# DIGITAL LITERACY MEASURES THROUGH SOCIETY AND TECHNOLOGY

[1#]Jaya Krishna Medimpudi, [2#]Saksham Gupta, [3#]Shubhankar Gupta, [4] S.B.Nikam

[#]*Research Scholars, Department of Computer Engineering, BV(DU)COE,* Pune (India) *(AICTE, NBA, NAAC A+grade)*

[1]*Assisstant Professor,Department of Computer Engineerinng, BV(DU)COE,* Pune (India) *(AICTE, NBA, NAAC A+grade)*

*Abstract:* The era of digitalization brought internet as a boon in this living word with a few challenges. In respect of this, digital literacy in India hasn't reached to the optimum mark yet as compared to developed countries. In this paper we try to put focus on different aspects of digital literacy, efforts counted by government and other organizations and try to put forth the challenges and hurdles faced during cultivation of digital culture in all the layers of society. Digital skills needed to be imparted during the schooling age. However, there is poor agreement with what skills needed to be imparted is less often considered. There are a quite less and different proposals regarding media literacy, information literacy, security literacy, media literacy, digital education etc. Here we are providing an idea and suggestions which needs to be implemented to overcome the possible challenges.

*Keywords--digital literacy, media literacy, information literacy, digital education*

## I. INTRODUCTION

Internet is significant invention in human evolution process. The WWW has embossed human and societal life deeply with enrichment and challenges. Digital culture is propelling people to enumerate it in their circadian. Digital Literacy is ability to search, create, evaluate and communicate information through various forms of communication like writings, videos on various digital platforms. People have different understandings of digital literacy and believe that literature is littered with plethora of flashy, insubstantial, dubious, and faddish and often lacks theoretical foundation. They also feel that they are not capable to use current technology and it is too complex for them. Solution to this is make people aware of digital literacy, online training and digital literacy can help online learners differentiate between facts and fiction, online learners need to be aware of how to use online tools effectively which involves internet netiquettes, it also involves industries taking initiatives.

## II. CHALLENGES

*Connectivity*

Connectivity is not well established in many places. Every time to connect quicker and better is difficult. Until and unless we have immaculate connection proper digital literacy cannot be established.

*Affordability*

Each and every way of being better digitally literalized will be achieved through proper technologies, which are in a range of high cost. So, a proper funding is also required to follow things smoothly.

*Legal Issues*

These days IT act provide all legal challenges to be faced with.

*Restrictions*

Some banks have automated to their customers but still largely depend upon manual process.

*Accessibility*

Access to despite all the efforts by government, about 19 percent of the Indian population still doesn't have access to banks

*Security*

Use of public WIFI network in mobile devices allow cybercriminals to exploit an existing online banking session to steal funds and credentials.

*Planning, funding and delivery*

Arrangements that will ensure that critical social infrastructure remains best able to meet the challenges and needs of Indian communities.

*Interest*

Lack of interest in internet-based applications and sales systems among a large number.

*Barriers*

Many people face barriers to use mobile phones, including cost, network quality and coverage.

## III. INITIATIVES FROM GOVERNMENT

Recognizing the importance of information technology Government initiated National Digital Literacy Mission with the motive to empower at least one person per household with digital literacy skills by 2020. The project aims at helping adults with low knowledge of technology, hone the skills they need to interact in an increasingly digital world. It has also launched a program 'India Handloom', Short Scale Industries 'initiative on social media like Facebook, Twitter and Instagram with a view to connecting with customers, especially youth, in order to promote high quality handloom products. Also helpful in spreading of Optic Fiber Network that takes broadband internet to remote locations of the country increasing rate of internet penetration in India. Government has started many services to create awareness for digital literacy such as BHIM-digital payment app, Digi Locker, Aadhar card linking, KYC verification, etc.

## IV. INITIATIVES FROM INDUSTRIES

Industries are also taking initiatives to increase digital literacy rate like Microsoft have implemented Digital Literacy Standard Curriculum teaching basic ICT skills and concepts, Accenture has launched Digital Skills, a suite of online courses These free courses aim to provide young people education, employment or training in various fields Tata Consultancy Services have also indulged in computer-based programs for education of adults, in the form of Adult Literacy Program. Facebook recently take a step towards increasing digital literacy by launching "Digital Literacy Library" to help people build the skills they need to safely use online technology.

