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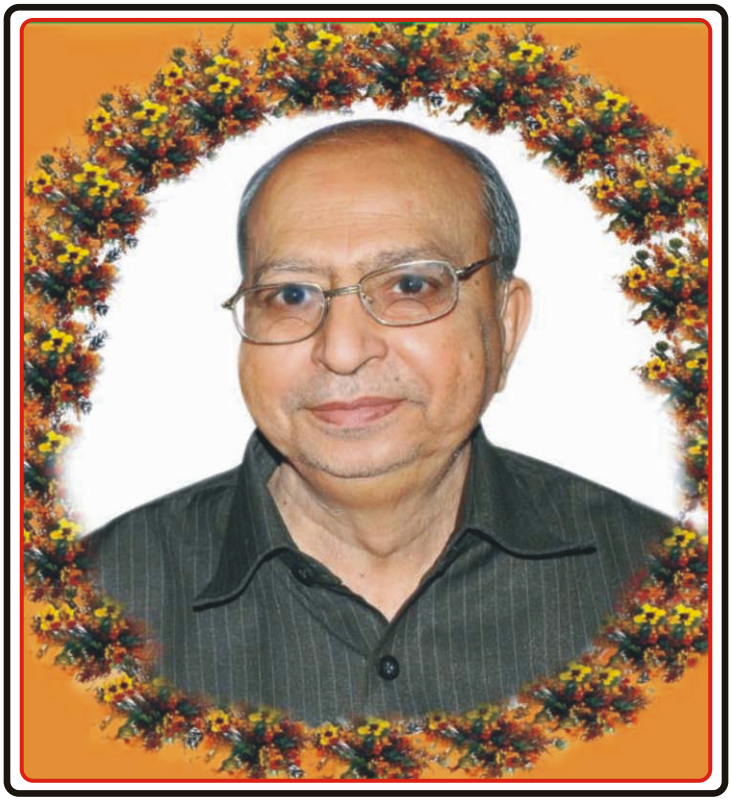
[UNDER THE AEGIS OF KAMAL EDUCATIONAL & WELFARE SOCIETY (KEWS)]



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Trinity Institute of Professional Studies
Sector-9, Dwarka Institutional Area,
Adj. to Metro Pillar No. 1160,
New Delhi-110075
Tel : 011-45636921/22/23/24

Trinity Institute
A-2, Shankar Garden, Main Najafgarh Road,
Vikas Puri, Opp. Metro Pillar No. 620,
New Delhi-110018
Tel : 011-41518722/23/24

Daisy Dales The Cosmic School
A - Block, Vikas Puri,
New Delhi-110018
Tel : 011-25511127, 45700526

Kamal Public Sr. Sec. School
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New Delhi-110018
Tel : 011-28537741, 011-28534507

Kamal Public School
Hastsal Road, Uttam Nagar,
New Delhi-110059
Tel : 011-25377434, 011-25352295

St. Peter's Convent
Block - C, Vikas Puri,
New Delhi - 110018
Tel : 011-2854935, 011-28544935

EDITOR'S PAGE

We are happy to launch the seventh issue of "Trinity Journal of Management, IT & Media **(TJMITM)"**. The present issue incorporates 20 research papers – 12 from management, 04 from IT & Computer Science and 04 from media. All these papers were presented at the 6th National Conference of Trinity Institutes held on 19 March 2016. With this issue, TJMITM is completing seven years of uninterrupted publication. During all these years, we have received unstinted support from our Editorial Board without which it would not have been possible for timely publication of the journal. We also received constructive feedback from the readers and contributors for improvement in quality. I express my sincere thanks to our Editorial Team members for their dedicated and involvement in printing the 7th issue of TJMITM.

Digital India is an initiative by the Government of India to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity. It was launched on July 1, 2015 by the Prime Minister Shri Narendra Modi. The initiative includes plans to connect rural areas with high speed internet networks. Digital India is a program to transform India into a digital empowered society and knowledge economy. The Digital India vision provides the intensified impetus for further momentum and progress for e-Governance and would promote inclusive growth that covers electronic services, products, devices, manufacturing and job opportunities. This will be achieved by preparing India for the knowledge based transformation and delivering good governance to citizens by synchronized and co-ordinated engagement with both Central Government and State Governments. The role of all the stakeholders ranging from academics to industry is essential for the success of Digital India campaign. Keeping this in mind, the 6th National Conference was arranged on the topic: **"Digital India: Recent Paradigm shift in IT, Media & Management"**. The conference was driven by the idea of providing a unique learning experience on the exchange of insights and practical knowledge, deliberating upon the paradigm shift in the fields of management, IT and media to make 'Digital India' a success. The Sixth National Conference got a remarkable response as it received 72 research papers from academicians, researchers, representatives of industries and students across Delhi, NCR and other states of India. The conference was attended by nearly 200 academicians, researchers and students. Out of 72 papers received, this issue carries only 20 papers. This is due to space constraint. The research papers which have not been included in this journal are very much worth for publication in other national and international journals.

This journal is an acclaimed platform for young academicians and researchers to inspire and motivate them for disseminating their research papers, research articles, literature reviews, case studies and book review, etc. This issue of TJMITM covers a regular mix of articles and research papers from Management, IT & Computer Science and Media. All the papers open us new dimension of research in the identified areas. My thanks to the authors who have presented the papers in the 6th National Conference and extended their cooperation in making the conference a grand success.

On behalf of the Editorial Team of TJMITM, I extend my sincere thanks to Dr. R.K. Tandon, Chairman, TIPS who has always been a guiding force, encouragement and prime inspiration to publish this journal. We are grateful to Ms. Reema Tandon, Vice Chairperson, TIPS for her continuous support to bring out the journal in a proper form.

I do hope that this issue of TJMITM will generate immense interest among researchers.

Prof. (Dr.) Vikas Rao Vadi
Editor-in-Chief &
Director, TIPS

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I, Dr. R.K. Tandon, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Dr. R. K. Tandon

(Signature of the Publisher)

Financial Inclusion (FI) Through Digitization- A Review

Dr. Bhuvaneshwari P. K.*
Dr. Sanjay Aswale**

ABSTRACT

Each and every five year plan, the priority for the nation has been its economic growth, education for all and financial inclusion for the vast population of the country. While India has made some noteworthy progress in the past six and half decades and more, but on the aspect of financial inclusion, progress has not been satisfactory. According to census 2011, out of 24.67 crore households in India, only about 14.48 crore (58.70 %) households had access to banking services. Further, of the 16.78 crore rural households, only about 9.14 crore (54.46 %) households were availing of banking services." "The World Bank Findex Survey (2012) points out that only about 35% of Indian adults had access to a formal bank account and a meager 8% borrowed formally in the last 12 months," The question now is do we can either continue with our traditional ways of ensuring financial inclusion or look at new methods and opportunities that is available to us because of technology? India has made rapid strides in technology and it is important to now look at financial inclusion through the prism of the digital economy. The government of India has taken initiative to digitize services that made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity.

REVIEW OF LITERATURE :

GOI (2008) - defines Financial inclusion as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost.

Chakraborty (2011) - Financial inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of society including vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream institutional players. This issue started gaining importance recently in the news media

Allen (2012) - Data for 123 countries show that greater ownership and use of accounts is associated with a better enabling environment for accessing financial services, such as lower account costs and greater proximity to financial intermediaries. The results suggest that digital payments that reduce the cost and increase the convenience of financial transactions may expand the pool of eligible account users and encourage existing account holders to use their accounts with greater frequency and for the purpose of saving Recipients of cash payments in rural areas often have to travel a considerable distance to designated locations such as a bank branch, money transfer operator (MTO), counter, or government office, which may only be available in a regional capital, in order to receive a remittance or government transfer or make a bill payment. This results in significant travel time and travel expenses, and is further costly in terms of income forgone while traveling and waiting to collect a payment.

Kunt and Klapper, (2012) - Only 22 percent of adults worldwide report having saved at a formal financial institution in the past 12 months, and 77 percent of adults living on less than $2 a day report not having an account at a formal financial institution

World Bank (2013) - The policy makers have been embracing financial inclusion as an important development priority. More than 50 national-level policy-making and regulatory bodies had publicly committed to financial inclusion strategies for their countries. And the World Bank Group in October 2013 postulated the global goal of universal access to basic transaction services as an important milestone toward full financial inclusion—a world where everyone has access and can use the financial services he or she needs to capture opportunities and reduce vulnerability.

Bill Gates (2015) - said in a couple of years India will lead the way in digital financial inclusion. Speaking at a panel discussion on Transforming India through digital financial inclusion, Gates, in association with NASSCOM, said they were helping the government implement its projects in sector. "The results will be magical once critical mass is achieved."

Thus India has immense untapped potential in the mobile internet penetration and digitisation space, for individuals as well as Small and Micro enterprises (SMEs). India ranked 131 out of 189 countries on broadband penetration in 2014 (UNESCO report) and on mobile broadband subscriptions per 100 capita, India stood at 155 in 2014. There is little doubt that low-income consumers, especially in areas with limited access are likely to benefit from more accessible and affordable financial services. Given that 85% of India's population has access to a mobile phone (their own or someone else's) and only 0.3% have used mobile money services [Financial Inclusion Insights, http://finclusion.org/country-pages/india-country-page/],

STATEMENT OF THE PROBLEM:

As we know that Prime Minister launched Digital India on 1 July 2015. The main objective of the program is to connect rural and remote people with high speed internet. For that purpose it includes three core components such as the creation of digital infrastructure, delivering services digitally, and financial inclusion. "The World Bank Findex Survey (2012) points out that only about 35% of Indian adults had access to a formal bank account and a meagre 8% borrowed formally in the last 12 months," The question now is do we can either continue with our traditional ways of ensuring financial inclusion or look at new methods and opportunities that is available to us because of technology? This paper highlighted on financial inclusion as one of the core components of the digitization. Financial inclusion means the delivery of financial services at reasonable cost to the poor and downtrodden section of the society.

OBJECTIVES OF THE PAPER :

On the basis of review of literature the issue given in the statement of the problem we have decided the followings objectives in this

**** Post Graduation teacher in CRPF; Delhi***
*****(Supervisor) Associate Professor, Head & Research Guide, Commerce & Management SCS College Omerga, Dist. Osmanabad (MAH)***

paper

1. To review the concept of Financial Inclusion
2. To find out the correlation between Financial inclusion and Digitalization
3. To examine the impact of digitalization on the achievement of financial inclusion policy.

RESEARCH METHODOLOGY:

a. Research Method : The Quantitative research method used in this paper. It involves describing in details specific situation using research tools like interviews, surveys, and Observations.

b. Sample Design : Sampling is a means of selecting a subset of units from a target population for the purpose of collecting information. This information is used to draw inference about the population as a whole. The sub set of units that are selected is called sample. There are various methods of sampling units. We have used Simple Random Sampling (SRS) Method for selection of the sample in this study. The Osmanabad district of Maharashtra state is selected purposively as a representative sample of district in Maharashtra. The district has 08 Tahasil. From each Tahasil 25 respondents were selected for the study. Thus total 200 respondents were selected for the study. The structured questionnaire prepared and distributed to the selected respondents. But out of 200 respondents only 160 were responded filled and returned to us.

c. Data Collection : The primary as well as secondary data is collected and analysed in this paper.

d. Statistical Technique : The data collected through survey and through published source as secondary data is tabulated and analysed by using simple statistical techniques like ratio, percentage growth Mean, Standard Deviation etc. The five point Linkert scale is used to reveal the Financial Inclusion through Digitization.

SECONDARY DATA ON FINACIAL INCLUSION :

Financial Inclusion (FI) is to provide access to a wide range of financial services to all its citizens. It is the delivery of financial services at affordable costs to vast sections of disadvantaged and low income groups. The RBI announced to submit applications for small finance banks and payment banks in 2014. This is arguably the first opportunity to some financial intermediaries to get involved in offering a complete range of financial services that a bank can offer. Another important development of microfinance institution (NBFC-MFI) able to start operating as a bank. The first opportunity to reach out to the poor with a full range of banking services.

The parameter of Banking business-Deposits and Credit penetration are analysed by collecting the secondary data through RBI and NABARD report is as under

1. Banking Penetration : At the turn of the century, the expansion of brick-and-mortar branches, despite several efforts, was limited. The low penetration of formal banking led the Reserve Bank to look at financial inclusion as a major policy drive. Number of branches being opened in rural and semi-urban areas. Notwithstanding this development, the number of branches per 100,000 of population in rural and semi-urban areas is still less than half of that in urban and metropolitan areas. The following table shows the branches of scheduled commercial banks opened during 2001 to 2015

Table-1 Bank Branch Penetration (Schedule Commercial Banks) During 2001 to 2015

Years	Total No. Branches		No. of Branch per 100000 people	
	Rural	Urban	Rural	Urban
2001	44,905	20,713	05	12
2005	45,673	23,904	05	12
2010	53,086	31,072	05	15
2015	82,794	43,910	08	19

Source – RBI Report 2014

The above table clearly indicates that the rate of branch per lakh people was 05 in 2001 which remain same up to 2010 in rural area but it increased to 08 per lakh people in 2015, whereas in urban area it also increased from 15 in 2010 to 19 in 2015.

It can be conclude that the branch penetration in India increased after 2010 when the policy of digitize adopted by the government

2. Deposit Penetration:

Table-2 Deposit Accounts (Schedule Commercial Banks) During 2001 to 2015

Years	Total Deposit A/c in Million		Total	Trend in %
	Rural	Urban		
2001	89	78	167	--
2005	189	139	338	102.39
2010	303	197	500	47.92
2015	704	367	1070	114.00

Source – RBI Report 2014

From the above table it is seen that 114 per cent of thee deposit accounts are increased in the year 2015. The number of account holders were 303 million in 2010 which became 704 i.e. 2.32 times in rural area.

It is sign of achievement of financial inclusion through digitization.

3. Credit Penetration : The commercial bank credit accounts penetration is given in the following table

Table-3 Credit Penetration (Schedule Commercial Banks) During 2001 to 2015

Years	Total Credit A/c in Million		Total In Million	Trend in %
	Rural	Urban		
2001	18	19	37	--
2005	44	30	74	50.00
2010	61	52	113	52.70
2015	92	55	147	30.08

The table depicts that the trend of credit penetration decreased during 2015 as compare to earlier period. It is observed from the table -2 that the trend of deposit penetration has increased during 2015 as compare to earlier period.

It can be concluded that the accounts are opened but not operated properly as the technology developed as digitization.

DATA ANALYSIS :

The primary data collected through survey of 160 respondents is tabulated and analysed as under---

The following table shows the personal attributes of respondents regarding their financial attributes of bank account holders.

Table-4 Analysis of Attributes of Respondents

Attributes	Year	No of Respondents	Percentage
Account Holders (New Account during the period)	Up to 2001	15	9.37
	2001-05	22	13.75
	2005-10	54	33.75
	2010-15	69	43.13
		160	**100**

Source –Primary Data

It is seen from the above table that percentage of respondents of account opened is increasing since 2005. Majority of the respondents opened their account during 2010-15 i. e. 43.15 per cent.

It can be concluded that there is positive impact of digitization policy for financial inclusion. Because majority of the respondents opined that they have opened their account for the benefit like DBT , GAS subsidy, Government scheme etc.

Table-5 Analysis of Attributes of Respondents

Attributes	Period	Up to 2001	2001-2005	2005-10	2010-15
Deposits	Nil	0	0	0	24
	Less than Rs. 25000	94	61	45	12
	Rs. 25001-50000	32	46	52	60
	Rs. 50001-100000	24	38	45	46
	Above Rs. 100001	10	15	28	28
		160	**160**	**160**	**160**

Source –Primary Data

It is observed from the table -5 that 24 respondents having zero balance in their account as they opened under No Frill A/c during 2010-15. But the amount of deposits between the range of 25001 to 50000 has increased during 2005 to 2015. As compare to earlier decade.

It can be concluded that the zero balance account holders having account but no balance. But the regular account holder from the beginning has deposited money in their account.

It can be concluded that there is lack of inclusion of poor and middle class people in the flow of earing.

Practices of Digitization :

The table 6 shows the use if digitization in financial services by respondents.

Table-6 Analysis of Practices of use of Digitization

Attributes	Digitization	No of Respondents	Percentage
Technology	Mobile	64	40.00
	Internet	40	25.00
	ATM	160	100.00
	DBT	32	20.00

Source –Primary Data

Majority of the respondents (100 per cent) having ATM card and they are using for cash withdraw and deposits. Whereas only 40 per cent of the respondents are using mobile and only 25 per cent using internet for banking business.

It is concluded that majority of the respondents are not using technology for the purpose of banking and financial services. So there is need to aware the people about the Digitization and financial inclusion especially in the rural area.

Effectiveness of Digitization on Financial Inclusion :

The survey instrument of attributes towards the use of Digitization as the independent variable the respondents were asked to rate five dependent variables like Penetration of Branches. Penetration of deposits, Penetration of Credit, and satisfaction of financial inclusion though digitization on five point Linkert scale from 1=Strongly Disagree to 5= Agree. The table -3 shows the analysis of the five point scale

Table-7 Analysis of Effectiveness of Online Advertisement

Attributes	Respondents					
	Strongly Disagree	Dis-agree	Neither Agee or disagree	Strongly agree	Agree	Total
Penetration of Branches	08	12	20	88	32	160
Penetration of Deposits	32	08	16	76	28	160
Penetration of Credit	24	06	14	72	24	160
Through Digitization	50	06	14	68	22	160
Satisfaction	16	12	18	84	30	160

Source –Primary Data

Mean and Standard Deviation value under ONE WAY ANNOVA

Table-7 Analysis of Effectiveness of Online Advertisement

	Strongly Disagree	Disagree	Neither Agree or Disagree	Strongly Agree	Agree
Mean	26	8.80	16.40	77.60	27.20
Standard Deviation	16.124	3.039	2.608	8.304	4.148

Source –Primary Data

The above table-3 shows that the mean value of the dependent variables for strongly agrees is 77.60 and for agree is 27.20 i.e. 104.80 is greater than the sample mean (80) at a significant level 0.05.

To Conclude :

Thus it is observed on the basis of data analysis that the rate of bank branches, account opening and credit penetration is increasing during the study period especially after the application of digitalization and financial inclusion policy. The number of account holders were 303 million in 2010 which became 704 i.e. 2.32 times in rural area. It is sign of achievement of financial inclusion through digitization. There is positive impact of digitization policy for financial inclusion. Because majority of the respondents opined that they have opened their account for the benefit like DBT, GAS subsidy, Government scheme etc. But it is also observed that the accounts are opened but not operated properly as the technology developed as digitization. It is concluded that majority of the respondents are not using technology for the purpose of banking and financial services. So there is need to aware the people about the Digitization and financial inclusion especially in the rural area.

Transforming HR : The Digital Way

Dr. Swaty Wadhwa *

Ms. Silky Madan **

ABSTRACT

Digital Technology is radically changing the way how business and governments operate in today's scenario. From how businesses and governments interact with customers, citizens and suppliers, to how they manage their employees; digitization has entered almost every aspect of our lives. The field of HR is also one of the areas where digital technology has found its way. Human resource management is now evolving into a more technology-based profession. Gone are the days when HR function shouldered the responsibility for managing people in their old traditional ways. Transformation of HR through digital technology has become call of the day. In the light of this rapidly changing scenario where digitization is evolving at a breakneck speed; HR departments that choose to ignore this transformation could face obsolescence. This research paper talks about the probable reasons why transformation in the field of HR is required and what will be its impact on the business performance. This is because many organizations may undertake this activity just for the sake of it. It is quite possible that a transformation will make a little impact on the organization. The paper also focuses on the benefits and hindrances of digital technology in the area HR and the future trends that can be seen in this field so that the companies can make the best advantage of this transformation.

***KEYWORDS** : Digitization, E-HR, Business Intelligence, HRIS, HR Transformation*

INTRODUCTION

The world has evolved drastically from a time when technological advancements used to mark the day to day operations of the companies to the time where the technology conditions the business models of the new age companies and at the same time influences the ways in which they relate to their clients and providers. In this scenario when all the areas of businesses are being progressively moving towards transforming through technological advancements; HRM can no longer be an exception to this evolution.

Digital technology has become a new game-changer which is radically impacting the manner in which employees and prospects connect and communicate with the organizations. The practice of HR has dramatically changed because nowadays almost all the companies are providing universal access to HR services by means of technology and web based applications.

Recent researches have also shown that; companies that successfully adopt sophisticated HR technology tools outperform those that do not. Digital HR requires that HR professionals must not only master traditional HR skills and roles but should also have the ability to apply their skill and knowledge through technology. HR professionals need to equip their operations, and themselves, to function in a rapidly changing global environment. HR transformation has to initiate at the root level to include core processes like recruitment, succession planning, performance management, training etc. so that HR can become a valuable business partner.

At the same time another aspect that needs to be taken into consideration is that why at all an organization needs to transform HR process and how is it going to positively affect the business of the organization. This is because HR transformation is just a means to better support the organization by addressing the business challenges and taking advantage of the opportunities. So organizations must focus on the real issues and the prospective areas where digitization can affect the bottom line of the company before implementing digital technology in the area of HR.

Conceptualization : Digital transformation is defined as the method in which organizations transform and create new business models and culture with digital technologies. It brings some changes in all aspects of human society. The main aim is to improve the performance of enterprises.

Transformation requires the acquisition of new skills and changes in work practices and organizational thinking." What differentiates a digital transformation, from that which we often think of as a more conventional transformation process, is the ability to respond or commit to continuous change.

Now-a-days, the use of digital advances like mobility, social media and smart embedded devices along with the use of traditional technologies such as ERP to change customer relationships, internal processes and value propositions are in demand. This digital mindset starts by thinking not only outside the box, but by looking at how other industries and other models can be applied to one's own space. We have to become innovative while applying the models thus taking best advantage of the digital world. For this, an attitude has to be developed and our mindset has to be changed accordingly. HR managers will need to balance out right brain and left brain which means they have to make a balance between the big thinkers and the doers.

All this will lead to organizational transformation which helps to develop new experiences and outcomes. Digital technologies provide rich data sets which help to improve the relationships, business process and other operations in the organization for outstanding experiences and outcomes.

Objectives of research:

- To discuss the importance of digitization in the field of HR.
- To identify how digital technology is of help to the organizations.
- To find the possible challenges in the implementation of digital HR.

** Associate Professor, Jagan Institute of Management Studies*

*** Assistant Professor; Jagan Institute of Management Studies*

- To find out the possible tools and future trends in the field of digital HR.

Impact of Digital Technology on HR :

When we talk of the impact of technology on HR, it is showing a considerable improvement. By adopting new technologies, workforce planning can be improved, bringing an effective HR department having the proper tools to support the business. Since Technology is changing very fast, those tools become a necessity.

In HR, this transformation is related to people management. Employees work virtually with the help of Mobility and cloud computing giving their best regardless of physical location which helps in effective and efficient decision-making. Video conferencing tools help the employees to work in a better way both with their colleagues as well as suppliers and customers thus leading to a drastic change in the way people work, helping employees to advance in their careers.

HR's role has been changing fast. It has now become a strategic business function, who can effectively handle talent management, especially through the strategic use of technology earning profits for their organizations.

No doubt, it is not only the HR department's job to define the vision, but it can help to translate the process into values and disseminate it throughout the organization leading towards cultural and behavioural change.

Thus involvement of HR is very important because it helps the people to acquire new skills, changes their work practices and improve their mindset thus creating a cultural shift.

Digital transformation in HR : Its Benefits

It is the most important requirement in today's scenario. HR needs to become a technology-based profession which can help organizations to:

- Improve HR processes and reduce administrative workload.
- Reduce HR related costs.
- Compete more effectively for global talent.
- Efficient management of data for employees and managers.
- Provide real-time data to allow decision-makers to manage the workforce in a better way.
- Enable HR to transform so it can play a more strategic role in the business.
- Providing improved services to challenge the competitors.
- To manage the workforce more effectively.
- Cloud computing and Mobility helps employees to work virtually and getting advantage of the appropriate skills without any constraint of physical location.
- It is said that the companies which tends to have an innovative mindset would grow more and this mindset is a gift from the new technology.

Challenges in the way of Digital HR

Digital transformation in the field of HR poses a few fundamental challenges with respect to its adoption and implementation. Some of them have been listed below :

- There is an essential need to align any investment in digital HR with the strategy of the company's business.
- The design of digital HR should take account of the needs of a variety of workforce, their access to, and familiarity with the technology.
- It is required to modify digital HR tools wherever possible within reasonable costs.
- Employees are definitely going to resist any change which is likely to be brought about by transformation of HR in the organization because they are likely to be uncertain, unless their requirements are acknowledged at an early stage.
- Employees and managers may get weighed down by information overload due to volume of communication as they may perceive it to be more pushing than in the past.
- Senior management in the organization is not willing to put in great efforts for digitizing HR as they don't considerate to be a profit driver.
- There is no best way to measure actual improvement in organizational performance as a result of digitizing HR function. So the management is not really pushing for it.
- Encouraging employees to fully use the technology based HR system for their data needs is also a great challenge.
- A huge amount of organizational support in the form of online help resources is required to make digital HR a success.
- Global corporations need to create a balance between the various laws and policies across boundaries so that issues related to data movement and data privacy can be kept in mind.

Future trends in digital HR : Although HR is making use of technology in many of its activities, still there is a tremendous scope for further developments in this area.

Following are few of the future trends that can have potential impact on HR :

1. Use of social networking data to support HR activities. No doubt HR is taking benefits from the digital technology but still the use of social networking sites is not harvested completely. Potential benefits can be reaped by using social networking data to support recruitment, selection, communication, knowledge sharing, etc.

2. Cloud Computing. It means the delivery of computing and storage capacity as a service. The organizations which are not financially strong can also avail the benefits of this technology especially in the area of HR to make the HR activities more cost effective.

3. Use of Software as a service (SaaS). It is on demand software in which software and data are centrally hosted on cloud. Thus, HR can take its advantage as it can be delivered online as an internet service.

4. Mobile digital platform. Mobile computing is a beneficial strategic technology that can improve information accessibility thus making the efficient use of operations. This means that an organization can provide different app based services so that employees can be integrated with the organization.

5. Use of business intelligence applications. The use of interactive dashboards provides real time performance information in a form usable for managers to enhance management control and decision making.

Conclusion

The use of digital technology has dramatically improved the way HR services are delivered and managed by the organizations. Even though technology has made significant changes and improvements in all the aspects of business but, its impact on HR is remarkable. It has improved people management to a great extent. Now, the employees are more updated, efficient and effective and are able to contribute significantly to the bottom-line of their companies. The various hurdles that come across the path of digital transformation can be overcome by the wholehearted support of top management and employee commitment.

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MOBILE COMMERCE ADOPTION : LITERATURE REVIEW OF FACTORS AFFECTING IT

Khushbu Madan*

Dr. Rajan Yadav**

Abstract

With the emergence of high-end mobile devices and advanced internet technologies (such as 3G and 4G) mobile commerce market has become an attractive and profitable arena for businesses and marketers. The latest buzz in the industry is the transition from wired to wireless networks, i.e. from electronic commerce to mobile commerce or m-commerce. However, mobile commerce is still in its initial stages in terms of its adoption by the end users. The purpose of this study is to identify important factors having significant role in determining mobile commerce adoption intention by consumers and to propose a model utilising the identified factors. For this, a thorough review of literature available on mobile as well as adoption of similar technologies was done. An in-depth study of factors influencing consumers' decision about mobile commerce can provide useful insights to the concerned marketers for developing suitable marketing strategies.

Key words : *Mobile commerce, Adoption, Marketing strategies*

Introduction :

Recent emergence of internet and information technology as a powerful means of conducting business transaction has lead to a spurt in opportunities in the area of electronic as well as mobile commerce. The latest buzz in the industry is the transition from wired to wireless networks, i.e. from electronic commerce to mobile commerce or m-commerce. (Bushell, 2001) Increasing popularity of high –end mobile devices along with rapid evolution in the wireless networking technology, such as introduction of 3G and 4G systems, further supports the prospects of mobile commerce as an alternative and successful business model.

Popularity of mobile devices such as smart phones, tablets, PDAs can be attributed to the limiting features of Personal Computers. The two major limiting factors of PC's can be listed as; firstly requirement for users to sit in front of them and secondly, to load software, dial into and connect with a network service provider, before they can access any Internet application. In contrast to these features, mobile devices does not require any software downloads or boot time, they can simply be used by downloading an application once and giving users a quick access to these applications as soon as they turn their devices on. (Senn, 2000)

With the emergence of mobile commerce as an alternative business model, many questions are also being raised, as to, what does the consumers want? Would they adopt it? What are the factors influencing consumers' decision to adopt mobile commerce? Will it be a success? The various value chain partners involved in mobile commerce are customers, service providers, network operators, technology vendors, application developers and content providers. The success or failure of mobile commerce industry depends on the efficiency and performance of all these partners. A consumer being the most important element of the mobile commerce eco-system plays a significant role in its success or failure. The study of factors inducing consumers to adopt mobile commerce as well as factors impeding its adoption by consumers can provide useful insights to other partners in the value chain in creating and developing more suitable technologies or applications by incorporating the effect of such factors. The benefits of mobile commerce technology for the end consumers such as enhanced utility, ease of use, increased variety of services, social acceptance, and enjoyment along with higher value, are the factors that induce consumers to adopt mobile commerce services. On the other hand, challenges that are faced by consumers in a mobile commerce transaction, such as, security challenges, trust issues, lack of supporting physical and technological conditions, may impede its adoption.

Global Evolution & Current trends

The term "m-commerce" was used for the first time in 1997 by Kevin Duffey. According to him, mobile commerce is "the delivery of electronic commerce capabilities directly into the consumer's hand, anywhere, via wireless technology"

The first mobile commerce transaction was hosted in 1997, in Helsinki (a city in Finland) where in, mobile phones were used to operate a Coca Cola vending machine. (Sahota, 2011) The first phone based banking services were launched by Merita Bank in 1997, enabling payments via text messages. (Wiebke, 2012) One year later in 1998, the first digital content was introduced in Finland, in the form of ringing tones that could be downloaded to mobile phones via SMS service. (Wiebke, 2012)

Further in 2001, SMART Money was introduced by SMART in partnership with Banco de Oro. The service enabled customers to send and receive money domestically as well as internationally using a mobile, and pay for goods using a card. Later, Globe Telecom launched GCASH in 2004, another SMS-based service, which offered a similar variety of functionality over SMS. (Leishman, 2009)

Later on SMS service grew as a major platform for conducting mobile commerce transactions, not only as a payment mechanism for vending machines but also for time sensitive purchases such as purchase and sale of shares, transfer of funds, payment for last minute gifts such as flowers and chocolates. With the introduction of latest wireless technologies such as 3G and 4G as well as high end smart phones at affordable prices, mobile transactions have reached to an altogether different level.

Mobile commerce in India

Rapid evolution and spread of mobile infrastructure along with availability of smart phones and mobile internet connectivity at

** PhD Scholar, Delhi School of Management, Delhi Technological University*

*** Associate Professor in Marketing & Supply Chain Management, Delhi School of Management, Delhi Technological University*

affordable rates, has lead to a revolution in the mobile commerce market of India. India, having only 10% smart phone penetration as of now, is expected to have 45% smart phone penetration by 2020 (IndianExpress, 2014). India has observed fastest registered growth of 27% in smart phones market in the last quarter of 2014 (Mahajan, 2014). In 2014, 41 percent of the total online purchases made by Indians were done over mobile phones (Arakali, 2015). Moreover, the experts expect this rate to rise to 70% in the coming years (Economic times, 2014). According to a new report by Counterpoint, India is the second largest market for smart-phones in the world in terms of active users crossing over 220 million, leaving USA behind (Indian Express, 2016). With the tremendous growth observed in smart phone penetration rate as well as in the online transactions made over mobile phones, yearly m-commerce sales are forecasted to increase fourfold billion in the next few years (Muthukumar and Muthu, 2015). Looking at these prospects of smart phones' market in India, e-commerce giants, such as Flipkart, Myntra, Snapdeal and the like, have already launched their mobile phone applications. Myntra removed its mobile site as well as web site in May, 2015 in order to operate on a "mobile only" business model using its mobile app. However, in December, 2015 it relaunched its mobile site for browsing only function, keeping the transactional function exclusive to the mobile app (Indian Express, 2015). Companies such as Flipkart and Snapdeal have shut down their mobile sites, making consumers to download their mobile apps in order to browse or transact via smart phones. However, India's mobile commerce market is still in its early innings. The problem lies at the consumers' end with respect to their intention to adopt mobile commerce. It is expected that with the deep understanding of reasons as to why consumers make purchases over mobile devices and what restricts them from adopting mobile commerce, mobile commerce opportunities will continue to multiply.

Mobile Commerce Services

Mobile commerce includes a variety of services that can be delivered via mobile devices over wireless networks. It includes services such as, Mobile trade service (selling/buying, stock quotes), Credit card information (checking account balance), Mobile banking service (money transfer, check account information), Airline (online reservation, mileage account check), Life insurance account information (money transfer, account information),Travel (online reservation, timetables), Sales (online CDs, books), Entertainment (music, games), News/information (sports, weather, business, technology, horse racing information, regional), Concert ticket reservation (online or telephone booking), Location based application (area information and guides), Database, application (dictionary, yellow pages, restaurant guide). (Antovski and Gusev, 2008) Mobile value added services (VAS) such as radio, caller tunes, web browsing, mobile applications, social media, etc. are also included in mobile commerce services other than the actual purchase and sale conducted using mobiles. (Thakur and Srivastava, 2013)

These services can further be categorised into four main head: (1) Transaction Services (Banking, Trading, Ticket Reservations, Credit Card Info, Etc.) (2) Information (News, weather, sports, Stock Quotes, City Information, Etc.) (3) Database Services (Telephone Directory, Restaurant Guide, Dictionary, Etc.) and (4) Entertainment (Games, Screen Downloads, Music, Karaoke Info, Etc.) (Sadeh, 2003)

Another view categorises mobile commerce services into four major categories again with a slight difference in the category heads. (Islam et.al, 2011), these four categories are: firstly entertainment services (games, music, video, graphic), secondly communication services (messaging, e-mail, video conferencing and chat rooms), thirdly transaction services (shopping, banking, auctions, booking and reservations, mobile wallet, , betting, and competition/contests), and fourthly information services (news, maps, directory service, traffic and weather, city guide, market data, mobile advertising and corporate information).

Literature Review:

Over the period numerous researchers have done work in the area of new technology adoption and have succeeded in developing models explaining technology adoption by consumers. Few of the most accepted and commonly cited models are:

Review of Technology Adoption Models

Theory of Reasoned Actions (TRA) (Fishbein and Ajzen, 1975)

TRA was developed in the field of social psychology. Later on it was accepted widely in the area of consumer behaviour for predicting behavioural intentions of consumers to adopt any new product or service. It defines the relationship between beliefs, attitudes, norms, intentions and behaviour of individuals. This model states that a person's actual behaviour is determined by his behavioural intention to perform it. And behavioural intention is further determined by a person's attitude towards that behaviour as well as by subjective norms a person has to comply with.

Technology Adoption Model (TAM) (Davis, 1989)

TAM was developed to identify and study determinants to computer usage. This theory hypothesised two variables i.e. perceived usefulness (PU) and perceived ease of use (PEOU) to be major factors determining computer usage. Further this model validated that PU had a greater impact on usage behaviour than PEOU and PEOU may actually have an indirect impact as a causal antecedent to perceived usefulness instead of directly determining computer usage.

TAM 2(Venkatesh and Davis, 2000)

The original model was extended by Venkatesh and Davis in 2000 by excluding attitude (ATT) and adding two additional variables: Social Influence (SI) and Cognitive Instrumental Processes to understand the adoption intention of a new IT/IS. The original TAM was able to explain a substantial proportion i.e. almost 40% of the variance in usage intentions and behaviour. However, it was felt that by extending TAM to include additional key determinants of perceived usefulness and usage intention, the explanatory power of the model could be increased. As a result TAM2 was able to explain almost 60% variance in usage intention. It explains perceived usefulness and usage intentions in terms of social influence and cognitive instrumental processes. This model further validated that both social influence (determined by subjective norm, voluntariness, and image) and cognitive instrumental processes (determined by job relevance, output quality, result demonstrability, and perceived ease of use) have a significant influence on user acceptance.

2.1.4. Theory of planned Behaviour (TPB) (Ajzen, 1991)

The Theory of Reasoned Actions was further revised and extended in 1991 by Ajzen to include one additional and major predictor i.e. perceived behavioural control to the original model. The revised model was referred to as Theory of Planned Behaviour. This new predictor was added to the model on account for situations where the individuals have the intention to perform behaviour but its performance is restricted or thwarted due to lack of control over behaviour or confidence.

Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al, 2003)

UTAUT theory was developed by Venkatesh, Morris and Davis in 2003 by empirically comparing eight models already existing in the literature of technology adoption and formulating a unified model integrating different elements adopted from these eight models. This theory compares earlier models such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behaviour (TPB), combined TAM and TPB, Model of PC Utilisation (MPCU), and Social Cognitive Theory (SCT) to identify and test four broad variables: Performance Expectancy, Social Influence, Facilitating Conditions and Effort Expectancy as major factors determining behavioural intention to adopt IT/IS.

