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DEEPA
SARAH RAZACK
S INDUMATI

Role of Media in Development Communication
with Special Reference to Kissan Call Centre (KCC) in India
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An Analysis of Dominant Health Issues, Voices
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Changing Paradigms of Socio - Political Participation:
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Abstract

Education leads to socio-economic transformation of the individual and society. It is recognised as an engine of social and economic development. It develops the human resources necessary for economic and social transformation. Since independence, India has come a long way to expand its literacy base and educational opportunities. The distribution of educational opportunities is far from equal and inequalities in educational opportunities are multi-layered. Naik (1975) strongly depicts different forms of inequalities, which have appeared most apparently in the field of education. In this context, the present study is an attempt to estimate inequalities in the enrolment of primary and secondary education in relation to income which is estimated with the help of Gross District Domestic Product (GDDP) across districts in Karnataka for the year 2012-13. There are many quantitative tools available for measuring inequalities. Perhaps the most commonly used measure of inequality is the Gini index which is usually defined in terms of Lorenz curve. They are the two interlinked methods of measuring inequality. The study has made use of these methods in order to estimate the inequalities in education across districts of Karnataka.

Keywords: Educational Inequality, Primary and Secondary Education, Gini Index

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INTRODUCTION

Education plays a vital role in the socio-economic transformation. It has its impact on modernisation of the society and economy. It is a necessary and sufficient condition for poverty eradication, higher income level of the people, reduction of inequalities and further economic progress¹. According to National Human Development Report 2001², education in both developing and developed economies has also played a critical facilitative role in the demographic, social, political transition of the societies, creation application and adoption of new technologies, lower fertility, infant and child mortality, better nutritional, hygiene and health states of children, reproductive health, empowerment of women, social mobility and political freedom, all have visible linkages with educational attainment of people.

On the same lines of thought at the global level, the United Nations, Millennium Development Goals 2010 were spelt to achieve the eight anti-poverty goals by the target year 2015. It aimed at achieving the universal primary education as a poverty reduction measure to bring in equality of opportunities for living. Educational equality does not only mean an egalitarian state where educational attainment is equally distributed among the population. Instead, educational equality is also related to equality of opportunities for participating in economic growth.³

The Eleventh Five Year plan of Government of India⁴ also has emphasised on the inclusive growth strategy, which promotes the growth of all sections of the society. It advocates the socio-economic inclusion of the poor and marginalised. Education is the tool which enhances the standard of the living of the people. Any deviation from the prominence of education would tend to leave out a large component of population which is socially, educationally and economically backward like SC, ST, women, tribal, poor,

rural population, minorities and people with special needs. Hence, it becomes necessary to identify and understand the educational provision and attainment levels in order to address the access and equity issues in education. This also helps to address the issues of inequalities and unbalanced socio-economic growth⁵.

An inequitable educational distribution would result in widening the gap between the poor and non-poor, amongst the rural and urban population and amongst the gender too⁶. Karnataka is one of the developed states of India. It houses 5.05% of total population. It is the seventh largest contributor of GDP. According to 2011 census, the state of Karnataka has literacy rate of 75.60%, which is above the national literacy attainment of 74%. This has been due to a well organised school education structure in Karnataka state. The School education in Karnataka comprises an elementary cycle of 7 years (4 years lower primary and 3 years upper primary from class 1 to class 7) and a secondary cycle of 3 years (from class 8 to class 10). The Karnataka Education Act of 1983, Universalization of Elementary Education (UEE) and *Sarva Shikshana Abhiyaan* (SSA) have been the road maps to direct the Education policy of the Karnataka state to ensure inclusive schooling at Primary and Secondary levels. But, an in-depth enquiry of the district wise study of educational enrolments shows larger disparities across districts and among boys and girls. This paper reviews issues related to deprivation and inequality in education across the districts of Karnataka. It highlights the educational attainment differences across the districts and the across the gender in Karnataka for the year 2012-13.

LITERATURE REVIEW

The impact of education among the weaker sections of the society was studied by Chitnis (1974). The study found that the disparity in literacy between SCs and the total population was high in urban areas than in rural

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1. Naik G Mallikarjun and Dr. Sharada V (2013), *Educational Development in Karnataka: Inter-District Disparities*, International Journal of Advanced Research in Management and Social sciences, 6236 Vol.2, No. 10, October 2013.
 2. NHDR
 3. Thomas Vinod, Wang Yan and Fan Xibo (2001), *Measuring Education Inequality: Gini Coefficients of Education*, Policy Research Inventory Paper WPS 2525, World Bank, 2001.
 4. The Eleventh Five year plan (2007), Planning Commission, Government of India.

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5. Dodmani Eerappa Panduranga and Biradar Vijayalakshmi (2014), *Problems and Challenges of Scheduled Caste Pre-University students in Karnataka: A Case Study of Koppal District*, Journal of Research Directions, Vol. 1, Issue 9, March 2014.
 6. Ibouk A and J Amaghous, (2012), *Measuring Education Inequalities: Concentration and Dispersion-Based Approach*, World Journal of Education Vol. 2, No. 6, pp 51–65.

areas and more with the respect to males than females.

Gangrade (1974) studied the SC students in various educational institutions and identified different kinds of discrimination and types of difficulties faced by them. The study concluded that the financial position and economic condition had a greater impact on the social life of the respondents.

The socio-economic background of the SCs and tribal students was examined by *Pimpley (1974)*. He studied the access, performance, their feeling towards social distance and their opinion about the facilities provided to them. He explores the poor economic conditions of the tribal children. The poor family background was an important obstacle which hampered the educational aspirations of tribal children.

The scheduled castes awareness about the scheme for their educational progress was conducted by *Yadav (1999)*. It was found that the students in the urban area had higher awareness than in those in the semi urban and the rural areas and the awareness of the male students was higher than that of the female students in the total sample.

Bogdan Voicu and Marian Vasile (2010) focus on the quantitative inequalities of educational opportunities in Romania. They find that Romanian participation in tertiary sector is comparatively less than the European societies. They use logistic regression models to represent the rural-urban inequalities which initially increase later decrease but still exist. The authors identify that the historical reasons are responsible for development of inequalities in Romania.

Mylarappa (2013) in his study on Literacy and Education System in Karnataka finds that, the overall gender disparity in literacy is declining in economically less developed districts of the Karnataka state. The authors identify the positive association between literacy and improved socio-economic development indicators, demographic indicators and they also underline the crucial role of literacy in the process of human development. According to the study, the low priority given to the adult literacy and primary education in the state is the reason for the existence of such high levels of illiteracy in

few districts. The study also highlights that the literacy rate in urban Karnataka is better than the literacy levels of the rural population, women, SCs and STs, and more particularly SC and ST women. This indicates that the state is far from reaching the Tenth Plan goals.

Nrupam Bajpai (2008) has addressed human resources cost and financial cost of provisioning the primary education in all the rural areas of Andhra Pradesh and Karnataka. They also enquired upon what policy, institutional and governance reforms may be necessary so as to ensure proper service delivery. The study recommends that, only setting up more schools is not going to be enough; higher public investments in these areas needs to be accompanied by systemic reforms that will help overhaul the present service delivery system, including issues of control and oversight.

The inter-district disparities in education in Karnataka attempted to be identified by *Mallikarjun Naik (2013)*. Using secondary data, the author identifies various factors affecting the growth of disparities. The educational development of each district is measured using Composite Index Method adopting fifteen indicators for the year 2010-11. The findings state that, there is wide disparity among the districts in the state. So the planners should take appropriate policy measures to reduce the disparities.

Pandurnga and Biradar (2014) finds that education influences the socio-economic development and culture of a nation but, there is a large component of population which is socially educationally and economically backward like SCs, STs and large segment of minority groups which results in high dropouts and low achievement. The study focuses itself on the problems of SC students studying in pre-university colleges in Karnataka. It highlights that, there is a huge difference in problems of SCs students studying in rural area compared to urban colleges. Specifically, the rural girl students face more problems than the boys studying in pre-university colleges.

Lakshmana (2005) gives a brief appraisal of the Index of Deprivation and Crude Literacy Development Index (CLDI) in Karnataka for the two census years 1991 and 2001. It analyses the talukwise development through literacy. The study finds that, out of 175 taluks in Karnataka, Mangalore in

Dakshina Kannada District has the highest CLDI (0.873) both in 1991 and 2001. Followed by Karwar, Madikeri, Sirsi, Udupi, Sulya, Sringeri, Bantwal, and Bangalore-South taluks. Yadgir taluk of Gulbarga District has the highest IOD (0.374), followed by Shahapur, Devadurga, Manvi, Shorapur, Siruguppa, Jevargi, and Sedam taluks in the districts of Gulbarga, Raichur and Bellary respectively.

The importance of universal primary education with quality in a stipulated time has been highlighted by *Yash Agarwal (2001)*. The author advocates that in due course of attaining this objective, the care should be taken to ensure that the existing disparities do not increase further. It is also found that, deprived groups which include girls, ethnic minorities, working children, children living under difficult circumstances, children with special needs and those whose continued participation in education is at risk. The various dimensions of disparities, their measurement and implications for policy and program interventions to reduce the disparities are examined.

Thomas, Wang and Fan (2000) use the Gini index to measure the inequality in the educational attainment. They find that, higher educational attainment is more likely to achieve inequality in educational attainment by studying education in 85 countries between 1960 and 1990. They find that with few exceptions, the inequality in most of the countries has declined in three decades. The Gini-index is negatively associated with averages years of schooling. The nations with higher educational attainment are more likely to achieve equality in education than those with lower attainment. Overtime the gender gap in education has increased. The study highlights that there is negative relationship between per capita GDP and education inequality where as the labor force's average years of schooling is positively related to per capita GDP.

Lorenzo Giovanni Bellu (2006) addresses the most popular inequality index, the Gini index. They discuss its characteristics and the link with another popular graphical tool of representing inequality, the Lorenz Curve is discussed. The paper also discusses the extended version of the Gini Index with different weighting schemes.

OBJECTIVES

➤ To estimate the inequalities in enrolment of school education across districts in the state for the year 2012-13.

Hypothesis

H_1 : There exists equality in enrolments among all the districts in Karnataka.

METHODOLOGY

The study is related to all the districts of Karnataka. The study is related to the year 2012-13. The information on total enrolment in primary and secondary education, was compiled from the analytical report of *Sarva Shikshana Abhiyana (SSA)*, published in June 2013 by District Information System for Education (DISE), and the data on district wise gross district domestic product (GDDP) at constant prices was compiled from Economic Survey 2014-15 of Government of Karnataka (GOK).

Quantitative tools:

Lorenz curve and Gini Co-efficient

Inequality is an unfair situation. Inequality obviously suggests a departure from some ideas of equality. Inequality refers to the unequal distribution of individuals, households or some per capita measure of income among the population of a country. It measures the disparity between a percentage of population and the percentage of resources received by that population.

An inequality measure helps determine the effectiveness of policies aimed at affecting inequality and generates the data necessary to use inequality as an explanatory variable in policy analysis. Of course, an inequality measure, like any other tool, is to be judged by the kind of job that it does. There are various methods of measuring inequality in a given situation like; range, relative mean deviation, variance, log variance, Lorenz curve, the Gini's coefficient, Theil's T Statistic, Duncan's inequality index etc.

Perhaps the most commonly used measure of inequality is Gini index (G) which is usually defined in terms of Lorenz curve⁷. They are the two

7 Allison P. D (1978) *Measures of Inequality*, American Sociological Review, Vol. 43, No. 06, pp. 865-880.

interlinked methods of measuring inequality. Both originate from the early years of the twentieth century. The Lorenz curve was developed by Max. O. Lorenz in 1905⁸. It is a typical graphical representation of income distribution which was published in the American Statistical Journal.

Corrado Gini developed the Gini's Index of income inequality shortly in 1914⁹. The credit for the popular dissemination and development of the original work of Lorenz and Gini goes to Sir. Tony Atkinson, whose work on poverty and income inequality in 1970s popularised the measures.