## V. BRIDGES TO GAP

With the incumbent government and private organizations so gung-ho about Digital India and various programs, they're paying key attention towards making government, private organizations websites and look more appealing. However, in this effort of making the websites attractive, they are losing out on ensuring ease of operate as well. It's better to keep websites simpler and closer to all type of people who must be able to access them without any sturdiness. Similarly, there are many instances which are there and making them to felly very similarly.

Some of the bridges are:

*Focus on Digital Literacy:*

Government and private organizations can create awareness and encourage them to do focus on digital literacy with the help of its employees either from government or private organizations.

*Encourage private IT organizations to set up Cyber Clubs:*

Encouraging various organizations to form clubs and make people know about digital literacy by organizing various workshops, seminars etc.

*More use of Mobile communication:*

More Use of mobile communication can help you in gaining knowledge about digital literacy and environment on which it's operated.

*Networking:*

Conduct more targeted local, state and national and international meetings on the web or offline with appointed officials answering and listening questions from various people or public.

*Partner for success:*

Getting partnered with more and more organization could help in expanding network and spread knowledge throughout.

## VI. Our Aims

We try to encompass digital literacy with respect to following aspects:

1. E-Banking
2. Online Government Services
3. Learning Management System
4. Digital Payments
5. Social Media
6. Industry & Skill Development
7. Internet & Small-Scale Business



Fig. 1. Aspects of Digital Literacy

To understand problem and challenges in the digital literacy. We decided to perform surveys based on questionnaire of above-mentioned aspects to get pulse polls and information from people why they are not adopting digital literacy, and find the areas where digital literacy is lacking. We suggest some methods and ameliorations based on statistics obtained from the survey.

## VII. Experiment Survey

We conducted an online as well as offline survey comprising of seven aspects as mentioned in Fig.1. In which we surveyed the people belonging to different age groups. The queries addressed from possessing a net banking, digital payment, its security, trustworthiness and their activeness on social media. We also analyzed their social media consciousness, the current learning management systems and their ability to use government services. The results were astounding. We discovered that our government has flunked in its mission of building a digital India. It is way behind its target. This needs to change if we want to thrive in this digital era and technology.

## VIII. Experimrnt Result

*Statistical Overview*

In the whole experiment we have surveyed total 500+ population among them around 230 offline and remaining are online. The survey statistics is reflected in Table.1.

| Questions | Agree | Disagree | Don't know |
|---|---|---|---|
| Net banking account | 172 | 54 | 0 |
| Regularly using net-banking | 119 | 104 | 4 |
| Net-banking security | 165 | 25 | 36 |
| Digital Payment Apps | 184 | 41 | 0 |
| Frequently use digital payment app | 162 | 61 | 3 |
| Are payment app trustworthy | 181 | 38 | 7 |
| Enrolled in online course | 144 | 81 | 0 |
| Online learning helpful | 193 | 6 | 22 |
| Account on social media | 210 | 11 | 0 |
| Regular user on social media | 178 | 43 | 4 |
| Aware of online Gov. service | 209 | 14 | 3 |
| Able to use gov. service | 187 | 31 | 4 |
| Internet helpful for small scale business | 213 | 8 | 5 |
| Uses any online service of small-scale business | 127 | 95 | 3 |

Table.1. Survey Results

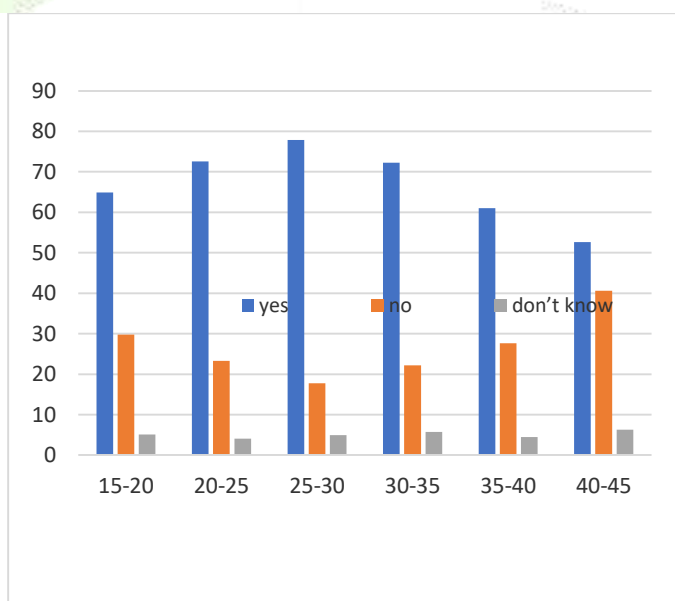*Responses for digital payment and E-banking*