UTAUT 2(Venkatesh et.al, 2012)

To improve the robustness and variance explanatory power of original UTAUT, Vanketash, Thong and Xu's (2012) extended it as UTAUT2 by incorporating three additional constructs into the original model: hedonic motivation, price value, and habit. The extended model included seven constructs such as, Facilitating Conditions (FC), Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Price Value (PV) Hedonic Motivation (HM) and Habit (H) and was able to improve the variance explained in behavioural intention to 74% as compared to variance explained by original model which was 54%.

Considering these models as well as studies undertaken by previous researchers as the basis for this research, major variables or factors influencing mobile commerce adoption behaviour of consumers have been identified.

Factors influencing mobile commerce adoption Intention (Independent Variables)

Perceived usefulness (PU)

The extent to which a consumer believes that integrating mobile commerce services into their daily lives will be useful for them in performing tasks more efficiently, will have an influence on consumers to adopt it. PU is an important construct in the Technology Adoption Model (Davis, 1989). It defined PU as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989). TAM2 (Venkatesh and Davis, 2000) as well as, TAM3 (Venkatesh and Bala, 2008), also consider this factor. It was also included by the Unified Theory of Acceptance and Use of Technology (UTAUT) model as well as the extended UTAUT 2 (Venkatesh et.al, 2012) as Performance Expectancy (PE) (Venkatesh et.al, 2003). Other than these models, various researchers have also considered the role of this factor in determining consumer's adoption intention for mobile commerce, (Bax and McGill, 2003; Chong et.al, 2012).

Perceived ease of use (PEOU)

Since 1989 till today, numerous researchers have considered PEOU as another important factor inducing mobile commerce adoption by consumers in different countries (Kleijnen et.al, 2004; Chong et.al, 2012). PEOU refers to the extent to which a new technology or system is useful and easy enough for consumers to adopt. It is one of the two constructs given in classical TAM (Davis, 1989), it defined PEOU as "the degree to which a person believes that using a particular system would be free of effort". This variable is also included in TAM2 model, an extension of TAM (Venkatesh and Davis, 2000) as well as TAM3 (Venkatesh and Bala, 2008). The UTAUT model (Venkatesh et.al, 2003) along with UTAUT 2 (Venkatesh et.al, 2012) also considers Effort Expectancy (EE) similar to PEOU as an important factor determining technology adoption intention. Moreover, many researchers observed PEOU to have a significant influence on PU as well (Venkatesh and Davis, 2000).

Perceived Enjoyment (PE)

The degree of enjoyment offered by mobile commerce is another additional benefit which might motivate consumers to adopt it. This factor is considered to be an important determinant of PEOU in TAM 3. It defined Perceived Enjoyment as the extent to which "the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Venkatesh, 2000). It was also considered as a major factor influencing BI in UTAUT 2 in the name of Hedonic Motivation instead of Perceived Enjoyment. UTAUT 2 defined Hedonic Motivation "as the fun or pleasure derived from using a technology". Other then these models, many researchers have also given significance to this factor in determining adoption intention of technologies similar to mobile commerce. (Zhang et.al, 2012; Chong, 2013).

Social Influence/ Image (SI/I)

The degree to which consumers believe that adopting mobile commerce services will be helpful in enhancing their image and social acceptance amongst their peer, friends, family and social networking communities will have an effect on consumers, inducing them to adopt mobile commerce. Existing models explaining usage intention of similar technologies such as Theory of Reasoned Actions (TRA) (Fishbein and Ajzen, 1975), TAM2 (Venkatesh and Davis, 2000), TAM3, Theory of planned Behaviour (TPB) (Ajzen, 1991), UTAUT model (Venkatesh et.al., 2003), and UTAUT 2 (Venkatesh et.al, 2012) have included this factor as Social Influence, an important construct of the model. Social influence is defined as the degree to which an individual perceives how important others believe that he or she should use the new system (Venkatesh et al., 2003). It relates to the extent to which decision to use a product or service is influenced by the opinions of family, relatives, or friends (Riquelme and Rios, 2010). This construct has been widely considered by various researchers to determine usage intention of similar technologies related to internet, e-commerce, mobile banking and the like (Kleijnen et al., 2004; Venkatesh et al., 2012). Other researchers have also considered SI to be an important factor in explaining mobile commerce adoption (Harris et.al, 2005; Chong et.al, 2012).

Perceived Risk (PR)

The biggest challenge for mobile service providers in inducing consumers to adopt mobile commerce is to lower the degree of security and privacy risk perceived by them while making transaction using a mobile device over a mobile network. This risk includes any financial, social, physical, psychological, time and product associated risks that consumers undertake while making online mobile transactions (Wu and Wang, 2005). Important personal information is usually stored on users' mobile phones, and therefore security and privacy risks involved in mobile commerce transactions can be quite high (Chong, 2013). Mobile commerce involves undertaking financial transaction over mobile devices, which is perceived to be risky by the users. Numerous researchers have considered this factor to have a significant influence on mobile commerce adoption intention (Kleijnen et.al, 2004; Islam et.al., 2011; Zhang et.al., 2012; Thakur and Srivastava, 2012; Chong et.al., 2012).

Facilitating Conditions (FC)

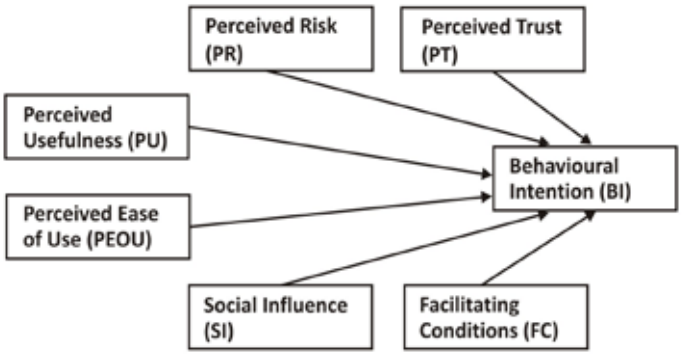
Facilitating conditions includes all the resources and physical environment required for effective adoption and usage of any product, service or technology. Lack of required resources and environmental conditions might have a negative influence on consumers' decision to adopt mobile commerce. FC refers to the degree to which an individual believes that a technical infrastructure exists to support the use of the technology (Venkatesh et.al, 2003). Technology adoption models such as TAM3, UTAUT and UTAUT 2 have also considered FC to be significant in determining adoption intention of similar technologies. It has also been considered by many earlier researchers to be a major factor influencing adoption of technologies such as internet, mobile commerce, mobile banking and the like, in a significant way (Yang, 2010; Amoroso and Magnier-Watanabe, 2012; Chong, 2013).

Proposed Dependent Variable

Behavioural Intention (BI)

A behavioural intention refers to the measure or degree of the intensity of an individual's intention of performing a specific behaviour (Fishbein and Ajzen, 1975). Various factors such as Performance Expectancy, Effort Expectancy, Social Influence, Perceived Value, Perceived Trust and the like have been considered to influence Behavioural intentions towards technology adoption which further determines the actual adoption or use of that technology (Chong et.al, 2012; Zhang et.al, 2012; Chong 2013; Hanafizadeh et. al, 2014). In this study, BI is taken as a dependent variable which further determines mobile commerce adoption.

Proposed Research Model :



Future Scope and Implications of the Study :

The conceptual model proposed in this study can be used as a basis for further empirical studies. Primary data can be collected on the identified variables with the help of a well developed questionnaire consisting of items to measure the proposed variables. In order to have concrete findings, suitable statistical techniques such as Structural Equation Modelling (SEM) or Neural Networking can be applied to statistically test the proposed model. The findings of this study will provide useful insights to all the concerned stake holders in the mobile commerce industry. Appropriate applications and services can be developed keeping in mind the identified consumer centric factors and their influence on the adoption intention of mobile commerce.

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VIRAL MARKETING : NEED OF THE HOUR

Ms. Anshika Singh *

Abstract

Marketers have been using electronic tools for many years, but the Internet and other new technologies created a flood of interesting and innovative ways to provide and enhance customer value. Not only did this challenge the fundamental basics of traditional marketing, but it also helped to shape the practice of modern marketing The advancement of technology has not only created new ways for marketers to spread information, but also enabled consumers to spread information on-line or through other digital mediums that challenge traditional marketing practices. Since viral marketing is still a new and unexplored concept for most of the markets, it is the purpose of this article to determine if it is not just another buzzword. To establish if marketers can practice viral marketing, the concept of viral marketing is clarified before addressing more specific issues related to it. We present an analysis of a person-to-person recommendation network, on a lot of products. We observe the propagation of recommendations and the cascade sizes, which we explain by a simple stochastic model. We analyze how user behavior varies within user communities defined by a recommendation network. Product purchases follow a 'long tail' where a significant share of purchases belongs to rarely sold items. We establish how the recommendation network grows over time and how effective it is from the viewpoint of the sender and receiver of the recommendations. While on average recommendations are not very effective at inducing purchases and do not spread very far, we present a model that successfully identifies communities, product and pricing categories for which viral marketing seems to be very effective.

Key words :

Introduction

With consumers showing increasing resistance to traditional forms of advertising such as TV or newspaper ads, marketers have turned to alternate strategies, including viral marketing. Viral marketing exploits existing social networks by encouraging customers to share product information with their friends. Previously, a few in depth studies have shown that social networks affect the adoption of individual innovations and products . But until recently it has been diffi- cult to measure how influential person-to-person recommendations actually are over a wide range of products. Moreover, Subramani and Rajagopalan [SR03] noted that "there needs to be a greater understanding of the contexts in which viral marketing strategy works and the characteristics of products and services for which it is most effective. This is particularly important because the inappropriate use of viral marketing can be counterproductive by creating unfavorable attitudes towards products. What is missing is an analysis of viral marketing that highlights systematic patterns in the nature of knowledge-sharing and persuasion by influencers and responses by recipients in online social networks." Here we were able to in detail study the above mentioned problem. We were able to directly measure and model the effectiveness of recommendations by studying one online retailer's incentivised viral marketing program. The website gave discounts to customers recommending any of its products to others, and then tracked the resulting purchases and additional recommendations. Although word of mouth can be a powerful factor influencing purchasing decisions, it can be tricky for advertisers to tap into. Some services used by individuals to communicate are natural candidates for viral marketing, because the product can be observed or advertised as part of the communication. Email services such as Hotmail and Yahoo had very fast adoption curves because every email sent through them contained an advertisement for the service and because they were free.

In our study we are able to directly observe the effectiveness of person to person word of mouth advertising for hundreds of thousands of products for the first time. We find that most recommendation chains do not grow very large, often terminating with the initial purchase of a product. However, occasionally a product will propagate through a very active recommendation network. We propose a simple stochastic model that seems to explain the propagation of recommendations. Moreover, the characteristics of recommendation networks influence the purchase patterns of their members. For example, individuals' likelihood of purchasing a product initially increases as they receive additional recommendations for it, but a saturation point is quickly reached. Interestingly, as more recommendations are sent between the same two individuals, the likelihood that they will be heeded decreases. We find that communities (automatically found by graph theoretic community finding algorithm) were usually centered around a product group, such as books, music, or DVDs, but almost all of them shared recommendations for all types of products. We also find patterns of homophily, the tendency of like to associate with like, with communities of customers recommending types of products reflecting their common interests. We propose models to identify products for which viral marketing is effective: We find that the category and price of product plays a role, with recommendations of expensive products of interest to small, well connected communities resulting in a purchase more often. We also observe patterns in the timing of recommendations and purchases corresponding to times of day when people are likely to be shopping online or reading email.

Review of Literature

Viral marketing can be thought of as a diffusion of information about the product and its adoption over the network. Primarily in social sciences there is a long history of the research on the influence of social networks on innovation and product diffusion. However, such studies have been typically limited to small networks and typically a single product or service. For

** Assistant Professor; Kamal Institute of Higher Education and Advance Technology*

example, Brown and Reingen [BR87] interviewed the families of students being instructed by three piano teachers, in order to find out the network of referrals. They found that strong ties, those between family or friends, were more likely to be activated for information flow and were also more influential than weak ties [Gra73] between acquaintances. Similar observations were also made by DeBruyn and Lilien in [DL04] in the context of electronic referrals. They found that characteristics of the social tie influenced recipients behavior but had different effects at different stages of decision making process: tie strength facilitates awareness, perceptual affinity triggers recipients interest, and demographic similarity had a negative influence on each stage of the decision-making process. Social networks can be composed by using various information, i.e. geographic similarity, age, similar interests and so on. Yang and Allenby [YA03] showed that the geographically defined network of consumers is more useful than the demographic network for explaining consumer behavior in purchasing Japanese cars. A recent study by Hill et al. [HPV06] found that adding network information, specifically whether a potential customer was already "talking to" an existing customer, was predictive of the chances of adoption of a new phone service option. For the customers linked to aprior customer the adoption rate of was 3–5 times greater than the baseline. Factors that influence customers' willingness to actively share the information with others via word of mouth have also been studied. Frenzen and Nakamoto [FN93] surveyed a group of people and found that the stronger the moral hazard presented by the information, the stronger the ties must be to foster information propagation. Also, the network structure and information characteristics interact when individuals form decisions about transmitting information. Bowman and Narayandas [BN01] found that self-reported loyal customers were more likely to talk to others about the products when they were dissatisfied, but interestingly not more likely when they were satisfied. In the context of the internet word-of-mouth advertising is not restricted to pairwise or small-group interactions between individuals. Rather, customers can share their experiences and opinions regarding a product with everyone. Quantitative marketing techniques have been proposed [Mon01] to describe product information flow online, and the rating of products and merchants has been shown to effect the likelihood of an item being bought [RZ02, CM06]. More sophisticated online recommendation systems allow users to rate others' reviews, or directly rate other reviewers to implicitly form a trusted reviewer network that may have very little overlap with a person's actual social circle. Richardson and Domingos [RD02] used Epinions' trusted reviewer network to construct an algorithm to maximize viral marketing efficiency as suming that individuals' probability of purchasing a product depends on the opinions on the trusted peers in their network. Kempe, Kleinberg and Tardos [KKT03] have followed up on Richardson and Domingos' challenge of maximizing viral information spread by evaluating several algorithms given various models of adoption we discuss next. Most of the previous research on the flow of information and influence through the networks has been done in the context of epidemiology and the spread of diseases over the network. See the works of Bailey [Bai75] and Anderson and May [AM02] for reviews of this area.

The Recommendation Network

Recommendation program and dataset description Our analysis focuses on the recommendation referral program run by a large retailer. The program rules were as follows. Each time a person purchases a book, music, or a movie he or she is given the option of sending emails recommending the item to friends. The first person to purchase the same item through a referral link in the email gets a 10% discount. When this happens the sender of the recommendation receives a 10% credit on their purchase .

The following information is recorded for each recommendation.

1. Sender Customer ID (shadowed)
2. Receiver Customer ID (shadowed)
3. Date of Sending
4. Purchase flag (buy-bit)
5. Purchase Date (error-prone due to asynchrony in the servers)
6. Product identifer
7. Price .

The recommendation dataset consists of 198 recommendations made among 39 distinct users. The data was collected from June 5 2015 to May 16 2015. In total, 9 products were recommended, 99% of them belonging to 4 main product groups: Books, DVDs, Music and Videos. In addition to recommendation data, we also crawled the retailer's website to obtain product categories, reviews and ratings for all products. Of the products in our data set, (1%) were discontinued (the retailer no longer provided any information about them). Although the data gives us a detailed and accurate view of recommendation dynamics, it does have its limitations. The only indication of the success of a recommendation is the observation of the recipient purchasing the product through the same vendor. We have no way of knowing if the person had decided instead to purchase elsewhere, borrow, or otherwise obtain the product. The delivery of the recommendation is also somewhat different from one person simply telling another about a product they enjoy, possibly in the context of a broader discussion of similar products. The recommendation is received as a form email including information about the discount program. Someone reading the email might consider it spam, or at least deem it less important than a recommendation given in the context of a conversation. The recipient may also doubt whether the friend is recommending the product because they think the recipient might enjoy it, or are simply trying to get a discount for themselves. Finally, because the recommendation takes place before the recommender receives the product, it might not be based on a direct observation of the product. Nevertheless, we believe that these recommendation networks are reflective of the nature of word of mouth advertising, and give us key insights into the influence of social networks on purchasing decisions.

The recommendation network

For each product group we took recommendations on all products from the group and created a network. The research shows the sizes of various product group recommendation networks with p being the total number of products in the product group, n the total number of nodes spanned by the group recommendation

network, and r the number of recommendations (there can be multiple recommendations between two nodes). Column e shows the number of (unique) edges – disregarding multiple recommendations between the same source and recipient (i.e., number of pairs of people that exchanged at least one recommendation). In terms of the number of different items, there are by far the most music CDs, followed by books and videos. There is a surprisingly small number of DVD titles. On the other hand, DVDs account for more half of all recommendations in the dataset. The DVD network is also the most dense, having about 10 recommendations per node, while books and music have about 2 recommendations per node and videos have only a bit more than 1 recommendation per node. Music recommendations reached about the same number of people as DVDs but used more than 5 times fewer recommendations to achieve the same coverage of the nodes.

Recommendation network over time

The recommendations that occurred were exchanged over an existing underlying social network. In the real world, it is estimated that any two people on the globe are connected via a short chain of acquaintances - popularly known as the small world phenomenon . We examined whether the edges formed by aggregating recommendations over all products would similarly yield a small world network, even though they represent only a small fraction of a person's complete social network. We measured the growth of the largest weakly connected component over time .

Preliminary observations and discussion

Even with these simple counts and experiments we can already make a few observations. It seems that some people got quite heavily involved in the recommendation program, and that they tended to recommend a large number of products to the same set of friends (since the number of unique edges is so small). This means that people tend to buy more DVDs and also like to recommend them to their friends, while they seem to be more conservative with books. One possible reason is that a book is a bigger time investment than a DVD: one usually needs several days to read a book, while a DVD can be viewed in a single evening. Another factor may be how informed the customer is about the product. DVDs, while fewer in number, are more heavily advertised on TV, billboards, and movie theater previews. Furthermore, it is possible that a customer has already watched a movie and is adding the DVD to their collection. This could make them more confident in sending recommendations before viewing the purchased DVD. One external factor which may be affecting the recommendation patterns for DVDs is the existence of referral websites (www.dvdtalk.com). On these websites people, who want to buy a DVD and get a discount, would ask for recommendations. This way there would be recommendations made between people who don't really know

Propagation of recommendations

Forward recommendations

Not all people who accept a recommendation by making a purchase also decide to give recommendations. In estimating what fraction of people that purchase also decide to recommend forward, we can only use the nodes with purchases that resulted in a discount. It shows that only about a third of the people that purchase also recommend the product forward. The ratio of forward recommendations is much higher for DVDs than for other kinds of products. Videos also have a higher ratio of forward recommendations, while books have the lowest. This shows that people are most keen on recommending movies, possibly for the above mentioned reasons, while more conservative when recommending books and music.

Success of Recommendations

So far we only looked into the aggregate statistics of the recommendation network. Next, we ask questions about the effectiveness of recommendations in the recommendation network itself. First, we analyze the probability of purchasing as one gets more and more recommendations. Next, we measure recommendation effectiveness as two people exchange more and more recommendations. Lastly, we observe the recommendation network from the perspective of the sender of the recommendation. Does a node that makes more recommendations also influence more purchases?

Success of subsequent recommendations

Next, we analyze how the effectiveness of recommendations changes as one received more and more recommendations from the same person. A large number of exchanged recommendations can be a sign of trust and influence, but a sender of too many recommendations can be perceived as a spammer. A person who recommends only a few products will have her friends' attention, but one who floods her friends with all sorts of recommendations will start to loose her influence. We measure the effectiveness of recommendations as a function of the total number of previously received recommendations from a particular node. We thus measure how spending changes over time, where time is measured in the number of received recommendations.

Success of outgoing recommendations

In previous sections we examined the data from the viewpoint of the receiver of the recommendation. Now we look from the viewpoint of the sender. The two interesting questions are: how does the probability of getting a 10% credit change with the number of outgoing recommendations; and given a number of outgoing recommendations, how many purchases will they influence? One would expect that recommendations would be the most effective when recommended to the right subset of friends. If one is very selective and recommends to too few friends, then the chances of success are slim. One the other hand, recommending to everyone and spamming them with recommendations may have limited returns as well.

Timing of recommendations and purchases

The recommendation referral program encourages people to purchase as soon as possible after they get a recommendation, since this maximizes the probability of getting a discount. We study the time lag between the recommendation and the purchase of different product groups, effectively how long it takes a person to receive a recommendation, consider it, and act on it. We present the histograms of the "thinking time", i.e. the difference between the time of purchase and the time the last recommendation was received for the product prior to the purchase . We use a bin size of 1

day. Around 35%-40% of book and DVD purchases occurred within a day after the last recommendation was received. For DVDs 16% purchases occur more than a week after the last recommendation, while this drops to 10% for books. In contrast, if we consider the lag between the purchase and the first recommendation, only 23% of DVD purchases are made within a day, while the proportion stays the same for books. This reflects a greater likelihood for a person to receive multiple recommendations for a DVD than for a book. At the same time, DVD recommenders tend to send out many more recommendations, only one of which can result in a discount.

Discussion and Conclusion

Although the retailer may have hoped to boost its revenues through viral marketing, the additional purchases that resulted from recommendations are just a drop in the bucket of sales that occur through the website. Nevertheless, we were able to obtain a number of interesting insights into how viral marketing works that challenge common assumptions made in epidemic and rumor propagation modeling. Firstly, it is frequently assumed in epidemic models that individuals have equal probability of being infected every time they interact . Contrary to this we observe that the probability of infection decreases with repeated interaction. Marketers should take heed that providing excessive incentives for customers to recommend products could backfire by weakening the credibility of the very same links they are trying to take advantage of. Traditional epidemic and innovation diffusion models also often assume that individuals either have a constant probability of 'converting' every time they interact with an infected individual , or that they convert once the fraction of their contacts who are infected exceeds a threshold . In both cases, an increasing number of infected contacts results in an increased likelihood of infection. Instead, we find that the probability of purchasing a product increases with the number of recommendations received, but quickly saturates to a constant and relatively low probability. This means individuals are often impervious to the recommendations of their friends, and resist buying items that they do not want.

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STUDY OF DIGITAL MARKETING IN INDIA

Nishant Kumar Verma*

ABSTRACT

Technology is now rapidly becoming crucial for the development of India. Now, everything and everyone is getting digitalized, whether it is private sector, public sector or even an individual. Most of the organizations have understood the prospective of digital marketing in India. They understood its time utility, cost effectiveness and efficiency. Actually, Digital marketing is the marketing of goods and services using various technologies to capture the new customers and contain the existing one for various products. It is making the task of marketing much easier for any organization. It is helping them to understand their customers.

They can now get immediate feedback about their products. Now, the digitalization is giving an opportunity to the consumers and producers to communicate with each other. This approach of marketing is taking customer satisfaction to the next level. Now, consumers themselves are making their own product for the producers by giving their valuable suggestions continuously. The research focus is to analyse the various aspects of digital marketing and its impact on consumers, companies and the development of the country.

KEYWORDS : *Digital marketing, customer, technology, India, product*

INTRODUCTION : OVERVIEW OF DIGITAL MARKETING IN INDIA

Digital marketing is a kind of marketing in which internet is used mostly. Actually it is an interactive marketing. It includes blog, social media, sms, mms, etc. Digital marketing are also termed as online marketing, e marketing, web marketing and, internet marketing. This is driving a great revolution in the area of marketing. Now the communication between the customer and the producer is very fast. The producers are able to provide customized products to the customers and customers can directly buy product from the producers. The digital marketing is eliminating middle man and thereby reducing cost of the products.

It is also making the customer sophisticated. Now the customers know everything about the product. Before shopping they are able to study about the product in detail. They are able to compare the different products in the market.

In India digital marketing is still in its nascent stage. Majority of people are still not digitalized. So it also indicates that there is huge opportunity in digital marketing in India.

Actually it is technology based marketing and India is still lagging behind many countries with respect to technology. So there are lots of scope in technological development and digital marketing. India is being considered as a main hub for digital market outsourcing. There are two major factors in digital marketing- internet and mobile. The Indian consumers are more and more using these two tools of digital marketing. Indian corporations are struggling to hire digital marketing professional as there is huge

scarcity of that. Major takers of the professionals are e-commerce companies.

Now let us consider some definitions of **"Digital marketing"**

According to Wikipedia "Digital marketing is an umbrella term for the targeted, measurable, and interactive marketing of products or services using digital technologies to reach and convert leads into customers and retain them."

According to Brandmovers India

"Digital Marketing is marketing to the right people, at the right time and place, making use of smart digital channels and mediums. The primary objective and deliverables are being consumer engagement and satisfaction."

So, it can be concluded that digital marketing is all communication and transaction between consumers and producers with latest technologies.

There are multiple online marketing channels available namely

1. Affiliate marketing

It is a type of marketing, in which third party drive the consumers to visit the advertisement sites and gets some incentive from the company.

Display advertising

It is a kind of advertising in which websites are used. It is for that kind of customers who visits the sites. In these types of advertising text, videos, flash audio are used to communicate.

Email marketing

Email marketing is a kind of digital marketing where marketer sends emails to the customers or potential customers, with their lucrative offers. It gives marketer the opportunity to send customized message. Customers can also interact with the marketers via email.

Search marketing

Search engine marketing (SEM) is a kind of online marketing that includes the promotion of websites by increasing their visibility in search engine results pages (SERPs) at first through paid advertising. SEM may incorporate search engine optimization (SEO), which sets website content and site structural design to achieve a higher ranking in search engine results pages to enhance pay per click (PPC) listings.

Social Media

Social media are the tools through which people interact with each other online and, marketer also use it very effectively.

Game advertising

In many games, there are various spaces where advertisements are placed.

Video advertising

It refers to advertising in video programmes

8. Mobile phone marketing

It includes all the marketing which done via mobile phones like sms, mms, on hold ring tone and so on.

Now the consumers are more and more using digital tools in their day to day life. Now marketers are shifting from magazines, bill board and other conventional promotion medium to cellular phone and online marketing. The main advantages of digital marketing are

Assistant Professor; Trinity Institute of Professional Studies, Sector-9, Dwarka, New Delhi-110075

its speed, time utility, cost effectiveness, flexibility and convenience.

OBJECTIVES OF THE STUDY

1. To find out the present trends of digital marketing in India
2. To analyze the impact of digital marketing on consumer, company and country.
3. To examine the hurdle of digital marketing in the country
4. To find out the ways to overcome the hurdles

TRENDS OF DIGITAL MARKETING IN INDIA

India is a country of villages. In many villages even electricity is not there. But since last decades the scenario of whole country changed significantly. After Information Technology revolution people understood that what is the power and role of technology in our life. Marketers also realised it as a huge opportunity for them. So, many companies going ahead focus on digital marketing. Technology is changing very rapidly, so the trends of digital marketing are also changing in the same pace. It is affecting consumer habit and their approach towards any product. So, the marketers should not follow any trend blindly. They should analyse deeper each and every digital platform and find out how the consumers are using that particular platform.

Some of the major trends of digital marketing are as follows:-

1. **Social Media :** It is becoming increasingly effective in each passing year. Around 92 per cent of the marketers believe that it has increased their growth of business considerably. It has proved to be a very effective medium of advertising. Facebook, linkedin and WhatsApp are leading social media platform. When asked to the b2c marketer that which of the social media they would choose to drive their revenue around 56% picked facebook as their favourite. According to a study (B2B content marketing 2014- benchmark, budget, and trends) more that 87% of the B2B marketer believe that linkedin is the best platform to drive their revenue
2. **Shift to long keywords :** Earlier broad key word terms were used. Now the marketers are shifting to long end keywords. When asked to marketer for the reason they justified this SEO strategy to lower the competition and capture relevant traffic.
3. **More Apps. :** Last year in 2015, Google altered its algorithms to encourage mobile friendly websites. Since then app indexing has taken off. 2016 will prove to be very important in acceptance of apps by business owners.
4. **Video ads :** In 2016 video apps will also play a major role in digital marketing. Facebook and Bing are providing options of video advertisement to the companies. Google also comprises video content in its search engine algorithm.
5. **Dominance of Mobile over Desktop :** Number of cellular phone user is much more than laptop and desktop users. It doesn't mean that desktop users are decreasing rather mobile users are increasing in rapid pace.
6. **E-commerce growth :** tier II and tier III cities are driving highest growth in e-commerce. According to the various studies, the highest demand for online retail comes from around 4000 to 5000 towns of India.
7. **Content marketing :** Undoubtedly, content marketing is very effective in converting the audience to customers but the content marketer needs to understand that what is the content and what is valuable content otherwise they will not be able to survive in the market.
8. **Wearable technology :** It is gaining momentum year by year. Apple launched smart watch and many other companies are set to launch many wearable technology. But the problem is that its screen size is very small and marketers need to make their strategies keeping in mind that fact. So these trends and many others are game-changers in the battle of marketing between the various organizations. The marketers who are lagging behind are rapidly losing their marketing sharing and who are leading, gaining the significant share of the market.

IMPACT OF DIGITAL MARKETING

IMPACT ON CONSUMERS

Now consumers are increasingly becoming sophisticated. Through digital marketing they are obtaining each and every kind of information about the product and they are able to compare different products in the market with respect to price, feature and, quality etc. Before advent of this technology people knew very little about any product and they were fully dependent of the information given by salesman. Now because of the facility of online shopping they can purchase any product, any time which is encouraging them to do more shopping. It also saves their lot of time. Now consumers can also suggest directly to the producer about the product improvement.

IMPACT ON ORGANIZATIONS USING DIGITAL MARKETING

It is opening a door of huge opportunity for the marketers. Through online marketing, they are able to send customized message to each and every consumer. It is also very cost effective and saves a lot of time of the company. Now marketers are getting feedback of the customers instantly and they are able to modify their strategy accordingly. This is increasing the sale of the products of exponentially and increasing the profit of the organization.

IMPACT ON THE COUNTRY

As it is increasing the spending of the people for purchasing of various products and, increasing the profit of the companies, it is boosting overall growth of the organizations. The growing companies are employing more people in their organizations and thereby reducing the unemployment in the country and increasing per capita income. Digital marketing is playing a major role in overall growth of the company.

HURDLES FOR DIGITAL MARKETING IN THE COUNTRY

Different organizations are increasingly adopting digital marketing approach to communicate benefits of their product. But India is still a developing country and it is still lagging behind in basic infrastructure. Communication through digital marketing requires internet, mobile phone etc. A large segment of population of the country is not having the access of these technologies. Apart from their there are many other problems like consumer mindset, lack of skilled professionals etc. which is creating hindrance on growth path of digital marketing in the country. Some of them are analyzed which are discussed here.

1. India is still lagging behind in basic infrastructure. In many area of the country is not having even the electricity supply. Digital marketing success is possible only when if basic infrastructure is strong. Its success requires timely delivery of product and reduced time of delivery because customers are increasingly impatient. Success of digital marketing is possible only when it can achieve last mile network.
2. Consumers usually do shopping in weekend. Actually shopping

is not just purchasing product for them, it is like outing with the family. E-commerce gives them facility to do shopping anytime sitting anywhere but they do online shopping most of the time in weekend only. Another problem is the consumer habit of touching and feeling the product before purchase that is not possible in online shopping.

3. In India, most of the people use cash for purchasing. Of 1.2 billion people, just 20 million people are having credit cards and only 40 million people are having an active internet bank account. The E- commerce company to overcome this hurdle came with the idea of "cash-on-delivery."
4. Fixed broadband did not work satisfactorily. Its penetration is just 1.1 per cent with ranking of the country 122 in the world fixed broadband. Another thing, most of the Indians are not having computers at home. This barrier is being overcome by decreasing the rate of android mobile phones to make it available for all the people.
5. To run the e marketing program, it requires a lot of skills. Many companies are facing scarcity of skilled professional who can run these programmes successfully.
6. High illiteracy in India is one of the biggest challenges for digital marketing in India. Many people still don't know how to use computers and mobile. Now many organizations are putting efforts to make people computer literate.
7. Many people still don't trust the electronic medium for product purchasing. Many software programs need to be developed to prevent online fraud like hacking and misuse of credit card details.
8. There are many sites which try to attract people with fraudulent intention. These things tarnish the image of digital marketing.
9. India is still lacking sufficient legal provisions to curve fraudulent act through digital marketing.
10. Most of the communications in digital marketing take place in English language. In India, many people are uneducated or not sufficiently educated to understand the language. These are some of the hurdles which are holding back the growth of digital marketing in the country. But many steps are being taken by various organizations and government to overcome these hurdles.

WAYS TO OVERCOME THE HURDLES OF DIGITAL MARKETING

Organizations are facing various kinds of barriers in doing digital marketing, but they are also coming up with the new things to overcome the hurdles. Government also wants to encourage digital marketing in the country so it is also taking many steps to address the barriers of digital marketing which is holding back its growth rate. Some of them are discussed below:-

1. Many people don't have credit cards or net banking to do online payment, so various companies are giving "cash-on-delivery facility".
2. Consumers are getting increasingly impatient to get delivery of their product, it puts high pressure on logistics system. Government is also trying to improve infrastructure like road, transportation facility, which is releasing some pressure from logistics. With the help of improved infrastructure last mile connectivity can be possible.
3. Illiterate people are not able to understand and adopt online marketing, so people are being educated by various programmes run by government, NGOs or various organizations.
4. Now smart phones are getting cheaper so that everyone can get access of online marketing.
5. The government is on the way to make stringent laws over cyber crime. They are also making police sophisticated to understand any kind of online fraud.
6. To change the habit of consumers, doing shopping only in weekend, companies are giving heavy discount on the shopping done other than weekend.
7. To overcome the scarcity of skilled professionals, government is driving campaign of skill India.

CONCLUSION

The research paper analyses various aspects of digital marketing in India. Digital marketing is bound to spread across the country. Now it's just the matter of time. It's true that India is a developing country and is still lagging behind in many aspects. The technology based marketing is still new for the country. People are either not able to afford technology or not well versed to use it. But growth rate of digital marketing in the country is still very high. It is true that many things are creating hurdle to hold back its growth rate, but solutions are also emerging. Companies are coming up with alternative options for different consumers. Government is also committed to remove hurdles whether it is stringent laws for cyber crime or education or, any other basic needs for the success of digital-marketing. Digital marketing is complementing the "digital India programme" of the government, so it is putting every effort to make it a big success. Now its impact is becoming visible on the consumers, companies and in the whole country. It is increasing the growth rate of the companies, making the consumers sophisticated, and expediting the economic growth of the country.

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ZERO BASED BUDGETING : AN IMPORTANT TOOL

Arpana Singh *

Abstract

ZBB is an effective tool to maneuver organizations of better allocation of their financial and non-financial resources. In application, this method puts a requirement for each organization to re-evaluate annually its activities from the zero ground. It necessitate for an effective budget procedure is increasingly apparent in business enterprises, so as to face the appareling operating costs and declining growth rates. In this present era of hectic competition, inflation technological advancement of world wide, lofty costs of production and distribution & depleting resources, no organization can be able to survive and flourish unless it adopts an effective approach to budgeting system. ZBB is a significant technique in which unneeded expenditures are eradicate from the proposed budget. This paper, elaborate the concept, definitions, budgeting process, decision units, decision packages, benefits and lacunas of ZBB. ZBB presents an opportunity for organizations to cut costs and improve quantitative and qualitative aspects of operations.Despite increasing popularity and interest, comprehensive ZBB cycles are not a cost-effective option for most organi¬zations in either the public or private sectors. However, ZBB components and theory may be useful in specific sectors under specific circumstances. Although the economic envi¬ronment has driven renewed interest in ZBB, more practical and less costly budgeting alternatives are available that can meet organizational needs.

Keywords

Non-financial Resources, Budgeting, Decision Unit, Decision Packages, Inflation

Introduction

A budget is an significant financial plan that comprise a systematic analysis and interpretation of financial forecasts in terms of products, markets and the application of resources. Managers are requires to plan it. It demands operational and financial resources information for decision making. More importantly, benchmark has been set by it, which can be used for subsequent performance measurement. The single most important and time- consuming activity of an organization whether in a Government, PSUs or Private Sector Company is to Develop and adopt a budget . However, In India like developing country, have been facing hard fiscal constraints due to increasing demands for more and better public services. The budget is not only as a vehicle for allocating resources and controlling expenditures but it's aprominent tool to promote accountability and effectiveness. Similarly, since the 'liberalization' of urban economy, the environment of PSUs has undergone substantial changes. Performance Budgeting (PB) and Zero Base Budgeting (ZBB) are special budgeting techniques used by government departments and companies.

