Digital literacy initially focused on digital skills and stand-alone computers, but the focus has moved from stand-alone to network devices. Digital literacy is distinct from computer literacy and digital skills. Computer literacy preceded digital literacy, and refers to knowledge and skills in using traditional computers (such as desktop PCs and laptops) with a focus on practical skills in using software application packages. A digital skill is a more contemporary term but is limited to practical abilities in using digital devices (such as laptops and smart phones). Furthermore, the concepts of global-village, globalization, information or knowledge society, pedagogy, students and courses – all are casting increasing pressures on the academicians, HEIs and governments to take digital opportunity initiatives (DOI) for digital-literacy of the masses to generate workforce for the government, ecommerce and e-Learning.

**Key words:** Digital /computer-literacy, educational technologies, paradigm, instrumental, objectivist, pedagogy, student, course, digital opportunity initiatives, higher education institutions.

**INTRODUCTION**

From a competency perspective, literacy is the lowest level in a progression that spans literacy, fluency and mastery. From an academic perspective, digital literacy is a part of the computing subject area, alongside computer science and information technology. Digital literacy is a new literacy, and may itself be decomposed into
several sub-illiteracies. One such decomposition considers digital literacy as embracing computer literacy, network literacy, information literacy and social media literacy. Previous conceptualizations of digital literacy focused on the practical skills associated with using computers (now considered computer literacy). These include hardware skills, such as connecting devices, and software skills, such as using application packages. Contemporary conceptualizations of digital literacy add to these traditional skills, and embrace knowledge, skills, attitudes and behaviors’, particularly with respect to networked devices (which include smart phones, tablets and personal computers). Digital literacy differs from computer literacy in a number of significant ways. While it embraces the practical skills that computer literacy incorporates, there is a much greater focus on sociological, political, cultural, economic and behavioral aspects of digital technologies. As a pedagogical approach in curriculum design, the implementation of digital literacy affords far-reaching advantages. The internet is both a source of information and communication that has increased exponentially internationally. Subsequently, integrating technology into the classroom in a meaningful way exposes students to a range of literacy practices called multi-illiteracies which broadens their outlook and widens vistas of information and knowledge which is highly constructive. This methodology embraces the constructivist theory of learning (Bruner, 1978) wherein learners draw from their existing knowledge in order to construct new learning.

CORE ELEMENTS AND THEIR EDUCATIONAL EFFECTS

Literacies can be grouped together in what is known as the Essential Elements of Digital Literacies which expounds the theory that having an understanding of these eight essential elements of digital literacies will enable an individual to be digitally literate. The development of these core skills correlated to the particular contexts in which an individual may develop their skills with a view to ensuring that they align with their needs. The eight elements are Cultural, Cognitive, Constructive, Communicative, Confidence, Creative, Critical and Civic. The value of each of these core elements is dependent on varying needs at different times.
1. Cultural - The cultural element of Digital Literacies requires technology use in different contexts and an awareness of the values and concepts specific to the varying contexts.

2. Cognitive - The cognitive component of Digital literacy’s aims to enable mastery of the use of technological tools, software and platforms. Gaining expertise in digital tools helps learners become more digitally literate.

3. Constructive - The constructive element requires re-using and remixing existing resources depending on the need; or adapting them into new resources. Through construction, a digitally literate user creates new data and shares their creations with others digitally.


5. Confidence - The confidence element of Digital Literacy means gaining competence with digital technologies and the ability to create an environment for practicing skills and self-learning.

6. Creative - Through the Creative element of Digital Literacy, digital learners create new data in digital environments based on personal interests. This element places emphasis on taking risks while developing searching skills and producing new things.

7. Critical - The critical component requires the digital learner to develop various perspectives. While actively taking part in digital environments, the user should take different circumstances into account.

8. Civic - The civic element is all about developing and acquiring the concepts of democracy and global citizenship through digital technologies. This component helps the participation of the individual in society. Part of digital literacy is the ability to form communities online. It is recognized that the implementation of these elements in an individual’s context will require constant updating and upgrading as digital information and tools change.
along with our understanding of them. From a pedagogical perspective, digital literacy seeks to include knowledge and understanding of the applications and implications of digital technologies, in contrast to the skills focus of computer literacy. Digital literacy is considered a key aspect of contemporary citizenship to enable individuals to fully participate in the digital economy and the democratic process, and knowledgeably engage with debates relating to the networked society, such as those relating to personal privacy. Digital literacy may be studied at a number of levels. While fundamental concepts and skills are normally covered in the lower levels of national qualification frameworks, more advanced treatments, dealing with more sophisticated concepts and skills such as critical thinking, are higher level competencies.

