Social and Economic Empowerment of Women in the Age of Digital Literacy: A Case Study of Pakistan, Islamabad - Rawalpindi

Abstract
The augmented usage of digital technology, predominantly mobile ownership, has significantly altered the ways of doing the thing. The digital era with the internet-connected world is creating new venues for social and economic development, with efficiency in digital literacy for participation. The present article explores the digital literacy skills of women that enables them to be active members of the digital world. It also investigates the challenges, self-learning, and financial constraints among other few, which women face while acquiring these skills. The qualitative research is conducted in Islamabad and Rawalpindi using in-depth interviews and focus group discussions. The study indicated that 83% of women have learnt digital skills informally and yet these help them in strengthening their social networks, managing daily affairs regarding their personal life and most significantly being engaged in entrepreneurship from digital forums. This successful use of digital technology has contributed to their social and economic empowerment.

Key Words: Digital Era, Digital Literacy, Empowerment, Entrepreneurship, Women.

Introduction
The widely net connected and technology driven world has changed the shape of literacy in present era. In this age of online information, communication and entertainment, digital literacy is one of the vital determinants of engaged life. (Forge & Blackman, 2008). Today people are anticipated to attend social processes anytime and anywhere thus they are required to have mastery in digital literacy. Digital literacy enriches the lives of digital natives with opportunities and ease of work. It enables to manage multiple tasks at once place instead of running to multiple locations (Erstad, 2012).

It has broadened the learning spaces from the physical to the virtual to the one. Digital literacy empowers the person, for how they use technology to network with the world around them. It enables them to use all kinds of digital tools to share their thoughts, to create new ideas and to collect and to communicate knowledge. New technologies in digital era resulted with new strata in the society, of haves (people having digital skills) and haves-not.

Digital literacy refers to awareness, attitude and capability of people to find, organize, assimilate, examine and create digital contents (Aqili and Nasiri 2010). It includes how one constructs knowledge for the communication and interaction with the world. Digital technology allows people to relate and communicate with family and friends on a regular basis and with less efforts, in "busy restraints" of today's world. (Duncan 2013). In order to grasp the opportunities of this social arena, one must have the "Digital Literacy" to handle efficiently the complex social, economic and pedagogical challenges that these technologies pose.

Digital literacy not only enables the person, for how they utilize technology to interact with the world around them but also to protect them from the harms it can result into (Berson and Berson 2005). It is easily observable fact that internet and digital tools have become a significant feature of today's world. Recent statistics provide the data that more than four billion people around the world use internet-based activities like travelling, education, economics and market engagements (ITU, 2019).
is not wrong to say that they have become part and parcel of today’s life in transition to post-industrial society (Bandura 2002).

In many parts of developing world, the basic medium for going online, is through mobile phone. Averagely females are 14% less likely to own a mobile phone than males which means 200 million less women keep mobile phones than men (GSMA, Connected Women, Bridging the gender gap: Mobile access and usage in low- and middle-income countries, 2015, 2015). Internationally, women lag behind men in possessing mobile phones and internet. Data from the survey of ITU, indicates that females are 12% less likely to use the internet (both mobile and fixed line) than men (ITU 2019). However more than 1.7 billion females do not have mobile phones of their own in underdeveloped countries. Mobile gender gap varies around world but is largest in South Asian countries (GSMA, Connected Women, 2019). For Pakistan this is 78% of adult male possess mobile in comparison to 50% of females and 11% are internet users among these females (GSMA, Connected Women 2019). The patriarchal perception plays a significant role behind this attitude that women must stay at home, so they are least in need of mobile technology.

Women who make up almost half of Pakistan’s population considered as an extremely pivotal in the process of change. Involvement of women in “support groups”, gives them the chances to be energetically involved in the process of decision making (Steward, 2005). But in developing countries like Africa and Pakistan, women have less chances to get technical trainings (Dzisi 2008). In fact, women have less education than men and digital literacy skills could develop with the strong educational foundations. It has been seen that opportunities for such participation can bring positive change in their life in terms of economic well-being and adoption of the digital technology to improve their overall life (Singh 2009).

Regardless of the enormous advantages coming to us as a result of this digitalization process, something is not letting the population equally benefiting from these (Manovich, 2001). Recent data by the International Telecommunications Union (ITU) propose that on average, 12% fewer females in comparison to males have been able to access to the mobiles and computers with internet, and in fact, this number has increased in terms of gender gap in the last few years (ITU, 2019). Due to low usage of ICT by women and girl, they are seen at the bottom of economic pyramid. “This gender gap is prevalent across the whole ICT ecosystem”. This less representation of females as internet active users is resulting in their low levels of digital literacy skills than males (M. S. Ribble 2004).