DEFINITIONS :-

- According to C.I.M.A. , London, ZBB is defined as "A method of budgeting where by all activities are revaluated each time a budget is set. Discrete levels of each activity are valued and a combination chosen to match funds available."
- Zero Base Budgeting Purpose of Zero-Base Budgeting The Objective of Zero Based Budgeting is to "reset the clock" each year. The Traditional incremental budgeting assumes that there is a guaranteed budgetary base-the previous year's level of appropriations -and the only question is how much of an increment will be given. Zero Based Budgeting implies that managers need to build a budget from the ground up, building a case for their spending as if no baseline existed- to start at zero.
- The purpose of ZBB is to reevaluate and reexamine all programs and expenditures for each budgeting cycle by analyzing workload and alternative levels of funding for each program or expenditure. Through this system, each program is justified.

FEATURES OF ZERO BASED BUDGETING :-

1. All budget items are considered totally afresh whether they are old and newly proposed.
2. There should be proper justification on amount to be spent on each budget item.
3. All Department objectives are linked to corporate goal.
4. The emphasis should be on 'why' it need to spend, butnot on 'how much' a department will spend.
5. ZBB process involve manager at all levels and they have corresponding accountabilities.
6. Budget allotment of any decision unit requires proper justification of manager of a decision unit why there should be budget allotment to his unit. This justification is to be made a fresh without making reference to previous level of spending in his department.
7. In decision packages all activities are identified.
8. As per order of priority Decision packages are ranked.
9. Systematic analysis should be done for evaluation of packages.
10. In this approach, there should be existence of open relationship between superior and subordinates. Management agrees to fund for a specified service and manager decision of the decision unit clearly accepts to deliver the service.
11. Decision packages are linked with corporate objectives, which are clearly laid down.
12. To ensure optimum results, available resources are directed towards alternatives in order of priority.

Implementation of zero-based budgeting :- Zero-based budgeting focus to justify resource allocation in an individual budget scheme, irrespective of prior period budgets. It is not having any concerned with historical data and commences each budget period afresh. The budget is initially allocated as zero unless the manager responsible makes the case for resource allocation. The

**** Assistant Professor; BLS Institute of Technology Management (Affiliated to GGSIP University, Dwarka)***

manager should possess proper justification of the reasons for the financial resource allocation. Each budget item is enquired as if it were new before any financial resources are allocated to it. Each plan is rational in terms of the total cost involved and the total benefits. Previous performance and experience is not referred to as a building block. Zero-based budgets are set to prevent regular budget creeping behavior that emphasizes inflationary adjustments. New and old work tasks are treated equally. Every managerial activity is properly identified and then evaluated by analyzing alternative levels of operation for the same activity. For achieving effectiveness and efficiency these alternatives are ranked and relative priorities are set. A zero-based budgeting system demands that the manager justify the entire budget in detail and explains why the company should spend the money in the manner proposed. This approach quite differs from traditional budgeting techniques as it emphasizes the analysis of alternatives.

The implementation steps are :

1. **Determination of a set of objectives -** Pre-requisites and essential step in the direction of ZBB technique is to set objectives. The first step in the identification of ZBB is the identification of interrelated hierarchical parts of the enterprise. The next step is to determine whether any reorganization is needed for the implementation of ZBB. This can be done by making a new organization chart and this information is to be communicated the various management levels.
2. **Identification of decision units -** A ZBB decision unit is an activity/ programme or department for which decision packages are to be developed and analyzed. It may be called as a cost or a budget Centre. Managers of each decision units are responsible for developing a description of each programme to be operated in the next fiscal year. In ZBB, these programmes or decision packages usually will have three or more alternative ways of achieving the objectives of it. Thus a decision package provides needed information to the management for selecting the right course of action.
3. **Development of decision package -** Two types of decision package :

- The mutually exclusive decision package: The aim is to identify for each decision unit the alternative ways of performing its functions to choose the best alternative so as to enable management. One such alternative will be to abolish the decision unit and not to perform it functions at all.
- The incremental decision package; in this, every manager identifies different levels of effort (and costs situated) and their impact on the function. I.e. there will be a Minimum Level, below which it would be impossible to perform the function; a Base level, which reflects the current level of activity; and Improvement Level, which shows the effect of increases over the current level.

4. Review and Ranking of decision Package - Once the preparation of decision packages have been done, they are ranked on an ordinal scale i.e. 1st, 2nd, 3rd, etc. as per according to priority. In the condition where a "bottom-up" approach and where large number of decision packages present, the process of ranking would have taken place at a number of levels.

- How decision units would you choose ?
- Answer : Let's say you are the chief executive of a local authority, and there are 4 departments under your responsibility and you ask the manager in charge of Educational Department to adopt the ZBB. Here, educational service as an example taken, first the decision units could be at any of the following levels: the service level, with the whole of the education service being one decision unit, the whole of highway service being one decision units, & so on; the 'division of service' level, which for education would mean the whole of primary education being one decision unit, the whole of secondary education being one decision unit, & so on.
- The subdivision of service level, which can be each school, would be one decision unit; or the school department level, with each department, such as history or physics, being one decision unit. In this context, one scholarly writer stresses that: "the basic decision units selected are not so low that should be ensured by agencies in the structure as to result in excessive paperwork and review. On the other way, the selection of units should not be so high as to mask important considerations and prevent meaningful review of the work being performed"
- With respect to decision package, the most important is to identify alternative and ways of performing the functions of a decision unit and to the effect of different levels of effort on each alternative. Some suggest that in practice "it is adequate first to select the best alternative from among the mutually exclusive decision packages, and then to use this as the basis for the incremental decision package analysis.

5. Preparation of budget and allocation of resources: After setting decision packages from all the programmes or activities consolidatedand ranked at highest possible organizational level, the preparation of the detailed budgetbegins. Decision packages provided some of the information for the budget estimates and justifications to be submitted to the budget committee. The management will submit thedocuments to budget committee after preparation ofbudget estimates and supporting data for the budget year. The top management are responsible to submit a list of rank sheet, in of their priority, the decision packages that inculcate the organizations budget request.

6. Implementation : Before installing the Zero Base Budget, there are two types of factors which are to be considered. The first type's factors are: Top management policy, Organizational size and location, Management capabilities, adequate time and ZBB formats. The other types of factors that are to be considered before designing and implementing ZBB are: Principal users of the generated information, Objectives & Expectations of ZBB and linkage to existing organizational system.

- The following are the steps involved in the implementation of ZBB:
- Selection of advisory implementation team
- Training to the ZBB managers
- Preparation of calendar of events
- Development of ZBB manual.

ELEMENTS OF ZERO BASED BUDGETING : It is very important to adopt following steps prior to the use of ZBB- the main or overall purpose of the organization, strategic plans and specification of long range goals, objectives and development of

division and department. The following are the more important elements of any ZBB programme:

1. Support of Top management
2. To Identify "decision units"
3. Each decision unit must be analyzed as a "decision package"
4. Formulate decision packages by cost benefit analysis to develop the budget request.
5. To Rank Decision packages
6. Goals should be clear and realistic
7. Funds Allocation
8. Authority and responsibility assignment
9. Formation of responsible centers
10. Flexibility

2. A decision unit: As the planning phase accomplished, for implementation departments are broken down into decision units, the basic working unit of a ZBB analysis. In case of big organization such as a state, department head would have task of assigning decision units as he is having detailed knowledge of sub unit. With the planning phase this can be done in parallel, but if reorganization is being contemplated by the executive level, these lead further adjustments in decision unit .Separate groupings of activities are decision units which may be outlined by cost center, project, service area, political division or any other logical breakdown. Mission and Program statements may help to provide clues regarding possible ways to dissect an agency into decision units.

For analysis and ranking by the front line manager Decision units should not be created too large or the evaluation process will be too cumbersome. They also should not be created too small or the analysis and comparison will be too limited and constrained .Department heads should designate a front line manager in each decision unit as the decision unit evaluator, "capable of making meaningful decisions for the organization". Core activity of the ZBB process is the analysis of decision unit. Accurate information and service delivery alternatives must be generated at this level in order for the process to be effective.

Decision Unit = Project manager + Project team or Activity manager and his team.

3. The decision package concept :- The decision unit starts with the process of identifying all decision unit activities, resource needs and outcomes under their current budget. Those activities identified as having a clear cost for services relationship are eligible for ZBB evaluation and ranking. Since the goal is to maximize services provided while minimizing the use of resources, a comparison of activities and alternative delivery methods can only be done on a cost for services basis.

This generally includes most activities in a government organization where nearly all activities have a cost for services delivered calculation. Due to contractual obligations some government activities may not have a cost for services calculation, or may not be modified, altered or eliminated. These exceptions might include debt service, leases, inter-local agreements or funding formulas to local governments. Upper management is to re-incorporate into the final budget about these types of exception items which are set aside as ineligible and left.

Each decision unit then proceeds to segregate the total costs and measured benefits of ZBB eligible activities into separate subunits called "decision packages." Decision packages are divided on the basis of functional, operational, or program level characteristic. In segregating decision packages, and considering requests for new or expanded activities, decision unit evaluators need to pay close attention to the general budget guidelines communicated by the executive level of state management during the Planning Phase. Failing to do so can result in wasted effort in the making of decision packages which are incompatible or have little economic or political feasibility. In formulating decision package it is necessary to assume that each decision unit budget request is made up of a sum of a series of decision packages. Furthermore, each decision package specifies a discrete set of services, activities and resources. The first package, the one that is given the higher priority, represents a minimum level of fund; usually substantially less than the current level say 10 to 20 percent less. The number of decision package is a summary of all aspects of an activity that helps management to take decision the number of decision package is a summary of all aspects of an activity that helps management to take decision. The aspects included are: purpose of activity, various proposed methods of its performance, alternative levels of performance, cost of its performance, benefits that would accrue to the organization by its performance and the consequences of it nonperformance.

5. Review and remark :- Following the compilation of decision packages, the next step is to rank all decision packages

For a decision unit in descending priority. Individual manager performed ranking. Reviewing and ranking basically eliminate from "How much to spend and where to spend?" There are three different questions for ranking :

1) What goals/objectives?
2) How much resources, and
3) How many major goals.

Thus it is to rank all decision packages for a decision unit in descending priority. The ranking May be done by individual manger or a committee. Firms have developed extensive techniques for conducting the ranking procedure. A series of ranking may be required at successfully higher organizational levels. It is compulsory to consolidate the decision packages for review at each higher level of the organization order to decrease the date handling problem. The ranking process establishes priorities among the functions described in the decision packages. The ranking would be made by top management to analyze the trade-off among profit centers and specifically to compare the marginal benefits of funding additional decision-packages against the organization's profit needs. With the decision packages ranked in order of priority, management can continually revise budget by revising the cut-off level on any or all ranking.

ADVANTAGES OF ZERO BASED BUDGETING :-

- ***Alternatives analysis:*** Zero-base budgeting demand that managers identify alternative ways to perform each activity as well as the effects of different levels of spending. By implementing the development of these alternatives, the process makes managers consider other ways to run the business.

- ***Budget inflation :*** It becomes less likely that they can artificially inflate their budgets since managers must tie expenditures to activities – the change is too easy to spot.
- ***Communication :*** The zero-base budget holds a prominent spark of debate among the management team about the corporate mission and how it is to be achieved.
- ***Non-key activities elimination :*** Review of zero-base budget forces managers to decide which activities are most critical to the company. By doing so, they can target non-key activities for elimination or outsourcing.
- ***Mission focus :*** Since the zero-base budgeting concept requires managers to link expenditures to activities, they are forced to define the various missions of their departments – which might otherwise be poorly defined.
- ***Redundancy identification :*** The review may reveal that the same activities are being conducted by multiple departments, leading to the elimination of the activity outside of the area where management wants it to be centered.
- ***Required review :*** All aspects of a company will be examined periodically on regular basis by using Zero base budgeting.
- ***Allocation of resources :*** Most demanded or needed area assign to use resource for better utilization of resource.

Briefly, many of the advantages of zero-base budgeting focus on a strong, introspective look at the mission of a business and exactly how the business is allocating its resources in order to achieve that mission.

Disadvantages of Zero-Base Budgeting :-

The main drawback of zero-base budgeting is the exceptionally high level of effort required to investigate and document department activities; this is a tedious task even once a year, which causes some entities to only use the procedure once every few years, or when there are significant changes within the organization. Another alternative is to require the use of zero-base budgeting on a rolling basis through different parts of a company over several years, so that management can deal with fewer such reviews per year. Other drawbacks are:

- ***Bureaucracy :*** Making a zero-base budget from the ground up on a continuing basis calls for an enormous amount of analysis, meetings, and reports, all of which requires additional staff to manage the process.
- ***Gamesmanship :*** Some managers may attempt to skew their budget reports to concentrate expenditures under the most vital activities, thereby ensuring that their budgets will not be reduced.
- ***Intangible justifications :*** It can be difficult to determine or justify expenditure levels for areas of a business that do not produce "concrete," tangible results. For example, what is the correct amount of marketing expense, and how much should be invested in research and development activities?
- ***Managerial time :*** The operational review mandated by zero-base budgeting requires a significant amount of management time.
- ***Training :*** Managers require significant training in the zero-base budgeting process, which further increases the time required each year.
- ***Update speed :*** The extra effort required to create a zero-base budget makes it even less likely that the management team will revise the budget on a continuous basis to make it more relevant to the competitive situation.

CONCLUSION :

The basic orientation of the ZBB process continues to offer some hope of solving efficiency issues in public programs as it improves the quality of management. Like most budget reforms that promise to bring more rationality and comprehensive decision-making to cut-back budgeting, zero-base budgeting has limitations. Budget is always art as much as it is science, and it is up to managers to decide the extent to which ZBB, or at least elements of it, facilitates the presentation of financial and service information to decision-makers in a way that will help them reach a structurally balanced budget that meets the needs of the community. They might consider the essential questions of planning and budgeting as basis for defining which questions are of greatest interest to stakeholders, which the organization most needs to address, and whether ZBB ideas, the alternatives, or some other budget reform can provide the answer.

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DIGITAL MARKETING IN INDIA, ITS TRENDS AND FUTURE GROWTH

Kanu Raheja *

Abstract

With the tremendous and broadly scattered populace of India it has dependably been a test for organizations to control market progress and they need to strive to make their vicinity felt all through the length and expansiveness of the country. Gone are the days when an insignificant promotion on radio or an imaginative publicizing battle was sufficient to hypnotize the objective client. Today digital consumer is articulate and demanding driving global conversations on every product and service influencing brand image and bottom line like never before. a comprehensive digital marketing solution that helps engage with consumer, influence their opinions, provide relevant feedback, reach various demographics and glean actionable insights- thus become critical to successful corporate strategy. The developing web entrance, the high offers of advanced mobile phones and the 3G administrations being generally made accessible by cell telephone organizations in India together make impeccable conditions for a computerized upset to occur. What's more, this is going on the grounds that if in today's age an organization or brand "is out of site it goes out of psyche", consequently promoting has turned into a fundamental malice. The advertising arrangement essentially means to make the business furnish the arrangement with the mindfulness with the normal clients. From 1980 onward, on the other hand, the Indian state has moved Indian political economy towards East Asian models of improvement. This paper aims to know the scope of digital marketing in India, its trends and future growth.

INTRODUCTION

Digital marketing is a broad term that refers to various and different promotional techniques deployed to reach customers via digital technologies. Digital marketing is embodied by an extensive selection of service, product and brand marketing tactics, which mainly use the Internet as a core promotional medium, in addition to mobile and traditional TV and radio. Digital marketing is also known as Internet marketing, but their actual processes differ, as digital marketing is considered more targeted, measurable and interactive. Digital marketing includes a raft of Internet marketing techniques, such as search engine optimization (SEO), search engine marketing (SEM) and link building. It also extends to non-Internet channels that provide digital media, such as short messaging service (SMS), multimedia messaging service (MMS), callback and on-hold mobile ring tones, e–books, optical disks and games. A key digital marketing objective is engaging customers and allowing them to interact with the brand through servicing and delivery of digital media. This is achieved by designing digital media in such a way that it requires some type of end user action to view or receive the motive behind that media's creation. For example, to receive a free e-book, a customer might be required to register or fill out a form, benefiting the advertiser with a valuable customer or lead.

Terms of Digital marketing :

SEO (Search Engine Optimization) :- With help of SEO, using on-page and off-page optimization you can rank on first page of organic search results of Search Engines Like, Google, Bing and Yahoo, without spending any amount. With Organic SEO your results show long lasting 24*7 for your potential users.

SMO (Social Media Optimization) :- In SMO you engage with people or your clients. It's very important for branding any business through social media sites like Facebook, Twitter, Google +Plus, Pinterest and Linkedin. With Help of Better optimization you can easily reach to uncountable audience.

SEM (Search Engine Marketing) :- With help of SEM we use PPC and Display ads for reach to our potential customers on internet. PPC ads are used for Instant reach of Business to potential customers on search results and Display ads are used for branding and target any business on Publisher websites.

SMM (Social Media Marketing):- SMM used for advertising your business on social networking sites. Social networking ads are so effective and may be used in several ways like collecting a network of same interest and increase your sales by reach to potential customers through internet.

JOBS OPPORTUNITIES FOR DIGITAL MARKETING

Now marketing future for online marketers are so bright, lot's of company fire their offline marketing team and completely come into online marketing. Companies hire digital marketers in huge demand but there are sort of Digital Marketers are available in the market.

You can search jobs for Digital marketing, SEO, PPC, SMO, SMM and Affiliate Marketing on jobs sites like Naukri.com, Indeed.com, and Shine.com. There is huge scope of jobs in Digital marketing for making your future better.

SCOPE OF DIGITAL MARKETING FOR PROFESSIONAL BLOGGERS

Professional bloggers are persons those write useful guide or information for their readers. Most of time their earning source is depend on Affiliate marketing and Google Ad Sense. They earning enough from their blog but they have need of traffic for generate revenue. More Traffic means more revenue and Digital marketing help them in ranking high in organic search results, engage with users on social networking sites with useful information and run their SEM (Search Engine Marketing), PPC ads and SMM (Social Media Marketing) campaign for reach to their users rapidly.

SCOPE OF DIGITAL MARKETING FOR ENTREPRENEURS

Entrepreneurs are persons who build their own business with their ideas and resources. They must have to require of Online marketing for reach their idea and presence to more people. Without Online Marketing they can't convert their business into

**** Assistant Professor; BLSITM***

a reputed brand. With help of digital marketing they can easily reach their deserved sales and revenue with small budget. Best part of Online Marketing is you can Start it with Zero or Small Investment. No Waste of money, high returns on investment.

SCOPE OF DIGITAL MARKETING FOR ECOMMERCE STORES

Digital marketing is only key of success for ecommerce store. For every ecommerce store they have to reach most interesting people of their products for convert it into a sale. Product Listing ads are used for promote products of ecommerce store. Affiliate marketing is most important part for online shopping stores. You give few percentages of amounts with every successful sale to publishers (Bloggers or Website Owners) who promote your product on their sites. Re-marketing is also helpful for target your most interesting audience again and again for certain period of time for ecommerce Store.

SCOPE OF DIGITAL MARKETING IN INDIA

In India only 16% people was using internet till the end of 2013 and usage of internet is increasing by 15% and its reach to 31% in 2014 and increase rapidly day by day.

More than 40% business depends on Digital marketing. With increasing of internet and Smartphone users soon in coming years around 90% business will be depend on online marketing in India. After USA and UK India deal with largest online shopping deals in ecommerce Businesses.

Changing trend of digital marketing are :

1. People have started looking for more interesting and informative things on the internet that can help them create value rather than fake and made for marketing type things, hence marketing strategies will move towards creating those kinds of assets.
2. Marketing objectives will try to help people get better in their business through one's own business. Creating and maintaining a network of people who are interested in one's business will be given priority.
3. As always, 'content' will be the most important aspect of digital marketing and again the nature of the content is going to be more specific and deeply researched about a topic, moving away from the perspective of "Selling" to making it more useful for the audience.
4. General techniques like SEO, SEM and Social Media Marketing will be there. However, personalized marketing activities targeting specific set of audience and influencers will be given higher importance.
5. Automation in marketing will emerge more effectively and will be predominant in future.

Challenges of Digital Marketing in India :

1. **Governance, laws and regulations :** When it comes to online businesses, there are stricter money transaction rules. Law enforcement and protection against cybercrime requires review. Widespread corruption is another big issue. Many people don't want to set up online shops to escape taxes and do things unaccounted.
2. **Cultural issues :** Most people believe that shopping online can prevent them from getting the best deals. This gives them excellent F2F opportunity to do maximum negotiation and receive other freebies.
3. **Online shopping worries :** A lot of computer literate people are still hesitant to consume online shopping facilities that are available out there in India for the following reasons. 1. Fear factor: A lot of people still do not believe things that are not tangible. 2. Unreliable delivery mechanisms: Postal service or the most expensive courier companies may not be able to guarantee prompt delivery.
4. **Lack of technical infrastructure :** The backbone of any reliable online service or sales is a strong supply chain. In volume business, this has to be at its best and this is exactly what many online services in India lack.
5. **Marketing philosophies & channels :** Television, hoardings and cinema ads are still way ahead of the Internet when it comes to preferred marketing channels. This also results in poor quality affiliate networks and online ad services. Moreover, there are a lot of inconsistencies and dishonesty prevailing with the networks as well. This has further decelerated the affiliate marketing penetration in India.

Conclusions and Recommendations

This paper deals the conceptual knowledge of Digital marketing current and future aspects of digital marketing in Indian context. This paper discussed about the top motivator factors of shopping online. The present development would be a valuable addition to researcher and academicians; and useful theory for practitioners, advertisers, and entrepreneurs. Some of the disadvantages of e-Marketing are dependability on technology, Security, privacy issues, Maintenance costs due to a constantly evolving environment, Higher transparency of pricing and increased price competition, and worldwide competition through globalization. While considering the aforesaid limitations; advertisers and end-users can effectively use this modern platform to make life easier and faster. In the next 3 to 5 years, India will have 30 to 70 million Internet users which will equal, if not surpass, many of the developed countries. Internet economy will then become more meaningful in India. With the rapid expansion of internet, Digital Marketing, is set to play a very important role in the 21st century, the new opportunities that will be thrown open, will be accessible to both large corporations The potential huge and wit and energy of the entrepreneurs in the sector is impressive. Online commerce in India is destined to grow both in revenue and geographic reach. The further research areas in ecommerce are; the quality of sponsored ad text, ad position, Search Engine Optimization (SEO), Page Rank, yellow pages, and bid management etc.

MOBILE COMMERCE - THE RISING DRAGON IN THE DIGITAL ERA

Mandeep Kaur *

ABTRACT

In today's digital era mobile commerce is growing at a very fast pace. It is contributing to the growth of e-commerce sales in India. Mobile commerce is driving the revenue of retailers. The way customers' shop is changing due to the way technology isused in the shopping process. The purpose of this paper is to investigate the factors that influence customers' to adopt mobile shopping.Data is collected from West Delhi. Factor analysis is used to extract factors that influence customers' to adopt mobile shopping. The results demonstrate that the most important factors are Perceived Usefulness, Trust, Incentives, Convenience, Consumption experience, Self -efficacys and Subjective norms. The findings of the study helps to understand what encourages the customers' for mobile shopping .The result also helps retailers in developing their strategies to encourage mobile shopping in India.

Key Words : Mobile Shopping, Purchasing Decision

Introduction

In India the mobile phone Industry is growing at remarkable rate. Electronic Commerce is also growing at an exemplary rate but mobile commerce is one of the factors contributing to the growth of mobile commerce. Mobile commerce retailers are now tapping the untapped potential of mobile commerce. Mobile commerce, also known as m-commerce, means the use of mobile phones to conduct business transaction (Kalakota and Robinson, 2002). Using handheld devices such as wireless mobile devices to conduct online transaction is mobile commerce and it complements e-commerce (Mahatanankoon, 2007). M-commerce is a subsystem of e-commerce only (Wakefield & Whitten, 2006).

M-Commerce can be defined as buying and selling of goods and services using wireless hand-held devices (UNCTAD, 2004). The ability to purchase goods anywhere through a handheld device with wireless internet is referred to as mobile commerce. Further it is defined as conducting a business activity using wireless technologies without constraints of time and place (Clarke, 2001).

Mobile commerce is undergoing rapid growth in terms of features provided by mobile devices, applications, standards and network implementation (Sugianto et al., 2007).The adoption of m-commerce by customers is reliant on consumer acceptance of newly and well-made technologies (Bruner, 2003).

The main purpose of the study is to investigate the factor which influence customers for adoption of mobile shopping.

Literature Review

Perceived usefulness can be defined as a perception in an individual's mind about a system and how this system would lead to enhanced performance (Davis, 1989). In the context of mobile commerce perceived usefulness is the key element which influence customers to adopt mobile shopping (Hosein, 2011). Perceived usefulness has a crucial role in adoption of mobile commerce services (Chuang, 2011).

Perceived trust is a key forecaster to describe the adoption of M-commerce in various existing technology adoption studies (Wei et al., 2009; Cho et al., 2007). Mobile commerce system will be successful and can be trusted only when right information and right detail is spread among customers about mobile commerce system (Pavlov, 2003).Perceived Trust is a determinant in the success of M-commerce (Wei et al., 2009).

Subjective norm can be defined as an individual's perception that social referents think he/she should or should not perform a particular behavior (Ajzen and Fishbein, 1980, p. 302). That person is motivated to comply with the referents even if he/she does not favor the behavior. The referents may be superiors (e.g., parents or teachers) or peers (e.g., friends or classmates) (Taylor and Todd, 1995).

According to gratifications theory an individual who receives incentives will be most happy. Greater happiness can influence the perception. Based on the gratifications theory, studies (Davis, 1989) have shown theimpact of intrinsic motivation in the decision to use mobile services.

Convenience, connectivity, flexibility provided by mobile phones are the factors contributing to the success of mobile commerce (Kim et al., 2010). Convenience can be defined as the individual's perception of investing time and efforts in using mobile phones (Berry et al.2002). Self-efficacy can be defined as the belief that the person has the ability to attain certain goals (Bandura, 1997). Self-efficacy was also studied in relation to an individual response to information technology(Luarn and Lin, 2005).The reaction of the consumers can be seen from the behavioral intention to use. It includes activities of consumption or mental actions of consumption (Holbrook & Hirschman, 1982).

Methodology

This study was conducted to know the factors that influence customers to adopt mobile shopping. Both Primary and secondary data were used for the study. A structured questionnaire with five point Likert scale was used for collecting opinions of respondents. Convenience sampling method is used to collect data. 200 respondents were contacted for the study but only 160 were found faultless. Factor analysis is used for extracting factors influencing customers to adopt mobileshopping. Moreover descriptive statistical tools were also used for data analysis. SPSS was used for the study.

Data Analysis and Findings

The data presented in the below table indicate that there are 50% males and 50% females respondents. Majority of the respondents

** Assistant Professor; BLS Institute of Technology and Management*

that is 22.5% belongs to 26-30 age group. Both 19-25 and 31-35 age group constitutes 20% of the respondents. 18.75% of the respondents belongs to 36-40 age group. 15% of the respondents belongs to above 40 age. Only 3.75% of the respondents are from below 18 age.

Occupation shows that majority of the respondents (53.12%) are from service class followed by students that is 27.5%. 15% and 4.38% of the respondents are business class and others respectively. 36.88% of the respondents belongs to above 6, 00,001 income. 22.55 of the respondents belongs to below 2, 00,000 income. 20.62% and 20% of the respondents falls under 200001-400000 and 400001-600001 respectively.

Table 1: Demographic characteristic of respondents

	Categories	Number of Respondents	Percentage of Respondents
Gender	Male	80	50%
	Female	80	50%
Age Group	Below 18	6	3.75%
	19-25	32	20%
	26-30	36	22.5%
	31-35	32	20%
	36-40	30	18.75%
	Above 40	24	15%
Occupation	Service	85	53.12%
	Student	44	27.5%
	Business	24	15%
	Others	7	4.38%
Income Level (P.A)	Below 2,00,000	36	22.5%
	2,00,001- 4,00,000	33	20.62%
	4,00,001 – 6,00,000	32	20%
	Above 6,00,001	59	36.88%

FACTOR ANALYSIS

Table 2: KMO and Barlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequcy.		.877
Bartlett's Test of Sphericity	Approx. Chi-Square	2.875
	df	496
	Sig.	.000

The above table shows the analysis of 160 respondents. Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy is used for measuring the strength of relationship among variables. The range of the KMO falls between 0 to 1; the accepted index globally is 0.6. For the present study KMO measure of sampling adequacy is .877.

Extraction method: Principal component analysis

Applying SPSS, the principal component analysis (PCA) was done to explore thebasic factors associated with 32 items. The above table shows that 65.87% of variation inadoption of mobile shopping by the customers is explained by seven factors.

Table 3: Total Variance Explained

Componet	Ininital Eiggnvalues			Extractions Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.917	30.992	30.992	9.917	30.992	30.992	7.515	23.483	23.483
2	3.356	10.487	41.479	3.356	10.487	41.479	4.650	14.530	38.013
3	2.120	6.624	48.103	2.120	6.624	48.103	2.133	6.665	44.679
4	1.890	5.906	54.009	1.890	5.906	54.009	2.124	6.636	51.315
5	1.409	4.403	58.412	1.409	4.403	58.412	1.654	5.167	56.482
6	1.284	4.014	62.426	1.284	4.014	62.426	1.624	5.076	61.558
7	1.103	3.448	65.874	1.103	3.448	65.874	1.381	4.315	65.874

Table 4 : Pattern Matrix

	Components						
	1	2	3	4	5	6	7
I Could order products wherever I am	.826						
I Could shop anytime I want to	.801						
I could shop easily.	.801						
The websites are always accessible.	.774						
Easy to understand and navigate websites.	.773						
I can search for desired products quickly	.762						
There are Variety of search options to find the same product.	.754						
I am satisfied with the ability of merchants to prevent security threats	.683						
I am satisfied with the way the merchants protect my information while in transaction	.683						
I could save my time.	.668						

I could minimize my efforts.	.607						
I could relieve myself from traffic jams.	598						
I could relieve myself from parking facility problems.	.505						
Mobile shopping gives flexibility to do shopping 24 hours/day.		.815					
Mobile shopping transactions save more time.		.771					
Mobile shopping makes it easier for me to do my shopping.		.723					
Mobile shopping helps me to know the status of my order.		.715					
Mobile shopping provides me prompt and efficient services.		.702					
Mobile shopping provides systems to give appropriate feedback.		.597					
Mobile shopping gives the joy of controlling my financial transactions.		.588					
I am proficient in using mobile device for service requirement.			.751				
I feel confident in using mobile device for service requirement.			.602				
I would be able to overcome the hints during the mobile device usage.			.459				
I had used similar system before.			.455				
Mobile shopping is reliable.				.872			
Mobile shopping has no chance of fraud.				.861			
People who are important to me think that I should use Mobile for shopping.					.799		
People who influence my behavior think I should use Mobile shopping.					.536		
In future I will invest more time on m-commerce.						.729	
In future I will invest more money on m-commerce.						.496	
In future I will frequently use m-commerce service.						.407	
Mobile shopping offers discounted coupons.							.763

The above table indicates the number of factors that affect adoption of mobile shopping by customers. From the rotation method following seven factors (table 5) are obtained.

Table 5- Naming of Factors

Factor Number	Name of Dimension	Item Number	Variables	Factor Loading
F1	Convenience	1	I Could order products wherever I am	.826
		2	I Could shop anytime I want to	.801
		3	I could shop easily.	.801
		4	The websites are always accessible.	.774
		5	Easy to understand and navigate websites.	.773
		6	I can search for desired products quickly	.762
		7	There are Variety of search options to find the same product.	.754
		8	I am satisfied with the ability of merchants to prevent security threats	.683
		9	I am satisfied with the way the merchants protect my information while in transaction	.683
		10	I could save my time.	.668
		11	I could minimize my efforts.	.607
		12	I could relieve myself from traffic jams.	.598
		13	I could relieve myself from parking facility problems.	.505
F2	Perceived Usefulness	14	Mobile shopping gives flexibility to do shopping 24hours/ day.	.815
		15	Mobile shopping transactions save more time.	.771
		16	Mobile shopping makes it easier for me to do my shopping.	.723
		17	Mobile shopping helps me to know the status of my order.	.715
		18	Mobile shopping provides me prompt and efficient services.	.702
		19	Mobile shopping provides systems to give appropriate feedback.	.597

		20	Mobile shopping gives the joy of controlling my financial transactions	.588
F3	Self-Efficacy	21	I am proficient in using mobile device for service requirement.	.751
		22	I feel confident in using mobile device for service requirement.	.602
		23	I would be able to overcome the hints during the mobile device usage.	.459
		24	I had used similar system before.	.455
F4	Trust	25	Mobile shopping is reliable.	.872
		26	Mobile shopping has no chance of fraud.	.861
F5	Subjective Norms	27	People who are important to me think that I should use Mobile for shopping.	.799
		28	People who influence my behavior think I should use Mobile shopping.	.536
F6	Consumption Experience	29	In future I will invest more time on m-commerce.	.729
		30	In future I will invest more money on m-commerce.	.496
		31	In future I will frequentlyuse m-commerce service.	.407
F7	Incentives	32	Mobile shopping offers discounted coupons.	.763

List of Factors Identified:

Convenience : It is the most important factor. It can explain 30.99 percent of totalvariance in customer adoption of mobile shopping. Convenience include saving time, efforts, relieves from traffic jams, parking facility problem, shop easily and quickly.

Perceived Usefulness : It is the second factor which is capable to explain 10.49 percent of total variance. Thissecond factor of pricing includes all the perceived usefulness related factors that the customers consider before buyingthrough mobile phones.

Self-Efficacy : This is the third most important factor. It can explain6.62 percent of total variance. Self-efficacy is taken into account while adopting mobile shopping.

Trust : It is the fourth factor that explains 5.91 percent of total variance. Thereare many respondents who generally take trust as important issues in adopting mobile phone for shopping.

Subjective Norms : This is the fifth factor which explains4.40percent of total variance. Some respondents take the suggestions from their friends andcolleagues before purchasing from mobile phones.

Consumption Experience : It is the sixth factor which capable to explain 4.01percent of total variance in customer decisions of purchasing through mobile phones.

Incentives : The seventh factor explains 3.475 percent of total variance. It shows thatcustomers also make their purchasing decision based on incentives given by m-commerce retailers.

Conclusion

The objective of the research was to find out the underlying factors that influence customers to adopt mobile shopping. It has been observed from theprevious discussion that there are lots of variables customers consider before purchasing through mobile phones. Some of the factors influence customers' decision greatly whileothers have comparatively low impact. At the time of survey, itwas observed that various types of facilities are expected by the customers. But thisresearch work does not deal with the customer expectation. Rather it has tried to focus on the factors that the customers judge before doing mobile shopping. The research has identified that many factors are deemed as important for customers while adopting mobile shopping; Not necessarily all the variables influence a person in the same way and sameextent. In case of adopting mobile shopping, mostly considered factors by customersinclude convenience, perceived usefulness, self-efficacy , trust, subjective norms, consumption experience, incentives.

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CONNECTING INDIA THROUGH DIGITAL MEDIA

Himali Gupta *

ABSTRACT

Today Digitally empowered India is a scintillating dream of every citizen. "The more technology we infuse in Governance, the better it is for India" these are the words of our Hon'ble Prime Minister who envisions transforming our nation and creating opportunities for all citizens by harnessing digital technologies. His vision is to empower every citizen with access to digital services, knowledge and information. A well connected nation is a rudiment to well served nation. Digital Technologies, which include Cloud computing and Mobile Applications, have emerged as catalysts for rapid economic growth and citizen empowerment across the globe which will have its major impact on the urban and rural areas. Even though many other countries have already progressed in many areas of Digitalization and India has started quite late but I am sure this is going to be worth it and this will be utilized to its maximum potential. Information technology brings a new opportunity-the digital opportunity for the rural population of the country who often suffered by geographical, cultural and linguistic barriers. This will provide them immense possibilities to access information and services. Riding on digital networks Indians are connecting and communicating with each other through mobile phones and computers .This study shall discuss how Digital India is going to revolutionize the way India connects, examining 9 main pillars of Digital India, its projects, estimated cost and impact, role of IOT (Internet of Things, usage of IT in deliverance of services related to various domains such as health, education, agriculture etc., Reducing paperwork with innovative ideas, role of Bharat Broadband Network Limited (BBNL), Ratan Tata's views on Digital India, contribution by Facebook, Google, Microsoft, Qualcomm and vision of Digital India that every household, every individual should be digitally empowered.

Keywords : *Digital, Empowerment, Cloud Computing, Pillars, Information Technology, Rural India, innovation, development, Modi Government, e-Governance, paperless.*

INTRODUCTION

Digital India is a bodacious step taken by government of India to ensure effective progress in electronics manufacturing and e-Governance in the country. Severe technology deficit in rural areas is the preeminent reason for the start up of Digital India. People in rural areas are unaware of the technological advances that are taking place. So the government has taken the initiative to transform the way India connects. Various products and Services were unveiled by our Prime Minister Narendra Modi at Digital India week launch event. The estimate investment for the program is 4.5 lakh crore which could potentially generate employment for 1.8 million people.

India is in strife to become a country with good governance. The vehemence is clearly visible through the Digital India Program which is making the country to step in the totally different era. Behind this major transition that is taking place is none other than the Prime Minister himself. His words on the website "mygov. in" are stated as "let us join this mass movement towards surajya. Realize the hopes and aspirations of people and take India to greater heights!"