Lorenz curve is a tool used to represent income distributions; it tells us which proportion of total income is in the hands of a given percentage of population. It relates to the cumulative proportion of income to the cumulative proportion of individuals. The step by step procedure to construct a Lorenz curve is as follows:¹⁰

Lorenz Curve

Step 1	Sort the income distribution by income level
Step 2	Define the proportion of income owned by each individual and his proportion on total population
Step 3	Define the cumulative proportion of income and the cumulative proportion of population
Step 4	Define the line of equidistributed income
Step 5	Plot the cumulative proportion of income against the cumulative proportion of population

Source: Bellu Giovanni Lorenzo and Liberati Paolo (2006), *Inequality Analysis – The Gini Index: Analytical Tools*, EASTPol module 040, FAO, www.fao.org/tc/easypol

The Gini coefficient is a complementary way of presenting information about inequality. It is the ratio of the area between the Lorenz curve and the

line of absolute equality and the whole area under the line of absolute equality. The extreme values of the Gini coefficient are 0 and 1. These can also be represented in terms of percentages; hence the corresponding extreme values would be 0% and 100%. The former implies perfect equality whereas the later implies total inequality. These two extremes are trivial. This implies that the lower the figure that Gini coefficient takes (between 0% and 100%), the greater the degree of prevailing equality.

The present study has made use of both the tools in order to estimate the inequalities among enrolment to primary and secondary schools and income in the respective districts.

RESULTS AND DISCUSSIONS

The Table 2 and Graph 3 in the Annexure depicts the percentage share of Enrolments from class 1 to 10 and percentage share of Gross District Domestic Product across the districts of Karnataka for the year 2012-13. The data in the Table-2 reflects the fact that there is a wide range of disparities in the enrolments among the various districts of Karnataka. The Graph 3 also reveals these differences among the districts. The Bengaluru urban district has the highest percentage of enrolments i.e., 16.11 per cent out of total enrolments also it has the largest share in the percentage of income distribution too. This is followed by districts like Belagavi (8.89), Kalaburgi (5.59), Mysuru (4.46) and Bidar (4.12). These are the top five districts accounting for nearly 39.17 percent of total enrolments together as against 47.80 percent of the total income. The districts like Kodagu (0.93), Chamrajnagar (1.26), Bengaluru Rural (1.42), Chikkamagaluru (1.59) and Chikkaballapur (1.91) lie at the bottom of the range in terms of percentage of enrolments. These bottom five districts have only 7.11 percent of total enrolments together as against 7.85 percent of the total income. This implies that districts with better share of income have better enrolment percentage and vice versa. The disparities reflected here are further examined using Lorenz curve for better understanding and interpretation of inequalities in educational enrolments in Karnataka for the year 2012-13.

8 Lorenz M. O (1905) *Methods of Measuring the Concentration of Wealth*, Publications of the American Statistical Association, Vol. 9, No. 70, pp.209-219.

9 Gini Corrado (1921), *Measurement of Inequality of Incomes*, The Economic Journal, Vol.31, No.21, pp.124-126.

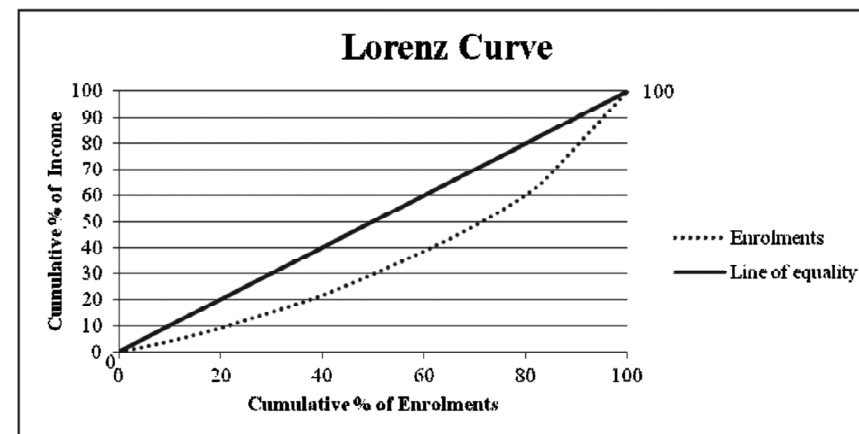
10 Bellu Giovanni Lorenzo and Liberati Paolo (2006), *Inequality Analysis – The Gini Index: Analytical Tools*, EASTPol module 040, FAO, www.fao.org/tc/easypol.

Lorenz Curve
Table-1: Lorenz Curve Calculation

Districts	Total Enrolments	% Total Enrolments	C % Total Enrolments	GDDP (Rs. crores)	% of Income (GDDP)	C % of Income (GDDP)
Bagalkote	364968	3.5311434	3.5311434	5902	2.004858	2.004858
Bengaluru U	1665741	16.11640017	19.647544	99325	33.73983	35.74469
Bengaluru R	147453	1.426639288	21.074183	7557	2.567047	38.31173
Belagavi	919546	8.896804074	29.970987	15967	5.42385	43.73558
Ballari	445615	4.311420361	34.282407	10169	3.45432	47.1899
Bidar	426765	4.129042582	38.41145	4546	1.544236	48.73414
Chamarajanagar	131077	1.268197989	39.679648	2969	1.008543	49.74268
Chickballapur	198072	1.916388932	41.596037	3526	1.197751	50.94044
Chikkamagaluru	165260	1.598925819	43.194963	5223	1.774207	52.71464
Chitradurga	274572	2.656542781	45.851505	5226	1.775226	54.48987
Dakshina kannada	409636	3.963315847	49.814821	14290	4.854188	59.34406
Davangere	352265	3.40823916	53.22306	6963	2.36527	61.70933
Dharwad	375697	3.634948768	56.858009	8865	3.011363	64.72069
Gadag	197716	1.912944556	58.770954	3565	1.210999	65.93169
Kalaburagi	578306	5.595234145	64.366188	7310	2.483143	68.41483
Hassan	243362	2.354579361	66.720767	6612	2.246038	70.66087
Haveri	304351	2.94466097	69.665428	4452	1.512305	72.17317
Kodagu	97024	0.938727936	70.604156	3930	1.334986	73.50816
Kolar	247568	2.39527331	72.999429	6512	2.212069	75.72023
Koppal	254229	2.459719908	75.459149	7942	2.697828	78.41806
Mandya	232534	2.249816147	77.708966	5849	1.986854	80.40491
Mysuru	461887	4.468855439	82.177821	13648	4.636106	85.04102
Raichur	369625	3.576200871	85.754022	5213	1.77081	86.81183
Ramnagara	153780	1.487854366	87.241876	5640	1.915858	88.72769
Shivamogga	293750	2.84209403	90.08397	7586	2.576898	91.30458
Tumakuru	399284	3.863158034	93.947128	10076	3.422729	94.72731
Udupi	170923	1.653716554	95.600845	6909	2.346927	97.07424
Uttara kannada	240271	2.324673275	97.925518	6266	2.128505	99.20275
Yadagiri	214412	2.074481924	100	2347	0.797255	100
Karnataka	10335689	100		294385	100	

Source: Economic survey, 2014-15 GOK.DISE Analytical Report 2012-13 and Authors Calculation.

Graph 2 Inequalities in Total Enrolments and GDDP of Districts



The Lorenz curve for the data was plotted in order to visualise the inequalities in total enrolments and GDDP of the districts. As mentioned earlier in the methodology part, the step by step procedure was made use of to plot the Lorenz curve for the data and its calculation is presented in Table 1. This included entering the original data of the study into Microsoft excel. Then a column of income divided by population was obtained, this column was sorted for the whole table in the sequence of lowest to highest, thereby the cumulative percentage of total enrolments and cumulative percentage of income was calculated. Using the cumulative percentage columns, a scattered plot with data points connected by smoothed lines was inserted. By plotting the equality line into the chart the source data was added and hence the Lorenz curve (Graph 2) was obtained for the data. The dotted line indicates the cumulative percentage of total enrolments and the straight line the line of equality. The cumulative percentage of income is plotted on the vertical axis of the chart. The farther the curve from the line of equality the greater is the level of inequality. The curve of the dotted line shows the inequalities in the total enrolments across districts in relation to the income or GDDP of the districts for the year 2012-13 for Karnataka.

Gini Coefficient

The Lorenz curve just gives a visual depiction of the inequality. Given the Lorenz curve, the degree of inequality of the distribution of enrolments and income can be measured by a one dimensional number called the Gini's coefficient. The Gini coefficient was estimated for the data (Table-3 in the Annexure). The value of the Gini coefficient is 0.36 which gives evidence to the fact that there is inequality in the total enrolments and income distribution among the districts of Karnataka.

CONCLUSION

The present study measures the education inequality among the districts of Karnataka in terms of enrolments expressed in absolute numbers and income shown in terms of Gross District Domestic product by using effective tools of inequality measurement like Gini Co-efficient and Lorenz curve. The study reveals that there is inequality among the districts in Karnataka with regard to the total enrolments from class 1st to class 10th and income for the year 2012-13. The Gini Co-efficient calculated is 0.36, which substantiates the existence of inequalities among the districts. Therefore the hypothesis that there exists equality in school education enrolments across districts in Karnataka is not accepted. This could be one of the reasons for regional imbalances observed among the districts in Karnataka, which is a challenge for further research. Hence, the government and the stake holders in educational sectors need to make efforts to increase and sustain the enrolments at school education level. This can facilitate to reduce the income generation gap and inequalities among the districts in Karnataka.

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ANNEXURE

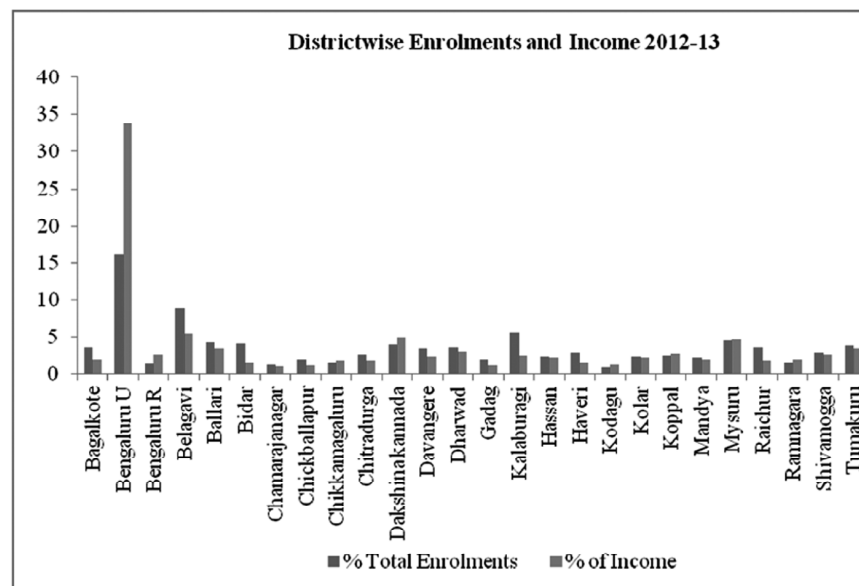
Table-2: District-wise Total Enrolments and Income for 2012-2013

Districts	% Total Enrolments	% of Income (GDDP)
Bagalkote	3.53	2.00
Bengaluru U	16.11	33.73
Bengaluru R	1.42	2.56
Belagavi	8.89	5.42
Ballari	4.31	3.45
Bidar	4.12	1.54
Chamarajanagar	1.26	1.00
Chickballapur	1.91	1.19
Chikkamagaluru	1.59	1.77
Chitradurga	2.65	1.77
Dakshina kannada	3.96	4.85
Davangere	3.40	2.36
Dharwad	3.63	3.01
Gadag	1.91	1.21
Kalaburagi	5.59	2.48
Hassan	2.35	2.24
Haveri	2.94	1.51
Kodagu	0.93	1.33
Kolar	2.39	2.21
Koppal	2.45	2.69
Mandya	2.24	1.98
Mysuru	4.46	4.63
Raichur	3.57	1.77
Ramnagara	1.48	1.91
Shivamogga	2.84	2.57
Tumakuru	3.86	3.42
Udupi	1.65	2.34
Uttara kannada	2.32	2.12
Yadagiri	2.07	0.79

Source: SSA Reports-DISE 2012-13

Note: GDDP is the Gross District Domestic Product

Graph 3 : District-wise Total Enrolments and Income for 2012-2013



Source: SSA Reports-DISE 2012-13

Table-3: Gini Coefficient

Average Enrolment	356403.07
Gini Mean Difference	256899.58
Gini Coefficient	0.360406
Gini Coefficient in %	36.040596

Role of Media in Development Communication with Special Reference to Kissan Call Centre (KCC) in India

VAGDEVI H.S.
PUNITH KUMAR L.M.
M. INDIRA

Abstract

Agriculture is the main occupation in India and more than 55% of livelihood depends on agriculture directly or indirectly. Development of the agriculture and allied sector has been the main objective of the every successive government. Several new technologies have been introduced to develop the agriculture sector. Media is the important tool for the development of society and economy. With technology penetrating to the nook and corners of the country agricultural information dissemination is going through a renaissance. Government of India has announced several programmes such as Kissan Call Centre and Kissan SMS portal to disseminate information on agricultural and allied sector to farmers. The present study analyse the media in the development of agriculture sector in India. The main objective of this research paper is to study the importance and functions of the Kissan Call Centres in India. The study is based on secondary data. The study takes into account the government data of five years from 2007 - 08 to 2013 -14. The study clearly shows that there is a significant increase in the calls in 2013-14, compared to 2007- 08. The average calls in 2007-08 is 18,431 and 1,38,848 in 2013-14. Based on theoretical framework of Wilbur Schramm's studies on communication for development, the present study tries to analyse the role of media in development through use of Kissan Call Centre in informing, instructing and enabling participation among the farmers for a holistic development.

