through the use of various portable and internet accessible devices.

When it comes to work and studies, a computer (desktop/laptop) seems to be the preferred choice for those who do have the option. Respondent 3 elaborated that he uses different devices for different purposes – uses laptop throughout the day for work, kindle device to read and phone is used simultaneously for some work and for calls. Respondent 16 also stated that he studies about 2-3 hours on the laptop and uses the phone to see reels, chat, etc. Similarly, Respondent 6 stated that she uses a computer for office work and phone for entertainment purposes.

It was also observed that different people started using devices at different stages of life and for different reasons. Interestingly, a good number of the younger respondents stated that the pandemic situation triggered the need for a device. Respondents 7 started using a personal laptop for educational purposes because of the pandemic at the age of 13 years. He however did not use a mobile phone until recently at the age of 17 years. Others who specified that they started using a personal mobile phone for educational needs during the pandemic included respondent 5 who was in 12th standard and respondent 13 who had just completed 12th standard at that time. Safety and security was another reason for getting a personal device as mentioned by respondents 6 and 16. As for respondent 8, it was because all her friends had mobile phones so she also wanted it. She also listed a number of benefits of digital devices including the benefit one can draw from it even from remote locations. Others mentioned that it had become a need and as respondent 2 puts it, *"It became a necessity – paying water bills, recharging phone, electricity bill, gas booking and all government facilities became online. Going frequently to cyber café became impractical. Besides, video watching through YouTube, sharing of information, are done through phone…"* He also added, *"slowly it became impossible to survive without a smartphone."* Whether willing or having no other choice, today's distance learners have all become digital citizens.

While it is seen that educational needs are a major reason why young people start using digital technology and the internet, learning activities do not seem to be what keeps them there. According to

the 'Internet in India Report 2023', jointly prepared by the Internet and Mobile Association of India (IAMAI) and KANTAR, the Internet users in India have crossed the 800 Million mark. Out of that many users, the same report indicated that online learning activities are done by only 3% of the users.

Online place and activities engaged

While being online, respondents are engaged with different activities. Besides studies and work, they go online to search for information, get news and current affairs, watch videos and reels, listen to music, online shopping, play online games, use it to stay connected and so on. Respondent 2 puts it this way, *"WhatsApp is very useful to connect with friends. To search for anything that one is curious about one can go and search in Google. And to get any in-depth information, there is YouTube. Navigation facility help us go to any new place without having to ask people. If one wants to learn anything new such as cooking, one can use the internet for it too."* Respondent 2 also specified that as a mother with less time, it is very helpful that notification of news updates come on the phone. She added, *"I don't have time to go through the whole newspaper."*

Watching videos online is an activity which is common to most of the respondents except for Respondent 8 who preferred reading text online over watching videos. Respondent 3 for example, stated that he is a visual person and that if someone explains via video he would prefer that rather than going through text. Similarly, respondent 5 also mentioned that he preferred video and thinks it's more suitable for his *"memory skills"* as he calls it. As far as video platforms are concerned, YouTube is mentioned by all respondents but for watching different contents. While everyone watches educational videos on YouTube, some watch news and current affairs, and others watch entertainment videos, still others turn to it for inspirational and meditation contents, and at least one mentioned using it to watch videos related to online gaming. Watching reels/shorts on social media seems to be another common activity among the respondents as 9, 11, 12, 13, 14 and 16 mentioned watching them. And yet, respondents 2 and 7 specifically mentioned watching reels as a *"waste of time"* and respondent 3 called it *"addictive"*.