MOBLIE CONNECTIVITY

When it comes to Mobile connectivity India has been gradually improving in this area. The number of mobile Internet users in India is expected to grow over 55 percent to 371 million June this year. Ninety-four per cent of users access the Internet through their mobile phones in Urban India.

This sterling growth is a positive sign for many consumer-focused tech businesses in sectors ranging from commerce to healthcare and finance. Vijay Shekhar Sharma, Founder and CEO of mobile wallet and e-commerce company Paytm, said in his exclusive thought leadership article in the TechSparks 2015 Report – Tech for a Billion: "In the next five years, I expect the country will have banking products or full-fledged banks exclusively using mobile platforms. India is the ideal laboratory for such innovations, considering India is a young country – 50 per cent of the population is younger than 24 years – and smart phones are getting more powerful with each passing day."

But in the noise of celebration we often forget to include the voice of people living in rural areas. More than 42 thousand villages exist without a mobile network. But this time Modi government has laid emphasis on rural areas of the country in order to make them aware of the e- governance plan, he has started various projects and is working vehemently on it.

The hinterlands in India consist of about 650000 villages, in which more than half of its population lives in rural areas and off -the-map villages. Most of them are distant and too isolated from the mainstream to get awareness of the country's economic advancement. Though, the country is progressing and is considered as the world's second fastest-growing mobile market, but it is lagging behind when it comes to internet connectivity, in the rural areas of the country. Connecting the backward areas through the Internet and other digital technologies is becoming indispensible for the overall development and social progress, in recent years. Under the present scenario, social involvement and technology led inclusive growth will only help us to realize the vision; India 2020. The vigorous Digital India drive undertaken by the Government of India is an important step in that direction.

PROGRESS OF DIGITAL INDIA

Digital India has proved to be an angel which has spread its wings all over the country. It has shown promising results in various areas. During Digital India Week about **170 events** were organized at the state headquarters, more than **250 services** were launched in areas of Health Information, Utility Services, Smart Public Distribution system (PDS) card, Land Record Services, Mobile App For Civic Amenities, Services For Farmers, Social Welfare And Pension Services, Electoral Services, Online Court Services, Police Services, and Employment Exchange Services, Reports have been received from 438 districts wherein in 1,238 eventsmore than **136,000 lakh** government officials and citizens were informed about Digital India Program and its services. Various events were organized, where more than **57,000 common** service centers (CSC), and 3**.42 lakh** people (rural citizens, youth,

**** Content Writer; Shiksha Overseas***

e-Service users) participated. Also more than 1,500post offices across the country and more than **175,000lakh** citizens have been informed about Digital India and e-services. Modi's Digital Dialogue initiative on Twitter received **391 millionim** pressions in the span of just three days (July 4-6). Under the Digital India project, around **2.5 lakh** gram panchayats have been connected with optical fibre network across the country. In another one year, more gram panchayats would be connected. The e-commerce industry is already developing and this year this sector is going to make huge profits.

Business Process Outsourcing (BPO) is expanding its business and has come up at many different places with the aim of providing jobs, with the introduction of Aadhar scheme one can be identified in just one click.

DOMESTIC PROJECTS OF 'DIGITAL INDIA' CAMPAIGN

- **Digital Locker system-** It's over one year now since the launch of online document storage facility has been made available to the citizens of India. One can now upload their documents like Voter Id card, PAN card, BPL card, Driving license, education certificates etc. and these documents will be linked to the Aadhar number and can be treated as authorized documents.
- **Mygov.in** is an action that has culminated into mass movement towards self governance. When the country has the support of its people only then the country can progress. With the launch of this website Hon'ble NarendraModi has made it possible for the citizens to share their problems and views. The feedback from the people has been quite beneficial as it helped to improve the policies and the areas where it lacks. Mygov.in has become the indispensible part of the decision making process.
- **National Scholarships Portal-** This has simplified the process for students as now there is common application form for all scholarships. Also it has eliminated duplicate applications. Services for students related to their application process, receipts, sanction of various scholarships are implemented.
- **The national e-Governance** the national e- governance plan has been devised by Department of Electronics and Information Technology (DEITY) and Department of Administrative Reforms and Public Grievances (DARPG). It aimed at providing government services to the citizens in a conducive, efficient and translucent manner.
- **DeitY**has its main focus on expansion of digitalization in the country. The e- development will help India in its transition from developing to developed nation and empowered society. Its objectives are e-Government, e-Industry, e-Innovation, e-Learning, e-Security, and e-Inclusion.
- **Swachh Bharat Mission (SBM)** Mobile app its India's prodigious cleanlinessapp was launched by the Prime minister of India on 22nd Dec 2015. This is an android app where one can report dirty areas of any corner in the country.
- **E-Sign** framework would allow citizens to digitally sign a document online using aadhaar authentication.
- **The Online Registration System (ORS)** under the e-**Hospitalapplication** has been introduced. It is a network which connects the people to complete their registrations online. It provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring, availability of blood online etc.
- **BBNL (Bharat Broadband Network Limited)** emphasized on establishing wifi spots in India's Gram Panchayats using National Optical Fiber Network project(NOFN). It's a high speed digital highway to connect all 2.5 lakh Gram Panchayats of country.
- **Centre of Excellence on Internet on Things-** this is a part of digital India program NarendraModi, which has accelerated the adoption of Internet of things technology. Internet of things (IOT) is a buzzword now, there are various devices available with wifi capabilities, and the diffusion of smart phones is remarkable. This is a collective initiative of Department of Electronics & IT, ERNET India and NASSCOM, this innovative & vigorous idea will help India to attain finest and dominant position in the market. In India, the areas that needed implementation of internet were focused through IOT, especially the agriculture sector, women's safety to create smart cities, transport system, parking, waste management, water management and, smart health services, smart manufacturing and many more.
- **BSNL has contributed in the rapid growth of Digital India;** it has laid the foundation of national optic fibre network (NOFN) across the country. By the end of this year it is aiming to connect 2,50,000 Gram Panchayats. BSNL has its focus on numerous projects of NOFN, NGN TO which has provided Wi-Fi Hot Spots, Mobile Valet and Mobile Governance Services, for Digital India plan. BSNL has made accessible Wi-Fi Services in historical locations like Tajmahal etc. BSNL plays a preeminent role in Digital India as it has invested thousands of crores to install Wi-Fi Services in each and every location to offer high speed wireless data internet services to every common citizen. "BSNL is having deep rooted relations with all government departments which will we leveraged to get more projects. We expect that in near future a large component of our top line revenue will come from this segment" said Mr. Anupam Shrivastava, Managing Director of BSNL.
- **National Centre for Flexible Electronics (NCFlexE)** is a tremendous drive initiated by the government to promote innovation and research in the stage of wondrous technology.
- **Electronics Development Fund (EDF)** was commenced by IT Department in order to provide funds which will provide risk capital to companies that are developing new technologies in the area of electronics, nano-electronics and Information Technology (IT). This was envisaged by Hon'ble Narendra Modi to develop the Electronics System Design and Manufacturing (ESDM) sector that is helping to make the country digitally empowered.
- **BPO** policies have been accepted and endorsed its BPO centres in different North Eastern states and also in smaller / mofussil towns of other states. The prime focus of this scheme is to generate employment and it is speedily decreasing the amount of unemployment in the country which is definitely adding in the growth of the country.

"Digital India is no bubble, it's here to stay": Ratan Tata

Ratan Tata is confident about the success of Digital India, and is excited about some unconventional ideas that digital India has come up with. He said "A digitally connected India will bring "tremendous power" in the hands of citizens by connecting them

to the rest of the world.

Mark Zuckerberg, CEO of Facebook first updated his status on facebook accompanied by the change in profile picture saying, "I changed my profile picture to support Digital India, the Indian government's effort to connect rural communities to the Internet and give people access to more services online."

SundarPichai, CEO Google: Google has provided high-speed public WiFi in over 400 railway stations all across India this has helped over 10 million passengers to get online every day. CEO Sundar Pichai appreciated PM Modi's effort to make India the next global hot bed of innovation and entrepreneurship, he said, "India has the fastest growing start-ups in the world. We are proud of what is happening in India and share Prime Minister's vision of Digital India."

SatyaNadella, CEO Microsoft: Microsoft is now associated with Indian government and has provided low-cost broadband connectivity to 500,000 villages in India. "Digital India will bring about solutions for the challenge of digital divide."

Paul Jacobs, CEO Qualcomm: Qualcomm has supported both Digital India and Make in India programs. The companyhas provided fund of US $150 million that is approx. 9.8billions INR for innovation and Indian startups. Along with that Qualcomm has also planned to initiate a Design in India competition to showcase the talent of local people and to boost up their creativity and manufacture their local product designs. For this a Qualcomm Innovation Lab will be set up in Bangalore, India to provide support to promising Indian companies.

People of India are glad to see the change that are taking place, there is still scope of improvement but yes gradually and eventually it is going to happen. It has been rightly said "India is poised to be a leader in digital technology." Digital India is highly contributing in the development of the country as it has generated many awareness programs which have taken the people especially of rural areas nearer to the technology. Digital India is surely uplifting the society and also helping in raising the economy.

CLOUD COMPUTING

Cloud computing is a buzz word in this digitally empowering nation. If we will look at the current market scenario, Cloud computing has escalated the scope of business innovations and helps the business to step up in the next level. High speed internet has been made available in all villages, use of mobile banking and net banking in villages and the participation in digital and financial space at individual level is increasing gradually. All digital resources are universally accessible such as government documents/certificates available on the cloud. The government has become more transparent since the launch of digital India. Many known businessman has done their bit by supporting Digital India plan in monetary terms too, Mr. Anil Ambani said "the availability of unlimited cloud computing power and data centers are crucial pre-condition for the success of Digital India."Also, he committed to invest nearly Rs 2.5 lakh crore over the next few years to fund the projects of digital, cloud and telecom space. Cloud is the pillar in facilitating the delivery of various e-governance services. It is an obtrusive component that has brought a standard shift in the way government secures and deploys IT tools and implements e-Governance applications in the country.

The citizens, in the length and breadth of the country, are not digitally empowered enough to participate in Digital India and extract the maximum benefits out of such an amazing initiative. Just developing digital infrastructure and bringing governance and services on demand in digital mode will not be adequate unless the citizens are also digitally empowered. For this, capacity building initiatives, to create digitally / IT ready citizens, particularly for the destitute sections of the society, need to be undertaken very seriously. Digital Literacy and IT related people awareness programs, in a mission driven manner, in the length and breadth of the country, particularly for the unreached and poverty-stricken sections of the society, should be conducted in an effective manner, not only to digitally empower them but also to connect them with the mainstream and empower them to participate in the process of making the Digital India, a reality.

Considering the areas that need improvement, Digital India knits together various ideas and thoughts and aims to fulfill all its ambitious projects to develop the foundation for long term growth. The government of India has all planned up list of the main sectors that can help in the development of the country.

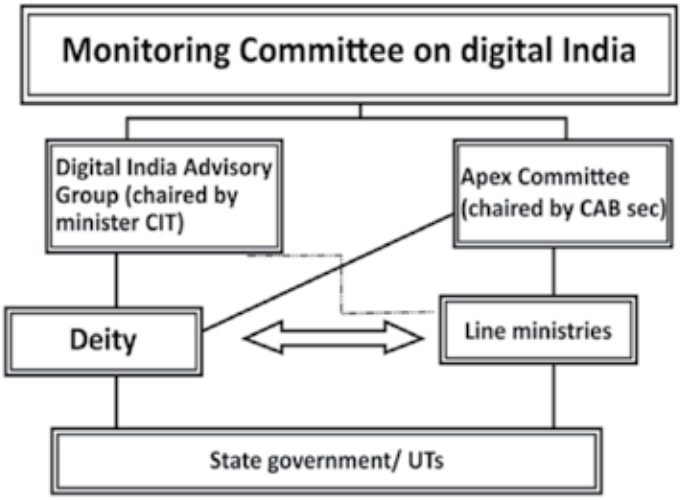
PILLARS

9 Pillars of Digital India :

- 1. Broadband Highways
- 2. Universal Access to Mobile Connectivity
- 3. Public Internet Access Programme
- 4.e-Governance- Reforming Government through Technology
- 5. e-Kranti- Electronic Delivery of services
- 6. Information for All
- 7. Electronics Manufacturing
- 8. IT for jobs
- 9. Early Harvest Programs

Management Structure for Digital India Plan

Digital India is an enormous project which needs proper management, strategies and policies to make this plan successful. Everything has been preplanned and allocation of different work has been assigned by the head of the monitoring committee that is none other than our Prime Minister, Mr. Narendra Modi and the Digital India Advisory Group chaired by the Minister of Communications and IT and an Apex Committee is directed by the Cabinet Secretary. This is the chart that explains the needed secretarial/ monitoring/ technical support and appropriate fragmentation of power and responsibility to ensure that there is effective execution of the all the projects by different departments.



CONCLUSION

The positive signs are everywhere that this ebullient movement is going to change the way people think, work and analyze. What can be more blissful than the news that India is on the verge of becoming digitally empowered country. It has already given us many tremendous results and there is many more to come. The e- services have begun to pick up momentum, the rich section of the society have always been the dominating but it's no longer going to be the same because gradually even the people of lower sections of society are getting aware of the technological advancements. Earlier they had no idea about the accelerated growth of technology, the innovations and its capabilities but it has been rightly said that 'nothing lasts forever' and so even this is going to end and one day even the people of backward areas will no more be considered as backward. And that will be the day when India will be called as "Digitally empowered country".

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PAYMENT BANKS : A NEW MECHANISM TO PROMOTE FINANCIAL INCLUSION

Vaishali Sharma *

Dr. T.V. Raman **

ABSTRACT

Financial inclusion is one of the great initiated taken V. Venugopal Reddy, the governor of RBI in April 2015 in his annual policy statement and regarded technology adoption as an important and essential feature for attaining financial inclusion. Financial inclusion refers to providing financial services at affordable costs to vast sections of disadvantaged and low income groups. The payment banks, also known as niche banks, are the financial entities established by the RBI in November 2014. These entities can accept the deposits from the customer only upto Rs. 1 lakh and pay interest on the same. These banks are not allowed to lend money on credit to its customers and external parties as well as not allowed to issue plastic money i.e. debit and credit cards. The main objective behind setting up of payment banks is to support the scheme of financial inclusion by offering small saving accounts and payment or remittance services to low income household, small businesses and other unorganized sector entities. This research paper attempts to analyze whether the role played by these payment banks established by RBI is sufficient in strengthening the campaign of financial inclusion in India.

Keywords : *Financial Inclusion, Payment Banks, customers, Financial services, Technology adoption.*

INTRODUCTION

Banking sector in India, being an emerging sector, affects the human life in all aspects as it becomes a necessity to everyone. In India, the banking sector is equipped with 171 banks at present including 27 public sector banks. Payment Banks is a Brainchild of Nachiket Mor. Committee which was setup last year (2015) by RBI. On 19 August 2015, the Reserve Bank of India gave "in-principle" licenses to eleven entities to launch payments banks. The Committee aims to assist in widening the financial inclusion mission by bringing Small Businesses and Low Income Households into the ambit of financial services.

Payment Banks means "Digital Wallet or Mobile Currency" which can be used to book movie tickets, pay utility bills, do shopping etc. Payment Banks is based on the concept of PPI that is to load cash into mobile and use it to do various transactions such as transferring money using your mobile to another mobile phone holder or to another bank account or to point-of-sale terminals at large retailer and take out cash. Need for Payment Banks erupted because India has around 94 crore mobile subscribers which is approx. 75% of the population of 125 crore but if we see the number of bank accounts this figure comes down to 60 crore that is around 50% of the population. Most of the unbanked people lives in the rural area and are poor people or small businessman. So, from point of view of scheme of financial inclusion, the model (PPI) seems to be sound concept.

The minimum capital requirement is 100 crore. For the first five years, the stake of the promoter should be 40% minimum. Foreign share holding will be allowed in these banks as per the rules for FDI in private banks in India. The voting rights will be regulated by the Banking Regulation Act, 1949.

Just Like regular banks, people can open current and savings accounts with them but the balance they maintain can't exceed Rs 1, 00,000. The banks can also issue ATM and debit cards but not credit cards, and they can't give loans. RBI is hoping payments banks will usher in financial inclusion and provide payments and remittance services to a migrant workforce, low-income households and others. Globally, technology-led platforms on the mobile have demonstrated success in bringing the benefits of banking to large sections of the population in countries such as Kenya and Tanzania, where access to formal banking channels is limited.

Review of Literature

Dr. J.C. Pande (2015) in one of his research paper titled "Payment banks:- A Newer Form of Banks to foster Financial Inclusion in India" provides that the introduction of the payment banks in India is a major positive disruption to the banking sector and would certainly see the cost associated with the transfer of money or settlements reduce dramatically for end users. Payment banks have been restricted in banking operations, as they will not be allowed to carry out normal lending activities. It does raise questions about who will serve credit needs of the unbanked. RBI suggests that payment banks will serve as a bridge to allow people to eventually migrate to full service banks, which is quite likely. When seen in the background of limited access to the formal banking system, however, the need to introduce newer forms of banks is the way to go, in the correct perspective.

Payment banks will face competition from the existing lenders. Besides, profitability will also remain a challenge as they will be working on narrow margins. To this end, due to ever-growing customer's expectations for faster-easier-simpler banking facilities what will drive the bankers is to work with creativity and passion, which contributes to growth of cross sections of our society and so the challenges.

Varun Kesavan (2015) in his research paper titled "The diversification of banks to the era of payment banks by RBI with special reference to Indian Banking System", observed after a detailed study of policies and strategies adopted by RBI that central bank of country is providing very innovative and flexible financial services to its customers by all modes of innovation. But still performance can be enhanced by means of customer satisfaction and also by handling customer's requirements in a more effective manner. The RBI has mainly focused on the innovative as well as promotion of lower income group and also welfare of the society as a whole. The CSR policy of the bank is really very innovative and is very strategic in nature up to an extent. But it is observed that banks in India are moving towards sustainability through innovative service and flexible operations and offerings. It is also evident that rate of innovation mechanism adopted by RBI and relevant banks has enhanced. But this era of innovative mechanism is surely going to be a great challenge in

**** Research Scholar, Amity Business School***

***** Associate Professor, Amity Business School***

near and upcoming future of banks in the country.

According to the author, innovation can give the better success to the banking sector but provided it must showcase an exemplary performance in gaining customer satisfaction and fulfilling the requirements of the customers by all means and it is only way of gaining success for a bank.

Single H K (2008) in his paper "Financial performance of banks in India", in ICFAI journal of Bank Management no 7 has examined that how financial management plays a crucial role in the growth of banking. It is concerned with examining the profitability position of the selected 16 banks of banker index for a period of 6 years. The study reveals that the profitability position was reasonable during the period of study when compared with the previous years. Strong capital position and balance sheet place, banks in better position to deal with and absorb the economic constant over a period of time.

Singh R (2003) in his paper, Profitability management in Banks under deregulate environment, IBA bulletin no. 25 has analyzed profitability management of banks under the deregulated environment with some financial parameters of the major four banks group i.e. public sector banks, old private sector banks, new private sector banks and foreign banks, profitability has declined in the deregulated environment. He emphasized to make banking sector competitive in the deregulated environment. They should prefer non-interest income sources.

Prashanta Athma(2000), in his Ph D research submitted at Usmania university Hyderabad, A case study of State Bank of Hyderabad, made an attempt to evaluate the performance of public sector commercial banks with special emphasis on State Bank of Hyderabad. The period of the study for evaluation of performance is from 2000 to 2014. In this study, Athma outlined the growth and progress of commercial banking in India and analyzed the trend in deposits, various components of profits of State Bank of Hyderabad, examined the trends in asset structure, evaluated the level of customer satisfaction and compared the performance of State Bank of Hyderabad with other public sector banks, associate banks of SBI and SBI. Statistical techniques like ratios, percentage, compound annual rate of growth and averages are computed for the purpose of meaningful comparison and analysis. The major findings of the study are that since nationalization, the progress of banking in India has been very impressive. All three type of deposits have continuously grown during the period of study, though the rate of growth was highest in fixed deposits.

A comparison of State Bank of Hyderabad performance in respect of resource mobilization with other banks showed an increasing trend indicating a more than proportionate increase in spread than in burden. Finally, majority of customers have given a very positive opinion about the various statements relating to counter services offered by State Bank of Hyderabad.

Objective of the study

1. To get an insight into the concept of payment banks introduced in Indian banking sector.
2. To explore the reach and extent of services offered by the payment bank to its client.
3. To determine the role played by payment banks in promoting the campaign of financial inclusion.
4. To analyse the success rate of these payment banks in context of Indian banking sector.

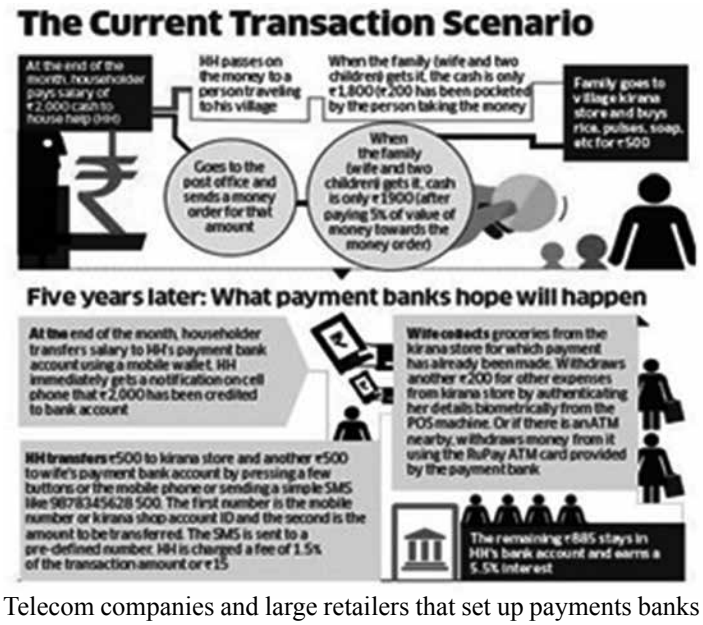
Research Methodology

The research is going to be a descriptive study covering the capital state of India i.e. New Delhi. Secondary is used in conducting the research. The secondary data is gathered from the published reports, surveys conducted by payment banks, RBI, World Bank and other related sources.

Will payments banks be successful ?

Financial inclusion is most likely to be achieved when banks find it to be a scalable and viable business. Payments banks cannot give loans and therefore, cannot earn any revenue from the interest spread between loans and deposits. They will have to rely mostly on fees from remittances and services such as utility payments or mobile top-ups. The banks can also act as business correspondents for scheduled commercial banks and offer loans, credit cards and earn commission on any insurance and mutual fund products they sell. "They will operate on thin margins.

Volumes will be the key to their survival on a standalone basis," says AP Hota, CEO and MD, National Payments Corporation of India. Any interest that payments banks earn from SLR securities they have to invest a minimum of 75% of deposits in such securities may be neutralised against the interest they have to pay out on customer deposits, he says. Most applicants are prepared for the long haul though. One 97 Communication, the firm that owns the Paytm mobile wallet brand, is prepared to wait seven to 10 years to make money, says Amit Lakhotia, who heads the payments business at the firm.



Telecom companies and large retailers that set up payments banks could enjoy benefits in their main businesses even as they wait for profitability. More customer stickiness and the opportunity to get a potentially larger slice of the customer's spend are two such benefits.

"Large retailers are also beginning to control the value chain in terms of sourcing supplies directly from rural areas," points out Shashwat Sharma, partner, KPMG Advisory Services. He feels both retailers and telecom operators enjoy some brand recall and client connect.

What will be critical to the success of payments banks, though, is their ability to identify the right regions to expand and set up a network in — such as areas with limited access to mainstream banks and where a large chunk of money is coming from urban remittances. An understanding of the local economy and how

people spend money is also important, according to him.

In the initial years, Crisil's Srinivasan says, winning customers' trust and establishing credibility to get deposits will be one of the key challenges for players. Crisil expects payments banks to offer a 5.5% to 6.5% interest on savings accounts to attract deposits but says deposits would still be limited to less than 0.5% of the current and savings account deposits of the banking system five years down the line.

Crisil believes telecom operators have an advantage over other players when it comes to setting up payments banks. "They have a significant presence in rural areas and their distribution infrastructure is mostly there. They are well placed to enter the business both operationally and strategically," says Srinivasan.

Conclusion

Payments banks especially those which get their mobile phone integration and e-wallets right could offer convenience that could win users from higher economic segments as well. Even high- and middle-income groups are inclined to open account with payments banks when they launch because of the convenience they can offer, a recent survey by Nielsen discovered.

Ironically, 68% of people from low-income groups are inclined to open accounts with payments banks, but 76% of people in high- and mid-income groups said they would do so. According to Anand Parameswaran, director, Nielsen India, "Scheduled banks could suffer if payments banks gain popularity". Some large retail chains and telecom companies have already established trust with consumers, at least in the urban context, Parameswaran believes. This could create an interesting competitive scenario. Most scheduled banks, experts believe, are likely to pick up equity in payments banks.

But the biggest difference between a scheduled bank and a payments bank will be in the focus. For most of the scheduled banks, financial inclusion was one of the focus areas, says KPMG's Sharma. But for payments banks, that will be the primary focus area. And this, according to him, could make the difference in bringing the financially excluded within the banking system.

The road to profitability may be a long one for payments banks, but if they can recreate the explosive mobile subscriber growth in banking, the wait will be well worth it.

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THE SIGNIFICANCE OF SOCIAL MEDIA IN THE INSURANCE INDUSTRY IN THE PRESENT SCENARIO

B R Singh *

ABSTRACT

There is emergence of a number of major technology trends impacting the insurance industry, one of these is the rise of social media as a formidable socio cultural force, the implication whereof will be instantaneous.Over the last one decade, social media has been used by people for a number of motives: entertainment, communicating, collaborating, seeking expert advice, sharing information, sharing opinions, etc. Of late, social scientists have observed that social media have increased people's connectivity and facilitated users' direct involvement to a great extent.This paper suggests that Social media can be best used by the Insurance Industry for not only reducing operating cost but also incurred claim ratio. To conduct this study, researcher has extracted secondary data from various national and international journals, reports, newspapers articles and websites.

Keywords :-

Social Media, social networking, social platforms, collaboration, insurance, claim processes,

INTRODUCTION

While there are several ways to define social media, a common thread running through all definitions is blending the technology with social networking for the creation of value. Social media is the collective online communications channels dedicated to community-based input, chatting, interaction, information sharing and collaboration. Websites and applications dedicated to fora, micro blogging, social networking, social bookmarking and wikis (collaborative editing on a website) are among the different types of social media.

Social media is an instantaneous communication channel consisting of four unique characteristics that have changed the nature of interactions among people and organizations: user generated content, community, rapid sharing, and open two-way dialogue. The most popular social platforms are Facebook, Twitter, LinkedIn and YouTube.

Social media has drastically altered the landscape of personal and professional communication. Companies across financial services have adapted to involve social media as part of their core marketing initiatives, and at an accelerated pace.Social media can be further utilized as a customer-service tool and as an effective channel for an insurer to gather observations, impressions and real-time consumer responses to various issues arising in its business space. Social media help consumers filter the huge volume of information at their disposal by enabling them to count on comments from their friends, relatives, reference groups and like-minded people and accordingly take best possible decision.

LITERATURE REVIEW:

The literature study and review was conducted by means of the structured literature approach techniquewhereby secondary data was collected from various studies, research papers and consumer surveys.

Erik J. Sandquis and Carlos a. Lugo both directors in Accenture published a paper in June, 2014 on the basis of social media data collected in January, 2014 and consumer driven surveys conducted in 2012 and 2013. According to this study Insurance carriers have a tremendous opportunity to capitalize on the word of mouth that is increasingly occurring within social media. Nearly half of the 6,000 insurance customers from several countries participating in Accenture's 2013 Consumer-Driven Innovation Survey said they would prefer to make their insurance-buying decisions after considering comments on social media. Social media also provides a rich set of data on consumers and increasingly the "things" that they own or use. Social media is expanding the universe of data that is knowable about consumers, their behaviours, and their possessions.

In the foregoing survey, 92 percent of respondents saw risk management advice as either a "good" or "critical" service desired from their insurance provider. Given the relative infrequency of contact between consumer, agent, and insurer through traditional channels, social media data can help fill in the gaps. Finally, in the same consumer survey, 80 percent of respondents saw personalized advice from their insurance carrier as either "somewhat" or "very" important. Social data is rich with life events and other information that can aid agents and insurers in providing more personalized and relevant experiences and offers.

While many carriers have embraced social media to varying degrees, their efforts have been primarily focused on social listening and engagement. No carrier has yet realized the full, transformative power of social media. In this report, Accenture explores the applications of social media—from conventional to disruptive-across the insurance value chain and suggests a framework for insurers to mature their social media efforts to drive more business value.

Moody's survey of US life insurers and P&C insurers (August, 2014) : Following LIMRA survey (conducted in 2013)confirming that almost every US life insurance firm has a social media program, Moody's released the results of their own survey on social media insurance. The survey of 66 rated U.S. insurers (42 life and 24 P&C) found that 86% plan to grow their social media use within the next year.

Top insights of the survey are as under :-

- Most insurance companies using social media do not use it to talk about insurance.
- None of the companies believe social media is very effective in increasing direct sales.
- Companies' biggest reason for using social media is brand promotion and their biggest concern is legal and regulatory issues.
- Insurers also use social media for marketing, whether between wholesalers and financial advisors, or agents communicating with existing clients.

"For US insurance companies, social media programs are in their early stages but based on our recent survey, many companies expect to make increasing use of social media in the future even if there isn't a direct link to sales," said **Scott Robinson, a Moody's**

**** Assistant Professor; ASIBAS Amity University, Noida***

Senior Vice President and author of the report. "However, we do see social media use as a potential future credit positive for early adopters, since over time their experience will likely give them an edge in branding and marketing relative to latecomer competitors

Shaun Crawfordsays in 2015 Global insurance outlook "a key challenge for insurers in 2015 is the need to develop more robust mobile digital technologies, data analytics and social media strategies to address growing consumer expectations of more refined product sales and distribution."

OBJECTIVE OF THE STUDY :

The main objective of this paper are :

- to spotlight the ever increasing significance of social media in insurance sector;
- highlighting the need for social analytics in the insurance sector;
- assessing the potential the social media hold for insurance carriers to optimize the benefits emanating from CRM;
- searching the possibilities of transforming Insurance business practices through Social Media;
- exploring the prospects of Insurers catering to needs of niche market through social media.

RESEARCH DESIGN AND METHODOLOGY :

The nature of this study is descriptive and exploratory, whereinrelevant data has been collected on secondary basis from various sources such as published research papers in national and international journals; published reports, newspapers and websites. The researcher has used content analysis technique to analyse the collected secondary data. To conduct this study, the researcher, applied his own experience of more than 30 years in the field while working as an Insurance executive for 25 years and thereafter as Insuranceand Marketing Management teacher till date.

What is Social Media Marketing?

Social media marketing refers to the process of gaining attention through social media sites. Social media marketing programs usually focus on efforts to create content that attracts attention and encourages readers to share it across their social networks.

Social Media Sites:

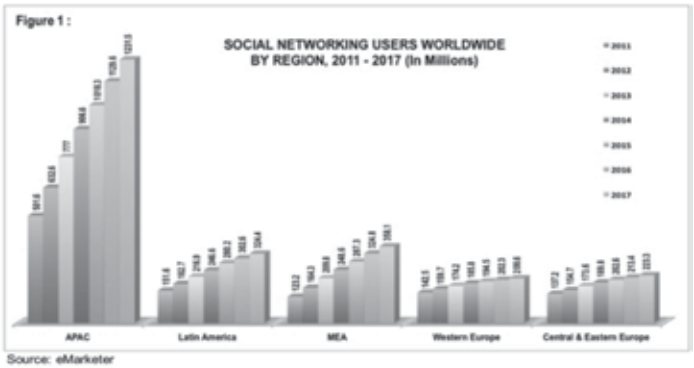
Social media sites and usage thereof are in a constant state of evolution, with dominant sites changing and new platforms being launched at regular intervals. While various features will change and particular social media platforms will come and go, the unique aspects of social media - including its speed, reach and collaborative nature - are likely to ensure the long-term appeal and success of the medium. Regulators and licensees are encouraged to remain watchful of these aspects as they develop procedures and guidelines for the use of social media. As of now, there are about 230 major active social networking websites.

Why Social Media in Insurance Business?

The rapid and continuous developments challenge the insurance companies and force those interested in the new possibilities. The popularity of social media, for instance blogs and discussion forums, has created new and unforeseen social possibilities for individuals, organizations and the society as a whole. It has been found out that more global internet usage will happen in the coming years. I***n 2012 there were 2.3 billion Internet users, about 32% of world's population (7.2 billion). By 2017 this count may grow up to about 3.6 billion internet users, more than 40% of world's projected population. (See Fig 1)***

The ways and techniques to use social media are constantly evolving. Social media does not require special technical resources to reach out to the masses. The applications can often simply be operated from a normal computer and they are often free of cost or at least very inexpensive. Examples of use for an organization can be gathering useful and relevant information with as little effort as possible, or using your follower base on the social media platform to help develop a new product online possibilities.

Figure 1 :



Source: eMarketer

For the insurance industry Internet reviews and social media word-of-mouth play an integral part in credibility too. ***Potential clients, especially millennials, trust advice from friends, relatives and even strangers on social media about the best insurance products or carriers.***

Social media considerations ought to play a significant role in the insurance companies overall business strategy. They need to be a vital part of the decisions that guide tactical directions and operations. Firstly, goals must to be set and organization-wide guidelines for social media should be established. The strategic plans need to be guided by a comprehensive set of competencies to analyze and predict social media activity. Ultimately, social media is poised to become just another data and distribution channel. The areas that hold promise for the insurance industry are:

a) Modelling, segmenting and profiling: Utilizing social media to identify marketplaceopportunity.

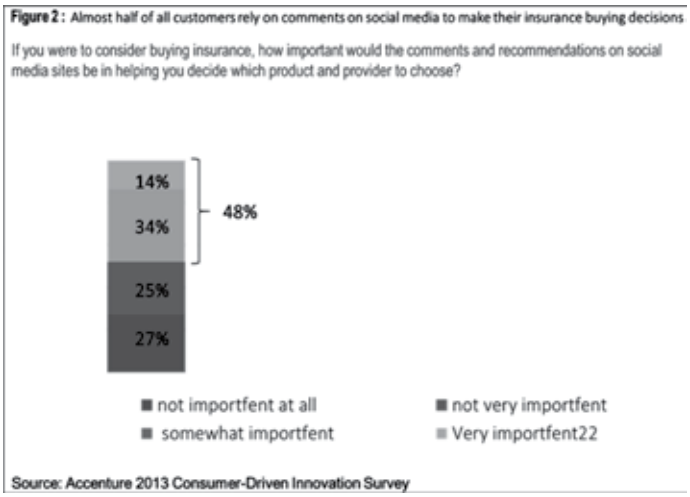
b) Campaign management: Implementing plans to capitalize on social media opportunity.

c) Managing the brand in cyberspace: Comprehending positive and negative sentiments of the target market.

Transforming Insurance Business Practices through Social Media :

Social media, as a catalyst for effective communication and interaction among people, is a natural ally for helping insurance companies improve their business and connect with customers. For example, social media makes it more convenient, faster and easier for insurance consumers to obtain advice from friends, relatives, and even strangers about the best insurance products and services.

As said earlier, nearly half (48 %) of the 6,000 insurance consumers from 11 countries participating in Accenture's aforesaidsurvey said they would consider comments on social media in making their insurance-buying decisions. (See Fig. 2).The survey found that in particular young consumers (age 18 to 34) pay attention to social media comments. This is a reason strong enough to pursue a social presence (through social media). In addition, **social media is also a great source to gather information about consumers, including their behaviours and possessions.**



Trade publication Business Insurance observes that insurers are using social media for company branding and marketing purposes, but more frequently they are using it in claims processing for bigger advantages. **Insurers have long leveraged social platforms for marketing and brand building, but now theydiscover that social mediadeliver a plenty of data that can be best used to improve the underwriting and claims procedure.**

The advantage of using social media can work to the benefit of the claimant and to the benefit of the insurance company as well. For instance, if an insured has been involved in a car accident, he should definitely use his smart phone device to take some pictures, and use his voice recorder to recount the event that just happened. **Having the images uploaded to the online claim filing system for his car insurance company will help hisclaim move forward quickly in his favor.**

On the other hand, insurance companies by using social media can check theveracity of claims in a type of surveillance scenario. For example, an insurance agent noted that a warehouse employee who filed a claim for an injured arm wrote on his social media about participating in a rock show that forthcoming weekend as a guitarist. After checking the guitar player (injured warehouse employee's advertisement for the show on Myspace, the investigator of the insurance company took pictures of the fraudulent worker and later got the claim repudiated.