Keywords: Kissan Call Centre, Agriculture, Development Communication, Media

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INTRODUCTION

Multi cultures, multi tribes and castes, multi linguality characterize the Indian society and it the communication that has kept all these aligned within the societal fabric. Communication is always a two way process. Communication uses different forms like print, electronic and more recent new media to communicate. It is here that, media becomes an empowering tool, a tool that facilitates people's participation and paves way for development activities. Today, technology has been put to maximum use to effectively communicate the information towards developmental activities. This phenomenon is not just limited to urban cities but it is fetching its arms towards rural areas, where with the help of communication technology a whole bouquet of programmes are launched to bring in rural areas within the ambit of inclusive development. Agriculture still being a major contributor in Indian economy, more often the availability of resources and related information becomes defunct. Many a times there is a dearth of information to the farming community on basic issues like seeds, farming practices, pest control, marketing and other related activities. It is seen through the statistics that, at present in India 58 % of rural households depend on farming activities (NSSO, 2013) and more than 55 % of total population depend on agriculture in India. Thus, it becomes important that, we harness the technology to empower people towards development of agriculture and allied activities. In this direction, many programmes have been introduced by the Department of Agriculture and Cooperation, Government of India which utilize technology to communicate. Some of the important programmes are *Kissan* Call Centre (KCC), *Kissan* SMS Portal (KSP) etc. These programmes and services aim to help the farmers in relation to their agriculture related queries.

OBJECTIVES

1. The main objective of the study is to identify the importance of *Kissan* Call Centre
2. To analyze the performance of *Kissan* Call Centres in India
3. To study the functions of *Kissan* Call Centres

LITERATURE REVIEW

Hemavathy Ramasubbian et al. (2015) in a similar study on Information and Communication Technology (ICT) in Indian Agricultural Sector with special reference to *Kissan* Call Centre (KCC) has analysed the performance of *Kissan* Call Centre. The study focuses on calls received at KCC and based on the number of calls received they have drawn conclusions. The study is based on secondary data analysis where data showed that, Uttar Pradesh, Madhya Pradesh, Maharashtra, Rajasthan, West Bengal were in the first five places benefited by the KCC i.e., based on the call received by the KCC related to agricultural information. On the other hand Andhra Pradesh, Goa, Diu & Daman, Nagaland, Lakshadweep, Dadra & Nagar Haveli were the states in the least five places in the use of KCC service. The study also looks into the various ICT tools and applications related to agriculture sector.

Zia Anjum and Khan Ayesha (2012) analyzed the media in the development of agriculture sector, in their study on Media Coverage for Development of Agriculture Sector: An Analytical Study of Television Channels in Pakistan. The study is based on primary and also secondary data. The study has selected 82 sample and 12 TV channels. The major findings of the study emphasise the fact that, news channels should broadcast regular programmes regarding new technologies and advancements in farming for education and guidance of the farmers which will help development of agriculture. The study also brings out the point that, the local television channels can be of help in transmitting the information effectively in their local languages like PTV, a state run television has the highest viewership in rural areas but it telecasts only one programme in a week. So

the study recommends for more programming space in native languages for effective dissemination of information.

METHODOLOGY

The present paper is qualitative in nature. Secondary source of data including, various government reports, research documents, journals, books, reports from Department of Agriculture and Co-operation and various other publication formed the data source. Contributions of *Kissan* Call Centre are discussed to see the usefulness of such services towards community development. In all, the study aims to analyze the performance and functions of KCC in India based on data obtained from government records.

KISSAN CALL CENTRE (KCC) - ANALYSIS

Agriculture is the main occupation of Indian economy. More than 53% (2009-10) of people are dependent on agriculture directly or indirectly. At 2011-12 prices, GDP composition of Agriculture and allied sector was 16.11%. According to 2013-14, total food grains production was 265.57 million tons. Farming in India has come a long way from traditional to adapting to new technologies. The recent trend is contract farming with the involvement of private sector which has supported the move by increasing retail chain across India. All this has commercialized Indian farming sector. Yet, there is a lacuna in the growth of this sector that is due to the paucity of extension workers. At present, the ratio of farmers to extension workers is as low as 1000:1. However, the village local workers give information but the information is biased or lacks accountability. It thus becomes necessary to disseminate information to poor farmers effectively at low cost and on right time. As Meera, Jhamtani & Rao, (2004) say, "These two issues have created an urgency to effectively address the information needs of poor farmers. In addition, the cost involved in face-to-face information dissemination at the right time and the difficulties of reaching the target audiences have also created the urgency to introduce ICT for this purpose. It is only through the introduction of ICT that information can also be updated and extended at

the lowest cost. There are several ICT models in Indian agriculture, which have made significant difference to agricultural operations. "As F. Rosario Braid (Choudary, 2011) opines development communication is "an element of the management process in the overall planning and implementation of the developmental programs". Thus, development communication is identification and proper utilization of available expertise in the development process that will assist in increase people's participation right from grassroots.

Development communication has two primary roles of (a) transforming role, and (b) Socializing role. Where in transforming role communication acts as instrument in brining the desired social change for achieving better quality of life and in socializing role it tries to maintain the established values. In a way communication creates an atmosphere for accepting the change by providing space to inventions and innovations. Indian society has paved way for innovative communication technology in development of agriculture for more than a decade or so. Hence, there is an immediate need for vibrant, energetic and novel approach to be adopted for agricultural extension in order to achieve targeted growth rate by helping farmers better at low cost. Estimates indicate that 60 percent of farmers do not access any source of information for advanced agricultural technologies resulting in huge adoption gap (NSSO). This is a serious concern. Nevertheless, *Kissan* Call Centre is emerging as the most popular among the ICT intervention in agriculture.

Kissan Call Centre (KCC) scheme was introduced by Government of India in 2004 and it is implemented by the Department of Agriculture and Co-operation. These calls centres can be accessed by all farmers in the country through a common toll free number 1551. The main objective of this scheme is to make agriculture knowledge available at free of cost to the farmers as and when desired. The location is immaterial as the calls can originate from any village. The specific call centre will have agriculture graduate who is well versed with local language and dialect and who has an understanding of regional agricultural issues will answer the call. The Call Centre service is available from 6 a.m. to 10 p.m. except on sundays and public holidays. The IVRS (Interactive Voice Response System) mode attends

to the calls before and after working hours and thus, keeps track of the calls that are made. The farmers can call up in *Kissan* Call Centre and enquire about the various queries/problems related to the crops, seeds, fertilizers, agriculture commodity prices, pesticides, horticulture, veterinary, etc free of cost.

The Table 1 shows the number of *Kissan* calls received by the KCC in India. The data clearly shows that, there is significant increase in the calls made by farmers in 2013-14, compared to 2007-08. The average calls in 2007-08 is 18,431 calls whereas, 1,38,848 calls were received in 2013-14. The highest calls are from Uttar Pradesh (18.20%), Maharashtra (15.03%), Rajasthan (9.63%) and Karnataka (3.02%) states.

The Table 1 also shows that, over a period of six years the calls made to KCC have increased manifold and trust of farmers in this cost effective service is gaining more popularity. When we look at Karnataka, the calls made during the year 2006 -07 were 29678 which is increased to 134251 in the year 2013 -14.

It can be seen that, Andaman & Nicobar, Arunachal Pradesh, Dadar & Nagar Haveli, Goa, Daman & Diu, Lakshadweep, Mizoram, Nagaland, Sikkim, Tripura, Manipur and Meghalaya States have performed low in the usage of KCC. In all, the union territories and 7 north-eastern states show a poor performance. This can be due to the fact that, union territories don't have a strong agriculture dependency. It is quite interesting to see that, Kerala along with north-east have seen lesser calls while compared to rest. An interesting observation can be made that, where the dependency is high on commercial crops the calls are lesser as compared to states where traditional agricultural crops are grown.

On an average the calls received at KCC over a period of time has increased from 18, 431 to 1,38,848. The surge in the calls can be attributed to the growing reach of the technologies to rural areas and also the effective working of KCC in delivering timely information cost effectively.

Table 1 Number of *Kissan* Calls Received By KCC

States&UTs	2007-08	%	2013-14	%
Andaman & Nicobar	37	0.01	77	0.00
Andhra Pradesh	16484	2.79	232847	5.24
Arunachal Pradesh	82	0.01	217	0.00
Assam	5552	0.94	37666	0.85
Bihar	6883	1.17	97226	2.19
Chhattisgarh	5280	0.90	39033	0.88
Dadar & Nagar Haveli	0	0.00	26	0.00
Delhi	2147	0.36	24232	0.55
Goa, Daman & Diu	80	0.01	94	0.00
Gujarat	51678	8.76	235596	5.30
Haryana	12964	2.20	208660	4.70
Himachal Pradesh	11703	1.98	55089	1.24
Jammu & Kashmir	24968	4.23	134281	3.02
Jharkhand	3372	0.57	24237	0.55
Karnataka	29678	5.03	134251	3.02
Kerala	16046	2.72	14900	0.34
Lakshadweep	0	0.00	19	0.00
Madhya pradesh	51826	8.79	315774	7.11
Maharashtra	40162	6.81	667888	15.03
Manipur	2348	0.40	1277	0.03
Meghalaya	387	0.07	537	0.01
Mizoram	895	0.15	42	0.00
Nagaland	27	0.00	159	0.00
Orissa	8691	1.47	176994	3.98
Punjab	55107	9.34	244657	5.51
Rajasthan	58453	9.91	427730	9.63
Sikkim	75	0.01	1757	0.04
Tamilnadu & Pondicherry	37874	6.42	226508	5.10
Tripura	1223	0.21	4534	0.10
Uttar Pradesh	115812	19.64	808585	18.20
Uttaranchal	16980	2.88	65545	1.48
West Bengal	12867	2.18	262709	5.91
Total	589781	100.00	4443147	100.00
Average	18,431		1,38,848	

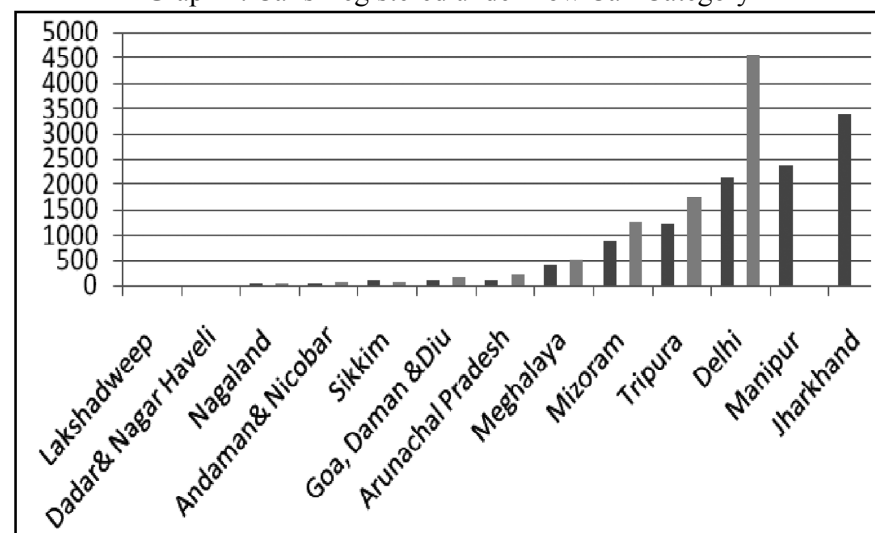
Source: Hemavathy et al (2015).

