

Digital Literacy: A Bibliographical Review

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Abstract

Ability to locate, analysis, and surrogating and composing the information through writing in various digital platforms are known as digital literacy. Our Government is giving more importance for "digital India" and "make in India" to provide more job opportunities for the youngsters and to fulfil our needs. To achieve the goal "Digital India" and digital literacy becomes essential for teaching and learning process. The authors aim, in this paper, to improve digital literacy in the overall view. The authors discussed in a detailed manner about literacy, Digital literacy, parameters of digital literacy need for literacy and the importance of digital literacy. Improving digital literacy in the learning community and the importance of the teaching community are the main motive of the study.

Keywords: *Digital literacy, improving digital literacy, digital literacy skills, ICT users.*

INTRODUCTION

The competencies in use computers, accessing and navigating in internet, were essential in learning and teaching process. Utilising online research information and display of computer skill were predominant in academic environment even in graduation level. The importance of harnessing technology were emphasized by the organisation too in finding the job and enriching the career.

Every one creates and share the information in digital form over internet seamlessly allows to interact and bound together for common goals becomes the digital culture. This digital literacy skill has the advantage of sharing ideas efficiently and filtering content knowledgeably according to the requirement.

LITERACY

The word literacy normally defined as the ability to read and write to communicate with one another, from a wider perspective. It is defined as the knowledge and competence in a specific area.

The implications of the term “literacy” has been shown in Table 1

Table 1 Implications of literacy

Implications	Description
<i>Basic knowledge or capability</i>	specific skills depend – e.g. read, write or calculating
<i>Cultural entitlement</i>	impoverish the culturally valued knowledge
<i>Communication</i>	The means of relating culturally significant communication through different media
<i>Needs practice</i>	Continued learning and refinement to context
<i>Social and cultural practice</i>	Depends on society, culture and context
<i>Self - transformation</i>	Lifelong and life wide impact

DIGITAL LITERACY

The aptitude to use ICT is to locate analysis, surrogate, and communicate information, needs technical skill as well as cognitive skills. It is not only to find the information online, but to evaluate the quality of the information and then communicate effectively to others is an invaluable skill and one that is crucial besides education.

The ability of the users was to find and communicate the clear information on different digital platforms also termed as digital literacy. Further individual’s ability includes evaluate and produce the information which includes lexical skill, digital tools handling skill and computing skill Now a day's people use digital media very often, so it becomes a routine in their life.

Digital literacy is also helpful to avoid hacking, information theft, identity theft and attempted scams. It is essential to know the method of querying to retrieve the information one find on the internet considered as the first step of digital literacy to keeping oneself safe online. Digital literacy also enable every one to learn, live, work, participate and thrive in the digital society.



Source: <https://www.pifonline.org.uk/digital-literacy-project/>

The three different intellectual process, according to Spires and Bartlett (2012), associated with digital literacy were :

1. Creating digital content
2. locating and using digital content,
3. Communicating the digital content.

Initially, digital skills depend only on computer and technical people. But now they have expanded. Even common people are using electronic equipment in their normal life like computers, tablets, smart phones etc. The users have the ability to handle electronic equipment. This is the basic digital literacy. They also use these for connecting peoples across the world. The telegraphs changed into letters. Letters to e-mail, the first digital media. Now it has become vast to the messenger, facebook, and WhatsApp so on.

Innovation, critical thinking, problem-solving, decision making, digital citizenship, technology concepts and operations were considered as six parameters or six benchmarks by the international society for technology in education, for digital literacy. "Digital literacy is basically understood to mean the basic skill or ability to use a computer confidently, safely and effectively, including, the ability to use office softwares, E-mail and presents software, the ability to create and edit images, audio and video, and the ability to use a web browser and Internet search engines". (Royal Society, 2012).

IMPORTANCE OF DIGITAL LITERACY

The 21st century people are much faster in acquiring knowledge. They do things very faster than others. Everyone gets the basic knowledge of digital technologies as they learn to speak and write. The two big search engines like Google and Yahoo play a major role in everyone's life and student's education especially. They acquire more knowledge from these search engines and these search engines give all resources that its use requires. They also use these for connecting people. The digital technology is playing the vital role in the culture, generally among younger generation. Multiple distributed online networks, especially those used in social networking, have enabled younger generation to connect among widely dispersed geographically (Wiegel et al .2009.Davies etal.2009).