Global leaders have agreed towards women empowerment – inclusive of using ICT potential as incorporated in sustainable development goals. “…substantially increase the number of youth and adults who have digital skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship,” (UN 2015) by 2030.

**Literature Review**

Glister coined the term digital literacy in 1997 as assembling, evaluating, searching knowledge through technology (Gilster 1997). Hobbs (2011) underlined the ethical responsibilities towards creation and dissemination of knowledge as a part of digital literacy. In addition, it includes skills and the creative products in the digital environment (Calvani, et al. 2008) nt. New literacies have changed the way information is created and received. It is not passive anymore. The user has more control and interactional opportunity, than before which has paved new venues to some social and economic issues.

The studies done on digitalization process in society indicates that by gaining the digital skills through digital literacy, numerous gender disparities can be addressed. The rapid development of digital devices such as computer, laptop, I-pads, tablets and smart phones has fascinated large number of popular activities. (Lister, 2009). Mobile and digital technologies offer women the potential to bypass some of cultural and mobility barriers, particularly in developing countries. A study done by Kantor indicates that in most of the developing world “norms of female seclusion limit women’s mobility in the public sphere, constraining their economic opportunities by limiting their choices of work location.
and their ability to interact in markets” (Kantor 2002). Women’s socialization skills will be enhanced when advantaged by the digital literacy.

Digital literacy could enhance women’s participation in socio-economic life. It provides them spaces for their self-expression and promote social change as they gain access to the global knowledge (Aqili & Nasiri, 2010). Accessing internet through mobile phone have built reflective implications in women’s life. It is seen as core ability and some also declare it as survival skill of the digital age (Chase & Laufenberg, 2011). It has created venues for women’s social, political and economic empowerment. Considering the significance of digital literacies, it is seen as the fundamental need of time for knowledge interpretation and reconstruction (Ribble, 2004).

Theory of Constructivism, which has its roots in Philosophy, psychology and cybernetics attempts to describe how people understand the world (Von Glasersfeld 1989). As per theory “knowledge is being actively constructed by the individual and knowing is what is gained through experiential world” (Mayer 1992). Hence the learner according to this theory is not controlled respondent rather “a scientist” (Solomon, 1994) who actively construct knowledge while making sense to the world. A core of constructivism is that people live in the world of their own subjective and personal experiences (Karagiorgi & Symeou, 2005). According to Duffy and Jonassen (1991), “what we understand is a function of the content, the context, the activity of the learner and, perhaps more importantly, the goals of the learner”. The learner do not store or memorize information but make tentative interpretation of new experiences (Perkins 1999). According to this theory, women make use of digital skills to construct the meaning and what are their goals as a learner of digital skills. Women gained access to the entrepreneurship opportunities and expanded knowledge for their own and social circle. Through online healthcare, drawing benefits for their family and themselves.

In order to avoid job losses due to automation, new policies are needed particularly in developing countries where it is expected to have 60% in the next two decades (World Bank 2016). Entrepreneurship is another field where the digitalization has built a huge impact. As mentioned by Picard many new venues in entrepreneurial opportunities are created by the digitalization, creating networking of clients, looking for the role models, ease of financial transactions (Picard and Bollinger 2015). With growing digital literacy many women have gained and explored the entrepreneurial opportunities and pursuing the economic empowerment through their digital literacy skills. It has helped them to overcome the social networking barrier and financial constrains to some extent which empowers them for pursuing them through digital skills. Yet the present gender gaps in entrepreneurial skills were seen across the world. It has been a man’s world for several reasons. One significant reason is lack of social networks of women founders in the field of business (Greene 2001), inadequate women role models of entrepreneurship (GSMA, Connected Women, Bridging the gender gap: Mobile access and usage in low- and middle-income countries, 2015) and most significantly lack of financial sources which has kept women away from this field.