Social media helps out insurance companies by lowering their marketing costs. Social media marketing programs usually focus on efforts to create content that attracts attention and encourages the members to share it across their social networks. The resulting electronic word of mouth (eWoM) refers to any statement consumers share through the Internet about an event, product, service, brand or company, especially on social media platforms. When the principal message spreads from one user to the other and presumably resonates because it seems to come from a trusted source, and not from the brand or company itself, this form of marketing results in earned media rather than paid media.

By using social media, consumers can get quick responses to questions and easier price comparisons among various insurers. Also, they can use social media to reach out to friends and seek opinion, advice and more to better evaluate which insurance plan might be right for them.

Insurance companies that are active on Twitter, LinkedIn, Facebook and other social information sites can transform insurance marketing language into easilyunderstandable points for consumers. And that will lend it to bringing in more customers in the long term, hence the business demand for satisfying consumers online is becoming asubstantialday-to-day work task for insurers.

The millennials looking to buy vehicle insurance for the first time won't call a local insurance agent. They will go to Google search, find insurance products and prices online, and may ask their parents a question or two and then press click. With younger generations so much reliant upon social media as their preferred form of communication, the future marketing will most likely comprise more direct selling to end-user customers via these new distribution methods. Insurance companies must be quick to implement new programs incorporating

- text messaging for faster responses to a company text service;
- social media inquiries from Twitter about seeking insurance;
- reply to a Facebook page inquiries;
- using smart phone apps to consent for mobile sales.

These marketing initiatives will help bring the insurance company closer to its users and help in lowering their overall costs of printing and mailing pamphlets and other marketing materials to potential customers' homes.

Other tips that emerge for insurance companies using social media come by way of smart phone apps. One growing space is that Insurance companies are creating apps with social media that could assist claimants to file claims immediately after an occurrence of incident. Photos taken on the spot could be submitted through an app, and the claim amount could be directly credited to the insured's account.

Phenomenal upsurge in the use of Social Media in Life Insurance across the glob

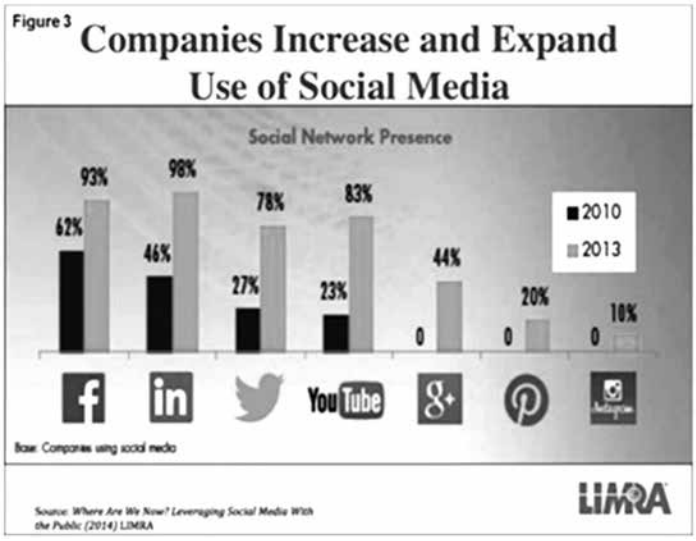
According to a survey conducted by LIMRA, the world's largest association of life insurance and financial services companies, 93% of life insurance companies had social media programs in place in 2013. (See Fig 3) That's up 55% from the 60% of companies that were managing social media in 2010. **LIMRA also found that LinkedIn and Facebook are the most widely used social media platforms, as shown in the chart. YouTube and Twitter are also fairly popular, with usage across more than 75% of life insurance companies.**

LIMRA's Social Media Conference on Financial Services (held in August, 2014) suggested financial services teams the strategies they need to build relationships, promote sales and recruit new producers with social media. In contrast to preceding years, where seemingly the conference was largely focused on brand building or corporate use of social media, this year's conference concentrated much more on how advisors successfully leverage social business practices.

New York Life, Sun Life Financial, MassMutual and other organizations shared stories of how advisors successfully leveraged social media not only to maintain customer relationships but grow their Life insurance business. **Even Zuckerberg Media founder and CEO Randi Zuckerberg recounted some of the best-practice examples of Life insurance advisors using Facebook to connect directly with their customers.**

Using social media for disruptive advantage :

Europe-based entrepreneurs are using social media for disruptive advantage, creating new business models and novel ways for consumers to buy insurance.



A German based start-up, Friendsurance, enables consumers to create their own insurance networks of friends and relatives who share in a percentage of the claims, reducing premiums by up to 50%. Firstly, Friendsurance helps consumers find an insurer, much in the same way as an aggregator does. After consumers have selected a carrier, they canfall back on their social networks to start saving. They may invite friends and relatives to share in the cost of future claims up to a nominal amount. The more friends join an individual consumer's insurance network, the lower the risk for the carrier and the lower is the premium for the consumer.

The liability for any individual consumer in this model is limited to his/her own premium, covering the total potential claim losses any individual consumer would be required to cover. **In this model, the chances of fraudulent and frivolous claims are reduced, driving value for both carriers and consumers.**

Similarly, UK, jFloat is leveraging social media to change the competitive playing field for auto (motor) insurance. jFloat enables consumers to organize their networks of family, friends and like-minded people, form their own group risk pool (a "float") and thus selfinsure their cars. The float accepts new members and, thus, is self-regulated. Of the total premium, 80 percent goes to the float's pool and 20 percent goes to a re-insurance carrier. Claims below a certain threshold are paid out of the pool; others are settled by the reinsurer. **The model offers positive outcomes: risk exposure more in line with a member's risk profile; transparency into the insurance process and incentive for members to report reasonably low claims.**

Another example is UK-based financial services startup 'Bought By Many' targets neglected or underserved insurance markets. Through 'Bought By Many', **groups of people with niche insurance needs join together to buy insurance products at a lower cost or that are better tailored to their needs.** Acting as an intermediary, Bought By Many bargain with insurance companies to obtain deals.

Such entrepreneurial ventures will continue **to make the use of social media networks to change industry dynamics, the focus of competition, and the way value is created and distributed in the insurance industry.**

To stay competitive, insurers must draw on their customer relationship strengths and **make best use of immense data they have access to, and work to evolve their social media strategies in such a way that turn potential disruption into opportunities and advantage.**

Social media analytics in the insurance industry :

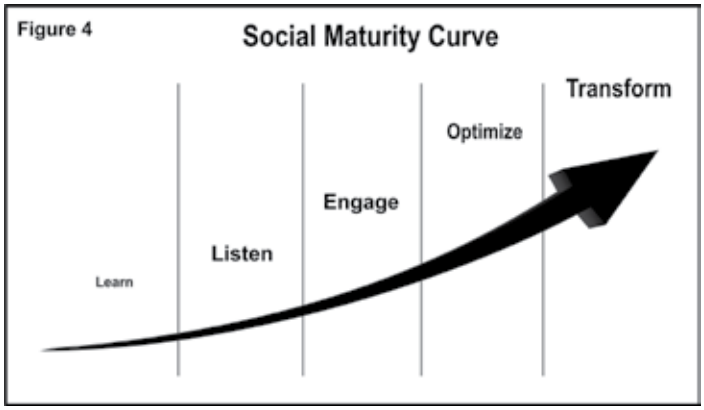
Insurance is a high involvement product, as it is an expenditure. Consumers gather information about insurance from agents, advertisement, familymembers, friends, neighbours and acquaintances. They perceive little difference among various brands. However, most of the prospective buyers today have access to a more trusted empirical source of information in the form of social networking sites, where buyers share their brand experience.

Online social networks provide a larger platform to socialize and exchange information and opinions. This renders the conventional method of market segmentation almost redundant. **Social analytics integrate, analyse and enable organizations to act on the market intelligence gathered from online conversations occurring across social media sites.** It helps and enables organizations to attribute online discussions to specific parts of their business. **Insurance companies can extract important insights, trends, sentiments and hidden patterns from customer-centric chats and proactively act upon them to derivethe best possible business outcome.**

Insurers should first try to determine how to track all online activities. While there are various tools for web analytics and social media tracking, the main challenge is to determine what activity to be tracked and how to track it with a holistic approach.

Climbing the social media maturity curve

Based on their cross-industry experience helping companies and government agencies to define and execute social media strategies, Accenture has ascertained an evolutionary process to social media maturity which takes place in several phases, as shown in Figure4.



The phases culminate in a transformative, enterprise-wide, IT-enabled utilization of social media. The phases are:

Listen:After learningfrom the target market in the initial stage, organizations employ tools and services to monitor, capture, analyse and respond to public information available from social media.

Engage : While companies continue their listening activities, they also take steps to engage with customers in a systematic manner.It is one thing to reach your target audience, but to get that audience engaged with your message is altogether a different thing.

Optimize : Companies link their social media channels to a all-inclusive customer relationship management (CRM) program to grow further. The optimum use of social media allows insurers greater reach and flexibility in marketing to niche consumer segments.

Transform : Insurers use more complex, **IT-enabled social tools integrated with other business systems to reinvent outdatedbusiness models or create new disruptive business models.** Insurers willing to protect their market positions and strengthen their competitive advantage will seek to reach this stage of social media maturity.

So, insurers shouldfind out where are their companies in this maturity continuum? How can theyproceed to the next level?

CONCLUSION:

Social media are making collaborations faster and easier than ever before, and many enterprises are finding that they have an ever-increasing desire to motivate their employees to be more closely connected - using the technology to share ideas in such ways that boost output and efficiency apart from providing instant direct links to customers. **The ability to capture, decipher and act in real-time based on data furnished by social media in the context of other enterprise data will become a tremendous competitive advantage over a period of time.** The KPIsdiscussed above are powerful for the enterprise to measure, analyse and interpret data from social media to facilitate business decisions, to develop the product, to understand the market and to influence consumers.

The insurance marketplace, like others, **is evolving and therefore we must be willing to adapt with the changing marketplace.** We have to understand the market (existing and prospective customers) and all the stack holders out there. The Millennial Generation does not value the service independent insurance agents provide and prefers to deal with direct underwriters.**The problem is not that Millennials do not relate to Independent intermediaries, the factual issue is that these intermediaries do not connect to Millennials.**

The insurance industry as a whole has experienced significant growth over the last few years. The return on investment for a social media strategy is, largely, difficult to quantify. In spite of this, the impressive follower growth seen by insurance companies over the last one decade is sure to increase overall exposure, and work towards growth and overall brand building of insurers who are adapting to the changing landscape.

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FINANCIAL INCLUSION THROUGH DIGITALIZATION

Kirti Miglani *

ABSTRACT

This paper study about basic concept of financial inclusion and its role in providing services to the weaker section of society at reasonable prices with digital mode. Here the study comprises how the digital era seems to one of lower cost prospect which helps in balancing economic and financial aspects, improving employment opportunities further adds national income and economic development of a nation. This paper shows highlights of the vision initiated by Government of India as a provision focuses upon digital empowerment & good governance and the initiatives taken under digital technology in order to spread awareness and its usage among the masses . This paper is descriptive in nature.

Keywords :-

Financial Inclusion , Digital empowerment.

INTRODUCTION

Financial Inclusion means a way of providing access to a 'wide range of financial services at a reasonable cost. With the prospect of reaching large number of customers, banks and nonbanks sectors have started with the facility of providing financial services to financially excluded sectors of an economy. Government has designed digital platforms for providing access to wide range of financial services to the population especially remote/under developed areas regions, at a lower cost, and thereby ensure increase in access of digital financial access to the masses. Digital era results in lower transaction cost than earlier used methods which brings about balanced regional development within an economy. The platform via which these services can be delivered to the masses comprise of use of mobile phones have been launched in more than 80 countries.

Now the dependency on traditional aspects /modes has been reduced further more and more digital products and services are been designed for the masses therefore more players are advised to design digital products .This results in furthering benefits thereby ensure lower operating costs. it will help in increasing employment opportunities , business prospects and allow people to participate .

RBI Governor Dr. Raghuram Rajan on September 4, 2013, has appointed a Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households, popularly referred to as the "Committee on Financial Inclusion".

The committee submitted its report and it comprise following points :

- Ensuring a bank account for every Indian above 18 years of age by 2016 that is linked to the 12 digit Unique ID, popularly known as Aadhaar ID.
- Facilitating greater convergence between banks and mobile phone companies, non-banking financial institutions (NBFCs) such as MFIs so that they can play a larger role in financial inclusion.
- Creating a vertically differentiated banking system with the setting up "payments banks" for deposits, remittances and payments and "wholesale banks" for credit outreach, with few entry barriers.
- This regulation would ensure that mobile money companies could independently provide full-service mobile money products that included cash-out facilities for its customers.

Over the few last several years, many initiatives have been taken but 'Digital India' initiative, coupled with a payments infrastructure and is laying a foundation for digital economy. The vision of the initiative, as outlined by the Government of India, focuses on the provision of infrastructure as a utility to every citizen, digital empowerment, services on demand and governance. Access to finance is empowering for poor because it helps in uplifting the backward areas of society. As various initiatives JanDhan, Aadhaar and Mobile taking hold likely to provide an ideal opportunity that leakages in financial transfers are substantially lowered.

Objectives :

- To know about various initiatives been taken in order to spread financial Inclusion through digital mode.
- To know about the impact of Digital India Initiative programme.
- To explore the need and significance of financial inclusion for economic and social development of society.

Literature Review

According to former United Nations Secretary General Kofi Annan, identifies till the most of the people lack access to financial resources let it be savings , credit, insurance etc. So there is a need to identify various constraints that exclude people from participation in financial sectors.

Reddy, 2007 defines the process of financial inclusion consists of providing bank accounts to each and every household and offering their inclusion in the banking system .

(Massey, 2010) said that, role of financial institutions in a developing country is crucial in promoting financial inclusion. The efforts of the government to promote financial inclusion and deepening can be further improved by the pro-activeness on the part of capital market players including financial institutions. Financial institutions have a very crucial and a wider role to play in development of financial inclusion.

Kathuria et al. (2009) show that mobile penetration in Indian states is associated with a positive and statistically significant improvement in output.

A 2014 report by McKinsey Global Institute speaks of five disruptive technologies that can improve productivity and efficiency across key sectors of the economy, by 'digitising life and work'. These include mobile internet, cloud technology, automation of knowledge, digital payments and verifiable digital identity.

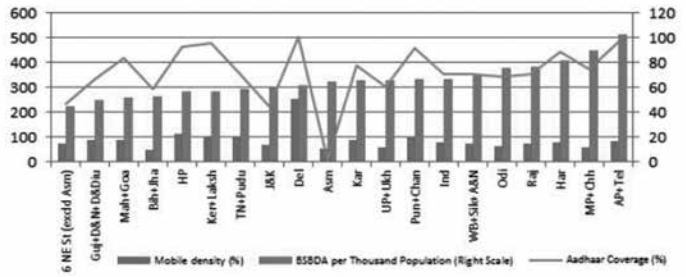
Impact of Digital India

This initiative has been taken by Government of India with the vision to create:

**** Assistant Professor; BLSITM (Affiliated to GGSIPU, Management Department)***

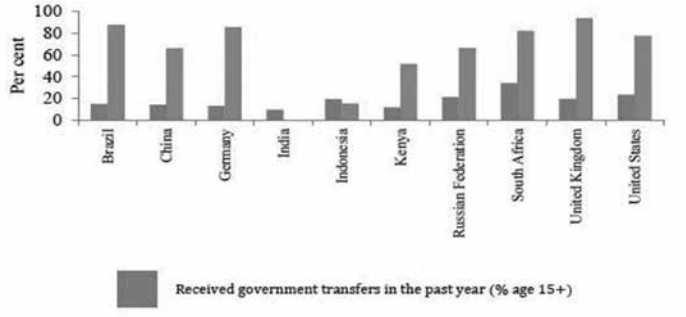
- Better Internet Connectivity, access to government services.
- Provision of Wi-Fi services in cities.
- Availability of 'digital lockers' to each citizen, allowing them to store all their original identification documents and records.
- Development of 100 smart cities in India, for which USD1.2 billion has been allocated.
- 'Aadhar' card provides a 12-digit individual identification number, issued by the Unique Identification Authority of India (UIDAI), to serve as a proof of identity and address. This card is based on biometrics technology. This card is based on biometrics technology.
- Provision of broadband internet access to 250,000 village clusters by 2019 at a cost of about USD5.9 billion.
- Setting up of a pan India fibre-optic network by June 2016.

Chart 1.6: Mobile density, Aadhaar coverage and BSBDA accounts



This chart shows increase in mobile penetration alongside Aadhaar makes it a ideal tool for low-cost financial service delivery. As per latest Census of House Listing and Housing Survey data 2011, the proportion of households availing of banking services has increased to 59 per cent in 2011 from 35 per cent in 2001. It indicates mobile usage, Aadhaar coverage have increased comparatively. According to (TRAI) Telecom Regulatory Authority of India, the total wireless subscriber base stood at 997 million at end-September 2015. This tends to reflect decline in per minute cost and it will also influence a country to move towards financial inclusion. Mobile banking technologies can also be used for government-to-person (G2P) payments. These payments tends to have significant impact on the economy as a whole.

Chart 2.5: G2P payments across countries in 2014



Initiatives Taken :

- With the rise of e-commerce, Japan's largest mobile network operator, NTT DOCOMO, Inc., has set up in London as a new global business operation in order to spread financial inclusion . it aims to encourage financial inclusion for citizens worldwide by bringing together mobile network operators, digital and real-world merchants, financial services providers, regulators and other parties to make consumer transactions convenient, safe and with universal coverage.
- National Payment Corporation (NPCI) is putting across the country a digital network which will eventually ensure lot of payments to be made through digital network.
- NASCOMM is providing number of softwares and apps to ensure financial inclusion.
- Aadhar Platform provides the facility of e- KYC. This program attempts to register basic ID data (including biometrics such as fingerprint and iris-scan) and issue residents an Aadhaar number as a unique identifier.
- RBI permits various mobile money operators (including Airtel and Vodafone) to run pilots for registering clients with Aadhaar and sending money to recipients who identify through biometrics.
- Drishtee has came up as an unique position to extend banking services (has tie up with India's largest bank – State Bank of India as its business correspondent) and micro finance services in rural communities. Drishtee's mission of 'enabling the development of rural economy and society.
- Innovative delivery channels, such as mobile wallet and e-money taken into consideration.

Significance

The main focus is oriented towards promoting less cash,paper society thus green initiative. The main emphasis is on use of electronic mode for various products and services which can be used anywhere and anytime at affordable prices.

Following are the seven cornerstones of financial inclusion, which have been incorporated as basic principles to enable payment system to play a role of catalyst in furthering financial inclusion.

Financial inclusion in India can be facilitated by following ways:

1. Restructuring of financial architecture fitting to the needs of inclusive growth.
2. Usage of Mobile Banking.
3. More use of Business Facilitators.
4. Role of Micro Finance Institutions .
5. Active role of educational institutes for furthering financial inclusion.

Conclusion

Reserve Bank of India and the Union Government, have designed various policies in reference to 'Financial Inclusion' which comprise of Jan Dhan and Jan Suraksha Yojanas and much more. Banks had opened about 167.3 million accounts. The balance in those accounts was about Rs 20,000 crore. Approx 51.1% of these accounts were zero-balance accounts These developments reflect commitment towards reaching India's underprivileged sections and signal a paradigm shift towards a more innovative side. Another development which has been started 'Digital India' initiative which seeks to transform India into a digitally empowered

knowledge economy. Improving access to finance poses a great challenge for India's rural poor people due to its size and diversity. Despite there sustained efforts over the last few decades, spread of financial inclusion is very slow. Low awareness about financial services, literacy and digital technologies is also a factor for this. Over 75 percent of Indians have access to a phone across all states of India, but owning a mobile phone didn't make regular use of digital financial services . There are significant differences been observed in mobile phone ownership between men and women . With the Digital India initiative aspiring to provide free wi-fi across India over the next few years, mobile money/e-money will have the advantage of lowering transactions costs while offering convenience of access and thereby enhancing financial inclusion. Thus, in the near future, mobile money has the potential to offer a low-cost alternative to cash.

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IMPLEMENTATION AND IMPACT OF e-HEALTH CARE

Divya Aggarwal *

Akshita Singh **

Aditi Ray ***

ABSTRACT

Health sector is a growing field and health conscience has been a major concern for everyone. Particularly in the health care sector, Information and communication Technology, enabled devices like Smart phones, Tablet PC, Sensors etc are predominantly used for ease of access and use towards decision processing.

Application of intelligent agent technology in health care sector pertaining to hospital search & appointment, patient health monitoring and mobile health record can be done by the help of e-health care.

Health Information can be used on Online Social Networks provide a novel opportunity to improve public health through effective health information dissemination.

Implementation of an integrated system for the delivery of health related services, based on different technologies and devices that allow collecting and displaying data from biomedical sensors, to manage user's reminders for medicines, and to monitor the patient's dietary habits. Implementation proves the feasibility of the proposed service, and the possibility to gain users' adherence and compliance, through proper design criteria.

The present paper discusses the challenges and opportunities in ICT implementation in health care.

Keywords :-

ICT, eHealth, healthcare providers,

INTRODUCTION

eHealth is the single-most important revolution in healthcare since the advent of modern medicine, vaccines, or even public health measures like sanitation and clean water".

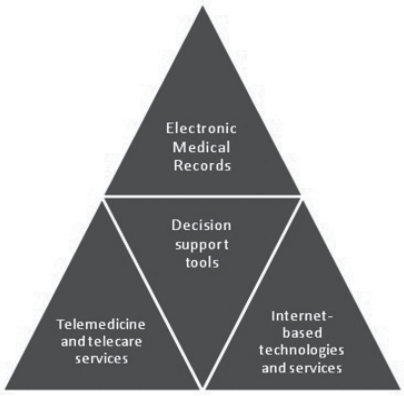
The term e-Health (E-Health, eHealth ...) has been in use since the year 2000. e-health encompasses much of medical informatics but tends to prioritise the delivery of clinical information, care and services rather than the functions of technologies.

Definition published by eHealth researcher Gunther Eysenbach in the article what is e-health? is among the most frequently cited and reads: "eHealth is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies."

In a broader sense, the term characterizes not only a technical development, but also a new way of working, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology[1]

Public health service run by Government is overburdened and collapsing. Large geographical size, increase population density, lack of transport, inaccessibility, illiteracy, poverty, poor nutritional status, low budget for health, lack of funds and coordination and diversity in food habit and life style are various challenges that have triggered down trend in health services.

Health-care providers have increasingly sought to utilize e-health systems that employ information and communications technologies to widen access, improve quality and increase service efficiency.



Key application areas of e-Health[1]

Electronic Medical Records (including patient records, clinical administration systems, digital imaging & archiving systems, e-prescribing, e-booking).

e-Health is expected to improve various aspects of healthcare (quality, cost-efficiency, access) by :

1. Supporting the delivery of care tailored to individual patients, where ICT enables more informed decision making based both on evidence and patient-specific data;
2. Improving transparency and accountability of care processes and facilitating shared care across boundaries;
3. Aiding evidence-based practice and error reduction;
4. Improving diagnostic accuracy and treatment appropriateness;
5. Improving access to effective healthcare by reducing barriers created, for example, by physical location or disability;
6. Facilitating patient empowerment for self-care and health decision making;
7. Improving cost-efficiency by streamlining processes, reducing waiting times and waste.

The implementation of advanced information systems is enabling great social and organisational changes. However, health care has been one of the slowest sectors to adopt and implement information technology (IT). [1]

Challenges in e health acceptability :

- Lack of rigorous and generalized evidence of the effectiveness and cost-effectiveness of eHealth applications and technologies.
- R&D will need to address human and organisational factors affecting implementation, from the perspectives of both health service staff and consumers (patients and citizens). Evaluation studies equally will require a multidisciplinary approach.

**** Assistant Professor (HR); International Institute of Health Management Research, Sector 18-A, Plot No.3, Dwarka, New Delhi-110075***

***** International Institute of Health Management Research, Sector 18-A, plot no.3, Dwarka, New Delhi-110075***

******International Institute of Health Management Research, Sector 18-A, plot no.3, Dwarka, New Delhi-110075***

- Implementation and integration of eHealth systems into care processes are constrained by insufficient levels of systems interoperability (though moves to ensure standardisation in many current e-Health implementation programmes will reduce this).
- The legal and ethical implications of using health imformation technologies and clinical decision support systems which may result in harmful effects in certain cases are not yet clear. (In awareness of this, the USA government in its 10 year Health Information Technology Plan is aiming to clarify the regulatory framework for electronic records and and incentive their use.) System developers need to employ quality and safety assurance methods to avoid clinical risks and legal liability.
- The effects of eHealth tools on patient behaviour and the patient-clinician relationship are unclear.
- Potential health inequalities resulting from the 'digital divide', particularly affecting the disabled and the elderly, need to be minimised.
- The potential roles and influences of different eHealth media and settings (e.g. kiosks, workplace) need to be explored.[1]

METHODLOGY

A study will be conducted through extensive literature review obtaining information across various health sectors. This is a Conceptual paper based on secondary data collected from books, papers from national and International Journals and Conferences, government and private websites.

REBIEW FOR LITERATURE

Health care, as we know, is primarily about people-to-people interactions. It is about understanding, diagnosis, physical contact, communication and, ultimately, providing care. All of this is facilitated by the technical processes of imaging, pathological testing, information gathering, research and so forth. The task for every health care system is how to maximize the personal contact at the same time as maximizing the technical input, while all the time operating within a sustainable financial framework.

The European Union has recently argued that implementing e-health strate¬gies "has almost everywhere proven to be much more complex and time-consuming than initially anticipated".[6]

People working in developing countries have had to think about this task with even more urgency than those of us working in richer countries. They have had to think about how to obtain an expert opinion in remote places, how to support local clinicians who may not have all the skills they need, how to make sure technical information is interpreted wisely in very difficult circumstances and how best to use very scarce resources. Telemedicine offers help in meeting these conflicting needs by improving access to data and to individuals, while driving down the costs of doing so.

We in the developed world have large and industrialized health systems that grow costlier by the day as we absorb new technologies. It is rich in practical experience and will be of interest to health professionals, development workers, and e-health and telehealth proponents interested in learning about, or contributing to the implementation of, appropriate solutions for 80% of the world's population."[2]

The Case for eHealth is intended to encourage dialogue regarding next steps for health systems; this dialogue will involve policymakers, healthcare professionals, and citizens, each at their own level of involvement. [3]

The implementation of advanced information systems is enabling great social and organisational changes. However, health care has been one of the slowest sectors to adopt and implement information technology (IT). The paper investigates the reason for slow progress of eHealth by reviewing innovation diffusion theory and its application to both health organisations and information technology. Innovation diffusion theory identifies variables that influence the 'innovativeness' of organisations and the rate at which a technology diffuses. When analysed, these variables show why IT implementation has progressed at a slower rate in health compared with other industry sectors. The complexity of health organisations and their fragmented internal structure constrain their ability to adopt organisation wide IT. This is further impacted upon by the relative immaturity of strategic health IT which is complicated and unable to show quantifiable benefits. Both organisational and technological factors lead to the slow adoption of strategic IT. On the other hand, localised IT solutions and those providing measurable cost reductions have diffused well. [4]

Recent enthusiasm for the automation of medical records and the creation of a health information infrastructure must be viewed in the context of a four-decade history of anticipation and investment. To understand the current opportunities and challenges, we must understand both the evolution of attitudes and accomplishments in health care information technology (IT) and the cultural, economic, and structural phenomena that constrain our ability to embrace the technology. Because prudent IT investment could make a profound difference in U.S. health and disease management, our strategic response must begin with an understanding of the pertinent history plus the challenges that lie ahead. [5]

FINDINGS

Our review has revealed a growing emphasis on problems related to e-health systems' workability but relatively little attention to: (1) e-health's effects on roles and responsibilities; (2) risk management; (3) ways to engage with professionals; and (4) ensuring that the potential benefits of new technologies are made transparent through ongoing evaluation and feedback. These areas deserve more empirical investigation, as do ways to identify and anticipate how e-health services will impact everyday clinical practice.

CONCLUSIONS

The widespread use of the term eHealth suggests that it is an important concept, and that there is a tacit understanding of its meaning. This compendium of proposed definitions may improve communication among the many individuals and organizations that use the term.

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BIG DATA – THE NEW OIL OF 21st CENTURY AND HADOOP

Neetu Narang *

ABSTRACT

BIG DATA

Big data is a collection of data sets so large and complex that it becomes difficult to process using on -hand database management tools.Big data can be called as data that's an order of magnitude greater than data you're accustomed to.They constitute both structured and unstructured data that grow large so fast that they are not manageable by traditional relational database systems or conventional systems.

HADOOP

Hadoop was created by DOUNG CUTTING and MICHAEL CAFARELLA in 2005,both worked for Yahoo.Doung had an elephant whose name was HADOOP. Hadoop is an open-source software framework for storing and processing big data in a distributed fashion on large clusters of commodity hardware. Essentially, it accomplishes two tasks: massive data storage and faster processing.

***KEYWORDS** : Big Data, Hadoop, Large Data Set, Complex Data Set, Open Source Software.*

INTRODUCTION

BIG DATA : Definition

Big data is a term that refers to data sets or combinations of data sets whose size (volume), complexity (variability), and rate of growth (velocity) make them difficult to be captured, managed, processed or analyzed by conventional technologies and tools, such as relational databases and desktop statistics or visualization packages, within the time necessary to make them useful. While the size used to determine whether a particular data set is considered big data is not firmly defined and continues to change over time, most analysts and practitioners currently refer to data sets from 30-50 terabytes(10 12 or 1000 gigabytes per terabyte) to multiple petabytes (1015 or 1000 terabytes per petabyte) as big data. Figure No. 1.1 gives Layered Architecture of Big Data System. It can be decomposed into three layers, including Infrastructure Layer, Computing Layer, and Application Layer from top to bottom.

3 Vs of Big Data

Volume of data: Volume refers to amount of data. Volume of data stored in enterprise repositories have grown from megabytes and gigabytes to petabytes.

Variety of data: Different types of data and sources of data. Data variety exploded from structured and legacy data stored in enterprise repositories to unstructured, semi structured, audio, video, XML etc.

Velocity of data: Velocity refers to the speed of data processing. For time-sensitive processes such as catching fraud, big data must be used as it streams into your enterprise in order to maximize its value.

Problem with Big Data Processing

i. Heterogeneity and Incompleteness

When humans consume information, a great deal of heterogeneity is comfortably tolerated. In fact, the nuance and richness of natural language can provide valuable depth. However, machine analysis algorithms expect homogeneous data, and cannot understand nuance. In consequence, data must be carefully structured as a first step in (or prior to) data analysis. Computer systems work most efficiently if they can store multiple items that are all identical in size and structure. Efficient representation, access, and analysis of semi-structured data require further work.

ii. Scale

Of course, the first thing anyone thinks of with Big Data is its size. After all, the word "big" is there in the very name. Managing large and rapidly increasing volumes of data has been a challenging issue for many decades. In the past, this challenge was mitigated by processors getting faster, following Moore's law, to provide us with the resources needed to cope with increasing volumes of data. But, there is a fundamental shift underway now: data volume is scaling faster than compute resources, and CPU speeds are static.

iii. Timeliness

The flip side of size is speed. The larger the data set to be processed, the longer it will take to analyze. The design of a system that effectively deals with size is likely also to result in a system that can process a given size of data set faster. However, it is not just this speed that is usually meant when one speaks of Velocity in the context of Big Data. Rather, there is an acquisition rate challenge

iv. Privacy

The privacy of data is another huge concern, and one that increases in the context of Big Data. For electronic health records, there are strict laws governing what can and cannot be done. For other data, regulations, particularly in the US, are less forceful. However, there is great public fear regarding the inappropriate use of personal data, particularly through linking of data from multiple sources. Managing privacy is effectively both a technical and a sociological problem, which must be addressed jointly from both perspectives to realize the promise of big data.

v. Human Collaboration

In spite of the tremendous advances made in computational analysis, there remain many patterns that humans can easily detect but computer algorithms have a hard time finding. Ideally, analytics for Big Data will not be all computational rather it will be designed explicitly to have a human in the loop. The new sub-field of visual analytics is attempting to do this, at least with respect to the modeling and analysis phase in the pipeline. In today's complex world, it often takes multiple experts from

**** Assistant Professor; Trinity Institute of Higher Education,GGSIPU, New Delhi.***

different domains to really understand what is going on. A Big Data analysis system must support input from multiple human experts, and shared exploration of results. These multiple experts may be separated in space and time when it is too expensive to assemble an entire team together in one room. The data system has to accept this distributed expert input, and support their collaboration.

Hadoop : Solution for Big Data Processing

Hadoop is a Programming framework used to support the processing of large data sets

in a distributed computing environment. Hadoop was developed by Google's MapReduce that is a software framework where an application break down into various parts. The Current Appache Hadoop ecosystem consists of the Hadoop Kernel, MapReduce, HDFS and numbers of various components like Apache Hive, Base and Zookeeper. HDFS and MapReduce are explained in following points.

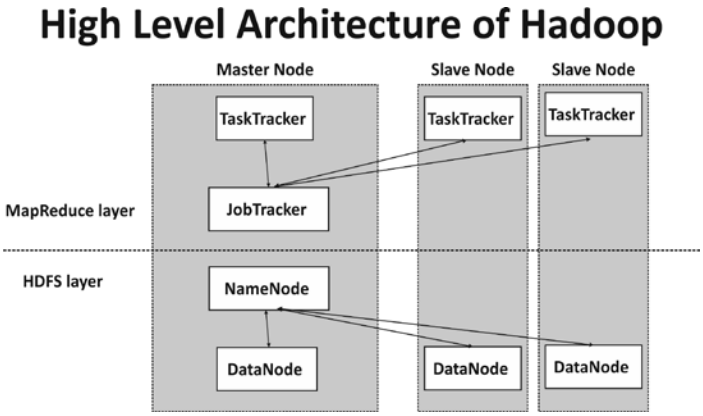

Figure1: Hadoop Architecture

HDFS Architecture

Hadoop includes a fault - tolerant storage system called the Hadoop Distributed File System, or HDFS. HDFS is able to store huge amounts of information, scale up incrementally and survive the failure of significant parts of the storage

infrastructure without losing data. Hadoop creates clusters of machines and coordinates work among them. Clusters can be built with inexpensive computers. If one fails, Hadoop continues to operate the cluster without losing data or interrupting work, by shifting work to the remaining machines in the cluster. HDFS manages storage on the cluster by breaking incoming files into pieces, called "blocks," and storing each of the blocks redundantly across the pool of servers. In the common case, HDFS stores three complete copies of each file by copying each piece to three different servers.

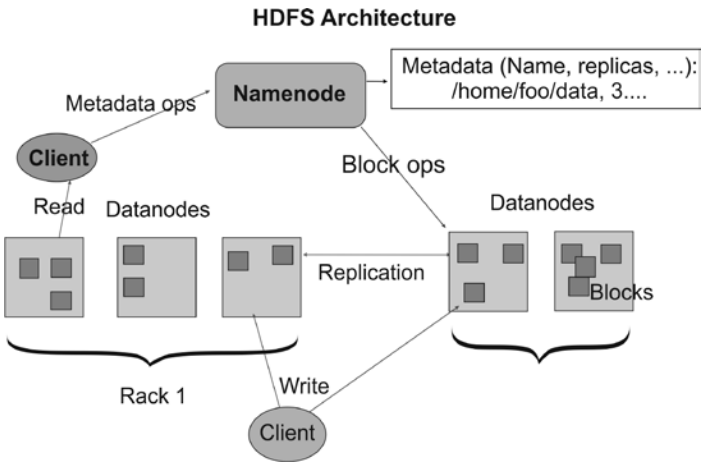

Figure 2: HDFS Architecture

B. MapReduce Architecture

The processing pillar in the Hadoop ecosystem is the MapReduce framework. The framework allows the specification of an operation to be applied to a huge data set, divide the problem and data, and run it in parallel. From an analyst's point of view, this can occur on multiple dimensions. For example, a very large dataset can be reduced into a smaller subset where analytics can be applied. In a traditional data warehousing scenario, this

might entail applying an ETL operation on the data to produce something usable by the analyst. In Hadoop, these kinds of operations are written as MapReduce jobs in Java. There are a number of higher level languages like Hive and Pig that make writing these programs easier. The outputs of these jobs can be written back to either HDFS or placed in a traditional data warehouse.

C. MapReduce :Programming Model

There are two functions in MapReduce as follows:

map – the function takes key/value pairs as input and generates an intermediate set of key/value pairs

reduce – the function which merges all the intermediate values associated with the same intermediate key.

The input of a Hadoop MapReduce job is a set of key-value pairs (k, v) and the map function is called for each of these pairs. The

map function produces zero or more intermediate key-value pairs (k′, v′). Then, the Hadoop MapReduce framework groups these intermediate key-value pairs by intermediate key k′ and calls the reduce function for each group. Finally, the reduce function produces

zero or more aggregated results. The beauty of Hadoop MapReduce is that users usually only have to define the map and reduce

functions. The framework takes care of everything else such as parallelisation and failover.