Further, for the purpose of better understanding of the growth of KCC based on the intensity of calls made. It was divided into Low Calls (0-5000), Medium Calls (5000-25000) and High Call (Above 25000) categories.

Table2: Calls Registered Under Low Call Category

States	Low calls (0-5000) 2007-08	Low calls (0-5000) 2013-14
Lakshadweep	0	19
Dadar & Nagar Haveli	0	26
Nagaland	27	159
Mizoram	895	42
Andaman & Nicobar	37	77
Sikkim	75	1757
Goa, Daman & Diu	80	94
Arunachal Pradesh	82	217
Meghalaya	387	537
Manipur	2348	1277
Tripura	1223	4534
Delhi	2147	-
Jharkhand	3372	-

Graph 1: Calls Registered under Low Call Category

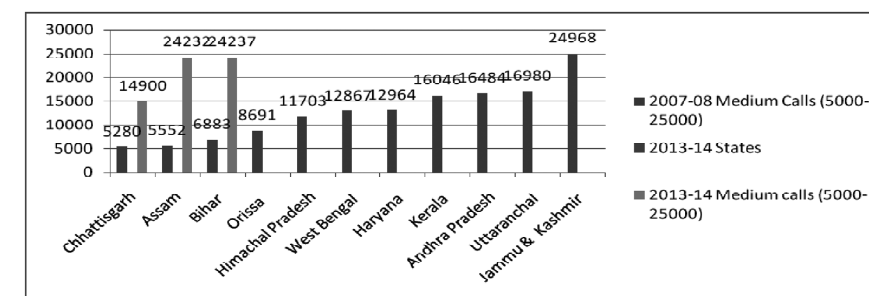


It is interesting observation that, over a period of 5 years there is increase in use of KCC and the number of states in the Low Call Category has reduced from 13 in the year 2007 – 08 to 11 in the year 2013 – 14. One needs to also take a note that, it is the union territories that there has been lesser call registered. Apart from union territories one can see that low calls are been registered in seven sisters state of North East India. It can be interpreted that, as compared to rest of India the agricultural pace in those regions are slow and also most of these places depend on cash crops and plantations.

Table3: Calls registered under Medium Call category

States	Medium Calls (5000-25000) 2007-08	Medium calls (5000-25000) 2013-14
Chhattisgarh	5280	
Assam	5552	
Bihar	6883	
Orissa	8691	
Himachal Pradesh	11703	
West Bengal	12867	
Haryana	12964	
Kerala	16046	14900
Andhra Pradesh	16484	
Uttaranchal	16980	
Jammu & Kashmir	24968	
Delhi		24232
Jharkhand		24237

Graph 2: Calls Registered under Medium Call Category



It is observed from the table 3 that, even in the Medium Calls Category there is a huge difference where states have moved from medium to high utilization states. Where there were 11 states that used KCC in the year 2007 – 08 the number has decreased to 3 states in the year 2013 -14. It can be said that, many states are applying digital technology to gain information on agriculture. It is also interesting to note that, the states producing main agricultural crops or sustainable crops have made more utilization of the *Kissan Call Centre* and have moved from states that have made medium calls to state using maximum KCC.

Table 4: Calls Registered Under High Call Category

States	Highest Calls (Above 25000) 2007-08	States	Highest calls (Above 25000) 2013-14
Karnataka	29678	Assam	37666
Tamilnadu & Pondicherry	37874	Chhattisgarh	39033
Maharashtra	40162	Himachal Pradesh	55089
Gujarat	51678	Uttaranchal	65545
Madhya Pradesh	51826	Bihar	97226
Punjab	55107	Karnataka	134251
Rajasthan	58453	Jammu & Kashmir	134281
Uttar Pradesh	115812	Orissa	176994
		Haryana	208660
		Tamilnadu & Pondicherry	226508
		Andhra Pradesh	232847
		Gujarat	235596
		Punjab	244657
		West Bengal	262709
		Madhya Pradesh	315774
		Rajasthan	427730
		Maharashtra	667888
		Uttar Pradesh	808585

Graph 3: Calls registered under High Call category

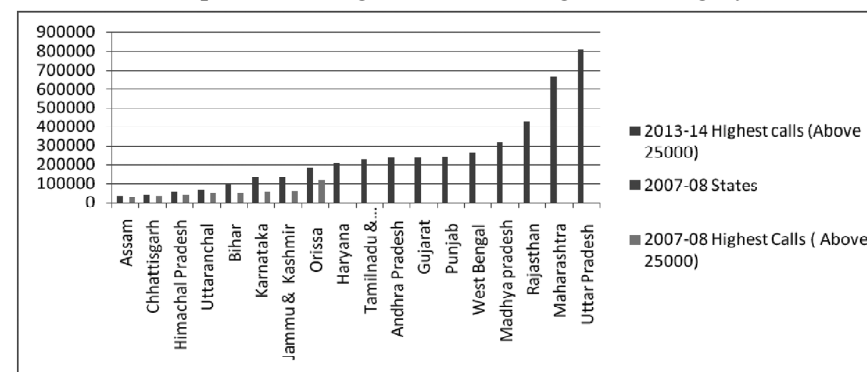


Table 4 shows that, there is indeed a vast increase in the usage of *Kissan Call Centre*. Over a period of 5 years the states that are avid users of KCC have risen from 8 to 18. It is loud and clear that, digital technology is being adopted by the farming community to gain information on agriculture and allied activities. This cost effective service is slowly and steadily gaining popularity. Interestingly, Uttar Pradesh has recorded highest number of calls with 808585 calls and the state of Maharashtra that recorded highest number of farmer's suicide in India has recorded second highest calls to KCC with 667888 calls during 2013-14 denoting the intervention of KCC in information dissemination to farmers.

CONCLUSION

When we talk of sustainable development through ICT in agriculture there are many issues that have to be thought of specially in rural context like economical, political sociological, cultural, ethical and ethnical. This form sustainable rural development definitely a new practice and the success story of KCC have heralded a new attitude towards life amongst the rural population relying upon agriculture. Thus, it can be said that, media communication has played a vital role in adapting to new policies and taking action and encourage people to be active part in the transformation process. According to Wilbur Schramm, the role of media in development involves; 1) to inform (2) to instruct and (3) to participate. Likewise, *Kissan Call*

Centre is helping to provide information for the societal development. It is instructing people specifically people dependent on agriculture and allied activities by imbibing the knowledge and awareness. Thus, helps in improving their skills by educating them and brining in people's participation in development of the society.

With technology penetrating to the nook and corners of the country agricultural information dissemination is going through a renaissance. The scenario from no communication to mass communication using technology is seeing a sea change. It is necessary at this juncture that, more innovative approaches in diffusion of related information in rural dialect for effective reach of information must be taken up. And more funds for R & D in agriculture communication should be set aside. Nevertheless, it can be said that, development communication is playing an effective role in the dissemination of agricultural information among farming community.

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An Analysis of Dominant Health Issues, Voices and Victims in Health Reportage in Nigerian National Newspapers

BELLO SEMIU

Abstract

This study examines three basic questions: (i) what health issues dominate Nigerian national newspapers? (ii) Who are the newsmakers in health news/reports in Nigerian national newspapers? (iii) Who are the victims in health news in Nigerian national newspapers? These research questions were empirically answered through the quantitative content analysis and inferential statistics adopted in this study. The author content-analysed health issues in Nigerian national newspapers from 2010-2013, focusing on 45 health issues within the purview of news, editorials, feature articles, opinion writing and letters to the editor. This study found that Nigerian national newspapers actually report health issues and the ten dominant ones include: health care delivery, health systems administration, HIV/AIDS, cancer, nutrition and balance diet, polio, maternal health, malaria, infant health and reproductive health. The health news-makers in Nigerian newspapers are health researchers through their various publications and ranked next to this group are the medical doctors. This study further found that children and women constitute the victims of health problems reported in Nigerian national newspapers. This study, therefore, concludes that given the enduring nature of newspapers, the archival quality and its comprehensive analysis, they will continue to remain a useful health resource in disseminating health information despite the explosive information and communication technologies.

Keywords: Health issues, Nigerian newspapers, health reporting, health news-makers, health victims

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INTRODUCTION

The dominant health issues in Nigerian national newspapers, those whose opinions make health news, and those that are mostly affected by health problems are the basis of investigation in this study. The Nigerian nation, like many other African countries and developing nations of the world, is bedevilled with a myriad of health problems (Akinlua, Meakin, & Umar, 2015; Federal Ministry of Health, 2012; World Health Organisation, 2005, 2013a) and the entire health care system has continued to suffer many set-backs (Welcome, 2011; World Bank, 2010). Nigeria is noted for various diseases and other health issues among which are malaria, HIV/AIDS, polio, infant mortality, cancer and maternal mortality, communicable diseases such as tuberculosis, measles, pertussis (whooping cough) and poor health facilities. Other health issues of concern in Nigeria include: poor primary, secondary and tertiary health care, shortage of health personnel and ineffective implementation of health policies (McFubara, Edoni, & Ezonbodor-Akwagbe, 2012).

The state of the health system, as well as the health status of the citizenry in Nigeria, has consistently been in a deplorable condition (Federal Ministry of Health, 2009) so much that the country's health profile has perpetually remained below national targets and far below international benchmarks (Federal Ministry of Health, 2012). For instance, it was documented that not until 2015, Nigeria and two other countries (Afghanistan and Pakistan) remained the only countries where polio was yet to be eradicated since the global efforts to eradicate polio around the world (World Health Organisation, 2013b). Despite the fact that malaria is preventable, treatable and curable, it remains the most prevalent parasitic endemic disease in Africa (Sachs & Malaney, 2002), and constitutes a major health problem in Nigeria (Federal Ministry of Health, 2010). Since the first case of HIV/AIDS was reported in 1986 in Nigeria, the pandemic continues to evolve with multiplier effects resulting into a total death of 2.1 million people (Federal Ministry of Health, 2012). While communicable diseases along with maternal, perinatal and nutritional conditions in Nigeria accounts for an estimated 67 percent of all mortality (Commonwealth Health Online, 2013), the country was once rated

the fourth highest tuberculosis burden-zone in the world (Federal Ministry of Health, 2012).

In the last few decades, there have been several efforts, approaches and techniques adopted by national governments, international health and funding agencies to improve health systems across the world. These approaches are adopted in order to achieve good health outcomes among individuals and various communities. One of these approaches is the integration of mass media in addressing health problems (Rimal & Lapinski, 2009; Schiavo, 2007). This appears to have occupied the centre stage in the debates around elimination, reduction, prevention and management of diseases and how to raise the standard of health systems globally. Rimal and Lapinski (2009) argue that the need for dissemination of information about various diseases, prevention against diseases, which have now become global threats, underscores the use of the media as a complementary approach in improving the public health. The whole gamut of this approach domiciles within the scholarship of health communication. Hence, health communication as a field of enquiry is regarded as a theory and professional practice (Kreps, Bonaguro, & Query, 1998; Lupton, 1994).

The conception of health communication further succinctly underscores the integration of mass media and other forms of communication in addressing health problems in societies. According to Health Communication Unit University of Toronto (2009), health communication is defined as “the process of promoting health by disseminating messages through mass media, interpersonal channels and events, including diverse activities such as clinician-patient interactions, classes, self-help groups, mailings, hotlines, mass media campaigns, events directed toward individuals, networks, small groups, organisations, communities or entire nations.” (p. 5) Similarly, health communication is regarded as “the process of increasing knowledge and understanding of health related issues to improve the health status of the intended audience.” (Muturi, 2005) Therefore, newspaper and other mass media are important health communication channels to complement the efforts of health care professionals and national governments in achieving

improved health systems in societies. This is achieved through the dissemination of information by newspapers about various diseases and health issues in general, which inform and educate members of the public, thereby empowering their individual health agency.