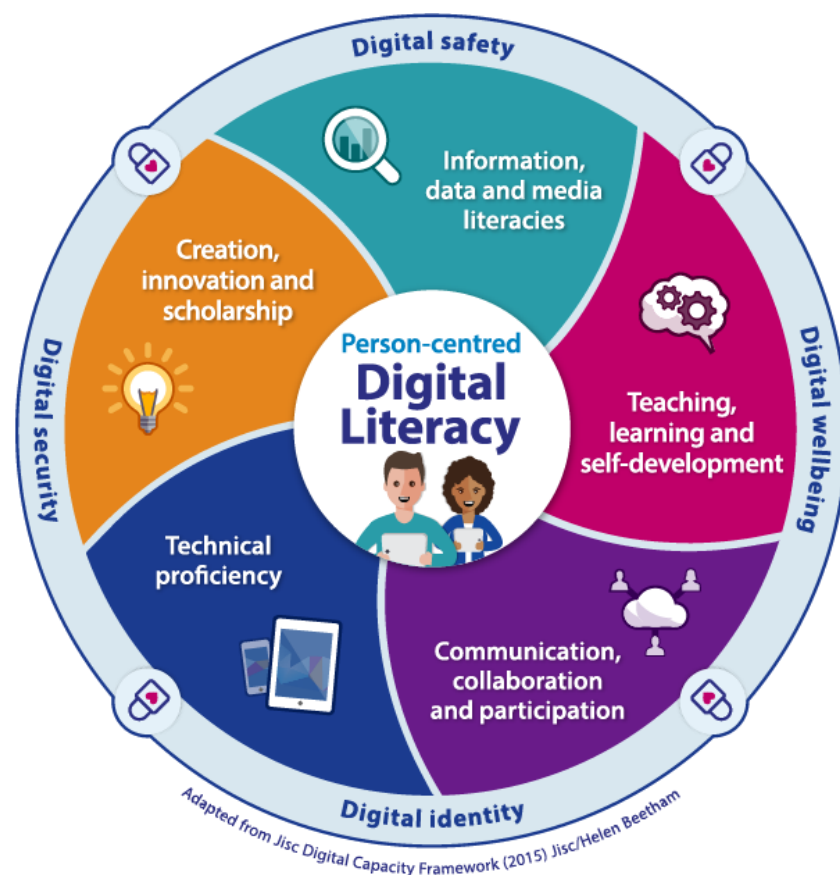
Digital literacy contracts with the lack of clarity and the lack of distinction made between the various types of digital literacy and competencies used in research, education or the field of e-technologies: "The most immediately obvious facts about accounts of digital literacy many of them and that there are significantly different kinds of concepts on offer" (Lankshear & Knobel, 2008). Digital literacy also referred as Internet literacy, multimedia literacy, cyber literacy, online literacy, and information literacy synonymously (Huerta and Sandoval-Almazn, 2007), and it also defined as a capacity supporting the user in engaging social and cultural activities through the utilization of various media (Kwon and Hyun, 2014). Digital media literacy were compared with the ability to use a computer, social media, Internet, and people with high levels of digital media literacy are more active in social affairs and better able to express their opinions (Hobbs, 2010). The higher levels of digital literacy can more effectively communicate and perform at work (Kim et al. 2007). The differences in the level of digital literacy depend mainly on age group and education level (Van Deursen and van Dijk 2009). Generally, a digitally literate person is able to search and understand desired information, express and share opinions or thoughts freely and have a better

understanding than others (Kwon and Hyun, 2014). The development of digital literacy and competencies have however, become a key element on the agenda of scholars, practitioners, and policymakers worldwide in order to ensure citizens' ability to fully participate in today's increasingly digitized society. The end users in the field often make use of conceptual models on digital literacy. The digital literacy models have inevitably play a vital role in shaping the skill on digital literacy. It is essential to gain insights into the concepts and creative thinking they put forward the digital literacy.

Today the digital literacy is expected to have person centered digital literacy. The four major components of person centered digital literacy are

- Digital well being – Teaching, Learning and Self development.
- Digital identity – Communication, Participation and Collaboration.
- Digital security – Technical proficiency; Creation, innovation , Scholarship Digital safety – Information, data and media literacies.

The diagrammatic representation were shown in figure 2



PARAMETERS FOR DIGITAL LITERACY

1. CRITICAL THINKING

In the ICT era, the necessity to read the newspapers does not arise. The day to day events is often updated in social media. So its easy to know what happens around you. At times false messages and rumours become dangerous as they also spread very fast . The ICT users need to know how to get correct resources and make decisions about it.