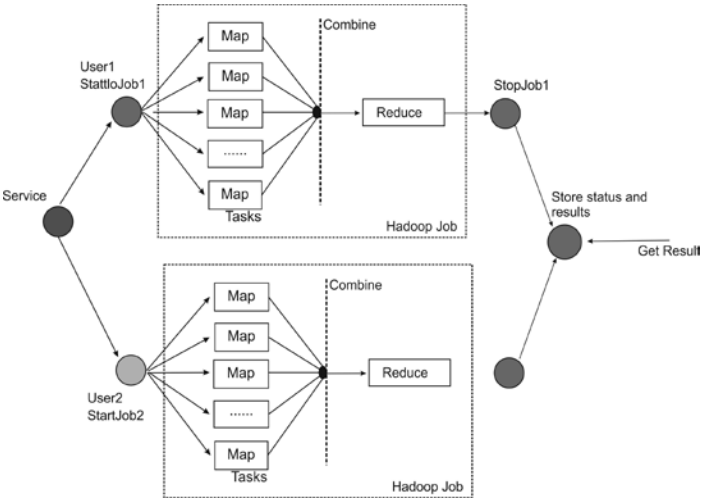

Figure 3 MapReduce Architecture

Example

Consider the problem of counting the number of occurrences of each word in a large collection of documents. The user would write code similar to the following

pseudo-code:

map(String key, String value):
// key: document name
// value: document contents
for each word w in value:
EmitIntermediate(w, "1");
reduce(String key, Iterator values):
// key: a word
// values: a list of counts
int result = 0;
for each v in values:
result += ParseInt(v);
Emit(AsString(result));

The map function emits each word plus an associated count of occurrences (just `1' in this simple example). The reduce function sums together all counts emitted for a particular word. In addition, the user writes code to _ll in a mapreduce speci_cation object with the names of the input and output

les, and optional tuning parameters. The user then invokes the MapReduce function, passing it the speci- cation object. The user's code is linked together with the

MapReduce library (implemented in C++).

MapReduce : Execution Overview

The Map invocations are distributed across multiple machines by automatically partitioning the input data into a set of M splits. The input splits can be processed

in parallel by different machines. Reduce invocations are distributed by partitioning the intermediate key space into R pieces using a partitioning function (e.g.,

hash(key) mod R). The number of partitions (R) and the partitioning function are specifed by the user.

Below, Figure 4 shows the overall _ow of a MapReduce operation in our implementation. When the user program calls the MapReduce function, the following sequence

of actions occurs (the numbered labels in Figure 4 correspond to the numbers in the list below):

Figure 4 Execution Overview

1. The MapReduce library in the user program first splits the input files into M pieces of typically 16 megabytes to 64 megabytes (MB) per piece (controllable by the user via an optional parameter). It then starts up many copies of the program on a cluster of machines.

2. One of the copies of the program is special the master. The rest are workers that are assigned work by the master. There areM map tasks and R reduce tasks to assign. The master picks idle workers and assigns each one a map task or a reduce task.

3. A worker who is assigned a map task reads the contents of the corresponding input split. It parses key/value pairs out of the input data and passes each pair to the user-defined Map function. The intermediate key/value pairs produced by the Map function are buffered in memory.

4. Periodically, the buffered pairs are written to local disk, partitioned into R regions by the partitioning function. The locations of these buffered pairs on the local disk are passed back to the master, who is responsible for forwarding these locations to the reduce workers.

5. When a reduce worker is notified by the master about these locations, it uses remote procedure calls to read the buffered data from the local disks of the map workers. When a reduce worker has read all intermediate data, it sorts it by the intermediate keys so that all occurrences of the same key are grouped together. The sorting is needed because typically many different keys map to the same reduce task. If

the amount of intermediate data is too large to fit in memory, an external sort is used.

6. The reduce worker iterates over the sorted intermediate data and for each unique intermediate key encountered, it passes the key and the corresponding set of intermediate values to the user's Reduce function. The output of the Reduce function is appended

to a final output file for this reduce partition.

7. When all map tasks and reduce tasks have been completed, the

master wakes up the user program. At this point, the MapReduce call in the user program returns back to the user code.After successful completion, the output of the mapreduce execution is available in the R output files (one perreduce task, with file names as specified by the user).Typically, users do not need to combine these R outputfiles into one file . they often pass these files as input to another MapReduce call, or use them from another distributed application that is able to deal with input that is partitioned into multiple files.

Conclusion

We have entered an era of Big Data. The paper describes the concept of Big Data along with 3 Vs, Volume, Velocity and variety of Big Data. The paper also focuses on Big Data processing problems. These technical challenges must be addressed for efficient and fast processing of Big Data.

The challenges include not just the obvious issues of scale, but also heterogeneity, lack of structure, error-handling, privacy, timeliness, provenance, and visualization, at all stages of the analysis pipeline from data acquisition to result interpretation. These technical challenges are common across a large variety of application domains, and therefore not cost-effective to address in the context of one domain alone. The paper describes Hadoop which is an open source software used for processing of Big Data. The MapReduce programming model has been successfully

used at Google for many different purposes. We attribute this success to several reasons. First, the model is easy to use, even for programmers without experience with parallel and distributed systems, since it hides the details of parallelization, fault-tolerance, locality optimization, and load balancing. Second, a large variety of problems are easily expressible as MapReduce computations.

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CLOUD COMPUTING AND SECURITY ISSUES IN THE CLOUD

Sonica Upadhyay *

ABSTRACT

Cloud computing has formed the conceptual and infrastructural basis for tomorrow's computing. The global computing infrastructure is rapidly moving towards cloud based architecture. While it is important to take advantages of could based computing by means of deploying it in diversified sectors, the security aspects in a cloud based computing environment remains at the core of interest. Cloud based services and service providers are being evolved which has resulted in a new business trend based on cloud technology. With the introduction of numerous cloud based services and geographically dispersed cloud service providers, sensitive information of different entities are normally stored in remote servers and locations with the possibilities of being exposed to unwanted parties in situations where the cloud servers storing those information are compromised. If security is not robust and consistent, the flexibility and advantages that cloud computing has to offer will have little credibility. This paper presents a review on the cloud computing concepts as well as security issues inherent within the context of cloud computing and cloud infrastructure.

KEYWORDS : *Cloud computing, cloud service, cloud security, computer network, distributed computing, security.*

INTRODUCTION

Recent developments in the field of could compute have immensely changed the way of computing as well as the concept of computing resources. In a cloud based computing infrastructure, the resources are normally in someone else's premise or network and accessed remotely by the cloud users. Processing is done remotely implying the fact that the data and other elements from a person need to be transmitted to the cloud infrastructure or server for processing; and the output is returned upon completion of required processing. In some cases, it might be required or at least possible for a person to store data on remote cloud servers. These gives the following three sensitive states or scenarios that are of particular concern within the operational context of cloud computing:

- The transmission of personal sensitive data to the cloud server,
- The transmission of data from the cloud server to clients' computers and
- The storage of clients' personal data in cloud servers which are remote server not owned by the clients.

All the above three states of cloud computing are severely prone to security breach that makes the research and investigation within the security aspects of cloud computing practice an imperative one. There have been a number of different blends that are being used in cloud computing realm, but the core concept remain same - the infrastructure, or roughly speaking, the resources remain somewhere else with someone else's ownership and

the users 'rent' it for the time they use the infrastructure. In some cases, stored sensitive data at remote cloud servers are also to be counted. Security has been at the core of safe computing practices. When it is possible for any unwanted party to 'sneak' on any private computers by means of different ways of 'hacking'; the provision of widening the scope to access someone's personal data by means of cloud computing eventually raises further security concerns. Cloud computing cannot eliminate this widened scope due to its nature and approach. As a result, security has always been an issue with cloud computing practices. Robustness of security and a secured computing infrastructure is not a one-off effort, it is rather ongoing – this makes it essential to analyze and realize the state-of-the-art of the cloud computing security as a mandatory practice. Cloud is mainly categorized as private cloud, community cloud, public cloud and hybrid cloud - discussion in this paper assumes only one category of cloud exists which is public cloud; as this assumption will well satisfy all the characteristics of any other type of cloud. Due to its diversified potentiality, the approach to cloud computing is being thought to be as the 5th utility to join the league of existing utilities water, electricity, gas and telephony rather than being just another service.

The study presented in this paper is organized with a view to discuss and indentify the approach to cloud computing as well as the security issues and concerns that must be taken into account in the deployment towards a cloud based computing infrastructure. Discussion on the technological concepts and approaches to cloud computing including the architectural illustration has been taken into consideration within the context of discussion in this paper. Security issues inherent in cloud computing approach have been discussed afterwards. The exploration in the technological and security concerns of cloud computing has led to the concluding realization on the overall aspects of cloud computing. The approaches to counter security issues inherent in cloud computing are numerous with diversified facets and applications which has been kept out of scope. A discussion on the authentication of cloud computing has been addressed as it forms the holistic basis to embed integrity in the context of cloud computing security.

CLOUD COMPUTING ARCHITECTURE

The term cloud computing is rather a concept which is a generalized meaning evolved from distributed and grid computing. Cloud computing is described as the offspring of distributed and grid computing by some authors straightforward meaning of cloud computing refers to the features and scenarios where total computing could be done by using someone else's network where ownership of hardware and soft resources are of external parties. In general practice, the dispersive nature of the resources that

**** Assistant Professor; Trinity Institute of Higher Education, Vikaspuri, New Delhi***

are considered to be the 'cloud' to the users are essentially in the form of distributed computing; though this is not apparent or by its definition of cloud computing, do not essentially have to be apparent to the users.

In recent years, the cloud has evolved in two broad perspectives – to rent the infrastructure in cloud, or to rent any specific service in the cloud. Where the former one deals with the hardware and software usage on the cloud, the later one is confined only with the 'soft' products or services from the cloud service and infrastructure providers. The computing world has been introduced with a number of terminologies like SaaS (Software as a Service), PaaS (Platform as a Service) and IaaS (Infrastructure as a Service) with the evolution of cloud computing. As discussed earlier, the term 'cloud computing' is rather a concept, so are the terminologies to define different blends of cloud computing. At its core essence, cloud computing is nothing but a specialized form of grid

and distributed computing which varies in terms of infrastructure, services, deployment and geographic dispersion. In a pervasive meaning within the context of computer networks, infrastructure could be thought of as the hardware as well as their alignment where platform is the operating system which acts as the platform for the software. Thus the concept of cloud based services is hierarchically built from bottom to top in the order of IaaS, PaaS and SaaS. This is merely the level of abstraction that defines the extent to which an end-user could 'borrow' the resources ranging from infrastructure to software – the core concern of security and the fashion of computing are not affected by this level of abstraction. As a result, security is to be considered within any form of cloud computing regardless of flavor, hierarchy and level of abstraction. Virtualization is an inevitable technology that is highly coupled with the concept of cloud computing – it is the virtualization technology that complements cloud services specially in the form of PaaS and SaaS where one physical infrastructure contains services or platforms to deliver a number of cloud users simultaneously. This leads to the addition of total security aspects of virtualization technology on top of the existing security concerns and issues of cloud computing.

Figure 1 illustrates a typical cloud based scenario that includes the cloud service provider and the cloud users in a cloud computing architecture.

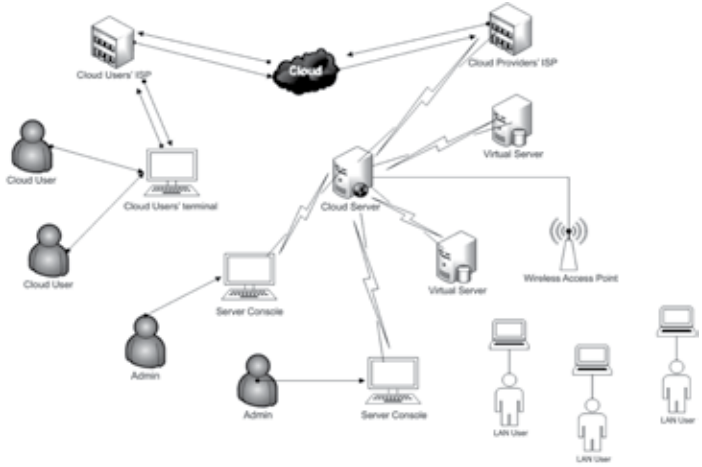

Figure 1: A Typical Cloud Architecture

The illustration of cloud architecture in figure 1 is a simplest one where few complex characteristics of cloud computing (e.g. redundancy, server replication, and geographic dispersion of the cloud providers' network) are not shown – the purpose of the illustration is to establish the arrangement that makes the concept of cloud computing a tangible one. The network architecture is self explanatory with the identification of cloud users when considered in-line with the discussion of the cloud computing concept presented earlier. One notable part from the architecture is that, while the cloud users are clearly identified and named accordingly due to their remote location and means of remote access to the cloud servers, the admin users who are administering the cloud servers are not cloud users in any form with respect to the cloud service provider's network in the scenario. It is arguable whether the LAN users in figure 1 are cloud users or not. Such room for argument could exist due to the phrase 'cloud computing' being a concept rather than a technical terminology. If the definition of cloud computing is taken to have essential arrangements of being the servers located remotely that are accessed through public infrastructure (or through cloud), then the LAN users in figure 1 may not be considered as the cloud users in the context. With respect to distributed and grid computing as the mother technology that define the infrastructural approach to achieve cloud computing, the LAN users in the scenario are essentially the cloud users when they use the cloud services offered by the servers; the LAN users in this perspective are essentially using resources that are 'borrowed' from the servers on an on-demand basis.

Figure 2 illustrates the hierarchical arrangement based on which a cloud is perceived in the form of IaaS, PaaS and SaaS from any cloud end-user's viewpoint.

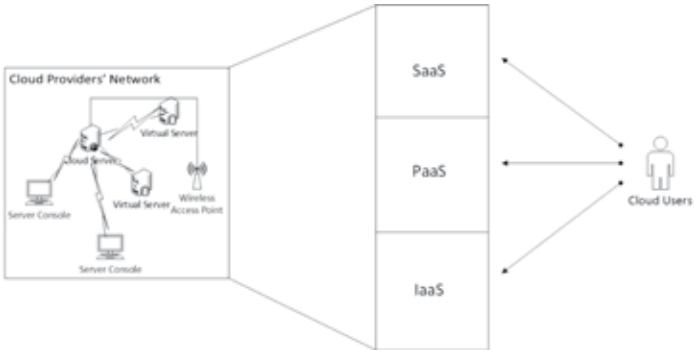

Figure 2: Cloud Service Hierarchy

As depicted in figure 2, the technical details, arrangements and management of the cloud service providers' network is transparent to the cloud user. From the end of the cloud user, the service from the provider comes in the form of SaaS, PaaS or IaaS where the cloud user has no intention or worry about what goes on in the internal arrangement of the cloud service providers' network. Any disruption of any form for whatever is the reason, deem to the cloud users either as service unavailability or quality deterioration – its affect and ways to counter this disruption is a critical part for the cloud infrastructure. Security issues might play a stimulating role as a driving factor for any aforementioned disruption.

AUTHENTICATION IN CLOUD

Security is the most prioritized aspect for any form of computing, making it an obvious expectation that security issues are crucial

for cloud environment as well. As the cloud computing approach could be associated with having users' sensitive data stored both at clients' end as well as in cloud servers, identity management and authentication are very crucial in cloud computing. Verification of eligible users' credentials and protecting such credentials are part of main security issues in the cloud - violation in these areas could lead to undetected security breach at least to some extent for some period. A possible authentication scenario for a cloud infrastructure is illustrated in figure 3.

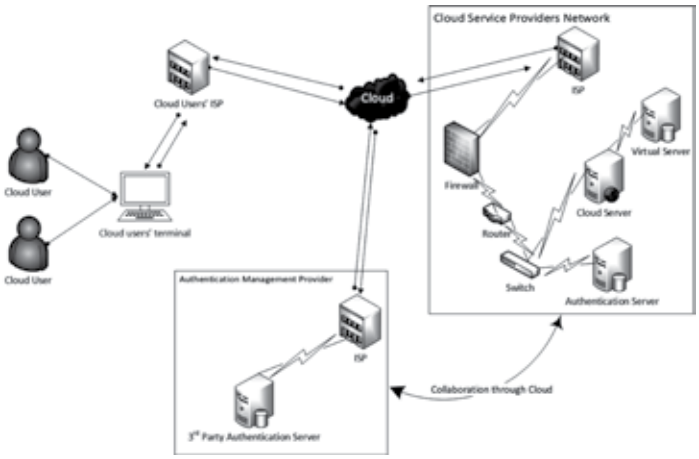

Figure 3: Authentication in the Cloud

The illustration presented in figure 3 conveys that the authentication for the cloud users can be done either by the cloud service provider or the service provider can outsource the identity management and authentication service to third party specialists. In the later case, the cloud service provider is required to have collaboration with the third party authentication specialist – the collaboration between the cloud service provider and the third party authentication specialist during the authentication process of cloud users is done essentially through cloud. This feature adds performance overheads and security issues to the cloud context as the message passing between third party authentication management authority and the cloud service provider as part of collaboration might essentially be done through cloud infrastructure. As discussed earlier, the total authentication process and how they are carried out - regardless of the involvement of third party authentication specialists – is transparent to the cloud users. The illustration on the authentication scenario presented above is a fairly simple one – if geographically dispersed servers are

deployed by the cloud service providers then the total authentication process might be far more complex in terms of security, underlying algorithm as well as performance level. Whatever is the level of complexity, the introduction of third party authentication and identity management specialist into any cloud architecture should have only one goal; and the goal is to strengthen the robustness of security in the concerned area which the cloud service provider itself is not capable of to deploy or offer.

SECURITY ISSUES IN CLOUD

Cloud computing comes with numerous possibilities and challenges simultaneously. Of the challenges, security is considered to be a critical barrier for cloud computing in its path to success. The security challenges for cloud computing approach are somewhat dynamic and vast. Data location is a crucial factor in cloud computing security. Location transparency is one of the prominent flexibilities for cloud computing, which is a security threat at the same time – without knowing the specific location of data storage, the provision of data protection act for some region might be severely affected and violated. Cloud users' personal data security is thus a crucial concern in a cloud computing environment. In terms of customers' personal or business data security, the strategic policies of the cloud providers are of highest significance as the technical security solely is not adequate to address the problem. Trust is another problem which raises security concerns to use cloud service for the reason that it is directly related to the credibility and authenticity of the cloud service providers. Trust establishment might become the key to establish a successful cloud computing environment. The provision of trust model is essential in cloud computing as this is a common interest area for all stakeholders for any given cloud computing scenario. Trust in cloud might be dependent on a number of factors among which some are automation management, human factors, processes and policies. Trust in cloud is not a technical security issue, but it is the most influential soft factor that is driven by security issues inherent in cloud computing to a great extent. All kinds of attacks that are applicable to a computer network and the data in transit equally applies to cloud based services – some threats in this category are man-in-the-middle attack, phishing, eavesdropping, sniffing and other similar attacks. DoS (Distributed Denial of Service) attack is one common yet major attack for cloud computing infrastructure. The well known DoS attack can be a potential problem for cloud computing, though not with any exception of having no option to mitigate this. The security of virtual machine will define the integrity and level of security of a cloud environment to greater extent. Accounting & authentication as well as using encryption falls within the practice of safe computing - they can be well considered as part of security concerns for cloud computing. However, it is important to distinguish between risk and security concerns in this regard. For example, vendor lock-in might be considered as one of the possible risks in cloud based services which do not essentially have to be related to security aspects. On the contrary, using specific type of operating system (e.g. open-source vs. proprietary) might pose security threat and concerns which, of course, is a security risk. Other examples of business risks of cloud computing could be licensing issues, service unavailability, provider's business discontinuity that do not fall within the security concerns from a technical viewpoint. Thus, in cloud computing context, a security concern is always some type of risk but any risk cannot be blindly judged to be a security concern. Allocation of responsibilities among the parties involved in a cloud computing infrastructure might result in experiencing inconsistency which might eventually lead to a situation with security vulnerabilities. Like any other network scenario, the provision of insider-attack remains as a valid threat for cloud computing . Any security tools or other kinds of software used in a cloud environment might have security loopholes which in turn would pose security risks to the cloud infrastructure itself. The problem with third party APIs as well as spammers are threats to the cloud environment.

As cloud computing normally means using public networks and subsequently putting the transmitting data exposed to the world,

cyber attacks in any form are anticipated for cloud computing. The existing contemporary cloud based services have been found to suffer from vulnerability issues with the existence of possible security loopholes that could be exploited by an attacker. Security and privacy both are concerns in cloud computing due to the nature of such computing approach. The approach by which cloud computing is done has made it prone to both information security and network security issues. Third party relationship might emerge as a risk for cloud environment along with other security threats inherent in infrastructural and virtual machine aspects. Factors like software bugs, social engineering, human errors make the security for cloud a dynamically challenging one. Intrusion detection is the most important role in seamless network monitoring to reduce security risks.

The facets from which the security threat might be introduced into a cloud environment are numerous ranging from database, virtual servers, and network to operating systems, load balancing, memory management and concurrency control. Data segregation and session hijacking are two potential and unavoidable security threats for cloud users. One of the challenges for cloud computing is in its level of abstraction as well as dynamism in scalability which results in poorly defined security or infrastructural boundary. Privacy and its underlying concept might significantly vary in different regions and thus it may lead to security breach for cloud services in specific contexts and scenarios. Data loss and various bonnets can come into action to breach security of cloud servers. Besides, multi-tenancy model is also an aspect that needs to be given attention when it comes to security. Security in the data-centers of cloud providers are also within the interests of security issues, as a single physical server would hold many clients' data making it a common shared platform in terms of physical server or operating system. The storage security at the cloud service providers data centers are also directly linked with the security of the cloud services. All the traditional security risks are thus applicable with added degree of potency in a cloud infrastructure which makes the ongoing success of cloud computing a quite challenging one. Confidentiality, availability and integrity are the generalized categories into which the security concerns of a cloud environment falls. Threats for a cloud infrastructure are applicable both to data and infrastructure.

Different modes of data transfer and communication means (e.g. satellite communication) might need to take into account. Huge amount of data transfer is a common anticipation in a cloud environment, the communication technology used along with the security concerns of the adapted communication technology also becomes a security concern for the cloud computing approach. The broadcast nature of some communication technology is a core concern in this regard. Cloud environment is associated with both physical and virtual resources and they pose different level of security issues – having no sophisticated authentication mechanism to fully address the security threats is an existing problem for cloud computing. It has mainly resulted in the situations where grid computing has been taken as an embedded part of cloud computing. As the virtualized resources are highly coupled with a cloud infrastructure, intrusion related security concerns are of utmost priority as part of security issues. Arbitrary intermittent intrusion needs to be monitored in the operational context of a cloud computing infrastructure where the severity of possibility for a virtual machine to be compromised is to be taken into account. Some authors have argued that using Internet technologies is not a must for cloud computing but the cost efficiency and globalization trends will enforce and motivate almost all the businesses to admit Internet and associated technologies to be the ultimate means towards cloud computing approach. As a result, total Internet related security concerns are anticipated to be automatically added on top of the cloud-specific security issues. Bringing portability is one of the means to make cloud services flexible. The portability of cloud services would also be associated with security concerns. Cloud portability enables the cloud users to switch among different cloud service providers without being affected with the necessity to change the ways to accomplish tasks in different ways. It is a clear provision on bargaining power for the cloud users; but at the same time, the security issues with cloud portability are to be counted.

The wide transition to mobile computing practices in recent years has made it imperative to include mobile computing and its associated technologies as an essential part of cloud computing. Resource scarcity as well as other constraints of mobile computing is barriers to cloud computing. The demand of huge data processing is a problem for mobile end-user devices which has been further complemented by the security concerns of mobile cloud computing. For mobile cloud computing, the device level limitations has inspired researchers to suggest the inclusion of another level of cloud termed as 'mobile cloud' to aid the processing of the specific computing and processing for mobile computing devices. The earlier explained broadcast nature of satellite communication and related security issues are equally applicable to the mobile cloud computing due to its being wireless communication. Besides, the addition of mobile cloud into the perspective would add another cloud with all its security issues for a service provider having both mobile cloud and conventional cloud. The addition of mobile cloud in the scenario would boost performance, but it would also add another layer of security issue not only to the mobile cloud users, but also to the total infrastructure of the cloud service provider. The hierarchical arrangement of cloud computing facilitates different level of extensibility for the cloud users with varying degree of associated security issues. Security issues for cloud computing are described by some authors as an obvious one due to its nature. In a business model, the risks for the consumers are related to and dependent on the relevant approaches and policies of the cloud service providers the consumers are dealing with. Using cloud products or services may lead to security concerns for the consumers if they are not well aware with the type and particulars of the products or services they are to procure or to use in a cloud environment; this is also related to the cloud providers' identity and reliability. One of the inherent problems in this context is that, the consumers might normally not be able to identify or foresee all the risks involved in the specific cloud transaction they are dealing with or involved in .

CONCLUSIONS

Cloud computing has enormous prospects, but the security threats embedded in cloud computing approach are directly proportional

to its offered advantages. Cloud computing is a great opportunity and lucrative option both to the businesses and the attackers – either parties can have their own advantages from cloud computing. The vast possibilities of cloud computing cannot be ignored solely for the security issues reason – the ongoing investigation and research for robust, consistent and integrated security models for cloud computing could be the only path of motivation. The security issues could severely affect could infrastructures. Security itself is conceptualized in cloud computing infrastructure as a distinct layer. Security for cloud computing environment is a non-compromising requirement. Cloud computing is inevitable to become the ideal (and possibly the ultimate) approach to business computing though the security barriers along with other issues need to be resolved for cloud computing to make it more viable. Yet, given its total advantages and dynamism and provided it is deployed within an integrated and secured infrastructural framework, cloud computing can offer virtual ownership and access to 'super computers' without procuring them physically.

The social implications of cloud computing approaches might emerge with severe impact if robust security models for cloud computing do not exist. The security issues for cloud computing are not related to the technical and direct security breach only; a number of social inconsistency might also be resulted even without any 'hard' security breach having taken place. The distributed and dispersive processing, transmission and storage features are behind reason. One such example is the obtaining of digital evidences. The vastness and potentiality of cloud computing cannot be overlooked, subsequently robust security models for cloud computing scenarios is the most prioritized factor for a successful cloud based infrastructure development and deployment. With the goal of secured exploitation of a Service Oriented Architecture, the security aspects and issues of cloud computing are inherent not only with the elements that from the cloud infrastructure but also with all associated services as well as the ways computing is done both at the users' and the cloud service providers' ends. The security issues in cloud computing are somewhat sensitive and crucial on the basis of sociological and technological viewpoints – the technological inconsistency that results in security breach in cloud computing might lead to significant sociological impacts. As a result, when dealing with cloud computing and its security issues, technical as well as epistemological factors are equally important to take into consideration. Service oriented architecture and other characteristics of cloud computing suggests that the concept of cloud computing would require to analyze the practicality in line with social, business, technical and legal perspectives –

all these facets will incorporate security issues either in technical or strategic form. Regardless of the nature of security issues, it can be undoubtedly concluded that the severe adverse effects as a consequence of security breaches in cloud computing, the deployment of any form of cloud computing should deal with the security concerns corresponding to those of the safety critical systems.

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IMPACT OF DIGITAL TECHNOLOGY IN HIGHER EDUCATION

Kanika Takkar*

ABSTRACT

Digital technologies are now embedded in our society. Focus has shifted from whether or not to use them in teaching and learning, to understanding which technologies can be used for what specific educational purposes and then to investigate how best they can be used and embedded across the range of educational contexts in schools. The new digital technologies have permeated economy markets, politics, our workplaces, the ways we communicate with each other, our home activities, as well as operation of all levels of education from kindergarten to doctoral studies. The new technologies challenge higher education institutions worldwide to redefine their student constituencies, their partners and competitors and to redesign their research infrastructures and teaching practices. The focus of this paper is to examine the role of Information and Communication Technology|(ICT) in higher education in India. the emergence of ICT has fundamentally changed the practices of not only business and governance but education as well. While the world is moving rapidly towards digital media.The role of ICT in education has become increasingly important. There has been an unprecedented growth in the use of ICTs in teaching, research and extension activities. The sudden boom in information Technology has transformed the way how knowledge is disseminated today. One of the changes it has brought about is the way how teachers interact and communicate with the students and vice-versa.

Keywords- *ICT, knowledge, Higher Education*

Introduction

The higher education information technology (IT) enterprise has become complex. No longer simply responsible for provisioning IT infrastructure and services, the IT department increasingly helps reenvision business and service models—all in a context of cost and accountability pressures. IT is simultaneously more challenging, relevant, and exciting than ever; leading IT requires unique characteristics and capabilities. The IT leader of the future is one who brings strategic focus to the role of IT in higher education. But what qualities make for a successful IT leader in this environment? What traits are required to be a strategic player for IT on campus? What are the most significant gaps in required knowledge, skills, and abilities? How do we prepare the next generation to lead? In the connected age, technology enables new global communities to learn and tackle problems together

Perception of IT in Higher Education

As IT has moved from being a novelty to an essential, expected element of the university, it risks being overlooked as an operational unit. IT leaders must work in the realm of possibilities and ensure that IT provides strategic advantage. Any work on an IT leader's career map needs to be done in parallel with efforts to change how the business-in this case, higher education-perceives the role. An institution's leadership can often fail to grasp what IT could mean for the business and truly understand how much of the fabric of any organisation IT has become. This perception of IT is often shaped by its traditional role around the development, provision, and support of the hardware and software. This is a significant barrier to IT moving towards a stronger role as a strategic partner and a transformational part of the business Underlying technological shifts in personal, professional, and academic life provide a compelling opportunity for IT leaders to reshape the image of IT and their own role within the institution.

The Importance of a Technical Background In today's environment, how important is it for the IT leader to have a technical background? Our working group was split evenly on this question. One side of the argument held that it's hard to lead IT if you don't understand what IT does and how it can benefit the organisation. IT leaders without a technology background may find it challenging to assess and evaluate complex technology issues. IT leaders need to understand the business of higher education, both academically and administratively, but they are also all about the technology; without the technology, their roles and departments wouldn't exist, and, remember, the buck will always stop with the IT leader on technology decisions. The counterargument was that IT is so broad and diverse that it isn't possible to understand all of it in detail. Those with a business-orientated background tend to find leadership and communication skills easier to grasp than do their more technical peers. IT leaders cannot master all the technical issues, so it is a priority for them to develop a strong team with the necessary technical competencies. There is a trend towards delivering technical services from external providers (e.g., cloud services); therefore, today's IT leader role is more about the interplay of people, process, and technologies delivering strategic and operational benefits to the institution. It is increasingly impossible for one person to be fully conversant with all aspects of IT, and it is more valuable for the IT leader to understand IT's strategic potential, to build an effective team of specialists, and to know how to get the best out of them. A nontechnical background can often better prepare individuals to be IT leaders because the role now is more about relationships, planning, and budgeting than just about the technology. People from purely technology backgrounds may find these skills difficult to acquire. Overall, though, the group agreed that the most important characteristics for an IT leader are an appreciation of technology's value, the ability to ask the right questions, an understanding of how IT can provide a strategic advantage, and the ability to listen and to understand what is heard.

E-Textbooks

E-textbooks offer the opportunity to enhance written text with hyperlinks to additional resources, including other textbooks or readings, videos, audio feeds, and slide presentations. Theoretically, e-textbooks could link students to real-world data

**** Assistant Professor, BLSITM (Affiliated to GGSIPU) Delhi - NCR***

sets or streaming sensor data and thereby empower students with data to explore graphical software packages, statistical tests, and other forms of data analysis. The goal of e-textbooks is to create a truly dynamic, interactive learning experience, in which students and teachers can simultaneously immerse themselves in the learning experience.There is also an expectation that higher education will interact with that technology through services and integration in classrooms and beyond. But this provides IT with an opportunity to read. In this environment, the IT leader has transitioned from a service role to a strategic role-instead of simply providing technology

MAJOR INITIATIVES IN HIGHER EDUCATION

India has taken major initiatives in terms of content delivery and furthering education through Information and Communication Technology. For instance Gyan Darshan was launched in 2000 to broadcast educational programs for school kids, university students and adults. Similarly Gyan Vani was another such important step which broadcast programs contributed by institutions sch as IGNOU and IIT. Under UGC country wide classroom initiatives ,education program are broadcast on Gyan Darshan and Doordarshan's National Channel everyday. E-Gyankhosh which aims at preserving digital learning resources ia a knowledge repository launched by IGNOU in 2005.Almost 95% of IGNOU's printed material has been digitized and uploaded on the repository. The National Programme for Technology Enhanced Learning (NPTEL) launched in 2001 is another joint initiative of IITs and IISc which promotes education through technology.

ISSUES AND CHALLENGES AFFECTING UTILIZATION OF ICT IN HIGHER EDUCATION

While we glorify the role of ICT in the higher education sector, we also need to access the problems and prospects in its implementation . Literature in ICT in education continues to project that it can help improve India's higher education system by providing greater equity, better access and improved quality. There is a growing apprehension that information and communication technology can transform India towards becoming a knowledge society, but then can technology alone enhance the quality of the higher education in the country? The penetration of ICT systems in higher education institutions is extremely poor according to survey of accredited colleges by UGC in 2008 which reveals shortcomings in IT infrastructure. As the majority of Indians living in rural areas have poor access to internet, it is necessary that they are exposed and trained in basic computing skills and ICT utilization. Moreover, the low awareness on IT literacy is also a major challenge India faces in realizing ICT implementation in higher education. According to the international telecommunication Union; the internet and mobile Association of India (IAMAI) report a majority of government institution do not have sufficient IT systems.

MOBILITY

With the proliferation of mobile phones on campus, colleges everywhere are compelled to capitalize feature- rich phones that are capable of much more than just voice calls. Adoption of Blackberry, iPhone and other smart devices that have Internet access allow students and faculty to perform a wide range of assignment, Tasks like administration, sharing class notes, downloading lecture, instant messaging etc., are possible anywhere cell phones service is available. Mobile phones are also being used to access computer files from remote locations. With services like "sooner", students who have forgotten to bring an assignment to class can use their cell phone to access the completed work on their home computer and show it to the professor.

DIGITIZATION OF BOOKS (E-TEXT BOOKS)

There is an increased trend towards creation of digital repository of books to create digital learning environment for students. The digital version of the books embedded with text, pictures along with video, simulations and visualizations help students learn the concept in an interactive way. The national mission on Education through ICT plans to generate new online course content for UG, PG and Doctoral education, Efforts are already underway to prepare course content for 130 courses (UG and PG).

CONTENT DELIVERY USING IT/ICT

Higher education is purely a content driven play where educational content is delivered through innovative use of ICT. There is an increased trend in higher education institutes to render content through Radio, TV and Satellite.

SOCIAL LEARNING

The emergences of web 2.0 and social networking such as blogs and wikis, as well as new online video repository and delivery websites such as YouTube, iTunes U and Big Think is influencing a new trend in higher education. The emergence of smartphones such as the iPhone and other intelligent devices has enhanced mobile learning. These technologies create new channels for content delivery, online video expansion and podcasting. Also, the adoption of virtual reality websites such as "second Life" has provided higher- education institutions with new venues for class gatherings and learning.

CONCLUSION

Many forces are converging-shifts in student demographics, advances in academic technology, the needs of the national economy, a rate of tuition increase that makes education unaffordable for many families—that lead experts to believe it is time to question the current model of higher education. The current model typically includes only minimal online course offerings, caters to traditional-age students, offers courses mainly on weekdays between 9 am and 5 pm

DIGITAL MEDIA AND TEACHING PRACTICES : A STUDY OF SOCIAL MEDIA AND EDUCATIONAL PORTALS

Ms. Shikha Sharma *

Abstract

With the advent of digital media & enhancement of the reach of internet facilities to everyone's life, digital media is providing us a whole new platform for enhanced teaching methodologies to be inculcated in our education system. Educators will now have an opportunity to amalgamate face-to-face and digital learning models to advance an engaged, efficient and affordable model of learning.

Digital media technologies and social media websites also provide a better medium to engage a diverse student population. Numerous researches in this field also indicate that active learning through digital devices is much more beneficial for students. Social media personalizes the students or learners approach towards the education system now they are sharing their experiences and ideas through social media and educational portals like; Facebook, Twitter, StudyPal.co, Bharatstudent.com, NewsWriters.in and many more which is totally different from the conventional style of teaching. These emerging technologies are providing a paradigm shift to conventional educational practices.

This includes changes in key teaching and learning dimensions at the level of interactivity, medium of communication, constraints on educational process & learning outcomes. It is very important for the educationist to come up with new methods of assessment with the unique competencies of the digital media.

The objective of this paper will be to provide the content analysis of different educational portals their methodology towards students, their acceptance in them and how they are helping them to grow in their arena.

Key words :

Digital Media Technologies, Social Media, Educational Portals and Education System.