Research Statement

Newspapers, like other mass media, have a central and critical role to play in disseminating information about health issues/problems in society, informing the general populations about health risks and medical solutions to enhance healthy living. The role of newspapers in this regard bothers on information (to the general public on health issues), communication (effectively by giving details and perspectives on health issues) and education (to achieve good health outcomes among the populace) (ICE). In this study, the context of Nigerian newspapers is investigated to determine what health issues and problems dominate Nigerian national newspapers, what section of the Nigerian society constitute health news-makers in Nigerian newspapers or set the public health agenda and what set of individuals suffer most from health problems/diseases among the populace as reported in Nigeria newspapers.

OBJECTIVES

1. To determine health issues/problems that dominate Nigerian national newspapers and their degree of reportage
2. To determine the public health agenda setters or health news makers in health reporting in Nigerian newspapers
3. To determine those who constitute victims of health problems in health reportage in Nigerian national newspapers

RESEARCH QUESTIONS

- RQ1 What are the health issues that dominate Nigerian national newspaper and at what Degree?
- RQ2 Who are the news makers in health news in Nigerian national newspapers?
- RQ3 Who are the victims of health problems in health reportage in Nigerian national newspapers?

Role of newspapers in health reporting: A review

Since the emergence of newspapers in the 17th Century (George, Curran, & Wingate, 1978; Tom, 2012; Weber, 2006), they have been very useful in society (Tom, 2012; Weber, 2006). Newspapers have contributed immensely to the various aspects of human development, including but not limited to, political development, economic development, social and religious development and the development of health systems. Martin (2003) notes that newspaper is a functional mass communication channel which contributes to the social dynamics of society through news reporting and news analysis. It is also argued that as a mass communication medium, newspapers serve as tools for shaping thoughts, and means of controlling economic and political powers (Copeland, 2003). It is espoused that “newspapers are not just about communication, but are also about community. For more than 300 years, daily and weekly newspapers have been an important part of community life, and newspapers are likely to remain important in one form or another throughout the 21st century.” (Martin, 2003, p. 4) In view of this, several studies have identified newspapers as an important ally in communicating health news and reporting various diseases to individuals and communities (Ahmed & Bates, 2013; Atkin & Wallack, 1990). In doing this, newspapers potentially contribute towards improving the health conditions of individual members of society and general communities.

Newspapers have, from inception, been a major source of health information to the Nigerian populace. Apart from the fact that all Nigerian national newspapers have designated pages for reporting health issues, it has been documented that the first newspaper in the country, *Iwe Iroyin Fun Awon Ara Egba Ati Yoruba*¹, made coverage of health issues one of its cardinal agenda items (Aina, 2007; Oladosu, 1993; Oladosu, 1993).

1 This literally means newspaper for the Egba people and the Yorubas. The Egba people are the natives of Abeokuta and its environs, while the Yorubas are the predominant ethnic group in the south west Nigeria. This is the reason why *Iwe Iroyin* started publication in Youruba language, the major indigenous dialect in the south west. The establishment of *Iwe Iroyin* in Abeokuta in 1859 makes Abeokuta to be popularly referred to as the cradle of journalism in Nigeria.

Historically, therefore, newspapers have been a major source of health information to the Nigerian populace. Globally, the trend of disseminating health information through newspapers has been recognised by national governments, health communication scholars and practitioners, health advocacy groups, health care providers and international health and funding agencies. This has consequently attracted the attention of many health communication researchers, examining the role of newspapers in reporting specific health issues (Donovan, 1993; Okidu, 2013; Rachul, Ries, & Caulfield, 2011), the general framework to health reportage (see Nwom & Oloyede, 2014; (Al-Naggar & Al-Jashamy, 2011; Torwel & Rodney, 2010) and portrayal and framing of health issues (Davidson & Wallack, 2004; Lawrence, Kearns, Park, Bryder, & Worth, 2007).

Newspaper and other forms of mass media have been identified as a constant backdrop to our daily lives in health matters (Seale, 2004). This is because newspaper and other mass media “contain a myriad of implicit and explicit information about health, which make them to be useful health resources in contemporary life, in addition to health information from health specialists.” (Seale, 2004, p. 2) Some of the major considerations given to newspapers by health communication researchers and scholars are the in-depth analysis, archival and advocacy approaches of newspapers in promoting public health issues (Rimal and Lapinski (2009) and promotion of new health and science discoveries (Phillips, Kanter, Bednarczyk, & Tastad, 1991).

Newspapers are also strategic in disseminating health information on the prevalent health issues and policies in society. This has considerably influenced many health researchers to adopt newspapers as a strategic mass communication channel to seek attention from government and international health and funding agencies (Dorothy Nelkin, 1987; D. Nelkin, 1996), including various advocate groups, who seek policy change from government (Jernigan & Wright, 1996). The fact that health information in newspapers can be shared by family members, friends and associates, or used as a basis of discussion and interaction by members of society with health professionals

and practitioners (Brittle & Zint, 2003), make newspapers a core subject of investigation among health communication researchers. This may have also informed the submission of Nazione, Pace, Russell and Silk (2013) that the role newspapers play in improving health is multifaceted and interdisciplinary, encompassing almost any topic that concerns the well-being of people and health policy change.

Ankem (2006) identifies newspapers as important allies in any public health matters because they play the role of being source of information as well as advocate health awareness. In view of this, the United States Agency for International Development (2006), posits that this makes health authorities entrust newspaper, and the media in general, with essential health information, which is then relayed to the public in readily accessible formats. Boyd and William D. (2009) found that newspaper is one of the mass media that helps health workers to expand their audience reach because they (mass media) are effective in informing and perhaps persuading target audiences to adopt new behaviours or remind them of critical information about various health issues or diseases and where they can seek help.

In a study conducted in Ghana on newspaper coverage of health issues by Ghanaian newspapers, Diedong (2013) found Ghanaian newspapers as a medium for creating awareness on health matters through the publication of straight news stories and other editorial matters, which can provide a shared understanding of some of the serious health problems confronting people. The study, therefore, concludes that newspapers can play an important role in not only stimulating discussion on the problems and challenges of the health situation in society, they can serve as very good sources of empowerment and direction towards greater health (Diedong, 2013).

RESEARCH METHOD AND DESIGN

This study adopts a quantitative research design within the methodological process of content analysis as this is the appropriate method for this research considering its focus. The focus of this study is to examine, in quantitative terms, health issues that dominate Nigerian national

newspapers, the voices that make health news or set the public health agenda and the victims of health problems reported in Nigerian newspapers. The author adopts a quantitative approach to content analysis because the volume of mentions necessitates quantification by counting and frequency, and coding for statistical analysis to draw scientific conclusions (Macnamara, 2005). Quantitative research, as espoused by (Hopkins, 2008), is simply the whole process of quantifying relationships between variables. Quantitative content analysis:

Collects data about media content such as topics or issues, volume of mentions, 'messages' determined by key words in context (KWIC), circulation of the media (audience reach) and frequency. Quantitative content analysis also should consider media form (e.g. visual media such as television use more sophisticated semiotic systems than printed text and, thus, are generally regarded as having greater impact). (Macnamara, 2005, p. 4)

In general, however, content analysis "is any research technique for making inferences by systematically and objectively identifying specified characteristics within text." (Stone, Dunphy, Smith, & Ogilvie, 1966, p. p. 5) As postulated by Berelson (1952), content analysis is described as a "research technique for the objective, systematic and quantitative description of the manifest content of communication." (p. 18)

Selected newspapers, population of study, sample and sampling technique

While it may be difficult to determine the actual number of existing newspapers in Nigeria today because of the chequered nature of newspapers in Nigeria, research once indicates that there are over one hundred (100) newspapers (Dragomir & Thompson, 2012), and about twenty (20) of them can be regarded as national in terms of circulation, readership and reach (Adeyanju & Okwori, 2005; Nigerian Press Council, 2009; Dragomir & Thompson, 2012). Of these twenty national newspapers, the researcher selected four among them viz: *The Punch*, *Daily Trust*, *The Guardian* and *Nigerian Tribune*. According to Dragomir and Thompson (2012), *The Punch* is ranked 1st, *Daily Trust* 4th, *The Guardian* 5th and *Nigerian Tribune* 6th

in terms of readership and coverage, among the twenty national newspapers in Nigeria.

It is noteworthy to state that these national newspapers were selected for this study based on certain criteria. All the four newspapers have national coverage, reach and circulation, which make them popular across Nigeria. The newspapers have been in existence for at least ten years in the country. These newspapers have consistently published since their establishment and enjoy readership across the length and breadth of Nigeria. Also, Okidu (2013) notes that these newspapers have a strong network of national correspondents and thoroughly bred professionals, which have over the years, earned them respect for their in-depth analysis and coverage of such national issues as politics, health, education, economy, sports, marine and insurance and so forth. In view of this, these newspapers have been widely cited in workshops, seminars, and training sessions on health communication in the country (Okidu, 2013).

The population of this study covers the entire editions of the newspapers studied published over a period of four years from the 1st of January, 2010 to 31st of December, 2013 excluding Saturday and Sunday editions. The researcher chose to study a four-year timeframe because most of the health communication studies conducted in Nigeria within the context of newspapers were undertaken within a short period, and at most two years (see Okidu, 2013; Uwom & Oloyede, 2014; Batta, 2012; Towel & Rodney, 2010). Consequently, the total amount of newspaper editions for the period of four years of weekday coverage are estimated as 1,040 for each newspaper (5 days x 52 weeks = 260 editions, x 4 years = 1,040) and 4,160 as total editions for the four newspapers (1,040 x 4 = 4,160).

The researcher adopted a composite sampling technique to determine the sample of the study. Composite sampling technique is a common method in content analysis studies whereby researchers construct a composite week for each month in the sample (Wimmer & Dominick, 2011). "For example, a study might use a sample of one Monday (drawn at random from the four or five Mondays in the month), one Tuesday (drawn from the available

Tuesdays), and so on, until all weekdays have been included.” (Wimmer & Dominick, 2011, p. 166). This technique has been adjudged the most scientific and superior over random sampling and consecutive day sampling techniques, when analysing newspaper content (Lacy, Riffe, & Fico, 1998; Riffle, Lacy, & Fico, 1998). This sampling technique is also considered effective because it controls the bias of cyclical trends in news coverage (Budd, Thorp, & Donohue, 1967; Riffle et al., 1998). Therefore, the composite technique was performed over the 48 months of the four years studied for each newspaper (2010-2013) to determine the selected newspaper editions for content analysis. Using the composite approach, this study specifically used a calendar to select each day of the week within the 48 months studied. This covers from January 1st 2010 to December 31 2013.

Through the application of a composite or constructive sampling technique for each of the newspapers, 211 newspaper editions were selected and content analysed. Therefore, for the four newspapers, 844 editions ($211 \times 4 = 844$) were content analysed as the sample from the total population of 4,160 editions. This sample size is approximately estimated at 21 percent of the entire population, which is adequate to make a representative judgement for the entire population. A sample size between 10 percent and 25 percent is recommended as acceptable when determining sample size in content analysis (Wimmer & Dominick, 2011). The units of analysis focused in this study include conventional news stories, articles/column writings, editorials and letters to the editor that are related to health in all the selected national newspapers. Within the units of analyses, content categories were coded, which include health topics, speakers in health news/reports, victims of health problems.

Given the importance of validity, reliability and inter-coder reliability in content analysis studies, it is essential for researchers to painstakingly factor the components of validity and reliability in the whole process of the study design. This is viewed as fundamental because validity and reliability are research components through which researchers make a strong case for the data generated through content analysis (Potter & Riddle, 2007; Reel &

Thompson, 1994; Smith, 1987). According to Hecht, Trost, Bator, and MacKinnon (1997), the questions of validity and reliability in content analysis studies should be carefully and essentially answered by researchers, especially when the results of content analyses are likely to be adopted in public health campaigns, which by extension, is related to the focus of this study.