When it comes to online places, social media platform/site WhatsApp seems to be the most commonly used among the respondents as it is mentioned by all the respondents. As for other social media platforms, opinions and use seems to be divided. While there are those like Respondent 5 who use many online platforms such as WhatsApp, Instagram, twitter (or X), snapchat, online games, YouTube and online payment platforms, etc. there are others who are more selective in what they choose to use. Respondents 1 and 3 for example are both professionals and choose to use only WhatsApp and LinkedIn. Respondent 3 disclosed that he used to be an active user of Instagram and Facebook but decided not to use them since a year back. In his words, *"I know how these things work since I also work in the Data science field. It tends to control us and I found it very difficult to get out of it".* Similarly, Respondent 7 who uses only WhatsApp also expressed critical opinion particularly for social media saying, *"I don't have any other social media account. I don't feel the need to use them. It makes one lazier, checking notifications, reels, etc…"* Respondent 6 holds a diploma in computer applications and

yet is very critical about being online as a whole. She stated, "*It's not that I can't do it but I don't want to do it.*" She also mentioned that she goes online only to seek information and for work.

While most of the respondents for this research are active users of the internet in terms of time spent on it, their online participation is often limited to sharing contents that they see or post stories/pictures on their individual accounts. There were however three respondents who identified themselves as content creators. One is Respondent 13 who makes videos of her artwork, videos for her sister and other general videos which she posts online. She specified that she uses the smart phone to make these videos including editing. Besides her, respondent 16 also indicated that he used to make and post fitness related contents on Instagram. However, he has reduced his content creation presently to concentrate on his studies. As for Respondent 11, he posts and shares contents as part of his job as a Political consultant on topics related to education, policy, politics, society and also history.

Use for the course of study

While it is seen that there is a mixed attitude regarding the use of digital devices and the internet in general, when it comes to learning specifically, attitude seems to lean more towards the positive. Except for one respondent, the rest of the respondents mentioned going online to clarify doubts and confusions that they have related to their course of study. Respondent 16 stated that if not for the digital help, he would not have been able to clear the IGNOU course. This finding suggests a difference from the study by Dimri and Mishra (2017), which found that learners were not using mobile phones for downloading and browsing information related to course content. Respondent 8 was the only one who did not use online resources for her IGNOU course. She mentioned that the self-study materials provided by the University were her main source of study material, and for any doubts, she preferred discussing with friends who are also doing the same course rather than going online.

Besides the study materials provided by the University, there is a preference for video contents when it comes to additional help for studies as most of the learners go to YouTube. This is unlike the study by Choudhury et al., (2023), who found that though video lectures were promoted as part of the course, they are not widely used. In the words of Respondent 2, "*I find YouTube as the best option to learn in-depth about anything. When I am not able to understand the lesson in my book, I go to YouTube for help.*" He mentioned a particular channel called *Egurukul LIS* where units of Bachelors in Library Science (BLIS) courses are explained unit by unit. Similarly, Respondent 4 also found the needed guidance on YouTube when she was considering taking private tuition for the difficult lessons in her course in Economics. She affirmed*, "I found YouTube has enough resources. I didn't need tuition anymore."* She also mentioned one particular channel called *Ecopoint by Mehra* besides many others which she used. Respondent 5 too mentioned a particular channel called *"Commerce Baba"* which he follows. It is worth noting that a quick glance of all these YouTube channels mentioned by the learners revealed that the lesson explanations are done mostly in Hinglish (Hindi and English).

While it is seen that there is a preference for video content, television channels don't seem to be a preferred choice. In the first place, most of the learners were not aware of IGNOU's TV channel/s, some who were aware found it inconvenient. Respondent 4 puts it, *"Since it is time bound, it is not convenient for me."* Likewise, Respondent 16 also mentioned that during the initial days of his enrollment he used to watch IGNOU's TV channel but later found YouTube to be more convenient. Clearly the learners prefer an 'anytime, anywhere' flexibility rather than a time restrictive scheduled for their learning needs.

There are also those who go to YouTube only as a second choice and prefer reading as Respondent 7 puts it, *"I check YouTube also but I prefer reading articles as video watching takes time."* Like him, Respondent 3 also mentioned that he mainly uses the study material which he downloaded online while his physical materials are still awaited. Besides YouTube, Respondent 3 also added that he uses chatbot like ChatGPT because, *"I find it useful. It gives me a brief summary of the things that I need."* Unlike them, Respondent 14 who also did not get her physical study material on time, had purchased books from the market to study rather than use the freely available materials online. Respondent 1 too mentioned that he read journals and articles on the internet for his project work which he got using search engine Google rather than watch video.