Introduction

The study was designed to provide a content analysis of various social media sites and educational portals where the students are exchanging their ides, views, experience online with the help of Digital Media. Digital Media offered a new construct to enhance the learning and teaching experience at the same time. Content analysis of various social media websites which are mainly used by students inclusive their studies to wide their horizon of knowledge. Websites like StudyPal.co are catering the students of different fields of Medical, Engineering, Chartered accountancy, MBA etc. are sharing their knowledge on the platform where they can share their syllabus, concepts with each other to enhance their academics. Educational Portals like NewsWriters.in is specially meant for the students of journalism and mass communication. On this site they can grab lots of techniques to cover news practically which is not possible in a class room studies. Social media websites have an advantage to where students and scholars can share their contacts with further help them in future prospective.

Education is a word which refers to the process of inculcating knowledge, awareness, developing the power of reasoning, taking right decisions to live a worthy life. More instinctively education creates an environment to share same activities, interests, goals and work together to achieve them successfully. Teaching is a profession of inculcating the technique of learning in students. By the help of learning students acquire the skills from their studies and the experience they got during their education period. Since its preliminary stage education is influenced by many factors such as economical, political, social and technological advancement. Innovative technologies in the digital industry are enabling the transformation of teaching and learning practices. Media technologies are tremendously advancing the level of education by facilitating the level and experience of students. With the advent of World Wide Web and media technologies the education process is not just limited to imparting knowledge and awareness they are more related to sharing their ideas, views, feelings and more experiences. In 2008 research study report state that college students were the heavy users of the internet as compared to the general population (Steve, 2008)

These innovative emerging technologies are transforming the process of teaching and learning on a vast level. And this transformation was materializedby the convergence of technological developments three decades ago. Technological advancements are mainly influencing the education in at least four habits: (1) It transforms the methods of teaching and learning; (2) It reshapes the content of what is taught and learned; (3) It transforms educational institutions, structures and costs; and (4) It redefines the relationships between and among students, teachers and educational institutions. (John V. Pavlik 2015).

This research study aims to direct the role of digital media in the future of education and learning and how it is facilitating the students and teachers to share their knowledge and experience on the same platform.

Review of Literature

It was noted that, the first paradigm of education existed for thousands of years and operated in an age of where media technologies were not there to help the students. .It was a form where one-to-one education was imparted. Teaching was of veryhighly effective from a learning perspective, but it is very exclusive, typically requiring one-on-one instruction. The second paradigm of education consist analog media technology, where the printed books were used to disseminate the education

** Assistant Professor; School of Journalism and Mass communication, K. R. Mangalam University, Sohna Road*

between students. In this model education was imparted from one –to-many. From 2014 third paradigm of education got started, where teachers and students were interconnected to each other to share their communication, ideas and experiences this communication was multidirectional in nature where many-to-many were catered. (John V. Pavlik 2015)

Advancement in communication technologies has transformed the way of education practitioners was using it to delivery and course content. (Jenness 2011: 53), and it is also debated that internet in this generation is defining technology for literacy' (Coiro and Dobler 2007, as cited by Pilgrim and Bledsoe 2011: 41). Therefore there should not be any surprise that online networking sites are indulging more students academically and politically (Kushin and Kitchener 2009).

Now the Professor is not playing the supreme source of knowledge. Instead he/she is a guide or a mentor. Now learning is not limited to the boundaries of the classes it is covering the whole space as aneducational area from where they can grab information 24/7. New term of crowdsourcing came into existence where anybody can be a source of information and education. Learning is a process of mutual sharing, experiencing and exploring among the students and the mentorsadapting Jay Rosen's apt description of the rise of the citizen journalist in the digital age (2012).

Social Networks in Educational Environments

Social network sites are offering several possibilities of socialization for individuals, ability to communicate with people living worldwide, ability to be a member of group which cannot be possible in real life due to geographical and physical constraints, self-expression and ability to receive information and share it. Problems pertaining to confidentiality, misuse of information and social network dependence are also undeniable facts. However, it is possible to make social networks advantageous through positive uses.

Social networks can also be successfully used in the field of education. Seguin and Seguin (1995, p.30) recommends educators that they may gain benefits such as program exchanges, job announcements, creating relief funds or searching such funds, arranging concurrent or non-concurrent conferences, and publishing studies conducted by themselves or their students. Moreover, studies such as course plans, activities etc. can be more efficiently used by a larger number of educators over a database.

When we examine advantages deriving from the use of social networks as an educational tool, interactivity and participation provided by such environments should be also mentioned. Advantages possibly deriving from use of social networks as an education tool can be listed as follows (Balci, 2010, p.466).

Independence from time and location Improvement in quality, success, and efficiency of education by use of computer for education Ability to learn in more systematic manner and in shorter time due to advances in computer technology Individualization of learning Ability to have instant feedback Offering the student ability to repeat course content as much as desired Ease of displaying the content Allowing to the design of visual and auditory learning environments Ability to present courses that require laboratory applications to students via simulation, animation, and virtual laboratories Archiving course content and synchronized class (virtual class) applications Bidirectional communication Tendency towards more voluntary behaviors on the side of students for improving research, knowledge, and skills in comparison to conventional programs Offering possibility to evaluate performance of students Minimizing risk of error in measuring evaluation results Improving skills of students and teachers to reach, evaluate, use, and efficiently cite the knowledge.

A New Paradigm of Participatory Learning

Several principles should guide this new theory of learning to ensure that it closes the knowledge gap rather than expands it. First, the infrastructure supporting it should be widely available and accessible by individuals. The infrastructure can be based on internet applications that already exist, making it more likely to come to fruition. Identity authentication also is critical so that the system is safe for participants and that data being shared are secure. Interaction should be re-conceptualized and move beyond e-mailing and PDF sharing, and collaboration should be seen as instruction, on par with lecturing.

The key features of a participatory learning model are virtual environments that include a high degree of realism, social interaction and immersion, and resources that are dynamically adaptable and continually available. Further, the virtual learning experiences should be highly customizable and ubiquitous.

Facebook as a learning tool Advances in communication technologies have always transformed the way education practitioners design course content and delivery (Jenness 2011: 53), and it is argued that 'the Internet is this generation's defining technology for literacy' (Coiro and Dobler 2007, as cited by Pilgrim and Bledsoe 2011: 41).

Therefore it should be of no astonishment that online social networking sites have recently gathered much attention from academics as a possible means of fetching attention of the youth both scholastically (Pilgrim and Bledsoe 2011: 38) and politically (Kushin and Kitchener 2009).

Twitter as a learning tool

The concept of interactive learning is focusing upon digital media and its various technologies for better learning. The role of digital media may offer a new construct to enhance the learningexperience. Greenhow and Gleason (2012) explore the use of Twitter as a new literacy practice. They suggest that when we usedigital media, it may lead to increased engagement and better interactionbetween students and teachers. This view is also shared by Fusch(2011), who argues that the tools of the trade are as important asthe learning objectives, and that tools are needed which promotesocial presence, create a more interactive learning environmentand foster collaborative study.

Dunn (2012) realises that more emphasis must be placed onlearning with technology. The default setting for many academicsremains on teaching with technology. The two perspectives, whennot aligned, can create very different experiences for students.Laird and Kuh (2005) support this

argument. They argue that active learning and deep interaction between students and theirteachers requires an extended degree of technological engagement.

How the technology is used and how it is integrated into the learning process is important. Zepke and Leach (2010) suggest that motivation and student dispositions will influence their ability to engage in interactive learning, where the line between online learning and socialisation is becoming blurred.

Research Methodology

The study examined the observations and attitudes of the scholars regarding the use of Social media like Facebook, Twitter and educational portals for educational purpose. This study is concentrated to test the hypothesis stating that "Students and Academician are using digital media resources for betterment for their education and learning process."

The data were collected through content analysis of Facebook, twitter, educational portals like studypal.com and Newswriter. in. These websites are mainly used by academic institutions to provide educational and research opportunities to train their personnel and students for various specialization in the media sector. So, it is expected more from the instructors to have more expertise in these social media and social network. In the analysis we evaluated the data provided on the sites and how students reacted on that. How they use these data to improve their knowledge level. Students who are interested in photography follow particular cameraperson their profile, ask questions and try to increase their knowledge about the subject which was not possible in conventional style of teaching.

As of February 2011, Facebook has more than 500 millions of users around the world. Fifty percent of total users actively login the site every day. Users spend a total of 700 billion minutes per month on Facebook. More than 200 million users have mobile connection to Facebook. There are about a billion of locations (pages, groups, activities etc.) in Facebook where users interact with each other. An ordinary user is connected to 80 groups, activities or society pages and shares an average of 90 contents per month. More than 30 billions of contents per month are shared by users (http://www.facebook.com).

Conclusion

Now is the time to innovate and explore new methods of learning and teaching so that it can decrease the chances of misunderstanding and miscommunication. Conventional method of education provides face-to-face communication. The formal and informal nature of such practice needs tobe included within the planning stages; otherwise it may lead to difficulty (Zaidieh, 2012).The learner's journey and their experiences along the way must meet student expectations andoffer a more dynamic and appropriate pedagogy. To summarise,the benefits highlighted within the study can be explained as:

- Increasing student motivation and engagement with course material;
- Increasing student-to-student collaboration with the support of digital media.
- Enhanced interaction between the student and the lecturer/ teacher;
- Accelerated data and information sharing provision on social media sites ;
- Removes barriers to self-expression and contribution.
- Provides students with 21st Century skills which could aide their employability and increase levels of satisfaction.

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ROLE OF DIGITAL MEDIA IN MASS COMMUNICATION AND ITS IMPACT ON SOCIETY

Garima Malhotra *

ABSTRACT

The emerging drift in contemporary media scenario has witnessed a transition in the way information, ideas; opinions are transmitted, shared, exchanged and interchanged. The sustainable change in media landscape has remarkably changed the eco system of information delivery, leading newspapers and news channel are taking to digital journalism in a big way. The speedy technical progress, which print media is adapting to continue, has brought about far reaching changes in the modern media set-up. The onslaught of technology is changing the dynamics of news delivery too, newspaper once the medium for breaking news, surrendered that role to TV and internet could take it over. This paper tries to describe how crudely the news eco system is shifting and it presently looks like- the Net breaks the news, TV is doing the follow ups and live coverage and newspapers end up doing analyses. Digital media gives access of information at the touch of a mouse bottom. In an interdependent world, Digital media is making worldwide communication a reality. The worldwide web is a challenge to traditional news practices because of its interactive opportunity that offers for instant communication and is competing ahead at a Remarkable speed, irrespective of any demography or geographical boundary. This paper attempts to explain that digital Media has brought the world closer globally. Among the information revolution, Digital media has become such an integral part of our lives and plays impactful role in society.

Key words : *Digital Journalism, Contemporary, onslaught technology, Communication, interactive.*

Introduction-

Journalism as a profession includes gathering and reporting, selection and editing, processing and presentation of information, ideas and news to an audience. The media that journalism uses vary distinctly and include: content published via TV and Radio (broadcast), newspapers and magazines (print), and their digital media versions — applications and news websites.

At the present juncture, India, Indian society, Indian press are all in state of transition. The inclination that the Indian press is observing today is bound to fold strength, while some others are bound to arise in the wake of rapid technological innovations and development. No longer, is it assumed that news will just be received through radio, newspaper or television. Now people are increasingly getting inclined towards getting news online, delivered through social networking sites, automatic news feeds and free newspaper.

In field of journalism, what is essential is news and views and therefore it should be communicated well and bring in public sphere in most approachable manner possible. As there are various ways of communication and this process very much depends on the information. Selection of a medium totally depends on the nature, message and sender, who want to disseminate to the receivers. In current scenario, Digital media is much talked about in journalism for the exchange of information in a wide range of forms. This form of modern media is playing an important role.

The fast changes in digital technologies immensely impacts on how we talk, learn, relate, work, and employ our leisure time. In this regard digital media literacy is important to be understood by its existing and new users. Through Digital media literacy, people will gain ability to access, understand and participate or create content using it. This ability leads to integral effective participation of people in making digital economy which Indian society is striving to become one day. Coin has two sides of it, in the same way digitization of media also has its two sides- positive and negative. If we talk about the positive side, people are increasingly being connected globally across distances with the greatest of innovation, comfort and ease via online social networking, mobile phones, gaming , blogging, and e-learning. But on the negative side, there are a range of social impacts which needs immediate attention like –, cyber bullying, and internet addiction inappropriate exposure to pornography, cyber-crime, and privacy risks.

Improvements and developments in globalization of digital platforms and social media technologies is empowering and uplifting the people across the globe to participate, and generate and share content online. In India it has been experienced, technology as a tool in 0sustaining, maintaining and improving social change through social media. The expansion of social media channels is changing behaviors, attitudes, opinion and perception as the growth and ease of online social technologies encourage audiences to become digital advocates; changing user behavior from, non-participatory to avid participation, passive to active and enabling users with a voice that was otherwise unknown, unidentified or untapped. In India, the power, of network media or called social media and its impacts on individuals, and society as a whole has provided an equal opportunity to raise thoughts, opinions, and also share information. The increasing usage and ease of availability and accessibility provides an attractive interface for anyone to become originator or advocator of ideas, facts, and information by using social sharing, blogs, networking sites.

It is true that today the Modern media is no longer confined or restricted to a television or radio show, newspaper or magazine and advertisement. Instead, today's media -- from text to video and sound -- can be saved shared and accessed electronically, using everything from computers to mobile devices. This electronic dissemination of media has an influential impact on the way people communicate in today's time.

Review of literature

Flew, T. (2005). New media: An introduction. Oxford University Press. Described new communication technology areas such as computer-mediated communication, social networks, blogs, and online gaming are explored in full length today .his

**** Centre for Communication Studies, Jagannath International Management School, VasantKunj***

study focus on examining new communication technologies in the countries that we will visit, including the different ways in which these technologies are used; censorship and laws regarding these technologies; and how each country's new communication technologylandscape. **Katz, J. E. (2008). Handbook of mobile communication studies.** Mobile communication has become mainstream and even omnipresent. It is arguably the most successful and certainly the most rapidly adopted new technology in the world: more than one of every three people worldwide possesses a mobile phone. **Parthasarathi, V., Srinivas, A., Shukla, A., Chotani, S., Kovacs, A., Raman, A., ...& Chan, Y. Y. (2012). Mapping digital media: India.** discussed that the, Digitization of the internal working of newspapers has enabled the more efficient launch of multiple editions, now a key feature in India, especially in regional markets and also that There is pressure on news organizations to run with the news without even the elementary diligence and/or confirmation, largely because of the speed prompted by digitization and increased competition. Murthy, D. (2008). **Digital ethnography an examination of the use of new technologies for social research.Sociology, 42(5), 837-855.** concluded that the rise of digital technologies has the potential to open new directions in ethnography. Despite the ubiquity of these technologies, their infiltration into popular sociological research methods is still limited compared to the insatiable uptake of online scholarly research portals. In the research there was critical examination of the possibilities and problems of four new technologies — online questionnaires, digital video, social networking websites, and blogs — and their potential impacts on the research relationship.

Objectives

- To understand how digital media has become an integral part of our lifestyle.
- To examine how digital media possess challenge to conventional media in news delivery
- To study the major trends of new age media –digital media in news arena.

New Age Media- Major trends

Integration-

Media convergence is the merging of various tools of mass communication such as TV, Print, radio, internet and other portable and interactive tools of communication. Most theorists have agreed that in general terms, the word convergence means 'coming together of two or more things'. The advent of new technologies has given new dimensions to the concept of media convergence. The technology is being integrated to serve the global media market, where in media companies individuals, media come together and complete across national boundaries in a fashion unheard of only a decade ago.

Convergence of media also allows its audience or customers, various platforms to indulge in interactive medium to get informed and entertained. Convergence journalism involves cooperation among print, broadcast and web journalism. This amalgamation helps to produce the best content possible using a variety of delivery system to reach the widest possible audience. Today, the sensation is social networks sites, which has created a virtual world among the global public. The whole world is at the click of mouse, people share and care with each other at this platform.

Social Dimensions

Digital media has a major social dimension in regard to its networking attribute. The era of digital media has become personal and participatory media. This may profoundly change both the media industry and society as a whole. The Age of Participation with help of the new media has removed passivity among the media consumers by allowing real-time reception, modification and redistribution of information. The socio-cultural impact of internet reveals has made modification in the lives of its users in regard to language and increase in the level of awareness

Technology and network media

Dramatic advancement in technology for the production, and dissemination of news has altered the practices of journalism, as well as the visual atmosphere itself. With massive changes in the media environment and its technologies, questioning the nature of news journalism is one of the most urgent tasks in defining the public interest and liking today. The information sharing has reached at a global level with the internet expanding rapidly. The Information and Communication Technology gives access to information at the touch of a mouse bottom. In an interdependent world, worldwide communication has become a reality. The worldwide web is a challenge to traditional media practices because of its interactive opportunity that offers for instant communication and is competing ahead at a Remarkable speed, irrespective of any demographical or geographical boundary. Therefore one can say that Media has brought the world closer globally and now people from different parts of the world are connecting through a mere internet connection. Among the information revolution, the Digital media has become such an immense part of our lives.

Challenges 'to and from' digital media

Digital media has caused interruption in informing, educating and entertaining which is the basic purpose of media. The publishing and content generation sector- journalism, education, and entertainment, commerce and politics are most affected. Digital media has also postured challenges to intellectual property laws, copyright and nurturing content movement in which content creators find themselves in concerning position where their legal rights to their work are under scanner. The ubiquity of digital media and its effects on society which is powerful, controlled and influential suggest that networked Age, perhaps may lead to a paperless society in where the production and consumption by all media will be done on desktops, laptops, tabs, smart phones. However, challenges to a digital transition remain, including copyright laws, the digital divide, censorship, and the menace of a digital dark age. Digital media has an important, complex and wide-ranging impact on society and culture as a whole.

Implications on journalism

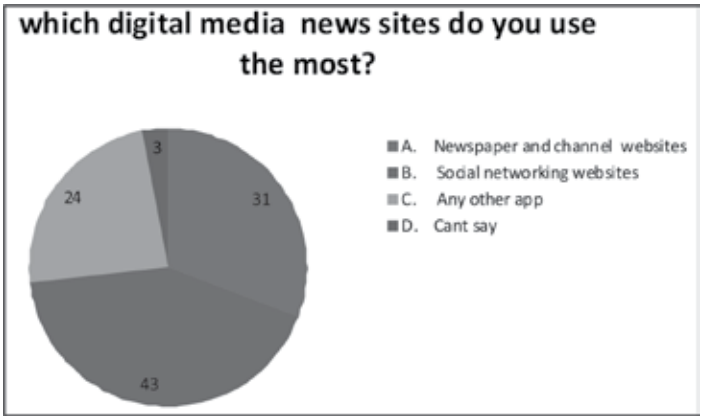
In the case of journalism the induction of digital media has altered considerably various aspects of the profession. The high tech revolution has expressively altered the way the public acquires its news and information, and has disadvantaged the traditional mass media of its customary domination. At present, the junctures between digital media, technology and journalism is enhancing

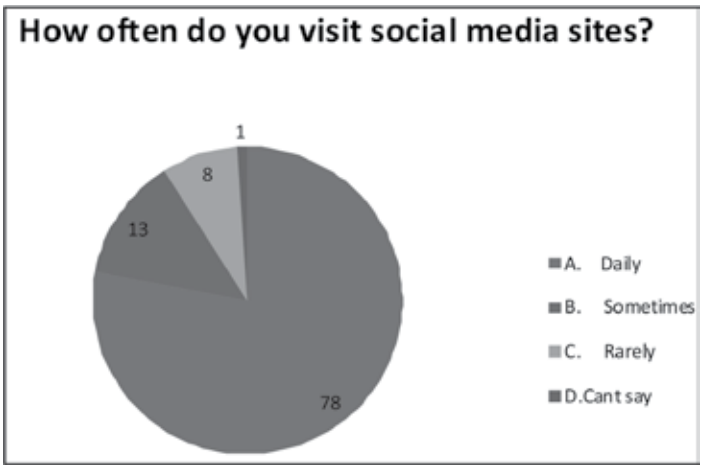
the outlook of news delivery.

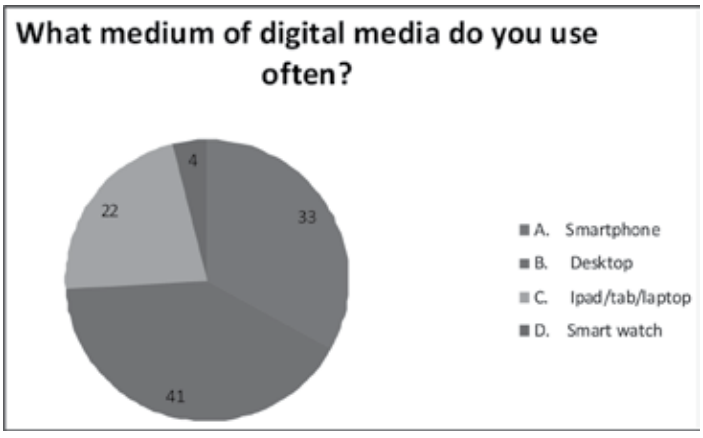
Methodology

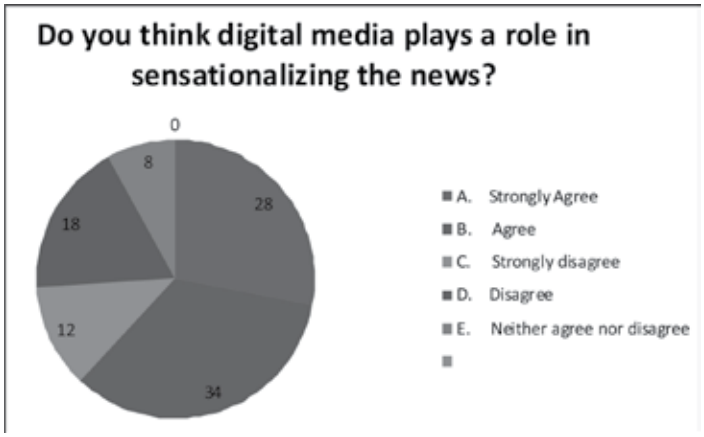
According to the objective in the present study the "survey method" has been used. Through "convenient sampling" Primary data is collected from 100 respondent from Delhi (south & west). For the successful completion of the study primary data is collected through questionnaire.

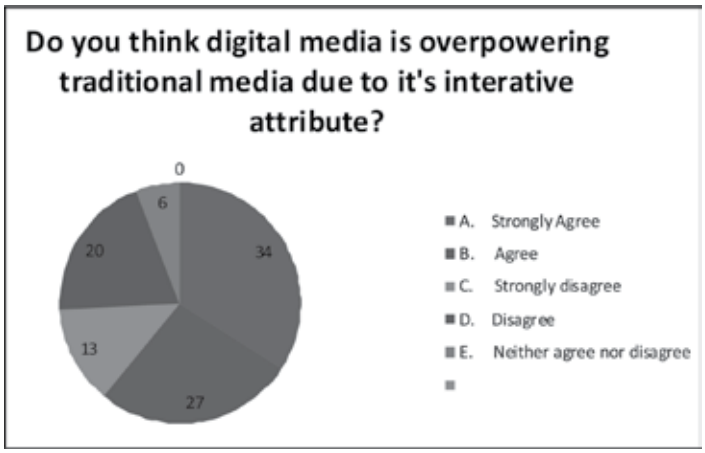
Data analysis











Conclusion and Discussion

The pace of media is so rapid that sometimes its definitive audience finds it difficult to keep themselves up-to-date with the change. More and more people are switching to their desktop, cell phones, and Bluetooth devices for updates. Particularly with the bombardment of social networking and the advance of smart phones, technology is speedily becoming the chief way of receiving and delivering information.

With communication being an important part of any culture, the way in which information is spread has to familiarize to fit the way people live. According to the survey, New technological dependence is increasing among it's user for information. Users are getting benefits like-instant notifications of emails and news. Journalism was once largely print and TV based when the majority of people wanted to take time to read newspapers and see TV. According to the study, now as people are turning to the internet for their information needs, print journalism is slowly side- casted and some even believe that print journalism is dying.

Digital media has its implication and carries both advantages and disadvantages as revealed in study. It is up to each user of digital media to use social networking sites, applications, smart phones, and other technology oriented things wisely. The users' needs to exercise caution to safeguard they do not fall victim to online dangers.

Digital media has some very fascinating attributes but it does not mean we should ignore all traditional forms of communication. We should combine and integrate traditional and digital media together, and find anagreeable balance between the two. However,

access to these technologies remains stratified by race, caste, creed and gender of both researchers and respondents.

The study raises concern that the demand for in- depth reporting will always remain the same. The credibility and keeping a check on the information flow is a vital concern which requires better solutions through self- policing, laws and ethics. The only change is that innovation is the key for newspapers and other mass media to remain relevant in today's technologically savvy world.

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IMPACT OF SOCIAL MEDIA ON SOCIAL MOVEMENTS

Yashasvika Yadav*

INTRODUCTION

With the advent of prominent social networking sites and blogs, citizens have taken upon themselves to undo the wrongs in the society. The SNS have given a voice to the citizens to advocate an opinion and advance the movement- Anna Hazare Movement, the Arab Uprising are all products of SNS influence. Like Print Journalism is attributed to have played a significant role in the freedom of independence, SNS can be rightly herald as the new age medium to mobilize support for the cause and fight for their right.

Social media strengths lie in its interactive nature and the capability to reach millions of users within short span of time. Everybody has an opinion on SNS, it is probably one of the medium where there is no gatekeeper filtering news on the basis of race, religion, sex or ethnicity and if you have views voice it. Moreover, SNS is a versatile medium where you can couple powerful words with videos and pictures.

Earlier the Government used to be dependent on opinion polls to gauge the mood of the public. With the introduction of social media the dependence on media has diminished as now SNS are the best indicator of the public atmosphere. It is not only ideal but a necessity for politicians to be present on SNS. Barrack Obama, the first African President of United States of America acknowledges the contribution of Social media for his win. In India, Narendra Modi, Prime Minister of India is called the first Facebook Prime Minister.

Now a days what's trending on Facebook and Twitter is news and not the other way round. SNS has changed how people receive and perceive news; it is a new tool to empower people.

OBJECTIVE:

To assess the impact of social networking sites on the anti corruption movement in 2011 in India.

HYPOTHESIS:

Social networking sites encourage interaction among likeminded people. SNS due to its interactive and pervasive nature has become a medium to crystallize an opinion and mobilize people for movement like Anna Hazare Movement and Arab Uprising.

LITREATURE REVIEW

THE WALL STREET JOURNAL

RUBINA MADAN FILLION

Dec 3 2014,

The article is about the contribution of social media in spreading the message of prominent movements' like- Arab Uprising & Occupy Wall Street. Moreover, the article mentions about the prominent movements in 2014 such as:

- **#bringbackourgirls:** Close to 300 Nigerian schoolgirls were kidnapped by the Boko Haram terrorist group in April. The hashtag #BringBackOurGirls was created by a 35-year-old Nigerian attorney in Abuja who adapted a chant he heard on television there. The hashtag was mentioned more than 2 million times on Twitter in the following weeks, including in tweets by Michelle Obama, Amy Poehler, Mary J. Blige, Hillary Clinton and Chris Brown.
- **#Freguson:** When a white police officer killed an unarmed black teenager in a St. Louis suburb, it became one of the biggest social media stories of the year. The August 9 shooting of Michael Brown sparked months of demonstrations across the U.S., fuelling a national debate about race and police tactics. Protesters used Twitter, Facebook and Tumblr to spread the word about planned protest locations. Using online message boards, text message alerts and Google Maps, they were able to organize protests and collect donations and supplies. Several celebrities and athletes shared their disappointment after grand jury decision not to indict Darren Wilson, the police officer involved in the shooting.
- **#Occupycentral:** Pro-democracy rallies in Hong Kong drew more than 100,000 protesters at their peak in late September and early October 2014. Two months later, sites in Causeway Bay and Admiralty remain occupied. Protesters used Facebook groups, Instagram, WhatsApp and Twitter to communicate and share photos of the demonstrations. The protests were nicknamed the #UmbrellaMovement or #UmbrellaRevolution for the cover protesters used during rainstorms or to provide protection from the sun.

WHAT ARE SOCIAL NETWORKING SITES

A social networking site (SNS) is a platform to build social networks or social relations among people who share similar interests, activities, backgrounds or real-life connections. A social network service consists of a representation of each user (often a profile), his or her social links, and a variety of additional services such as career services.

Social network sites are web-based services that allow individuals to create a public profile, create a list of users with whom to share connections, and view and cross the connections within the system. Social network sites are varied and they incorporate new information and communication tools such as mobile connectivity, photo/video/sharing and blogging. Social networking sites allow users to share ideas, pictures, posts, activities, events, and interests with people in their network.

According to the Oxford Dictionary, a "social network" is a dedicated website or other application that enables users to communicate with each other by posting information, comments, messages, images, etc.

** Assistant Professor; Trinity Institute of Professional Studies, Dwarka, New Delhi*

The main types of social networking services are those that contain category places (such as former school year or classmates), means to connect with friends (usually with self-description pages), and a recommendation system linked to trust. Popular methods now combine many of these, with American-based services such as Facebook, Google+, LinkedIn, Instagram, Pinterest, Tumblr, and Twitter widely used worldwide,

Social network services can be split into three types:

- Socializing social network services are primarily for socializing with existing friends (e.g., Facebook)
- Networking social network services are primarily for non-social interpersonal communication (e.g., LinkedIn)
- Social navigation social network services are primarily for helping users to find specific information or resources (e.g., Goodreads for books)

History of Social Networking sites:

The efforts to support social networks via computer-mediated communication were made in many early online services, including Usenet, ARPANET, LISTSERV.

Early social networking on the World Wide Web began in the form of generalized online communities such as Theglobe.com (1995), Geocities (1994) and Tripod.com (1995). Many of these early communities focused on bringing people together to interact with each other through chat rooms, and encouraged users to share personal information and ideas via personal webpages by providing easy-to-use publishing tools and free or inexpensive webspace.

In the late 1990s, user profiles became a central feature of social networking sites, allowing users to compile lists of friends and search for other users with similar interests. New social networking methods were developed by the end of the 1990s, and many sites began to develop more advanced features for users to find and manage friends.

This newer generation of social networking sites began to flourish with the emergence of SixDegrees.com in 1997, followed by Makeoutclub in 2000, Hub Culture and Friendster in 2002, and soon became part of the Internet mainstream.

Due to South Korean's high internet penetration rate, the first mass social networking site was Cyworld, launched as a blog-based site in 1999 and social networking features added in 2001.

Orkut became the first popular social networking service in Brazil (although most of its very first users were from the United States) and quickly grew in popularity in India. Attesting to the rapid increase in social networking sites' popularity, by 2005, it was reported that Myspace was getting more page views than Google.

Popular Social Networking sites:

FACEBOOK:

Facebook is a popular free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues. Facebook is an online social networking service headquartered in Menlo Park, California, in the United States.

Its website was launched on February 4, 2004, by Mark Zuckerberg with his Harvard College roommates and fellow students Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes. Facebook had over 1.59 billion monthly active users as of August 2015.

The site, which is available in 37 different languages, includes public features such as:

- Marketplace - allows members to post, read and respond to classified ads.
- Groups - allows members who have common interests to find each other and interact.
- Events - allows members to publicize an event, invite guests and track who plans to attend
- Pages - allows members to create and promote a public page built around a specific topic
- Presence technology - allows members to see which contacts are online and chat.

TWITTER

Twitter is an online social networking service that enables users to send and read short 140-character messages called "tweets". Registered users can read and post tweets, but those who are unregistered can only read them. Twitter Inc. is based in San Francisco and has more than 25 offices around the world.

Twitter was created in March 2006 by Jack Dorsey, Evan Williams, Biz Stone, and Noah Glass and launched in July 2006. The service rapidly gained worldwide popularity, with more than 100 million users posting 340 million tweets a day in 2012. 2013, Twitter was one of the ten most-visited websites. As of May 2015, Twitter has more than 500 million users, out of which more than 332 million are active.

YOU TUBE

YouTube is a video-sharing website headquartered in San Bruno, California, United States. The service was created by three former PayPal employees in February 2005. In November 2006, it was bought by Google. YouTube now operates as one of Google's subsidiaries.

WHAT ARE SOCIAL MOVEMENTS?

Social movements are a type of group action. They are large, sometimes informal, groupings of individuals or organizations which focus on specific political or social issues. In other words, they carry out, resist, or undo a social change.

2011 ANTI CORRUPTION MOVEMENT AND THE ROLE OF SOCIAL MEDIA

Background:

The 2011 Indian anti-corruption movement was a series of demonstrations and protests across India intended to establish strong legislation and enforcement against perceived endemic political corruption. The movement was named among the "Top 10 News Stories of 2011" by Time magazine

History:

Arvind Kejriwal with his team launched 'India Against Corruption' (IAC) web site in November 2010 to mobilise the population for the cause.

The IAC website, their Facebook page, and later their Twitter account, started gaining 'likes' and comments supporting their fight against corruption, spurring the movement leaders to launch a number of campaigns including 'SMS' or text-messaging drives and petitions at local levels across the country. Volunteers were recruited to join the campaign in numerous cities and towns in India. A number of local and regional level rallies, including the January 30 rally in Delhi, generated further momentum for the campaign to mobilise people against corruption. A number of parallel initiatives, including an 'Ipaidabribe' website, attempted to bust local level corruption by naming and shaming the people who asked for bribes.

Anna Hazare, who had been a campaigner against corruption and mal-administration in Maharashtra was approached by Arvind Kejriwal to join the movement. The team, later referred to as Team Anna by the media, demanded that the ruling party consult with the members of 'civil society' to draft a strong Lokpal Bill. Following a dissatisfactory meeting with the Prime Minister Manmohan Singh, Team Anna decided to sit on a dharna and launch their hunger strike at Jantar Mantar in New Delhi on 5 April 2011.

The event was very well received by the citizens of India. People from all walks of like supported the movement. The success of the movement was attributed to the positive and the 24X7 coverage of the movement and the role of social media mobilizing support for the movement. Anna Hazare went on to receive the award Indian of the year organized by CNN-IBN and he mentioned at the event 'It is media which is responsible for making me a national icon.'

Important Characteristics of the event:

- Movement comprised of people who generally don't participate in politics
- The crowd at the demonstration was mostly middle class who were disheartened with the rampant corruption prevalent ubiquitously in the society
- Lokpal has been a perennially deferred promise of the successive governments, for the last 44 years

FACTORS WHICH LED TO SUCESS OF ANNA HAZARE MOVEMENT:

- Scam ridden Government: There was a significant level of unrest about a need to bring about a revolution, to clean up the polity and to get rid of corruption in India
- Omnipresent Media: 800+ television channels, thousands of news publications, and hundreds of radio stations covered the movement
- Timings: The announcement of the movement in Delhi coincided with the victory of the Indians at the World Cup
- Anti-politician Stand: Political leaders who visited the protest sites, were booed off the stage by the people
- Effective use of social media: SNS helped in mobilizing support for the event. It helped organizers' to inform the public about the happenings at the event

THE ROLE OF SOCIAL MEDIA IN THE MOVEMENT:

The anti corruption movement was the first real social networking movement in India. During the movement only about 11 per cent of the Indian population had access to the internet, much lower than the global average, it is still around 137 million Indian users, including 75 per cent under 35-year-olds, who are connected to the world wide web, according to ComScore 2011 data.

Facebook:

More than 116,000 people on Facebook joined hands to support the movement. The interaction rate on the Facebook page was 0.7% which was about 4 times more than the interaction rate of the top 10 Facebook Pages in India

- Over 1,000 photos and videos were uploaded by supporters on the fan page itself
- The movement had close to 15,000 users uploading a badge on their display picture via PicBadges
- A Facebook event called "2500,000 Missed Calls" had gotten support from over 9,000 people attending the event. About 600,000 people had already supported the event by leaving a missed call on a government telephone number

Twitter:

- The movement was trending on twitter
- Famous celebrities and influential figures had actively tweeted their support
- 7 out of 10 trending topics in India were about the movement

A realtime search on 'Anna Hazare' showed that the frequency of postings was at 20-30 per minute. 'Anna Hazare' was trending.

The nation's youth and professionals showed their support for the movement via social media such as Twitter and Facebook. IAC organizers used the social media sites to garner support and spread their messages of upcoming events and protest

Features of Social Media:

Since its inception social media has been used as a tool to mobilize people for a cause. Earlier, people used to write letters to the editor and share their grievances and wait for media to take up the issue but with the introduction of Social media people have become Citizen Journalist. Let us go through the features of social media due to which has become a popular platform to mobilize support:

- Reach: The power of Social Media is that even a common man's view can reach millions today in matter of seconds. Posting a message on Facebook or twitter takes very little time and effort.
- Participation: Social media encourages contributions and feedback from everyone who is interested. It blurs the line between media and audience.
- Interactive: Unlike traditional media where the feedback from the audience is delayed, social media is two way and encourages instant
- Engaging: All SNS keeps it users engaged by constantly innovating techniques which will catch the attention of the users. More people are choosing SNS over television - because it's more than just entertainment, it's a way to connect and have fun with friends.