Krippendorff (1980) notes that in the context of content analysis, reliability implies inter-rater reliability, inter-coder reliability or inter-rater agreement. Inter-coder reliability refers to the degree of agreement that exists between independent coders on the rating or code they assign to each object in the study (Krippendorff, 1980). Therefore, achieving reliability between coders is necessary in the whole process. Reliability, which is also referred to as re-productivity according to Krippendorff (2004), is conceptualised as:

The degree to which a process can be replicated by different analysts, working under varying conditions, at different locations, or using different but functionally equivalent instruments. To be clear, agreement is what we measure; reliability is what we wish to infer from it. In content analysis, reproducibility is arguably the most important interpretation of reliability. (p. 215)

In content analysis studies, one of the common methods of measuring reliability is to measure the degree of agreement in percentage term between coders or raters (Stemler, 2001). According to Stemler (2001), this approach sums up the number of cases coded in the same way by two different coders and divides it by the total number of cases. The researcher adopted Cohen's kappa to calculate the degree of agreement between the researcher and one research assistant in the coding exercise in order to determine the reliability of the data. Cohen's kappa coefficient was chosen to calculate the inter-coder reliability because it accounts for agreement that is expected to occur by chance (Murphy & Ciszewska-Carr, 2005). Furthermore, Cohen's kappa is specifically designed to measure the level of agreement between two coders (Murphy & Ciszewska-Carr, 2005).

The researcher and the assistant coded the same 241 health stories, which determined the inter-coder agreement. This was estimated at 10.2 percent of the entire 2,368 health stories that were eventually coded for this study. Apart from the 10 to 25 percent recommended as a benchmark by Wimmer and Dominick (2011) in determining the sample and inter-coder reliability in content analysis, other previous studies have used 10 percent in their studies (see Batta, 2012; Caburnay et al., 2003; Laar, 2010; Uwom & Oloyede, 2014). The SPSS was used to calculate kappa coefficient. The kappa coefficient value found was .857, which suggests that there was almost perfect agreement between the researcher and the assistant in the coding exercise (Landis & Koch, 1977).

FINDINGS

The findings of this study indicate that there appears to be similar pattern of health coverage in Nigerian national newspapers as most of them substantially devote news stories for the reportage of health issues and partly through feature articles (Table 1 and Figure 1). Specifically, *The Guardian* reported health issues through news story than all other newspapers (68 percent) while *Daily Trust* (32.7 percent) and *The Punch* (32.5 percent) account for the largest health issues reported through feature articles (Table 1 and Figure 1). It is important to note that Nigerian national newspapers, as reflected in this study, did not focus attention on the report of health issues through their editorial despite the strategic importance of editorials in newspapers. This is reflected in the degree of coverage through editorials, which is less than 2 percent by each newspapers studied (Table 1 and Figure 1). Overall, of all the newspapers studied, *The Punch* records the largest coverage of health issues with 30.1 percent and followed by *Nigerian Tribune* with 28.7 percent (Table 2 and Figure 2).

Table 1: Coverage of Health Issues through Units of Analysis in Selected Newspapers 2010-2013

Type	Daily Trust	Nigerian Tribune	Guardian	The Punch
News story	64.4	65.4	68	61.3
Editorial	0.6	0.7	1.6	1.3
Feature articles	32.7	17.1	22.5	32.5
Column writing /commentary	1.9	16.2	7.9	3.7
Letters to the editor	0.2	0.4	0	1.3
Total	100%	100%	100%	100%
n	483	677	494	711

Figure 1: Coverage of Health Issues through Units of Analysis in Selected Newspapers 2010-2013

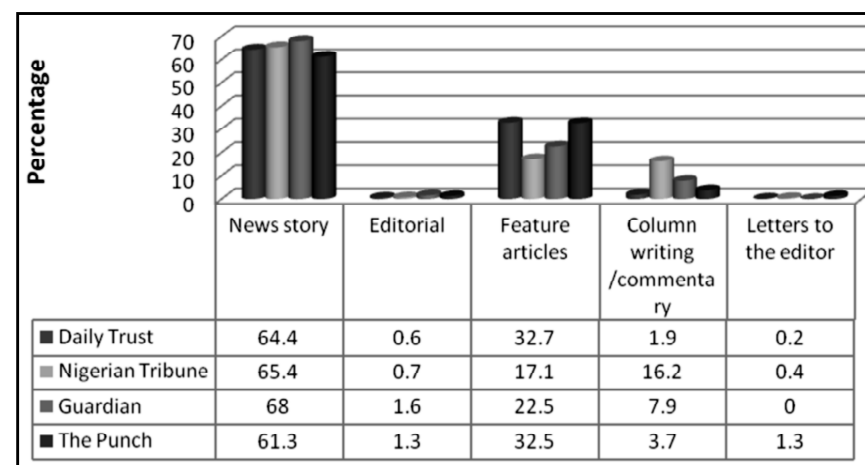
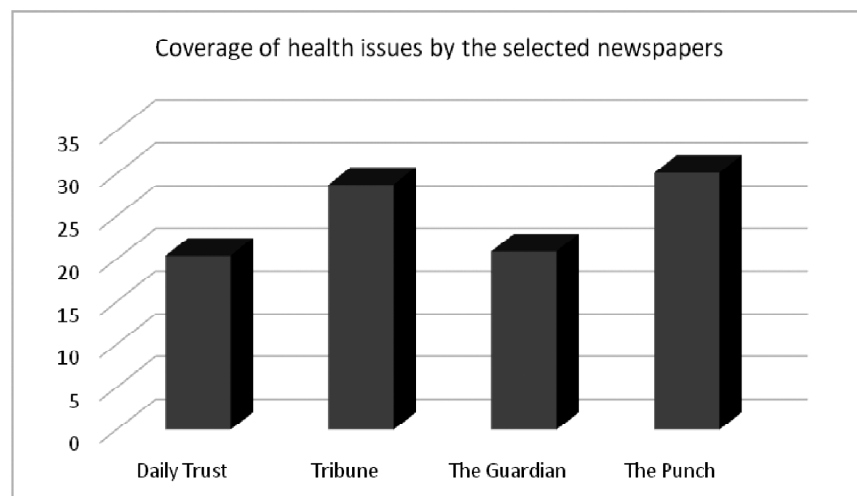


Table 2: Overall coverage of Health Issues by Selected newspapers 2010-2013

Newspapers	Percentage
The Punch	30.1
Tribune	28.7
The Guardian	20.9
Daily Trust	20.4
Total	100%
n 2368	

Figure 2: Overall coverage of Health Issues by Selected Newspapers 2010-2013



RQ1: What are the health issues that dominate Nigerian national newspapers and at what degree?

In the general coverage of health issues by Nigerian newspapers, all the newspapers studied shared almost the same patterns of health reportage. In other words, health issues in Nigeria enjoy similar coverage across the newspapers studied. This is because health issues that receive low coverage, enjoy such a degree of coverage, not only in a single newspaper, but across the newspapers studied while those that receive relatively high coverage also enjoy such a degree of coverage across the newspapers studied (Table 3). The findings of this study further indicate that the 10 dominant health issues out of the 45 health issues content-analysed in Nigerian national newspapers include: healthcare delivery (10.6 percent), health systems administration (9.4 percent), HIV/AIDS (7.9 percent), cancer (6 percent), nutrition and balance diet (4.8 percent), polio (4.5 percent), maternal health (4.1), malaria (3.8), infant health (3.3) and reproductive health (2.4) (Table 4 and Figure 3).

Table 3: Coverage of Health Issues by Selected Newspapers 2010-2013

Health Themes	Daily Trust	Nigerian Tribune	The Guardian	The Punch
Malaria	2.5	5.2	3.7	3.5
HIV/AIDS	9.1	6.9	11.2	5.7
Polio	7.1	4.4	4.9	2.7
Tuberculosis	1.2	1.3	1.4	1.1
Diabetes	1.9	2.1	2.2	2.3
Hypertension	0.2	0.9	1.0	1.1
Asthma	0.2	1.2	0.4	1.1
Nutrition and balance diet	5.4	4.7	3.9	5.2
Mental illness	0.6	0.1	0.4	1.6
Cholera	2.7	1.0	2.2	2.0
Glaucoma	0	0	0.2	0.3
Ulcer	0.6	0.3	0	0.1
Meningitis	0.6	0.1	0.4	0.1
Measles	0.2	0.1	0.4	0
Skin infection	0.4	0.4	0.4	0.8
Diarrhea	0.2	0.7	0.4	0.4
Lassa fever	0.6	0.9	0.4	0
Whooping cough	0	0.1	0.2	0
Leprosy	0	0.1	0	0
Cancer	7.1	3.7	7.3	6.5
Stroke	0.6	0.9	1.6	1.1
Infertility/reproductive health	1.9	3.4	1.6	2.4
Heart disease	3.5	1.2	2.2	3.0
Arthritis	0	0	0.2	1.3
Neo/ante-natal care	0.2	1.0	.2	.3
Infant health/mortality	3.3	3.4	2.6	3.7
Maternity health/mortality	7.1	4.6	1.8	3.3
Ebola virus	0.2	0.1	0.2	0
Healthcare delivery	6.6	19	10.4	5.5
Healthcare system administration	10.0	6.1	12.4	9.9
Launch of new drugs / treatment	2.1	0.9	0	0.8
Policies, facilities, personnel, allowance	0.8	0.9	1.0	1.8

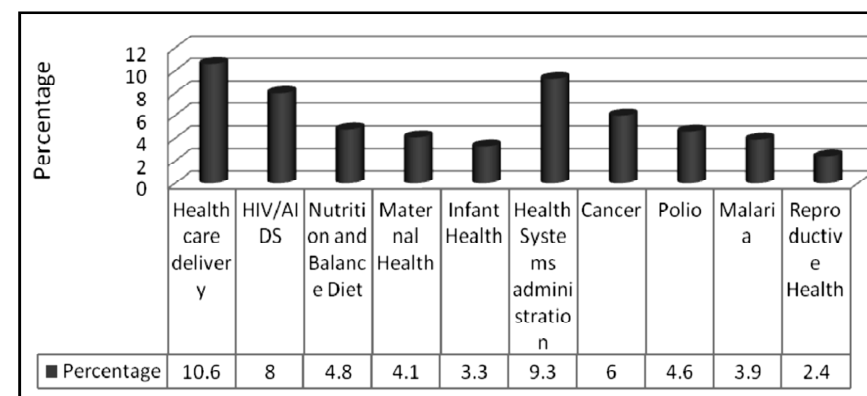
Bacteria/viral infection	0.4	0	0	0.8
Hepatitis	0.2	0.6	0	0.1
Traditional/herbal medicine	0.8	1.3	0.8	0.3
Eye disease	1.2	5.5	1.0	2.1
Nose related disease	0	0.6	0.4	0
Ear infection	0.6	0.7	0.2	0.4
Mismanagement of ailment/health	0.2	1.0	1.0	0.8
Alcohol, tobacco and drug intake	3.1	0.4	3.3	4.7
Other	16.4	13.7	17.9	22.7
Total	100%	100%	100%	100%
n	482	677	492	706

Table 4: Overall Coverage of Health Issues in Selected Newspapers 2010-2013

Health themes	Percentage
Malaria	3.8
HIV/AIDS	7.9
Polio	4.5
Tuberculosis	1.3
Diabetes	2.1
Hypertension	0.8
Asthma	0.8
Nutrition and balance diet	4.8
Mental illness	0.7
Cholera	1.9
Glaucoma	0.1
Ulcer	0.3
Meningitis	0.3
Measles	0.2
Skin infection	0.6
Diarrhea	0.5
Lassa fever	0.5
Whooping cough	0.1
Leprosy	0
Cancer	6
Stroke	1.1
Infertility/reproductive health	2.4

Heart disease	2.4
Arthritis	0.4
Neo/ante-natal care	0.5
Infant health/mortality	3.3
Maternity health/mortality	4.1
Ebola virus	0.1
Healthcare delivery	10.6
Healthcare system administration	9.4
Launch of new drugs/treatment	0.9
Policies, facilities, personnel, allowance	1.2
Bacteria/viral infection	0.3
Hepatitis	0.3
Traditional/herbal medicine	0.8
Eye disease	2.7
Nose related disease	0.3
Ear infection	0.5
Mismanagement of ailment/health	0.8
Alcohol, tobacco and drug intake	2.9
Other	17.8
Total	100%
n	2368

Figure 3 : Dominant Health Issues Covered by Nigerian Newspapers 2010- 2013



RQ2: Who are the news makers of health news in Nigerian national newspapers?