Fig. 3. Use of digital transactions methods (in various age-group)
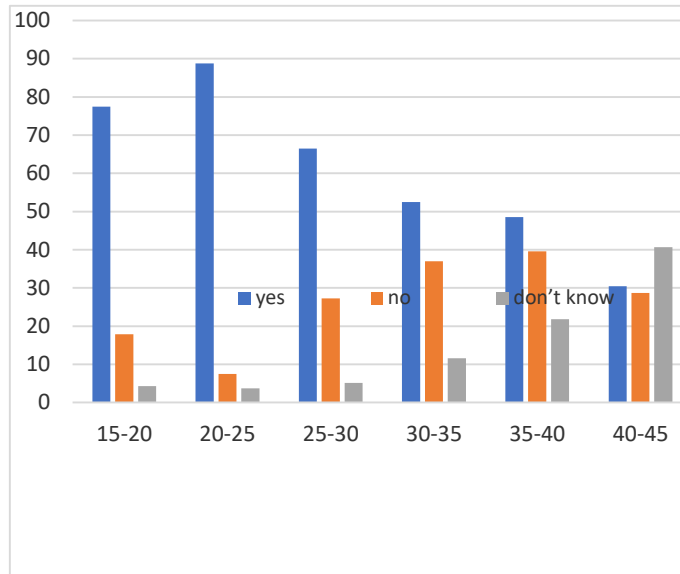
*Responses for Learning Management System*



Fig. 4. Use of Learning Management System (in various age-group)
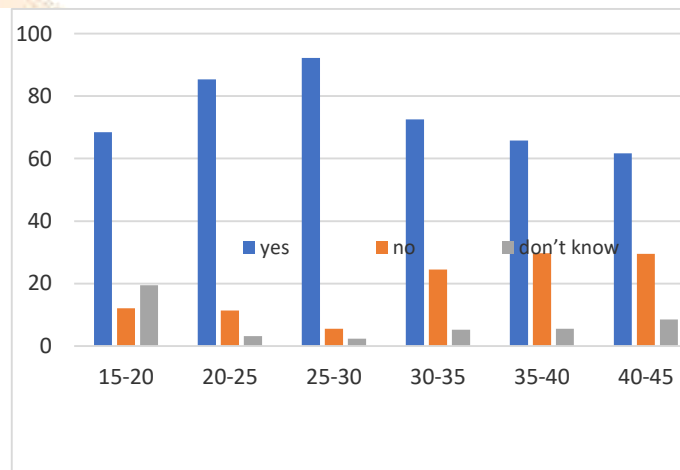
*Responses for Online Services*



Fig. 5. Online Services (in various age group)
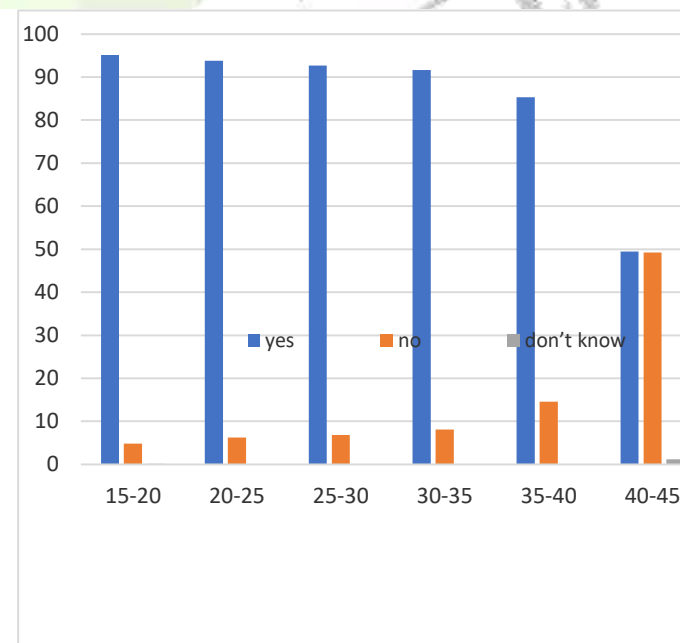
*Responses for Social Media*



Fig. 6. Social Media (in various age group)

## IX. CONCLUSION

As observed from the survey conducted of people from various age groups on use of digital transaction such as payment apps, E-banking is maximum in age groups of 20-25, 25-30 who are the digital natives but after demonetization this rate has also been increased in age group of 35 above. The use of Learning Management System either government or private is maximum in age groups of 15-20 and 20-25 that is the current youth and also in age group 25-30 which are the employees as in both the fields there is always a constant need to improve oneself however it not so popular in higher age groups. The use of online services such as government services billing, birth certificate, and online small businesses is maximum in age groups of 20-25, 25-30 who are regular users of internet in their daily life and look upon it for their everyday needs. The use of Social Media such as Facebook, Instagram, and Twitter are eminent in age group 10-15, 15-20, 20-25. It has become an unsaid rule to have a social-media account however security is still a concern for certain people.