Similarly, there are also those who do go online for help but would prefer going to people. Respondent 6 for example would go to search on Google and YouTube when she's stuck, however she prefers taking the help of her Guide. Likewise, Respondent 10 mentioned that she prefers to seek help from her brother and Respondent 15 too takes help from relatives. Respondent 9 specified that she prefers offline counseling classes rather than online counseling classes and in her own words, *"I gain more knowledge and I can also make friends."* And as earlier mentioned Respondent 8 does not take online help but rather seek help from friends and enjoy group study. Respondent 5 also wished for a study group saying, *"If there was a Study group, I think it'll help in problem solving, learn from each other and clear concepts. Now I have to study by myself which is a little boring."* Interestingly, those who prefer human interaction seem to be mostly female respondents and just one male as far as this research study is concerned.

As far as social media use is concerned, it seems to be mostly used for sharing administrative information/support services and rarely for actual studies. This is consistent with other research findings where interaction in WhatsApp and Telegram groups were mostly found to be related to evaluation and course administration, rather than content and academic discussion (Choudhury et al., 2023). Similarly, a survey study of IGNOU learners also found that learners are equipped with mobile phones with internet and use it for availing support services offered by the university (Awadhiya et al., 2014). Here, it was seen that while few learners are not aware of groups formed through social media platforms, many other learners informed that they are a part of some groups on WhatsApp, and one informed of a telegram group too. Most of these groups are used for updating information regarding assignments, projects, practicals, examinations, counseling classes and also sharing online counseling links. Most learners do find such information useful, however one respondent (7) found such groups as a *"disturbance"*. He reported that he left the group as there were too many messages coming but not before getting the

details of the admin of the group. *"I now directly contact him"*, he added. As far as the official social media platforms of IGNOU are concerned, few learners mentioned following it but most learners were not aware of such pages.

Besides the IGNOU course of study, many of the participants are also engaged in other formal and informal learning on digital spaces. As mentioned earlier, four respondents (5, 7, 10, 16) opted to enroll in IGNOU because they wanted to pursue other training or coaching alongside getting a degree. Respondent 5 who is preparing for Combined Graduate Level (CGL) Examination for government service uses the internet to solve sample question papers, attends online classes for English comprehension and English vocabulary through YouTube live streams. Respondent 2, on the other hand, mentioned that he would go online for any repair work needed and gave examples of how he was able to fix cable disc and phone issues by following YouTube videos. He added that he was able to save money by doing it himself.

Digital Literacy and Skills

As far as the participants in this research are concerned, most of them seem to have the basic operational and technical skills to operate digital devices and navigate online spaces. While many of them reported that they learned to use the mobile phone through self-exploration, some of them reported getting help from someone especially during the initial days of use. In the words of Respondent 16, *"Using a phone is like handing a cycle to children. Give them one and they'll figure it out themselves."* For those who did receive guidance, it was however not limited to technical but also guidance on avoiding harm. Respondent 5 stated that though he learned to use devices by himself, he was advised by his father to use it wisely - specifically for educational purposes. Similarly, Respondent 13 and 15 also mentioned that they both received guidance from their respective brothers on how to use safety and security measures.

As for the use of computers, many reported having attended computer courses or having learned from schools, and some others learned from someone in the family. Respondent 7 specified that he did his schooling in a government school in a backward area and therefore didn't get to use the computer. He however received some guidance from his brother initially and also took help from cyber cafes before he became an independent user. As for Respondents 3, he learned to use devices himself and when required he would go to YouTube for help. He added that as for his younger siblings, they watched him and learned. Similarly, as for Respondent 5, who did have computer class in school, specified that he mostly learned to use the devices by myself. He mentioned that he helped his friends and relatives in the village how to use basic computers and the internet skills, *"stuff that will ease their life"* as he puts it. Respondent 8 mentioned that she learned how to use Microsoft Office from her brother and Respondent 9 mentioned that she learned how to use the computer by watching her siblings.