Across all the newspapers studied, health researchers constitute the major news makers of health news in Nigerian national newspapers. This is because most of the health news in Nigerian national newspapers was sourced from a myriad of journals of health and medical research and the reports of international health agencies (32.6 percent). This is closely followed by medical doctors (16.4 percent), state (12.7 percent) and federal government officials (10.7) (Tables 5 and 6). These findings, therefore, speak directly to the RQ2 of this study. Contrary to the general assumption in Nigeria that medical doctors are the main voices through which health reporters generate health news, this research shows that the major source of health news in Nigerian national newspapers is the quantum of health researches within and outside the country (Table 6 and Figure 4).

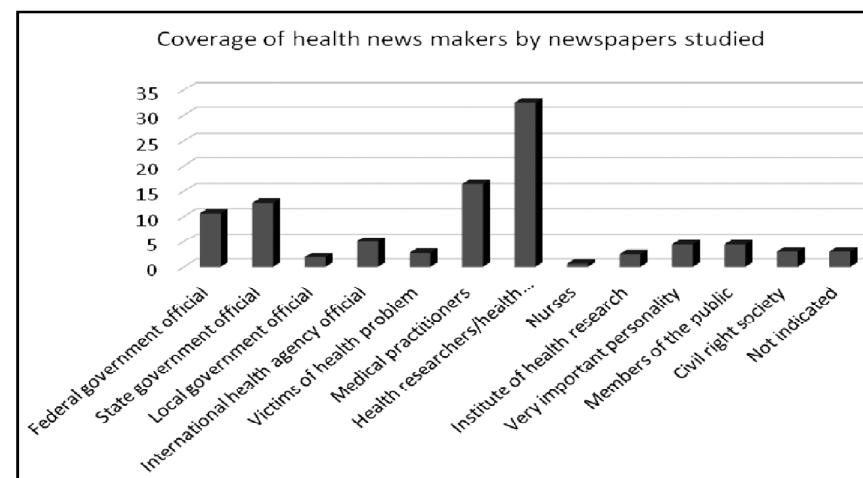
Table 5: News Makers of Health News in Selected Nigerian National Newspapers 2010-2013

Speaker	Daily Trust	Nigerian Tribune	The Guardian	The Punch
Federal government official	13.5	9.0	11.0	9.9
State government official	13.0	20.2	8.6	8.2
Local government official	2.1	4.1	0.2	0.9
International health agency official	5.8	3.5	6.3	5.1
Victims of health problem	3.5	2.2	1.4	4.0
Medical practitioners	19.0	10.6	22.4	15.9
Health researchers	28.6	33.1	30.6	36.2
Nurses	0.4	0.4	0.2	1.1
Institute of health research	1.9	1.0	5.9	2.0
Very important personality	2.7	6.1	6.5	2.6
Members of the public	3.1	3.7	3.3	6.8
Civil right society	2.9	3.8	1.6	3.1
Not indicated	3.5	2.1	1.8	4.3
Total	100%	100%	100%	100%
n	483	677	490	705

Table 6: Overall News Makers of Health News in Selected Nigerian National Newspapers 2010-2013

Speaker	Percentage
Federal government official	10.6
State government official	12.7
Local government official	1.9
International health agency official	5
Victims of health problem	2.8
Medical practitioners	16.4
Health researchers/health professionals	32.6
Nurses	0.6
Institute of health research	2.5
Very important personality	4.4
Members of the public	4.4
Civil right society	3
Not indicated	3
Total	100%
n	2368

Figure 4: News Makers of Health News in Nigerian National Newspapers 2010-2013



RQ3: Who are the victims of health problems in health reportage in Nigerian national newspapers?

Apart from the general populace, which is mainly affected by health problems in Nigeria, the specific group that is mostly affected by health problems is the children folk (20.1 percent) while the women folk ranks next to the children (12.6 percent). This is reflected in all the newspapers studied (Table 7). *The Guardian* specifically reported children as the most affected health victims more than all other newspapers studied (30.0) while *Daily Trust* specifically reported women as the most affected health victims among all the newspapers studied (17.5) (Table 7). Apart from the general populace, the overall analysis across all the newspapers studied indicate that children are the most affected health victims (20.1 percent), ranked next is women folk (12.6 percent), which is followed by men (10.1 percent) and medical workers and government (10 percent) (Table 8 and Figure 4).

It is noteworthy that medical workers and government as a variable in this study explains many problems around non-implementation of health policies by government, lack of health facilities, inability to ensure the general welfare of medical workers and shortage of health personnel among other issues, which have always led to engagements, dialogues and face-offs between medical workers and government officials. Consequently, one of the major ways through which medical workers in Nigeria express their grievances against government is industrial action or strike. Whenever there are problems between medical workers and government, leading to industrial action or not, Nigerian national newspapers give coverage to such face-offs and, they are reported on the health pages of newspapers.

Table 7: Victims of Health Problems in Selected Nigerian National Newspapers 2010-2013

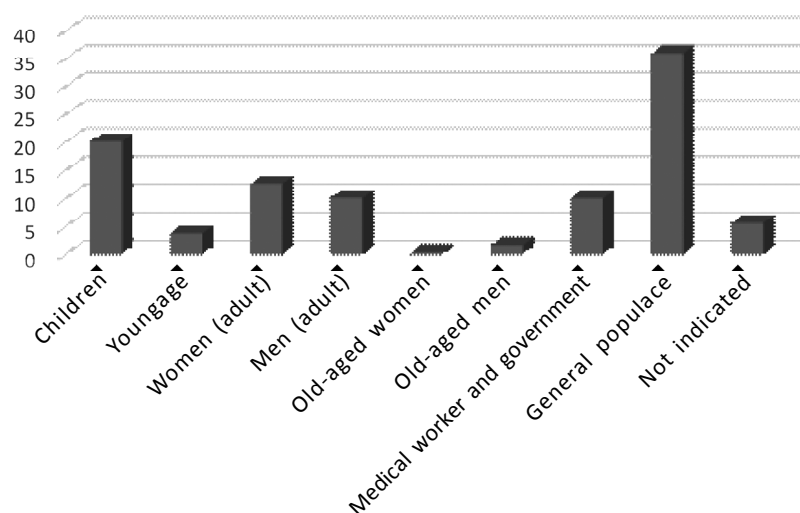
Victim	Daily Trust	Nigerian Tribune	The Guardian	The Punch
Children	18.4	18.6	30.0	13.4
Young age	1.9	3.1	3.3	5.7
Women (adult)	17.5	13.3	8.1	11.7
Men (adult)	11.2	7.5	6.7	14.2
Old-aged women	0.2	0.1	0.2	0.6
Old-aged men	1.0	0.3	2.6	2.6
Medical worker and government	10.9	10.5	9.4	11.5
General populace	32.4	45.7	36.2	29.2
Not indicated	6.4	0.7	3.5	11.1
Total	100%	100%	100%	100%
n	481	676	492	702

Table 8: Overall Coverage of Victims of Health Problems in Selected Nigerian National Newspapers 2010-2013

Victim	Percentage
Children	20.1
Young age	3.7
Women (adult)	12.6
Men (adult)	10.1
Old-aged women	0.3
Old-aged men	1.6
Medical worker and government	10
General populace	36
Not indicated	5.6
Total	100%
n	2368

Figure 5: Coverage of Victims of Health Problems in Nigerian National Newspapers 2010-2013

Coverage of health victims by newspapers studied



DISCUSSION OF FINDINGS

Similar to the study of Torwel and Rodney (2010) and in relation to the findings of this study, newspapers disseminate information on various health issues to members of the public to inform them of health risks, disease outbreaks and other prevalent health issues. Therefore, it may be argued that the dissemination of information on various health issues by newspapers may help people, particularly those who are literate, to seek health information from newspapers. This also resonates with several studies, which have identified newspapers as an important ally in communicating health news and reporting various diseases to individuals and communities (see Atkin & Wallack, 1990; Ahmed & Bates, 2013; Seale, 2004). The finding of this study, which shows that Nigerian national newspapers report various health issues (Table 1), supports the argument of Seale (2004) that newspapers “contain a myriad of implicit and explicit information about health, which make them to be useful health resources in contemporary life, in addition to health information from health specialists.” (p. 2)

As previously reported in the study of Dorothy and Nelkin (1987), the finding of this research which shows that Nigerian national newspapers actually report various health issues, indicate that Nigerian newspapers may be a strategic mass medium through which health researchers and practitioners and advocate groups may seek the attention of government and international health agencies for health. The finding of this study is also similar to the work of Diedong (2013). Diedong (2013) found newspapers as a medium of creating awareness on health matters through the publication of straight news stories and other editorial matters. The coverage of health issues by Nigerian national newspapers, as confirmed in this study, may be an avenue for health researchers to use the medium of newspaper to seek attention from government and international health and funding agencies (Dorothy Nelkin, 1987), including various advocate groups, who seek policy change from government (Jernigan & Wright, 1996). This is more important because research has shown that newspapers are a strategic medium of mass communication to draw the attention of national governments to pressing issues of national interest (American Public Health Association, 2000). Various government agencies, including ministry of health across the world, place important concern on media monitoring. This is demonstrated by designating specific officers to monitor media events and general media contents in both print and electronic media in order to integrate issues from media reports, public yearnings and aspirations into the policy formulation process (American Public Health Association, 2000).

Specifically, considering the dominant health issues in Nigerian national newspapers, which include healthcare delivery, health systems administration, HIV/AIDS, cancer, nutrition and balance diet, polio, maternal health, malaria, infant health and reproductive health (Table 4 and Figure 3), it may be argued that Nigerian newspapers are relatively responsive to happenings in society including health sector. This argument is based on the fact that these 10 dominant health issues are the common issues and problems ravaging the Nigerian society (McFubara, Edoni, & Ezonbodor-Akwagbe, 2012; Federal Ministry of Health, 2012; McFubara et al., 2012; Sachs & Malaney, 2002;

World Health Organisation, 2013b), and they are dominantly reported by Nigerian national newspapers out of the 45 health issues analysed. Furthermore, this study shows that health reporting in Nigerian national newspapers is not limited to the voices of the medical practitioners in Nigeria. Health reporters have now extended the frontiers of health news or information to health and medical researchers through journals of health and medical research within and outside the country. In other words, health reporting in Nigerian newspapers has now focused attention on the current findings published in health and scientific publications and various health reports. Through these health and medical publications, health reporters in Nigeria have been able to generate a pool of health news and reports.

Similarly, the finding of this study, which indicates children and women as the major health victims in health coverage in Nigerian national newspapers, may be a true reflection of national and international claims. Most of the health data and statistics in Nigeria on various health problems or diseases, for instance, malaria, HIV/AIDS and polio, indicate that children and women are the most affected groups (Federal Ministry of Health, 2010, 2012). In the international arena, children and women otherwise known as the vulnerable groups, and as confirmed in this study, have been identified as the most affected health victims on various health problems. Prominent among these diseases include malaria, polio, HIV/AIDS, whooping cough, diarrhoea (Bill and Melinda Gates Foundation, 2013; World Bank, 2011; World Health Organisation, 2011a, 2011b)

CONCLUSION

Based on the findings of this study, it may be concluded that newspapers in Nigeria have been a major source of health information to members of the Nigerian public as, over time, they have made publication of health news and analysis a common practice. It may also be concluded that newspapers in all societies remain veritable means of informing people and creating awareness about health issues.

Despite the evolution of information communication technologies, which

have widened the communication platforms in the 21st century, it may be asserted based on the findings of this study that newspapers are still relevant in disseminating health information and may be a strategic medium for health researchers, advocate groups and health-based non-governmental organisations to seek attention from government and international health and funding agencies.

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Changing Paradigms of Socio - Political Participation Impact of Internet and Mobile Phones on Youth in Anantnag, J&K

ASHAQ HUSSAIN DRENGY

Abstract

The mobile Internet has become one of the most important technologies in the last decade. It has become a decisive force for socio political participation throughout the world. The communication technology has helped to change the world into a proverbial 'global village'. There is a paradigm shift in utilizing the communication technology among people especially youth as they are becoming more and more active participants in the process of communication rather than being passive audience of mass media messages.

The present paper includes the results of a research carried out to analyze the accessibility, usage patterns and socio political implications of Mobile phones and Internet among youth in District Anantnag of J&K state. The paper illustrates the changing patterns of political participation and extent of media penetration in the lives of people more specifically among youth of Anantnag.