Mostly entrepreneurship is inspired by the desire for personal accomplishment (Moore and Buttne 1997). Buttne and Moor (1997) have studied the experiences of women who left jobs of executives’ positions to become entrepreneurs and what motivated them. Some researchers have recognized these optimistic prospects that might drive women into entrepreneurship: “greater career advancement, increased economic rewards, more freedom and flexibility” (Heffernan, 2007). Greene from his study (Greene, 2001) found that if jobs are not enough to fulfill the needs or less jobs in the surrounding as pushed women for entrepreneurship. Kirkwood’s study states “that non-wage job characteristics, such as the need for health care coverage, the presence of children, and the employment status of the entrepreneur’s husband, may have contributed to the rise of female self-employment” (Kirkwood 2009). Women’s engagement in personal business is increasing in Pakistan as well like in other parts of world, appreciations to the Internet and social media applications. Social networking in online forums, is allowing them to inexpensively reach many target groups. Women have good capabilities in creating relationships and making community, connections, and support.
Objectives
The present study explores the efficacy of digital literacy among Pakistani women in their daily life. It investigates how digital literacy empowers these women socially and economically. It also aims to examine the challenges women are faced with, in gaining and improving the digital skills in Pakistan.

Methodology
The Exploratory research was conducted as a qualitative research design, in the locale of Islamabad and Rawalpindi. Such a research is usually carried out at the preliminary stage conducted as to answer the questions what, why and how, often referred as grounded theory approach. In the initial phase questionnaires were used to collect data about the demographics of participants and how women are engaged in creating, collecting and connecting through digital technologies. Anthropology being a holistic discipline has multiple instruments to carry out research. There are two sources that are used throughout the study i.e. primary source and secondary source. Data was collected through case studies, in-depth interviews, focus group discussions with women in twin cities of Islamabad and Rawalpindi. The women in the sample ranges from age group 20 to 45 years, as previous studies pointed this age group is more expressively engaged in internet-based activities. Purposive sampling was used to collect data from the women who were frequent user of mobile and were able to browse information, create content and make use of different applications for their social and economic empowerment.

Results and Discussion
Technology has brought a strong cultural influence in the lives of women because they are found to be engaged with digital technology from communication to information gathering to number of activities as listed below in Table 1. With the help of 128 questionnaires out of 150, most commonly used digital tool to connect internet is smart phone as all the respondents have access to this tool. Mostly emphasized “it is a minicomputer in the pocket”. It was a popular means to connect for internet based activities e.g. information which can be used while on-the-go. It was an important helping hand for the women whether professional or housewives, can explore more knowledge through it. Table 1 demonstrates the activities and frequency of respondents for those.

<table>
<thead>
<tr>
<th>Kind of Activities</th>
<th>Frequency</th>
</tr>
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<tbody>
<tr>
<td>Calls and messaging</td>
<td>92%</td>
</tr>
<tr>
<td>Social networking</td>
<td>89%</td>
</tr>
<tr>
<td>Information searching</td>
<td>83%</td>
</tr>
<tr>
<td>Access to E-health</td>
<td>67%</td>
</tr>
<tr>
<td>Shopping</td>
<td>64%</td>
</tr>
<tr>
<td>Means of earning</td>
<td>41%</td>
</tr>
<tr>
<td>Movies and entertainment</td>
<td>53%</td>
</tr>
<tr>
<td>Emails</td>
<td>47%</td>
</tr>
<tr>
<td>Playing games</td>
<td>37%</td>
</tr>
</tbody>
</table>

It has eased their live in many ways and helped them to be self-reliant for many tasks of their daily life. It includes online shopping, to pay bills, transferring money. Youngster and some professionals were more comfortable with computer for stretched hours of activities. Kind of activity is significant for the choice of tool for many respondents. When talking about digital opportunities for the woman; it is basically talking about maximizing the benefit of digital technology by its users. Women, with more digital literacy and skills, took benefit of an even varied range of opportunities raised by the growth of the “app economy,” mobile phones. Mostly women in the study vary in their competences of digital
literacy. These variations are because of different sources they use for learning these skills because of their different requirements. They are good at connectivity and communication but weak at creativity skills. 83% of women have learnt digital skills from friends and family, having no formal mechanism adopted to learn the digital literacy skills. Most of them blamed for not having time to learn these skills. After thematic analysis of the data following are the opportunities where women have established their strengths using digital skills.

Opportunities for Social Empowerment

Overcoming the Traditional Barriers of the Mobility

Digital technologies and particularly mobiles with internet access have favored the females to cross over the traditional and cultural constrains placed on their mobility outside the domestic zones. Through Internet, the whole world is in our hands and we are linked up with each other so easily. “It has made our life very easy and fast. It has opened new horizons of expanding our knowledge and sharing our knowledge.” A respondent who gives online classes for cooking shared her views. There is no area or issue about which information is not available on internet.