When asked specifically about IGNOU's registration process which is now fully online, there were those who independently did the registration and some of them even helped others. For example, Respondent 16 mentioned that he helped others with the registration and filling up examination forms. However, there were other respondents who needed help - some partial help and others complete help. Respondent 7, for example, took her father's help only for making the payment, but others like Respondent 9 mentioned that she did not know how to do it so her brother-in-law did it for her. Still there were those who learned over a period of time. Respondents 12 and 15 reported that they took help from cybercafés the first time around, but were able to independently do the next registration themselves.

As mentioned, the participants of this research seem to have issues navigating digital devices and online spaces from an operational and technical point of view, however from a critical information, social and content creation skills point of view, it seems a little more complex. While more people declared confidence in having content creation skills (Respondents 1, 4, 7), there were only three who were actually doing it (Respondents 11, 13 and 16). Also, while most learners do have some strategies in place to avoid harm online, most of them are limited to protecting themselves from financial frauds or protecting their devices from viruses or protecting personal identities. Some of the prominent preventive measures mentioned include – locking devices with passwords, installing anti-viruses on devices, not sharing OTP and personal information to suspicious parties, not clicking on suspicious links, etc.

Whether the participants of this research are able to critically evaluate information online is doubtful - if not for all, but surely for most. All the participants did mention searching information for studies and for other general information through Google search and YouTube. However, as Respondent 2 rightly puts it, *"Google search doesn't differentiate which sites are real and which ones are fake, so people get trapped by all these."* Similarly, Respondent 6 also shared that when in doubt, she goes to more sites to collate things and if possible she also asks people. *"Otherwise we just have to trust!"* she added. Some of the respondents mentioned turning to newspapers and books to authenticate the information they see online (Respondents 3, 6, 7). Others turn to people they trust such as teachers, friends and family members to authenticate information (Respondents 10, 13, 14). At least one Respondent (10) also specified that she trusts any links and contents shared by educational institutes.

It was also seen that except for a few (Respondent 1 & 3) who mentioned using research articles and journals for their academic projects and assignments, the rest did not specify the use of such contents. Respondent 16 also mentioned checking the source and who the authors are to verify if any content has legitimacy or not. However, some others judge the authenticity of the online contents based on number of views (Respondents 9 & 10) and others mentioned that whatever is recommended is what they use (Respondent 8). Respondent 12 also mentioned that at times it comes to mind that certain things may not be quite correct. But she also admitted that she cannot really decide what needs to be done and said, *"Sometimes I just can't differentiate. So I ignore it."*

Avoiding risks and harm

While everyone agrees that digital devices and the internet have a lot of good to offer, they also acknowledge the challenges they face. The apprehensions as far as the participants of this research are concerned includes - lack of confidence in avoiding harm both from a safety and security point of view, and also from a self-discipline point of view. Besides that, some were also concerned about health effects both physical and mental health. Almost all the participants had faced some form of scams and fraudulent activities targeting them or someone close to them. While most such calls, mails and messages were financial in nature, it was not confined to those. Respondent 1, for example, mentioned that he even got a fraud call posing as someone from IGNOU. Respondent 10 also mentioned that she had been a victim of online trolling. She however did not do anything about it and added, *"I thought God knows everything and left it."*

Self-discipline or self-regulation are considered important by the respondents and yet at the same time, many acknowledged their struggle with it. Respondent 1 for example acknowledged that there is a need for everyone to set a level beyond which one should not go. However, he also admitted that he is using beyond that level and that he needed to control. Similarly, Respondent 10 also believes that these digital stuffs are mostly bad for students because there are so many things to get distracted. She had informed earlier that she watches K-drama series and also gets elated when her pictures on Instagram get more than 200 likes. *"Makes me feel like a celebrity",* she added. Respondent 9 also confessed that when she sees others very happy online and sees things she cannot afford; it makes her feel envious. Respondent 8 also asserted the negative impact on health and the risks of frauds.