2. CREATIVE THINKING

Those, who have knowledge on ICT, can create the digital contents and. Can prove the quality and add authentic opportunities for ICT users which help to tap their strengths and areas of their domain. To make it relevant and authentic, encourage users do publish work using a variety of intuitive digital tools and feedback in the process. The way of expressing thoughts were more important than that of the content. The one who has elegance in their communication wins the race in today's world.

3. E-SAFETY

Nowadays, most properly all people are using ICT like internet search engines, internet banking, ATMs, call taxi booking, e-shopping, online education. But the users are not aware of the cyber crimes. Some websites are restricted to certain age limits. The users are developing their digital literacy skills, knowledge, for understanding and protecting themselves on a regular basis. Considering choices will help to keep the users safe when they are creating, collaborating, communicating and exploring with digital technologies.

4. DIGITAL CULTURE

In the 19th century print culture persists. It is followed by electronic broadcast culture. The contemporary phase of communication technology, called as digital culture, gets amplified and accelerated through computer networks, personalized technology and digital images.

The digital culture, is usually with regular practices based on the intensive use of communication technologies, implies participatory behaviours on the user side, more visually reached environment and connection features that will excel personal dimensions.

Digital culture literacy refers to the knowledge, beliefs, and practices of people interacting on digital networks. It will recreate tangible cultures or strains of cultural thought and practice native to digital networks. It reflects a globalizing world's behaviours, interests, and relationships across international boundaries. Three levels of culture - Personal culture;

Group culture and Common culture - exist in anthropology literature, and they apply to the ways culture is expressed in the mass media relies on shared knowledge. They must share their experiences. If the user's group or personal did not share experiences, cultural references would not make sense. The common culture can be reached when individuals and groups tell the experience. The social media messages reached around the world within a short time.

The most people who know about a song, film, work of art or event with cultural significance, and the more information that they know about it. The social media influenced in common culture, although it is not correct to say that they directly shape it. The institutional influences on common culture such as governments, churches, families and educational systems.

5. COLLABORATION

Sharing the digital literacy knowledge with others from diverse backgrounds, will increase the ability to understand multiple perspectives. Learning from anyone from anywhere will be feasible with digital tools like Twitter, Skype, Bunche, and Pad let, whatsapp, Instagram, mobileapps, etc. Users can work beyond their institutional walls to find solutions to the real problems. By engaging in this type of collaboration and the ICT tools, the users are even more prepared to participate successfully in the digital innovation developments and the global economy.

6. INFORMATION FINDING

Finding information in this digital era is an easy task. It is possible with search engines like Google and Yahoo. Though we get plenty of relevant resources, it's the user's choice to select the most appropriate resource for their search. Nowadays people are much interested in writing blogs and uploading them on online sites. So it is very easy to find information as plenty of resources is available.

7. COMMUNICATION

The ICT tool users cannot shield their learners from having an internet presence, but they can help learners understand how to cultivate an optimistic way of using digital social media. Communication is not restricted to face or mobile communication .it also through many different ways. when deciding what to share and whom to share with online. In this era the institutions are rapidly adopting a digital learning environment, communicating

responsibly online. Moreover, communicating with a broader audience, such as another institution across the world can be a tremendous motivator for learners and help them find their voice.