Managing Social Ties and Events

Social networking is the most significant activity done through digital literacy. Any time and even on the way we can connect and communicate. Asia told that she has fourteen groups on whatsapp. Some are of different circles of friends, some are with the schools of her children, even for the (Asia’s children) friend’s mothers to keep collaborations. It has become very easy to contact the loved ones from any part of world. “our family in outer world can be seen on our events of births and marriages due to video calling facility”. Therefore, it can be said that communication is the most precious gift from internet to its users. Another respondent marked for the multiple ways of communication due to internet; mobile gives us multiple ways to communicate by text SMS, by face to face video calls, and by voice only, we can send voice messages even”. Taking selfies is seen as means of self- gratification, agreed by most rest consider it only a choice of talented ones, during the focus group discussion. A respondent told, “because I have WhatsApp it makes a whole lot easier to send and receive photographs because whatever you do, you need a photograph to go with it and this was very difficult otherwise.”

Multi-Tasking Though Digital Devices

Most of the respondents told that using the digital technology made them multi-tasker. Aisha, enjoys her capabilities for multitasking, this way the time spent waiting for the composing screen to download is saved and she can thus spend more time with her friends and family. Another said, “Distance and time doesn’t matter for me anymore as I have learnt to handle things through my mobile apps”.

Self- Dependency to Accomplish Their Tasks

Women with more digital literacy can accomplish their tasks independently, which requires movement outside their houses like shopping or reaching some destination etc. They have expressed the freedom of decision making as well. Many respondents have been using the Careem app, enjoying the freedom to travel to their desired destination without assistance from the family. It has also been accepted and approved by their family to travel from Careem. A respondent said that even she helped her other relatives and friends who lack these skills, to book the ride. Another respondent said, “no need to beg the males to take us to the market, we can do it by our self now”.

Access to E-Health Opportunities

Almost 67% of respondents have accessed to e-health services either for themselves, friend or family. They also make use of digital technology for monitoring their blood pressure and sugar level at home.
using the easily available tools and this awareness is through internet-based knowledge. “We are not doctors” Ayesha “With knowledge we can cross-check doctors also”. So digital era has given opportunity, “But first you have to be digitalized to gain the benefits”. Another respondent told during the interview “even when doctor is not in town, I seek help from him on skype and whatsapp videos are used to explain the condition of my mother”. Digital technology is also used as a platform to increase public awareness about health campaigns, and answer queries of people related to health issues.

**Engaged in Self-Grooming to Home Décor**

Information to learn new things about fashion hacks & home décor is another favorite area of 83% respondents like to explore and all of them have shared range of experiences in this regard. A young respondent shared her Daraz.pk app shopping experiences, “last Friday I renovated my kitchen to share my love for my mother”. Ranging in age from 18 to 60+ SheSpeaks has a wide age range of influencers who create content across multiple categories (SheSpeaks 2020). Another respondent has learnt the art of makeup and bradding of hair from YouTube. “I have improved my baking and on snap chat when I upload my baked item, has made me a confident person” said Asma a housewife. “It’s surprising to see how many people support you and encourage you via different apps, it lifts your mood up, knowing”. Digital Literacy has enabled become more fun looking for information because answers to questions can always be found. You Tube and E-How are the sites where we go to seek guidance and help for learning new skills. Herbalist Bilques’s beauty tips were acknowledged by many respondents.

**Opportunities for Economic Empowerment**

Digital spaces had given women access to the online market, given the opportunity to work from their homes, with least initial finances. They acquired platforms to present their creativity and interact with customers, can get training and deliver mentoring. Through digital literacy they are working for economic development of the country.

**Women Entrepreneurs from Digital Platforms**

With every coming day the use of internet and mobiles is increasing. This has mobilized women to choose the entrepreneurial carriers, who were not seen active in the economic development earlier either due to their restricted mobility or customer connections were not easy in physical world for a traditional gender segregated societies. The digital literacy has given Women access to create little opportunities for business and savings.

Case study: Ms. Aizah has been associated with the Plate101. She is a housewife and mother of three. Before her marriage she worked in a bank. She has created her account two years back. It is working in Islamabad only. “It took only three to four minutes to create your account” the ease that she learned due to her digital literacy she confesses. She used to upload status of her daily food on her friend’s group and Facebook with “Privacy Settings”. Her first cheque was a big achievement for her after a long time. Many of app members have been receiving earnings ranging from Rs. 25,000 to even 65,000. She said that she needs to upload the picture of the dish with little explanation like e.g. spicy Dal. So far she received very few bad reviews and her customers ask her if she is away for few days. This gives her sense of pride. With her home responsibilities she is enjoying the pleasures of social and economic empowerment. It has given her confidence in her social circle. Her in-laws and friends also appreciate her efforts except few.