Conclusion

Living in a digital age where the digital has become intertwined with the physical and the online with the offline, it has become very difficult to separate the two. However, there is a need to pause and ask who is getting left behind? Is 'digital only' the right solution? These are key questions to ask especially for distance learning universities which strive to reach the unreached, the disadvantaged and those for various reasons, are not able to attend conventional universities. While ICT use in distance education was meant to bridge the distance, it is important to consider whether it is, in any way, reinforcing existing inequalities prevailing in the society. As discussed, access alone does not lead to desirable outcomes, and therefore, focus must be on quality of access along with appropriate skills for beneficial use and avoiding harm.

As far as this research goes, a basic level of access to both digital devices and internet connection exists among the learners. However, when considering the quality of access, there is a gap between those with the bare basics, and those with multiple devices and good connectivity. As for the second and third level of digital divide, there is still a long way to go. While all the learners appear to be frequent and comfortable users of these technologies, many of them seem to have just the technical and

operational digital skills. When considering skills related to digital information, critical information, social and content creation, it is not as obvious and mostly doubtful in majority of the cases. Similarly, while most of them do have some strategies in place to avoid harm online, it is mainly limited to protecting devices from viruses and avoiding financial scams. There is uncertainty as far as avoiding harm from a personal safety, and security, wellbeing, and mental health point of view are concerned. Unless these issues are appropriately addressed, promoting digital will always be at a cost of perhaps unintended, but a great risk of leaving some behind.

It was also observed that learners' trust in people and institutions are intact both as a guide for technology and also for leading them to the right resource. Therefore, distance education institutes could step in to play the role model figure for those who may lack one. In this regard, it may be recommendable that Learners Support Centers (LSCs) be equipped with digital facilities for learners to come and use e-resources. Through proper awareness campaigns and guidance, learners who do not have quality access in their homes could benefit from such an initiative. Besides, the institutions can also play a major role in providing accurate information in various forms particularly print and online study material, and video contents. Quality study material in print has always been the strength of Distance Education Universities, likewise, emphasis in video contents production can also be given equal importance as is evident in this research that learners are watching video contents. Furthermore, certain learners value human interaction and physical presence of a guide to help clear doubts or peers to discuss with, the Institute can again step in for those who may not be able to get a guide or find peers for themselves. There is also a category of digital resistors who cannot be ignored. They are those who have either become technology fatigued particularly of social media or have some perceived harm in mind.

There is absolutely no doubt that learning, both formal and informal, is happening in the digital space. Therefore, institutes cannot afford to turn a blind eye to what their learners are being fed through the various digital spaces including search engines from where most of the additional learning materials are sourced by its learners. Discourse on the non-neutrality of technology has rightly begun to take center stage lately and learning Institutes must play its part. In *Algorithms of Oppression* (2018), S. U. Noble highlighted that data discrimination combined with private interests in promoting certain sites, along with the monopoly of certain Internet search engines, has led to a biased set of search algorithms that privilege certain groups and biased against certain other groups. Institutes can play a role in not only holding big techs responsible for their AI and algorithms, but also in equipping their learners with skills to navigate through the myriad of information bombardment.

As a qualitative study, the findings presented in this paper were only reflective of the population studied. The study could have potential biases due to the use of convenience sampling and the relatively small sample size of respondents. Besides, this study is conducted on distance learner and may not be representative of a conventional higher education population. Further studies could explore the findings using quantitative method to study the trends in general. Qualitative studies using larger sample size

and different geographical locations could also bring out interesting findings. Comparative studies can also be carried out among learners of conventional universities and distance university learners.

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