- Community-driven: Social networks are built and thrive from community concepts. This means that just like communities or social groups around the world are founded on the fact that members hold common beliefs or hobbies, social networks are based on the same principle.
- Relationships: Social networks thrive on relationships. The more relationships that you have within the network, the more established you are toward the centre of that network.
- Emotion over content: SNS is an intimate medium. The unique characteristic of social networks is the emotional factor. While websites of the past were focused primarily on providing information to a visitor, the social network actually provides users with emotional security and a sense that no matter what happens, their friends are within easy reach.

CONCLUSION

Arab Uprising, The Occupy Wall Street movement and the Anti corruption movements are probably one of the most disrupting movements of the decade and there is one thing common about all these movements i.e the organizers of the movement used social media to mobilize support for the event. Moreover, social media has emerged as the tool for activism since it encourages democratization of social communication and challenged the top down and vertical approach of mainstream media.

Social networking sites due to their participatory nature and the fascinating ability of enabling ordinary citizens to connect and organize themselves with no costs and the world to bear witness have made users into active citizens.

A study reveals that India has recorded world's largest growth in terms of social media users in 2013. According to Internet and Mobile Association of India and IMRB international 317 million users accessed internet in October 2015. In Urban India, the mobile Internet user base grew by 65 per cent over last year to reach 197 million in October 2015. In Rural India, the mobile Internet user base is expected to be 109 million by June 2016. The stats indicate that Social media is here to stay and will be play an important part in upcoming movements

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MASS COMMUNICATION THROUGH DIGITAL MEDIA

Ekta Sehgal*

We reside in a media-saturated world and rely on a kind of historic and new media for understanding, amusement, and connection. The beginnings of mass media and mass communication go back around 500 years to the "print revolution" that came about in Europe in the fifteenth century. As we improved by means of the centuries, mass verbal exchange evolved from a mechanical system to digital transmissions, which lead the way for the digitized world of at present. Whilst technological advances are an foremost a part of the narrative involving media, the effects of media are also major to don't forget. On this chapter, we can speak about some functions and theories of mass conversation and some of the key moral problems concerning media and conversation.

Technological Advances : From the Printing Press to the i-Phone

It is just by way of technology that mass media can exist. Whilst our interpersonal interactions are direct, our interactions with mass media messages are indirect, as they require technology or to facilitate the connection. Whilst speak me to any individual a few movie you just watched is interpersonal verbal exchange, watching the Academy Awards on a network or in clips on the web is mass communication. In this section, we can trace the development of more than a few types of technological know-how that led to new channels (media) of verbal exchange and overview the traits of probably the most normal mass media.

As we trace the progress of one-of-a-kind types of mass media, keep in mind of how new technologies and competitors among quite a lot of media codecs have made media messages extra interpersonal and personalized. The transient dialogue here of these up to date alterations in how media function in our lives shall be expanded more in the following chapter on new media and conversation. It's also exciting to note the pace with which applied sciences developed. As we move toward our present digital age of media, we will see that new media formats are invented after which made available to humans more rapidly than media that came earlier than.

Print Mass Media

The printing press and subsequent technological advances related to paper manufacturing and distribution led to the institution of print as the first mass medium. At the same time the potential to handwrite manuscripts and even reproduce them existed earlier than the print revolution, such methods took giant time and skill, making books and manuscripts too high priced for just about anybody in society except probably the most privileged and/or powerful to own. And despite the arrival of many other forms of mass media, print continues to be fundamental as a channel for information and as an industry. Of direction, before writing emerged as a form of expression, people drew cave art work and made sculptures, pottery, jewelry, and other forms of visual expression. The spread of writing, nonetheless, as a means of documenting philosophy, everyday life, executive, laws, and trade transactions was a integral precursor to the print revolution. Physical and technical barriers of the time prevented the written phrase from becoming a mass medium, as texts had been painstakingly reproduced by way of hand or reproduced slowly using rudimentary printing technology reminiscent of wood cutouts. Despite the fact that the technology needed to print mass quantities of text had existed for a long time, increasing literacy premiums in Europe created more of a demand for printed textual content, which resulted in the "print revolution."

Books

Books of the time were usually shorter than in these days, however they were still the earliest type of communication to be distributed to the lots, which led to large cultural and social transformation. Of course, books weren't evenly dispensed, due to the fact most individuals couldn't learn or write and had little need for them. Whilst, although, less expensive, shorter substances were printed that included content that catered more to the "usual" character. These early publications have been just like tabloids in that they have been offered as news gadgets but featured stories about miracles, monsters, and other sensational or fantastical pursuits. Although no longer regarded for his or her content or constructive influence on society, these publications quickly grew into what we would respect at present as newspapers and magazines, which we can speak about later.

The printing and distribution of books resulted in cultural transformation, just as radio, television, and the web did. The upward thrust of literacy and the availability of literature, religious texts, dictionaries, and different reference books allowed humans to gain knowledge of things for themselves, distinguish themselves from others by what they read and what they knew, and figuratively journey past their enormously localized lives to other lands and time intervals. Earlier than this, people relied on storytellers, clergy, teachers, or other leaders for knowledge. In this manner, individuals may just best be uncovered to a couple sources of know-how for the period of their lives and the know-how conveyed by using these sources might be restricted and distorted. Don't forget, best a choose group of humans, in general elites, had access to manuscripts and the capacity to read them. Publishers nonetheless acted as gatekeepers, simply as mass media outlets do at present, which restricted the content and voices that circulated on the brand new medium. However despite that, the sector was unfolded for many in a method it had certainly not before been. The guide industry in these days caters to a kind of audiences and markets. But books, like different types of media, have needed to adapt to altering market forces and applied sciences. Whereas neighborhood bookstores was the predominant approach through which humans received new and used books, the expansion of chain bookstores and the arrival of on-line guide purchasing have

** Faculty; International Woman Polytechnic, Janakpuri, New Delhi*

led to a dramatic decline in regional and unbiased booksellers.

Newspapers

Newspapers, greater than books, function the chronicle of day-to-day life in our society, providing average insurance plan of hobbies, each ancient and mundane, and permitting us to be taught about present routine external of our neighborhood and country. While radio, TV, and on-line information serve that perform for most men and women now, newspapers were the primary mass medium to collect and disseminate such know-how. Published in the colonies that would later emerge as us. The next timeline marks Newspapers have faced many challenges in latest a long time-specifically, the expand of internet-founded information, leading to a major decline in revenue and readers.

Magazines

Journal publishers had a complicated time finding success, in view that postal carriers both refused to deliver magazines seeing that of their weight or charged high postage rates that restricted subscribers. The high rate of transportation and delivery made magazine subscriptions unaffordable for most persons, and the content consisted most of the time of reviews reprinted from newspapers with the occasional essay on the humanities or current hobbies. At the same time TV forced magazines to adapt to an increasingly trendy visual medium, radio and magazines coexisted quite well. But the conflict between print, audio, and visible media in the early 1900s marks an intriguing time in the history of mass media. The growth and unfold of print as a mass medium took 1000s of years, which looks like an eternity when compared to the unfold of audiovisual media. The lack of and resistance to literacy made the broadcast medium unfold much less rapidly than audio and visible media, which isn't surprising from an evolutionary point of view. Humans developed to speak, look, and hear, as evidenced via the fact that now we have physique constituents/ organs that aid us do these matters.

Sound Mass Media

The origins of sound-based mass media, radio in special, will also be traced above all to the invention and unfold of the telegraph. The telegraph was invented in the 1840s and was made sensible with the aid of Samuel Morse, who invented a system of dots and dashes that might be transmitted across the telegraph cable using electric pulses, making it the primary nearly on the spot one-to-one conversation technology. Messages were encoded to and decoded from dots and dashes on both finish of the cable.

Wireless Sound Transmission

Despite the fact that the wireless telegraph computing device was once the forerunner to radio broadcasting, its inventor didn't envision the probability of sending speech or music alternatively of Morse code. The street to radio broadcast and sound-established mass media was rather quick, as others swiftly extended on his work. As is customarily the case with speedy technological development, countless experiments and public demonstrations of radio science-some extra positive than others-have been taking position across the identical time in the late 1800s and early 1900s.

Visible Mass Media

Humans prefer to each watch and listen to some thing at the same time. However whether or not it was watching different people or taking note of the sounds of the wooded area, it needed to happen within the moment, as there was once no artificial technique to deliver graphics or sounds. The drawings, art work, sculptures, and performs produced until that factor shared some human subject matters-particularly, sex, meals, drink, wealth, and violence. I'm definite Plato would no longer be cheerful to learn that these issues continue today in additional state-of-the-art forms of visual media like television and films. Although we are able to see that visual media have lengthy been part of human history, they didn't constitute a mass medium except the late 1800s and early 1900s with the appearance of movement pix and television.

Technology main to visual Mass Media

Television's preliminary success as a mass medium came mostly from codecs and programming techniques already proven and utilized by radio stations. From the perspective of successful radio stations, television stole the fine ideas from radio, including top-time programming and show recommendations and even the stars of the shows. In the course of the golden age of television, the essential networks aired very equivalent varieties of packages, all aimed toward gaining bigger rankings and viewers shares than the others. Programming used to be chiefly divided into two important classes: understanding and enjoyment.

Cable and satellite TV for PC TV provided shoppers many more channel selections, for a cost, and forced broadcast networks to rethink their programming and business mannequin.

"Getting Plugged In"

Age as a demographic category is a key to understanding this phenomenon. There is a generation of television viewers that grew up on free broadcast television, didn't get cable or satellite when they became popular in the 1980s and 1990s, and still doesn't pay for television and never will. Market analysts note that this segment of the market is elderly and will not be around for much longer. Many baby boomers that saw the advent of cable and satellite and have long enjoyed the diverse programming their subscriptions offer view their monthly bills as a standard utility and will likely continue subscribing until they die.

The Internet and Digital Media

The "web and digital media age" commenced in 1990 and continues today. Whereas media was outlined via their delivery programs, digital media are all in a similar way constructed with digital, binary code made up of ones and zeros. As an alternative of paper being the medium for books, radio waves being the medium for sound broadcasting, and cables being the medium for cable TV, a character can now read a book, take heed to the radio, and entry many cable TV suggests on the web. In short, digital media read, write, and store data (textual content, images, sound, and video) using numerical code, which revolutionized media extra rapidly than ever before. Just as technological advances made radio and television possible, the web don't have been possible without some key breakthroughs. The internet is a decentralized communications and know-how community that depends on the transmission of digital signals through cables, mobilephone traces, and satellites, which are then relayed by means of community servers, modems, and computer processors. The progress of digital code was once the first innovation that made way for the internet and all digital media. The information that speeds round

us by way of fiber-optic cables, satellites, and wi-fi alerts is made of binary code-often known as digital code considering that it is made from zeros and ones.

The beginning of the internet will also be traced again to when government scientists have been tasked with developing a means of sharing expertise over a network that would not be interrupted, by chance or deliberately. More than thirty years in the past, those govt scientists created an web that was so much special from what we think of because the web in these days. The usual web was once used as a way of sharing understanding amongst researchers, educators, and govt. officers. That remained its most important cause unless the bloodless warfare commenced to fade and the closely guarded knowledge network was opened as much as others. Presently, most effective a small group of pc fans and novice hackers made use of the internet, since it used to be still no longer obtainable to most persons. Some more technological advances needed to occur for the internet to grow to be the mass medium that it's in these days.

From the opening, the internet used to be a mass medium like none different. Nearly all of the content was once person generated and the packages needed to create and navigate on-line content material have been within the public domain. This fusing of free access to know-how and consumer creativity still types the groundwork of digital "new media" that are rather more user managed and individual. Demand for internet entry and extra user-pleasant applications created the client part of the web, and historic media corporations and common folks saw the online as another revenue generator.

A important supply of income generated via the internet goes to web service vendors (ISPs), who cost purchasers for internet entry. The more risk; less and quick the connection, the more highly-priced the carrier. Curiously, old media providers like cable businesses (who had been competing against satellite corporations) and mobile phone organizations (who were additionally struggling after the progress of telephone mobile phone and electronic mail communication) are the biggest vendors of high-pace internet entry. Many others generate income from the web via typical exchanges of goods or services for cash or via selling space to advertisers. These methods of commerce are usually not new for any mass media, as they had been utilized in print, radio, and television. On-line auction websites like eBay and online shops like Amazon comfortably moved a average business exchange to the realm of our on-line world. Advertising online, nonetheless, is really one of a kind from promoting in different media. Historical media advertisers measure their success with ads situated on a corresponding develop or slash in sales—a procedure that is not very detailed or on the spot. On-line advertisers, alternatively, can comprehend exactly what number of men and women see their commercials situated on the quantity of web site visitors, and they can measure how strong their ad is with the aid of what number of people click on it. This will allow them to revise, pull, or purchase extra of an ad rapidly centered on the feedback. Additionally, exact online environments furnish even more user knowledge to advertisers which enable them to target advertisements.

"Getting Real"

The "Getting real" packing containers in this booklet have desirous about how the principles we're learning relate to specific careers. Even though you might not make a entire profession out of being an online entrepreneur, many individuals are turning to the internet as a different source of earnings. Persons have been making a living off the online for a long time now, however sites like eBay relatively opened men and women's eyes, for the primary time, to the likelihood of spinning whatever you already have or already do into some extra cash. Anyone can set up an internet presence now, whether it's through establishing your own website, building a profile on an current website like a weblog-web hosting provider, or using a space you have already got like your fb or Twitter account. Subsequent, you must think about what it's you're supplying and who it's that could need it. Much less traditional methods of monetizing the net involve harnessing the energy of social media. On this capacity, that you would be able to prolong your company or the company of something/anyone else. To lengthen your manufacturer, you first have to manufacturer yourself. Determine what which you can offer people—consulting in your field of advantage similar to voice lessons, entertainment comparable to singing at weddings, supplying speeches or writing about your subject of knowledge, and so on. Then create a web presence which you can direct folks back to by means of your social media promoting. When you have a colossal quantity of followers on Twitter, for instance, different brands may just need to faucet into your capability to entry that audience to have you ever promote their product or service. If you comply with any celebrities on Twitter, you're well aware that lots of their tweets hyperlink to a product that they say they love or a website that's offering a distinct deal.

Web access can be following people far away from their dwelling and work computers, simply as radio adopted men and women into their automobiles. Smart phones and the progress of mobile phone networks in a position of dealing with information site visitors allowed cell phone vendors to benefit from the online. The convergence of the internet with individual electronics like smart phones and the usage of the internet for social functions are key parts of the discussion of personal media and social media.

KEY TAKEAWAYS

Technological advances made possible newer forms of media that displaced others.

- **The Print Age.** The development of the printing press in Europe around 1450 was the key technological advance that moved us from the manuscript era to the print era. As paper and bookbinding materials became cheaper, books spread around the world and literacy rates increased. Cheaper paper, more advanced printing presses, and faster and more reliable transportation technologies also contributed to the rise of newspapers and magazines as print media.
- **The Audiovisual Age.** Wireless telegraphy paved the way for radio and television broadcasts. Advances in signal transmission and reception as well as vacuum tube technology made televisions and radios more reliable and compact. Cable and satellite television began to compete with broadcast television, as they provided access to more channels and service in areas where broadcast signal reception was unreliable.

- **The Internet and Digital Media Age.** The development of digital code, microprocessors, and fiber-optic cables were key technological advances that made the Internet and digital communication possible. Rapid developments around 1990, such as the creation of HTTP and HTML coding and Internet browsers, created what we know today as the World Wide Web.

Each and every form of mass media affected society in primary approaches. Books allowed people to teach themselves and be extra selective concerning the knowledge to which they have been uncovered alternatively than relying exclusively on academics or clergy. Newspapers chronicled the everyday life of societies and furnished a public forum for know-how sharing and debate. Magazines were the primary medium to make important advances in the mass printing of portraits, which brought a more visible medium to their viewers earlier than the appearance of television. Radio allowed lots of people to experience whatever whilst, which helped create a extra unified national identification and likewise introduced entertainment and information applications into men and women's homes. Television copied a lot of radio's suggestions and quickly displaced the radio as the center piece for enjoyment in folks's homes. The internet introduced a new decentralized and communal form of media that could now not be controlled with the aid of anybody government or industry and allowed for the construction of person-generated content.

Electronic media chiefly has needed to adapt as new types of media are invented. Radio, for illustration, misplaced much of its advertising earnings to television, which led radio to adapt its programming from news and entertainment to broadcasting tune. Radio also took capabilities of new technologies to grow to be moveable and comply with humans out of their condo. Broadcast TV had to diversify its software lineup as cable and satellite vendors offered many extra channels. All these media, even print, needed to adapt to the arrival of the digital age. Copyright violations—pirating—emerge as a problem when historical media content material is digitized, which makes it extra comfortably reproducible and sharable.

"Getting Competent"

Although most do not get mass public attention, there are many media criticism and analysis organizations that devote much time and resources to observing, studying, and/or commenting on how the media acts in practice, which often involves an implicit evaluation of media theories we have discussed so far, in particular media effects theories. Media outlets and the people who send messages through media outlets (i.e., politicians, spokespeople, and advertisers) are concerned about the effects and effectiveness of their messaging. As we already learned, the pervasive view of media effects today is that media messages do affect people, but that people have some agency in terms of how much or little they identify with or reinterpret a message.

To understand media effects, media criticism organizations do research on audience attitudes and also call on media commentators to give their opinions, which may be more academic and informed or more personal and partisan. In either case, taking some time to engage with these media criticism organizations can allow you to see how they apply mass communication theories and give you more information so you can be a more critical and informed consumer of media.

KEY TAKEAWAYS

- The mass media serves information, interpretation, instructive, bonding, and diversion functions.
- As a gatekeeper, the media functions to relay, limit, expand, and reinterpret information.
- The hypodermic needle theory of mass communication suggests that a sender constructs a message with a particular meaning that is "injected" into individuals within a mass audience.
- Theories of media effects explore the intended or unintended effects of what the media does. Theories have claimed strong effects, meaning that media messages can directly and intentionally influence audience members. They have also claimed weak effects, meaning that media messages have no little power over viewers. More recently, theories have claimed negotiated effects, meaning that media messages do affect viewers but that viewers also have some agency to identify with, reject, or reinterpret a message.
- Cultivation theory explores a particular kind of media effect claiming that media exposure, specifically to television, shapes our social reality by giving us a distorted view on the amount of violence and risk in the world.

Mass Communication and Ethics

Given the potential for mass communication messages to reach thousands to millions of people, the potential for positive or negative consequences of those messages exceed those of interpersonal, small group, or even public communication messages. Because of this, questions of ethics have to be closely considered when discussing mass communication and the media. In this section, we will discuss how media-ownership regulations, globalization, and representations of diversity tie in with mass communication ethics.

Media Control and Ownership

Media interests and ownership have become more concentrated over the past few decades as a result of deregulation. Deregulation refers to the overturning or revising of policies that were in place to ensure that media outlets serve the interests of the public and include diverse viewpoints, programs, and ownership. Deregulation occurred as a result of the rapid technological changes in the 1980s and 1990s, including the growth of cable and satellite outlets. The argument for deregulation was to make the overall market for network, cable, satellite, and other media outlets more competitive.

Restrictions on the number of radio and/or television stations a single person could own have lessened over the years, allowing individuals to control multiple media outlets.

Media and Globalization

Globalization refers to a complex of interconnecting structural and cultural forces that aid the spread of ideas and technologies and influence the social and economic organization of societies. Just as modernization in the form of industrialization and then later a turn toward an information-based society spread across

the globe, so do technologies and the forms of media they create. In all these cases, the spread of ideas, technologies, and media is imbalanced, as we will discuss more lately. Just as corporations have helped further globalization, media companies have expanded into multinational conglomerates in such a way that allows them to have power and influence that is difficult for individual nations to regulate or control. During the first seventy or so years of electronic mass media, countries could more easily control messages that were sent through cables or other hard structures. For example, telegraph, telephone, and television lines could be cut and even radio television stations that broadcast over the airwaves could be taken offline by cutting the power to the transmitter. As more information became digitized and sent via satellite, countries had much more difficulty limiting what could get in and out of their borders.

Media-fueled cultural imperialism is critiqued because of the concern that the imported cultural images and values will end up destroying or forever changing the cultural identity of the countries being "occupied" by foreign media. The flow of media is predictable and patterned.

Media and Representation

Another area of concern for those who study mass media is the representation of diversity (or lack thereof) in media messages. These people help set the tone for standards of behavior, beauty, and intelligence, among other things. Social learning theory claims that media portrayals influence our development of schemata or scripts, especially as children, about different groups of people.

Developing Media Literacy

Media literacy involves our ability to critique and analyze the potential impact of the media. The word literacy refers to our ability to read and comprehend written language, but just as we need literacy to be able to read, write, and function in our society, we also need to be able to read media messages. To be media literate, we must develop a particular skill set that is unfortunately not taught in a systematic way like reading and writing. The quest to make a more media-literate society is not new.

Media literacy isn't meant to censor or blame the media, nor does it advocate for us to limit or change our engagement with the media in any particular way. Instead, media literacy ties in with critical thinking and listening, which we have learned about throughout this book already. Media-literacy skills are important because media outlets are "culture makers," meaning they reflect much of current society but also reshape and influence socio cultural reality and real-life practices. Some may mistakenly believe that frequent exposure to media or that growing up in a media-saturated environment leads to media literacy. Knowing how to use technology to find and use media is different from knowing how to analyze it. Like other critical thinking skills, media literacy doesn't just develop; it must be taught, learned, practiced, and reflected on.

KEY TAKEAWAYS

- Media control and ownership has been deregulated over the past few decades, which has led to increased consolidation and merging of media outlets.
- The media aids globalization by exporting Western beliefs and values to other countries. This trend in exporting has been termed media imperialism, since Western media tend to dominate in many countries. Certain stereotypes about the West, particularly the United States, are maintained through the narrow range of messages that are exported. Other countries do not just passively receive Western media messages, however. Some messages are reinterpreted by the local culture, creating hybrid media texts.
- Deregulation has contributed to lack of media outlet ownership by minorities. Additionally, representation of most minority groups in media messages is not proportional to their numbers in the actual population. When minorities are included in media messages, it is often in stereotypical ways. Social learning theory states that these representations are important because they influence the schemata we develop about other groups of people, which points to how these distorted representations can actually influence how people think and act in their real lives.
- Media-literacy skills allow us to critique and analyze the potential effects of media. Media-literate people ask critical questions about all the media messages they receive, not just the ones with which they disagree. Doing so leads people to be more accountable for their media choices and to have more control over the role that media plays in their lives.

New Media Technologies

So what makes "new media" new media? When we recollect "old media," which consist of often print, radio, and television/movies, we see that their presence in our lives and our societies was once confined to a couple areas. For example, TV and radio have lengthy been key technology facets in the home. Films were especially enjoyed in theaters except VCRs and DVD gamers introduced them into our properties. The closest factor to a portable mass medium used to be reading a book or paper on a travel to and from work. New media, nevertheless, are more individual and more social than historical media, which creates a paradox we can explore later in this chapter, as we talk about how new media at the same time separate and attach us. On this part, we will be able to trace the evolution of new media and speak about how personal media and social media fit beneath the umbrella of latest media.

Personal Media

Personal media is so named because users are more free to choose the media content to which they want to be exposed, to generate their own content, to comment on and link to other content, to share content with others, and, in general, to create personalized media environments. To better understand personal media, we must take a look at personal media devices and the messages and social connections they facilitate.

Social Media

Media and mass media have long been discussed as a unifying force. The shared experience of national mourning after President Kennedy was assassinated and after the terrorist attacks of September 11, 2001, was facilitated through media. Online media, in particular, is characterized by its connectivity. Whereas a large audience was connected to the same radio or television broadcast, newspaper story, book, or movie via a one-way communication

channel sent from one place to many, online media connects mass media outlets to people and allows people to connect back to them. The basis for this connectivity is the Internet, which connects individual computers, smart phones, and other devices in an interactive web, and it is this web of connected personal media devices like computers and smart phones that facilitates and defines social media. Technology has allowed for mediated social interaction since the days of the telegraph, but these connections were not at the mass level they are today. So even if we think of the telegram as a precursor to a "tweet," we can still see that the potential connection points and the audience size are much different.

The most influential part of the new web is social networking sites (SNSs), which allow users to build a public or semipublic profile, create a network of connections to other people, and view other people's profiles and networks of connections.

Social media enable interactivity between individuals that share a social network and also allow people to broadcast or "narrow-cast" their activities and interests.

Let's conceptualize social media in another way-through the idea of collaboration and sharing rather than just through interpersonal connection and interaction. The growth of open source publishing and creative commons licensing also presents a challenge to traditional media outlets and corporations and copyrights. Open source publishing first appeared most notably with software programs. The idea was that the users could improve on openly available computer programs and codes and then the new versions, sometimes called derivatives, would be made available again to the community. The advent of these new, collaborative, participative, and democratizing media has been both resisted and embraced by old media outlets. Increased participation and feedback means that traditional media outlets that were used to one-way communication and passive audiences now have to listen to and respond to feedback, some of which is critical and/or negative. User-generated content, both amateur and professional, can also compete directly with traditional mass media content that costs much more to produce. Social media is responsible for the whole phenomenon of viral videos, through which a video of a kitten doing a flip or a parody of a commercial can reach many more audience members than a network video blooper show or an actual commercial. Media outlets are again in a paradox.

"Getting Real"

No matter what career you go into, you will interact with something that is "open source." It will likely be some type of open source software, since that is the area in which open source product development is most commonly applied. When something is open source, its essential elements are available to anyone who may want to use and/or improve on the product. So, for example, when software is open source, the code is available to anyone who may want to edit it as long as they continue the open philosophy of product development by then making their version, often called a derivative, available to anyone who may want to edit it. Within this philosophy, the synergy that is created when a group of people with different levels of knowledge, experience, and expertise work collaboratively leads to innovative ideas and products that are then shared with the commons rather than kept as proprietary. One example of this type of free, open source software that is used in many professional settings is Mozilla's Firefox web browser, which I'm sure many of you use.

KEY TAKEAWAYS

- New media consist mostly of digital media, which are composed of and/or designed to read numerical code (such as binary code).
- New media are distinct from old media in that they are less linked to a specific media platform and are therefore more transferable from device to device. They are also less bound to a physical object, meaning that information can be stored electronically rather than needing to be encoded onto a physical object.
- New media are also distinct from old media in that they are more personal and social. As the line between consumers and producers of media blur in new media, users gain more freedom to personalize their media experiences. Additionally, the interactive web of personal media devices also allows people to stay in touch with each other, collaborate, and share information in ways that increase the social nature of technology use.
- New media are being used by people, especially young people, to engage with political causes and participate in the democratic process by sharing news stories and "liking" and commenting on other people's postings.

New media provide ways of countering some of the control and participation issues that audiences have typically faced as the lines blur between producers and consumers of media. The phrase alternative media is often associated with new media. Alternative media include a range of voices with diverse cultural identities and experiences, which counter the mainstream media outlets that are controlled by and include the voices and perspectives of more privileged people. Alternative media is very similar to and in fact overlaps with tactical media, which are more activist oriented and include dissenting and "radical" perspectives that challenge the status quo. From a truly democratic perspective, which is supposed to invite and encourage dissent, a plurality of voices, and civil debate, alternative and tactical media are welcome additions to the traditional media landscape that tries to diminish, rather than encourage, competing voices.

Blogs were the earliest manifestation of Web 2.0 and marked the beginning of the turn to more user-generated content and the democratization of information gathering and sharing. Just as then, today's blogs provide information that varies in terms of depth, quality, and credibility. Blogs that are most relevant to our discussion of democracy are those whose authors engage in citizen journalism and/or gate-watching. Blogs are an accessible and popular outlet for citizen journalism, which is reporting done by individuals or small groups outside of the media establishment as a corrective to mainstream journalism, which may inaccurately report or underreport a story.

KEY TAKEAWAYS

- New media have had a democratizing effect on society, as they help distribute power to people through their social and personal characteristics. Instead of media outlets having sole

control over what are communicated to audiences, media-audience interactions are now more like a dialogue.

- The personal access to media and growing control over media discourses by users allows people to more freely express opinions, offer criticisms, and question others-communicative acts that are all important for a functioning democracy.

The digitalization of media products allows them to be more easily reproduced and disseminated. Due to increasing rates of piracy, media outlets have started a more aggressive campaign to reduce copyright infringement through threats of prosecution, collaboration with media providers to identify offending users, and digital rights management (DRM).

The democratizing nature of new media hasn't been welcomed by all, as governments, institutions, and individuals engage in various types of content filtering. The connectivity afforded by social and personal media also create more possibilities for surveillance in terms of electronic "wiretaps" by law enforcement and collection of web-browsing, consumption, and online communication data by corporations and organizations.

New Media, the Self, and Relationships

Think about some ways that new media have changed the way you think about yourself and the way you think about and interact in your relationships. Have you ever given your Facebook page a "once-over" before you send or accept a friend request just to make sure that the content displayed is giving off the desired impression? The technological changes of the past twenty years have affected you and your relationships whether you are a heavy user or not. Even people who don't engage with technology as much as others are still affected by it, since the people they interact with use and are affected by new media to varying degrees.

The personal and social nature of new media also creates an openness that isn't necessarily part of our offline social reality. Although some people try to address this problem by creating more than one Facebook account, according to the terms of use we all agreed to, we are not allowed to create more than one personal profile. People may also have difficulty managing their different commitments, especially if they develop a dependence on or even addiction to new media devices and/or platforms. New media blur the lines between personal and professional in many ways, which can be positive and negative. For example, the constant connection offered by laptops and smart phones increases the expectation that people will continue working from home or while on vacation. At the same time, however, people may use new media for non-work-related purposes while at work, which may help even out the work/life balance.

The constant availability of the Internet allows people to engage in a wide variety of cyber slacking at work, such as online gaming, shopping, and chatting.

Personal media devices bring with them a sense of constant connectivity that makes us "reachable" nearly all the time and can be comforting or anxiety inducing. Devices such as smart phones and computers, and platforms such as e-mail, Facebook, and the web, are within an arm's reach of many people. While this can be convenient and make things more efficient in some cases, it can also create a dependence that we might not be aware of until those connections are broken or become unreliable. You don't have to look too far to see people buried in their smart phones, tablets, or laptops all around. While some people have learned to rely on peripheral vision in order to text and walk at the same time, others aren't so graceful. In fact, London saw the creation of a "text safe" street with padding on street signs and lamp poles to help prevent injuries when people inevitably bump into them while engrossed in their gadgets' screens.

Facebook greatly influenced our use of the word friend, although people's conceptions of the word may not have changed as much. When someone "friends you" on Facebook, it doesn't automatically mean that you now have the closeness and intimacy that you have with some offline friends. And research shows that people don't regularly accept friend requests from or send them to people they haven't met, preferring instead to have met a person at least once. Even more than blogs, web pages, and smart phones, the environment on an SNS like Facebook or Twitter facilitates self-disclosure in a directed way and allows others who have access to our profile to see our other "friends." This convergence of different groups of people (close friends, family, acquaintances, friends of friends, colleagues, and strangers) can present challenges for self-presentation. Although Facebook is often thought of as a social media outlet for teens and young adults, research shows half of all US adults have a profile on Facebook or another SNS.

"Getting Competent"

We all have a growing log of personal information stored on the Internet, and some of it is under our control and some of it isn't. We also have increasingly diverse social networks that require us to be cognizant of the information we make available and how we present ourselves. While we can't control all the information about ourselves online or the impressions people form, we can more competently engage with social media so that we are getting the most out of it in both personal and professional contexts.

A quick search on Google for "social media dos and don'ts" will yield around 100,000 results, which shows that there's no shortage of advice about how to competently use social media.

Be consistent. Given that most people have multiple social media accounts, it's important to have some degree of consistency. At least at the top level of your profile (the part that isn't limited by privacy settings), include information that you don't mind anyone seeing.

Know what's out there. Since the top level of many social media sites are visible in Google search results, you should monitor how these appear to others by regularly (about once a month) doing a Google search using various iterations of your name. Putting your name in quotation marks will help target your results. Make sure you're logged out of all your accounts and then click on the various results to see what others can see.

Think before you post. Software that enable people to take "screen shots" or download videos and tools that archive web pages can be used without our knowledge to create records of what you post. While it is still a good idea to go through your online content and "clean up" materials that may form unfavorable impressions, it is

even a better idea to not put that information out there in the first place. Posting something about how you hate school or your job or a specific person may be done in the heat of the moment and forgotten, but a potential employer might find that information and form a negative impression even if it's months or years old.

Be familiar with privacy settings. If you are trying to expand your social network, it may be counterproductive to put your Facebook or Twitter account on "lockdown," but it is beneficial to know what levels of control you have and to take advantage of them. For example, I have a "Limited Profile" list on Facebook to which I assign new contacts or people with whom I am not very close. You can also create groups of contacts on various social media sites so that only certain people see certain information.

Be a gatekeeper for your network. Do not accept friend requests or followers that you do not know. Not only could these requests be sent from "bots" that might skim your personal info or monitor your activity; they could be from people that might make you look bad. Remember, we learned earlier that people form impressions based on those with whom we are connected. You can always send a private message to someone asking how he or she knows you or do some research by Googling his or her name or username.

KEY TAKEAWAYS

New media affect the self as we develop a higher degree of self-consciousness due to the increased visibility of our lives (including pictures, life events, and communication). The constant connectivity that comes with new media can also help us feel more connected to others and create anxiety due to overstimulation or a fear of being cut off.

New media affect interpersonal relationships, as conceptions of relationships are influenced by new points of connection such as "being Facebook friends." While some people have critiqued social media for lessening the importance of face-to-face interaction, some communication scholars have found that online networks provide important opportunities to stay connected, receive emotional support, and broaden our perspectives in ways that traditional offline networks do not.

Getting integrated: Social networking sites (SNSs) can present interpersonal challenges related to self-disclosure and self-presentation since we use them in academic, professional, personal, and civic contexts. Given that people from all those contexts may have access to our profile, we have to be competent in regards to what we disclose and how we present ourselves to people from different contexts (or be really good at managing privacy settings so that only certain information is available to certain people).

DIGITAL MEDIA AND TECHNOLOGY

Digital media and science is likely one of the fastest developing principles in the world. It has converted the best way we do practically everything. It has made a considerable transformation in how we be in contact. From MTV to the internet, digital media and technology has supplied tool to allow expression that was as soon as best on hand to at least one's own intellect. Audio, video, lightning, information, safety, phones, and even warmness and air con identification going (if now not already) to digital layout. Today, technological know-how has provided tools to extract these portraits and thoughts to others.

Digital media and science is already an predominant pert of different technologies. For illustration, it's utilized in computers, cell programs, and compact discs. Day-to-day there's a new type of digital media emerging. These forms can also be from net-cams, flat-reveal TV's, colour monitor mobile phone phones, digital subscriber traces (DSL), digital reality methods, holographic theaters, digital papers and palm pilots. The fast traits in digital media science have profound effects on human conversation. Each private and mass verbal exchange will change and adapt hence of the emergence of recent science. A new infrastructure will probably be created, giving every person access to digital offerings. The final trends are closer to a digital world, where all varieties of understanding can be captured, processed and distributed digitally. Knowledge, text, sound, pics, animation, video and all of their mixtures can be communicated in digital type. The media landscape will end up digital. New, digital media will emerge and present media will have to accommodate and utilize the new instruments in order to stay competitive. Digital media and science may have an affect on the whole thing countrywide broadcasters do. These matters include making packages, storing materials in archives, and getting the signal from video to house.

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Dr. Shaily Saxena
Asso. Professor, TIPS, Dwarka
Mobile : +91-7428855451

Dr. Vandana Malviya
Asso. Professor, TIPS, Dwarka
Mobile : +91-9871859909

Objectives of the Conference:

Prime Minister Narendra Modi on November 8 announced that old Rs 500 and Rs 1,000 notes will be no longer used as legal tender from midnight of November 8, 2016. 86% of India's currency was nullified in a great demonetization effort that aimed to clean out the black market's cash supply and counterfeit notes which completely disrupted the social, political, and economic spheres of the 'worlds second largest emerging market. The demonetization initiative saw some sectors of the economy struggling with the lack of readily available cash, grassroots businesses are still being revolutionized with electronic payment capabilities, and masses of people continue transitioning towards new ways of paying for basic goods and services.

The conference is driven by the idea of providing a unique learning experience on the exchange of insights and practical knowledge, deliberating upon the Demonetisation initiative of the Government and moving India towards e- monetization. The deliberations will take place in the fields of Management, Commerce, IT and Media to make India a cashless economy.

The conference will emphasize on the following issues:

1. To discuss the Opportunities and Challenges of Demonetisation
2. The impact of Demonetisation on Management, Commerce, IT and Media
3. To analyse the impact of growth in Cashless Economy
4. To discuss the transition from Demonetisation to e-monetisation
5. The vision for future endeavours and success of Demonetisation

PARTICIPATION FEE

for

Category of Delegates/Authors/ Students

Authors : **Rs. 600/-**
(On the spot---if not sent along with the paper.)

Academicians/Research Scholars: **Rs. 500/-**
(For participation)

Delegates from Industry: **Rs. 1000/-**
(All participants and paper presenters will be provided with refreshment/lunch and certificates)

On the spot registration is allowed only for participation with payment of fee.

Trinity, December, 2016

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