Case study: Miss Sadia running a social enterprise providing digital training and computer-based work to Pakistani women. She used the Internet to find work for herself and many other women who can’t leave their homes due to traditional mobility restrictions on women in Pakistan. “Since then, I — someone who could not go out shopping without my mother and a male chaperone after 5 p.m.— have travelled to different parts of the world alone Access to digital information platforms is what made it possible for me.”
Another successful entrepreneur, Ms. Nadia, Head of Sheops (is an online women’s market), facilitating many womenfolk entrepreneurs by providing a comfortable digital environment to show case their products. The CEO of the group manages the group norms herself and stays active to monitor the quality assurance. She has helped women who want to show case their products from a reliable stage. It provides work from home women, to bring their products to the customers without financial constraints. The researcher herself been the member of this group seen many new comers joining the platform and then establishing their names as entrepreneurs. As cultural norms have socialized them to stay apart from strange men. Her goal is to empower the Pakistani women to establish them as entrepreneur and grow by connecting to the right people in secure environment. She said, “We identified issues that women encountered on other platforms and via Facebook tried to build a stage, designed exclusively for women entrepreneurs and women-oriented businesses”.

Challenges to Gain Digital Skills

Specifically, all participants expressed difficulty to gain digital literacy skills through formal institutes in traditional cultures, such as Pakistan. As women she has responsibilities of childcare, cooking, parents’ help, looking after in-laws, cleaning and washing etc. Being pulled in these responsibilities they find it hard to spare time to gain some skills or even polish their digital skills from the formal institutes. Other challenges pointed in this study are problems in allocating time and money. After the analysis, following are the key challenges that women are faced with to gain the digital skills in this age of digital literacy.

Less Opportunities of Formal Education of Digital Literacy

Data revealed, very few females go for higher studies in the field of technology, engineering, and mathematics. Even those who have once learnt as one of the respondent who was a civil engineer by education was not using auto Cad, “so I forgot to sue it, these skills are polished if they are in practice”, Nazia mentioned that she needs to upgrade her skills and she loses if not been involved with these. Very few respondents have learnt or used formal venues to gain the digital skills.

Cost to Afford and Access the Digital Technology

The access and cost of digital technology matters significant for most of the participants. Those who are dependent on males of their households for economic help are reluctant. Although all of them have access and digital devices yet improving is not the affordable choice for everyone. They are reluctant to go for these and cling on with whatever they have, spending on these is seen as a luxury for many. Participants are also seen curious about the internet packages and its affordance, as most digital usage need net connectivity and they have access to limited packages.

Self-Learning Issues

Women in the study are managing for their digital literacy mostly through their family and friends, who might not be knowledge professionals but better than their skills. For setting up their devices, troubleshooting, updating, privacy issues, and new apps are the key areas where they seek their help. They usually have not been appreciated to transfer knowledge. In the focus group discussion respondents collectively agreed that they are discouraged to use inter based activities as not seen culturally the safe space for the young girls. Cultural value system put restrictions on their digital engagements with the labels like, “you are wasting time”, “Mobiles are dangerous”.

Conclusion

The digital revolution, characterized by digital literacy skills for digital devices, have improved female participation in social and economic life. Internet is seen as a powerful tool for the society in general and for women in specific, if it is used properly. It is their navigator, helper, entertainer and a means of
Digitalization offers a variety of opportunities for female empowerment and enhance the economic and social autonomy of women in at least three ways. It gives them social empowerment; they strengthen the social circle and have widen up their social networking with their digital literacy. It gives them sense of confidence and motivation to work independently. They also get self-empowerment by making use of their skills as they manage to do multiple task at one time. They gained the confidence to make decisions about their own life and for their loved ones. They also find solutions by getting knowledge from global forums. From table talk, to gossips, to sharing recipes they are engaged on multiple forums besides accomplishing their work at home including responsibilities of a mother, wife, and daughter. With many challenges from financial constraints, to the learning opportunities, to the cultural norms still women have been taking advantage of their digital literacy in the present age to enrich their lives and empowering themselves socially and economically. However, more efforts at formal level are required to improve the competences of our women for digital skills in the age of digital literacy, it will help in addressing gender digital divide also.
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