## X. FUTURE WORK

In order to facilitate the use of digital payment methods in the younger groups, we need to change the attitude of the Indian customer by notifying them about technical terms in internet banking. For this purpose, we need to conduct awareness camps and educate them the etiquettes of cyber world. It not only proves to be beneficial but also propel our country towards a cashless economy.

A key reason to implement LMS is to support the efficient training administration. We need to encourage the use of online courses by organizing the content in a way which proves to be fruitful to the younger generations. They should be able to access a variety of courses from anywhere and switch as and when required. Talking from the scalability point of view, this needs to be taught and included in their daily curriculum.

A lack of digital access to the government services is one of the barriers for engagement of people living on low incomes. We need to accelerate the use of the mentioned services by organizing camps in rural areas and local districts so that the people could make maximum use of the benefits such as subsidy, loans and taxes. They need not go to distant offices in order to pay their utility bills or validate their licenses if we conduct camps for the same on a monthly basis.

## XI. REFERENCES

[1] Dietrich, Yvonne, et al. "Developing e-banking services for rural India: making use of socio-technical prototypes." Proceedings of the 39th International Conference on Software Engineering Companion. IEEE Press, 2017.

[2] Stein Mueller, W. Edward. "ICTs and the possibilities for leapfrogging by developing countries." International Labour Review 140.2 (2001): 193-210.

[3] Senthil Kumar, K., K. Iyyappan, and S. Subramanian. "Customer awareness on electronic banking in Thanjavur town—an empirical study." Management Issues in Emerging Economies (ICMIEE), Conference Proceedings of 2012 International Conference on. IEEE, 2012.

[4] Das, Ashish, and Pragya Das. "Digital Payments in India: The Road Ahead." IEEE Potentials 36.6 (2017): 14-19.

[5] Sumanjeet, Singh. "Emergence of payment systems in the age of electronic commerce: The state of art." (2009).

[6] Saxena, Ashutosh, Manik Lal Das, and Anurag Gupta. "MMPS: a versatile mobile-to-mobile payment system." Mobile Business, 2005. ICMB 2005. International Conference on. IEEE, 2005.

[7] International journal of science and research (ijsr) issn (online): 2319-7064 index Copernicus value (2015): 78.96 | impact factor (2015): 6.391 volume 5 issue 12, December 2016 www.ijsr.net licensed under creative commons attribution cc by study of e-banking scenario in India

[8] Ellis, Ryann K. "Learning Management Systems." Alexandria, VI: American Society for Training & Development (ASTD) (2009).

[9] Breivik, Patricia Senn. Student Learning in the Information Age. American Council on Education Series on Higher Education. Oryx Press, PO Box 33889, Phoenix, AZ 85067-3889, 1998.

[10] Fitzgerald, Mary Ann. The cognitive process of information evaluation: A collective case study. University of Georgia, 1998.

[11] Gervais Osvaldo, Canzoni Riccardo, Roman Elli Antonio, and Laguna Antonio, "Integrating Learning and Assessment

 [12] Zylka, Johannes, Wolfgang Müller, and Scheila Wesley Martins. "Media literacy worldwide. Similarities and differences of theoretical and practical approaches." Global Engineering Education Conference (EDUCON), 2011 IEEE. IEEE, 2011.

[13] Livingstone, Sonia, John Carr, and Jasmina Byrne. "One in Three: Internet Governance and Children's Rights." (2015).

[14] Choudhary, D. S. "Job enrichment: A Tool for employee motivation." International Journal of Applied Research 2.5 (2016): 1020-1024.

[15] Lawrence, Japhet Eke. The use of the internet in small to medium-sized enterprises. Diss. University of Salford, 2002.

[16] Venkatesh, Viswanath, Tracy Ann Sykes, and Srinivasan Venkatraman. "Understanding e-Government portal use in rural India: role of demographic and personality characteristics." Information Systems Journal 24.3 (2014): 249-269.