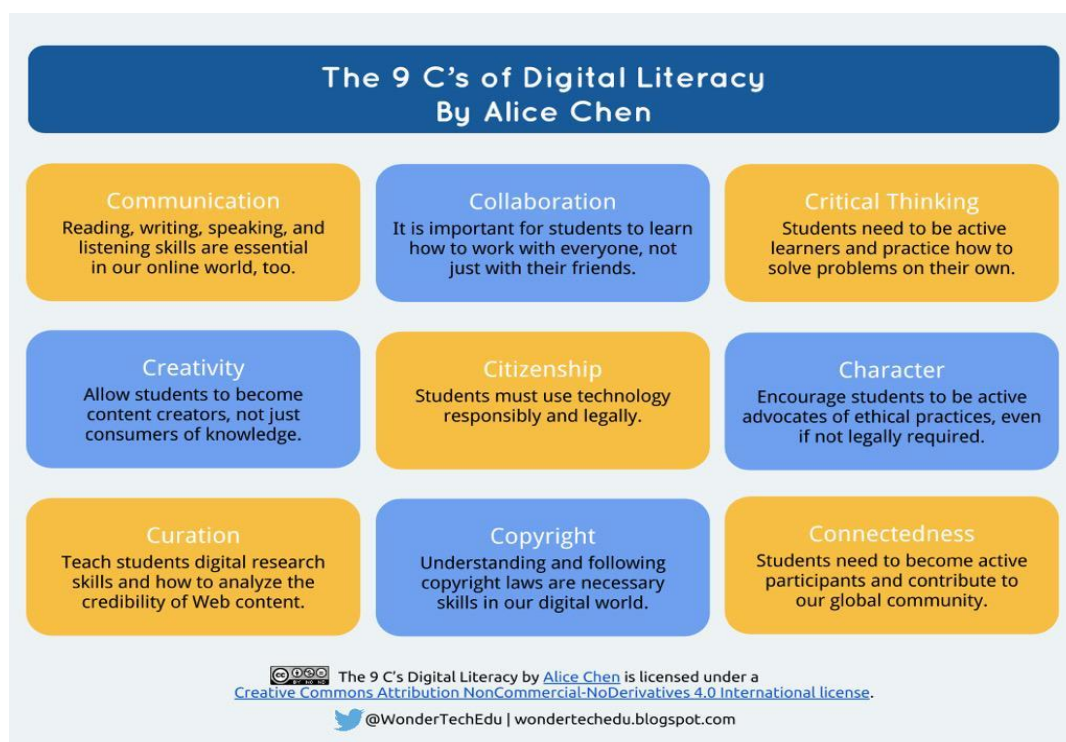
NEED FOR DIGITAL LITERACY SKILLS

- **CREATIVE THINKING SKILLS:** Critical thinking about being able to think for our self and to be able to think critically. Critical thinking analyse, evaluate information, arguments, identify and build meaningful information. Critical thinking asked or analyzed about the information who, what, where and when. Who wrote, who aimed, who benefited, who affected, who would know more? and also asked what is the information not telling, what would be the opposition say? Similarly, where did this come from, where did happen where is evidence, and where can see the similar opinion.
- **DIGITAL CULTURAL SKILLS:** Digital culture is the Internet, Transhumanism, cyber ethics, security, privacy, and policy. The young people and teenagers are the heaviest users. They are using smart phones to access the internet on a daily basis. In the world all the type of people contributes to the global digital culture. All type of apps using by the people to making friends share information across the world. The users are up-to-date with each other, share their own language or slang, participate in a global community of memes and social commentary.
- **E- SAFETY SKILLS:** The users safe using online means that the knowledge to identify the potential risks and are conscious of our personal security while browsing, sharing or surfing the internet is known as E- safety skills.
- **COLLABORATION SKILLS:**
- Today Online Environment necessitates knowledge on basic project management. Further group work, navigation between multiple platforms, collaborative functionality and utilizing tools such as “Base Camp” becomes mandatory for effective online collaboration.
- **COMMUNICATION SKILLS:** It is essential for the digital citizens to know the method of navigation and the intricacies of communication. Further one must know how to communication both effectively and safely using the social media in the digital environment. Some of the social media and method of communication through online were

- Social network - Facebook, Twitter, and Instagram
 - Video Conferencing – Skype, FaceTime
 - Live streaming - Facebook, YouTube, Netflix
 - Blogs
 - Vlogs - YouTube
 - Email
 - Chat
 - Online Gaming with text and audio.
- **INFORMATION FINDING SKILLS:** The internet has provided us with a wealth of information. Due to overwhelming, the users finds it difficult to distinguish between needed and not required information; real and bias; opinion and criticism. The users believe that the search engines do the sorting which seems to be insufficient. Therefore the users need to know the method of search for retrieving the needed information and then to find the essentiality of the information. The critical thinking guide will enable to develop these skills.
- **PRACTICAL AND FINDING SKILLS:** The use of appropriate technology will enable to develop confidence as well as competence. The practical use of technology will enable to retrieve right information and the right solution for the situation. This not only increase employability skill, deeper understanding of tools; software functions to foster efficient working. This also enables to adapt quickly towards appropriate changing technologies.

IMPROVING DIGITAL LITERACY

There are two ways to improve digital literacy and help prepare students. In this digital world, classroom teaching is changed blackboard to the smart classroom (electronic media). Similarly, books, guides and teacher's class notes also in the digital format. So the digital literacy is essential for the students to search and the pick up the right and relevant document for their study. Mathew Lynch (2017) noted that the following 8 skills are essential for higher education students for improving digital literacy. They are Coding, Collaboration, Cloud Software, Word Processing Software, Screencasting, Personal Archiving, Information Evaluation, and Social Media.