**DIGITAL AND MEDIA LITERACY**

The topic of digital and media literacy was addressed by the Knight Commission on the Information Needs of Communities in a Democracy, a blue ribbon panel of seventeen media, policy and community leaders, whose purpose was to assess the information needs of communities, and recommend measures to help Americans better meet those needs. Its report, *Informing Communities: Sustaining Democracy in the Digital Age* was the first major commission on media since the Hutchins Commission in the 1940s and the Kerner and Carnegie Commissions of the 1960s. In the digital age, technological, economic and behavioral changes are dramatically altering how Americans communicate. Information is more fragmented. Communications systems no longer run along the same lines as local governance. The gap in access to digital tools and skills is wide and troubling. This new era poses major challenges to the flow of news and information people depend on to manage their complex lives. In the context of this report, digital and media literacy is seen as a constellation of life skills that are necessary for full participation in our media-saturated, information-rich society. According to Renee Hobbs, author of the white paper, *Digital and Media Literacy: A Plan of Action*, these include the ability to do the following:
• Make responsible choices and access information by locating and sharing materials and comprehending information and ideas

• Analyze messages in a variety of forms by identifying the author, purpose and point of view, and evaluating the quality and credibility of the content

• Create content in a variety of forms, making use of language, images, sound, and new digital tools and technologies

• Reflect on one’s own conduct and communication behavior by applying social responsibility and ethical principles

• Take social action by working individually and collaboratively to share knowledge and solve problems in the family, workplace and community, and by participating as a member of a community

**DIGITAL LITERACY AND 21ST-CENTURY SKILLS**

Digital literacy requires sure skill sets that are interdisciplinary in nature. Warshauer and Matuchniak list information, media, and technology; learning and innovation skills; and life and career skills as the three skills set that persons require to master in arrange to be digitally literate, or the 21st-century skills. In order to attain information, media, and technology skills, one needs to achieve capability in in order literacy, media literacy and ICT (information communicative technologies). encompass within Learning and Innovation Skills, one have to also be able to be able to be work out their originality and innovation, critical thoughts and problem solving, and communication and collaboration skills. In order to be competent in Life and Career Skills, it is also essential to be able to exercise flexibility and adaptability, plan and self direction, social and cross-cultural skills, output and responsibility, leadership and responsibility. Aviram & Eshet- Alkalai contends that there are five types of literacies that are encompassed in the umbrella term that is digital literacy.

• Photo-visual literacy is the ability to read and deduce information from visuals.
• Reproduction literacy is the ability to use digital technology to create a new piece of work or combine existing pieces of work together to make it your own.

• Branching literacy is the ability to successfully navigate in the non-linear medium of digital space.

USE IN EDUCATION

Schools are continuously updating their curriculum for digital literacy to keep up with go faster technological growth. This frequently includes computers in the classroom, the use of educational software to educate curriculum, and course materials being made obtainable to students online. Some classrooms are intended to use smart boards and spectators answer systems. These techniques are the majority well-organized when the teacher is digitally literate as well. Teachers frequently teach digital literacy skill to students who use computers for research. Such skills contain verifying believable sources online and how-to cite web sites. Google and Wikipedia are used by students "for everyday life research.

DIGITAL NATIVES AND IMMIGRANTS

Digital immigrants, though they adapt to the similar technology as natives, have a kind of "accent" which restrict them from communicate the method natives do. In fact, studies show that, due to the brain's malleable nature, technology has distorted the way today's students read, recognize, and process in order. This means that today's educators may struggle to find effective teaching methods for digital natives. Digital immigrants might resist teaching digital literacy because they themselves weren't taught that way. Prensky believes this is a problem because today's students are "a population that speaks an completely new language than the people who educate them.