Digital literacy for Academicians

Levy et al.(2006) stated that digital literacy makes sense to assume that the more digitally literate our teachers. He pointed out that the following 7 ways or reasons are moving beyond the Google: Search engines are doing a vital role in the digital literature. Most of students understand how to use a search engine. Search engines output sometimes does not provide the users with ample information for depth learning. it is up to teachers to provide students with the additional skills to bring the answers to the next level. The following were essential for teacher:

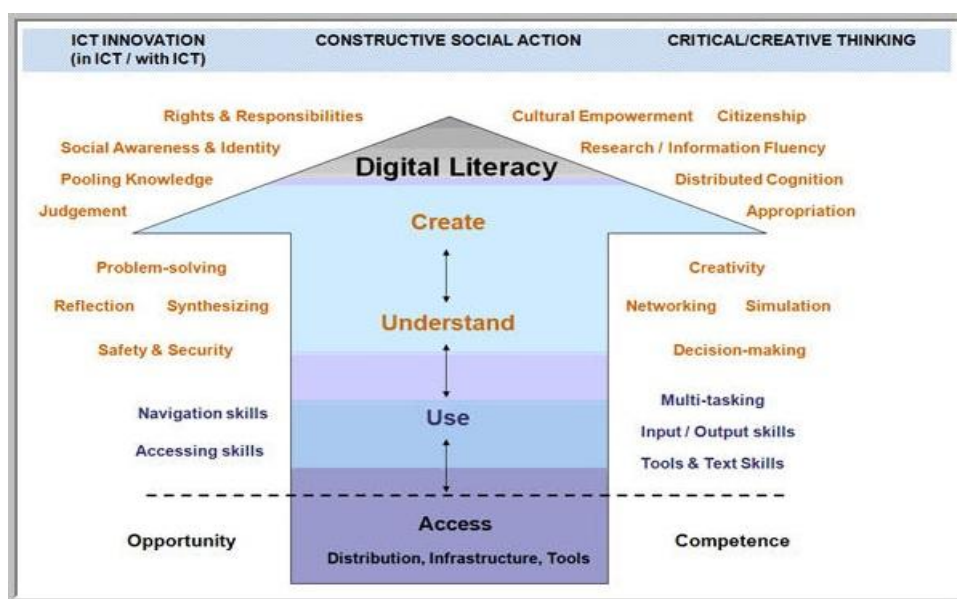
- Teach and evaluate the ideas and the use related resources,
- Teach to draw a in deriving conclusion ,
- Push students to new levels of creativity,
- Teaching Digital Citizenship is helping a teacher for academic Pilgrims and cyber pulling ,
- Closing the Digital Divide: Most of the rural areas were not have internet facilities. They struggle to take advantage in use of tools such as platforms, apps, and other resources Expanding Conceptions of the Digital World,
- Expanding Conceptions Of The Digital World,
- Enabling Differentiations

- Making Thoughtful Cultural and Platform Decisions and
- Improving Technology.

The above mentioned ways essential for the teacher to accrue the knowledge and deliver the content for the learning community.

Christopher Pappas pointed out the seven steps to promote the digital literacy and technical skills for e-learning. They are;

- Encourage self-Exploration,
- Create An Online Resource Guide,
- Set Some Ground Rules,
- Evaluate Your Current E-learning Strategy,
- Include Digital literacy Simulation,
- Encourage Learner-Generated E-learning Content and
- Host A Live Event



<https://vinitgoenka.wordpress.com/2014/04/02/it-sovereignty-in-india-importance-of-digital-literacy/>

The success of digital literacy depends on factors such as Abilities and Skill; Personal Attribute; Motivation and Environment. The parameters under each factor were shown in Table.

Table : 2 Success of digital literacy.

ABILITIES AND SKILL	PERSONAL ATTRIBUTE	MOTIVATION	ENVIRONMENT
To use	Learning style	Assessment	Opportunity
To understand	Learning attitude	Achievement	Available resources
To write	Learning habit	Employability	Access
Critical thinking	Culture	Personal gain	Law
Planning	Prior experience	Belief	Government Policies
Listening	Personal value	External expectation	Educational system
Reflecting	Creativity		Availability of IT
	Insight		
	Attitude to risk		

CONCLUSION:

In the 21st century, everyone must know at least a small level of digital literacy because most of the things must be done by computers and various electronic equipment and internet search engines. These digital media are connecting the people around the globe. Nowadays the users can do e-banking, shopping booking tickets etc in the home with the help of digital media. In education, technology development is higher. The students study lessons not only in the classroom but also in their place. They also have virtual classes which help in enhancing their knowledge. Digital literacy is essential for everyone in the modern world.

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