DIGITAL VISITORS AND RESIDENTS

In contrast to Marc Prensky, Dave White from the Department for ongoing Education at the University of Oxford has been publicizing his concept of digital visitors and residents.[20][21] for a short time, the idea is that visitors leave no online community trace where as
residents live a piece of their lives online. These are not two divide categories of people but quite a explanation of a continuum of behaviors’. It is likely that a lot of individuals show both visitor and residential behaviors’ in dissimilar contexts. Dave White has developed a mapping instrument which explores this concept.

DIGITAL WRITING

Digital writing is a new kind of composition life form trained more and more inside universities. Digital writing is a pedagogy listening carefully on technology's impact on writing environment; it is not just using a computer to write. Somewhat than the conventional print viewpoint, digital writing enable students to explore contemporary technologies and learn how dissimilar writing spaces have an effect on the sense, spectators, and readability of text. Educators in good turn of digital writing argue that it is essential because "technology basically change how writing is shaped, delivered, and received. The objective of teaching digital writing is that students will add to their aptitude to produce a pertinent, high-quality product, in its place of now a normal educational paper. One feature of digital writing is the use of hypertext. As opposite to printed text, hypertext invites readers to travel approximately information in a non-linear style. Hypertext consists of conventional text and hyperlinks that send readers to other texts. These links might pass on to connected conditions or concept (such is the case on Wikipedia), or they might enable readers to decide the order in which they read. The procedure of digital writing requires the creator to make unique "decisions concerning linking and oversight." These decisions "give rise to questions about the author's everyday jobs to the [text] and to impartiality.

USE IN SOCIETY

Digital literacy can also prevent people from believe hoaxes that are increase online or are the result of photo treatment. E-mail frauds and phishing frequently take benefit of the digitally illiterate, estimate victim’s money and creation them susceptible to individuality robbery. Research has established that the difference in the stage of digital literacy depend mostly on age and education stage, while the pressure of sex is decreasing (Hargittai, 2002; van Dijk, 2005; van
Dijk and van Deursen, 2009). In the middle of young people, in exacting, digital literacy is high in its ready measurement (e.g. rapidly move through hypertext, familiarity with different kinds of online resources) while the skills to seriously assess content found online demonstrate a shortage (Gui and Argentin, 2011).

Structure on digital literacy is the concept of digital originality which is the look of creative skills in the digital average. This can include programming, web sites and the age group and treatment of digital images.

SOCIAL NETWORKING

With the appearance of social networking, one who is digitally literate at the present has a main voice online. The stage of digital literacy wanted to voice a view online nowadays compare to the Internet previous to social networks is minute. Websites similar to face book and Twitter, as well as personal websites and blogs have enabled a new type of reporting that is subjective, personal, and "represent a global chat that is associated through its group of people of readers." These online community foster group interactivity in the middle of the digitally literate. Social networks also assist users set up a digital identity, or a "symbolic digital representation of individuality attribute. With no digital literacy or the assist of a significant person who is digitally literate, one cannot have a personal digital identity. This is personally allied to Web Literacy.

DIGITAL CITIZENSHIP

Digital citizenship has nine components:

- Digital access: full electronic contribution in society.
- Digital trade: electronic buying and selling of merchandise.
- Digital communication: electronic exchange of information.
- Digital literacy: procedure of teaching and learning about skill and the use of technology.
- Digital manners: electronic principles of behavior or method.
- Digital law: electronic accountability for actions and presentation.
GLOBAL IMPACT

Government officials about the world have emphasized the significance of digital literacy for their According to Hot Chalk, an online resource for educators: "Nations with central education systems, such as China, are most important the charge and implement digital literacy training program faster than anybody else. For person’s country, the news is good." a lot of rising nations are also focus on digital literacy education to fight internationally. Economically, socially and regionally marginalized people have benefit from the ECDL Foundation’s ECDL / ICDL programme through financial support and support from Corporate Social liability initiative, global growth agency financial support and non-governmental organizations (NGO’s).

USE IN THE WORKFORCE

As technology has turn out to be cheaper and more readily available, more blue-collar jobs have required digital literacy as well. Manufacturers and retailers, for example, are expected to collect and investigate data about output and market trend to stay spirited. Construction workers often use computers to add to employee security. Job recruiters frequently use employment Web sites to find possible employees, thus magnify the significance of digital literacy in secure a job.

REFERENCES