Keywords: Mobile Phone, Internet, Youth, Social Networking

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INTRODUCTION

Communication technology is a set of activities which facilitates electronic means for the processing, transmission and display of information (Cairncross, 1998). Media penetration in India has seen enormous progress in the recent years with advancements in technology and coverage, catering to a wide range of media audience in terms of language, region, religion and content. A robust economic growth, growing literate population and consumer

spending power have contributed to an expanding consumer base of various forms of mass media – newspapers, radio and television. The new media such as the Internet and mobile phones have also made significant inroads since the early 2000s. Internet has integrated services of email, instant messaging, file transfer, and, most prominently, the interlinked pages of the Web. The Internet has fast become a key instrument for the exercise of the right to freedom of expression especially in a democratic setup like India. It combines within one medium both the right to receive as well as the right to express and disseminate information, ideas and opinions, be it in the form of writing, audio or video.

As a vehicle for expression, the Internet serves various functions. It is simultaneously a publishing tool and a communications tool, allowing millions around the world to communicate instantaneously cost effectively. It brings the ability to broadcast to an audience of millions within the reach of everyone who has access to a computer and a telephone line; it serves as a huge multi-media library and therefore emerged as an important educational tool, with universities offering courses over the Internet. Governments use it to make information available and even public health services have gone online to provide self help information. Increasingly, traditional media such as newspapers and radio stations are also going 'online', thus enriching Internet content, providing a bridge between the 'paper-world' and 'cyber world' and ensuring world wide access to local papers. In addition, the Internet has developed an important entertainment function, providing for example online movies, games or music events. It has also developed a crucial commercial function, with more and more businesses trading over the Internet, selling everything from computers to holidays to flowers.

Internet emerged in India in 1996. India has the world's second-largest mobile phone user base with over 1026.66 million users as of February 2016. It has the world's second largest Internet user-base with over 460.21million as of July 1 2016. The number of broadband connections in India has seen a continuous growth since the beginning of 2006. At the end of February 2016, total broadband connections in the country have

reached 131.49. Broadband in India is more expensive as compared to 'Western Europe'/'United Kingdom' and 'United States'. India is the 10th largest country in the world in terms of broadband Internet users in 2014. The state of Jammu and Kashmir has been experiencing a steady increase in the number of internet users. The figure for March 2015 was 3.34 million and by the end of June it reached 3.53 million. The total number of mobile subscribers in J & K reached 9.6 million in June 2015. (TRAI June 2016)

The introduction of mobile phones has revolutionized the ideologies of people regarding mass media. Mobile phones introduce a range of new possibilities for the use and production of media, as well as for personal networking and communication, political activism, and economic development. This has made the global village concepts more strong and authenticated. The recent mobile appliances have reduced the human effort in each and every sector of life. The mobile phones have totally changed the concepts of social relationships. The availability of Internet in mobile phones has made it more spicy and interesting. Mobile Internet is considerably more accessible to the people than computer-based Internet access, and they are choosing to use the Internet primarily for mobile instant messaging and other characteristic forms of mobile media use. People can now chat and share their ideas, thoughts, beliefs etc on their mobile phones.

Mobiles and Internet in Kashmir

Mobile phones have made their entry very recently in the state of Jammu & Kashmir. However, in a short span of less than one decade, this technology has revolutionized the whole media scene of the state. Contrary to other forms of communication, this media device has made its entry to everyone's home irrespective of their economic, social, and family status.

Anantnag is one among the beautiful locations of J&K and being a part of the conflict region, media technology also faced big challenges and in the first decade of 21st century had no access to the new media technologies like Internet, mobile phones, and the satellite networks. Fortunately the recent developments in the circumstances of the area have invited the attention of

various media industries like Airtel, Aircel, Vodafone, Reliance etc to start mobile services in the region. In a very short span of time the network providers have reached almost every nook and corner of the area. The introduction of mobile Internet has made it more popular in the study area and the advent of the social networking sites has added one more category to the basic needs of human beings that is the networking need.

OBJECTIVES

- To evaluate the accessibility and usage patterns of mobile phone and internet among the youth in Anantnag, J & K
- To study the socio political implications of mobile phone and Internet
- To consider media penetration in the lives of the youth in Anantnag
- To explore the changing pattern of political participation

METHODOLOGY

The empirical evidence for the current paper is primarily gathered by employing triangulation method. Here both qualitative as well as quantitative methods have been employed for data collection keeping the diverse objectives of the study in consideration. The basic methodology, which the researcher adopted, is the Survey method. A structured questionnaire has been used for the purpose of collection of data. Wherever the situation demanded in the case of illiterate respondents, questionnaire was converted into interview schedule. The questionnaire contained both open ended as well as close ended questions to get a varied range of responses. The questionnaires were personally administered to the respondents by the researcher. For the accomplishment of objectives of the study, Kashmiri youth (15-30 yrs of age) residing within the geographical limits of Anantnag district were selected through stratified sampling employed by followed by random sampling. The total sample size is 300 youth selected from the six tehsils of the district.

FINDINGS

Media have a vital place in the lives of people in Anantnag. Besides the gap in media exposure among Media rich and media poor (urban and rural), Media has made its entry in everyone's life. The introduction of the mobile phone technology and mobile Internet has changed the media preferences of the people in general and that of the young generation in particular.

Table 1 Mobile Phone Penetration

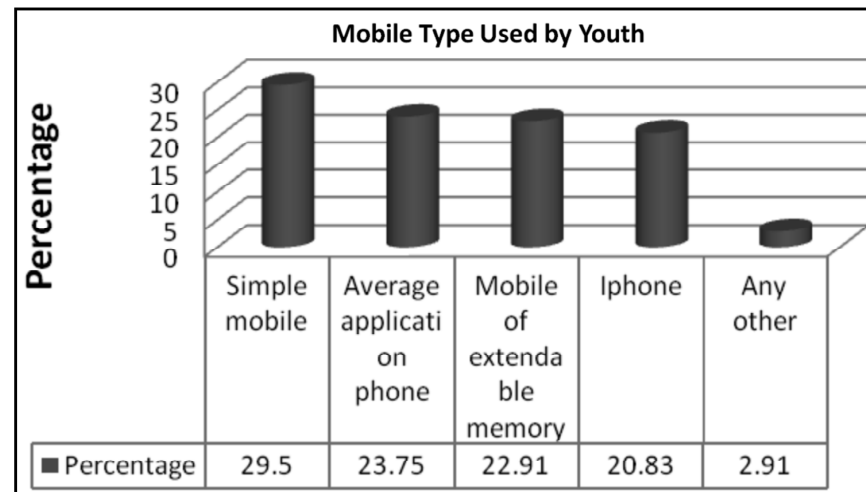
Sl.No.	Response	f	%
1	Yes	240	80
2	No	60	20
	Total	300	100

Anantnag seems no exception to the modern communication technology as the study reveals that 80% of the respondents possess their own mobile phones while as the rest 20% don't have mobiles. During the research it was found economic condition is a big hindrance in purchasing a mobile hand set. In addition to this conservative social structure keeps a good portion of the youth especially girls away from this technology.

Mobile Phone Type Preferences

Different mobile companies like Nokia, Samsung and Sony Ericson are trying their markets in the study area which provide a varied range of mobile phones according to the needs and desires of the customers ranging from simple handset to a multipurpose Iphone. In addition to these, Chinese phones also attract a good number of customers because of their cheap rates. Furthermore, the sample for this study has been selected from a mixed economy which is in turn responsible for the varied range of mobile phone preferences among the youth of this area.

Graph 1



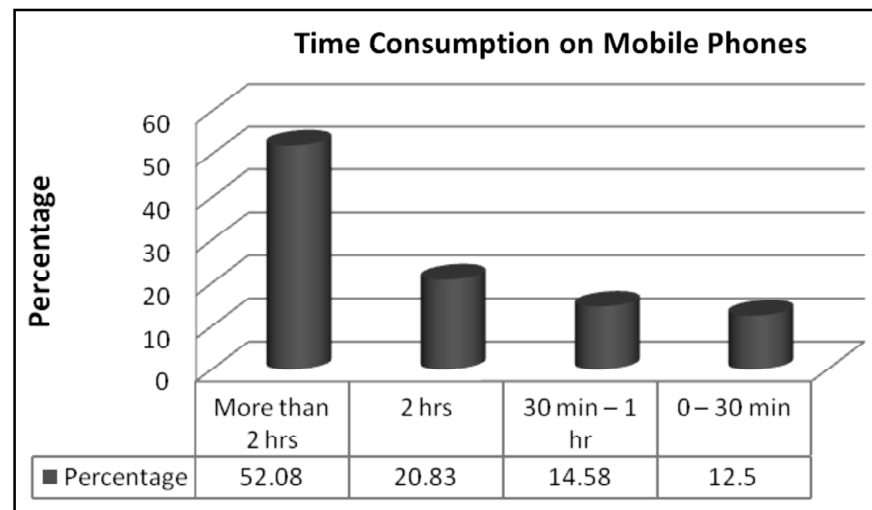
Note: Only 240 respondents are considered out of 300 as the rest 60 respondents don't possess mobile phones

The study reveals that majority of the youth possess simple mobile phones as is evident from the tabulated data that 30% of the respondents possess simple mobile phones. Moreover, the collected data reveals that 24% of the respondents possess mobile phones of average range, 23% possess mobiles of extendable memory, 21% of the respondents have got Iphone, while as the 3% possess mobiles of different qualities.

Time Spent on Mobile Phone per Day

The study has revealed that mobile phones consume good amount of time of the youth in this area, as is evident from the tabulated data that 52% of the respondents spend more than two hours of their time on mobile phones which is the real indication of mobile phone penetration in the lives of youth. The study further reveals that 21% of the respondents remain busy with their mobile phones for about two hours. However, 15% of the respondents consume up to one hour on mobile phones, and the rest 12% spend less than 30 minutes in using mobile phones.

Graph - 2



Purpose of Using Mobile Phone

Table 2

Sl No.	Purpose	f	%
1	Talk with friends & relatives	70	29.16
2	Social networking	60	25.00
3	Listen music & watch videos	45	18.75
4	Use educational applications	25	10.41
5	All the above features	40	16.66
	Total	240	100

Note: Only 240 respondents are considered out of 300 as the rest 60 respondents don't possess mobile phones

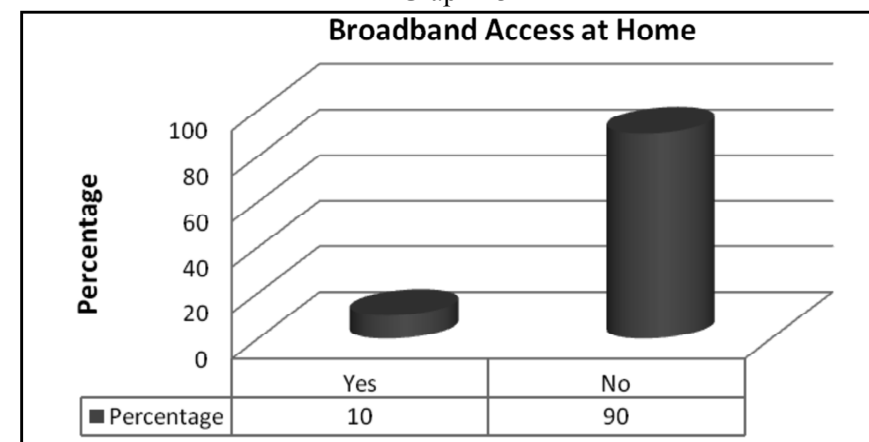
As the sample selected for the present study comprises of youth belonging to the age group of 15-30 years which is more vibrant and enthusiastic section of the population and plays a greater role in determining the purpose of using mobile phones. The tabulated data has revealed that a good portion 29% of the respondents use this device solely for talking to their friends and relatives; while as 25% of them use it for social networking

purposes. The study has further revealed that 19% of the respondents spend their time for listening music and watching videos on their mobile phones. Moreover, 10% of the respondents take benefits of the educational applications installed in their mobile phones while as 17% of the respondents use all the mentioned categories on their mobiles in order to take maximum benefits.

Broadband Access

The study has revealed that only 10% of the respondents possess broadband connections at their home, while the rest 90% don't have access to the broadband technology at home. The findings clearly show that major section of the population prefers mobile Internet over the Broadband as mobile Internet is easily accessible.

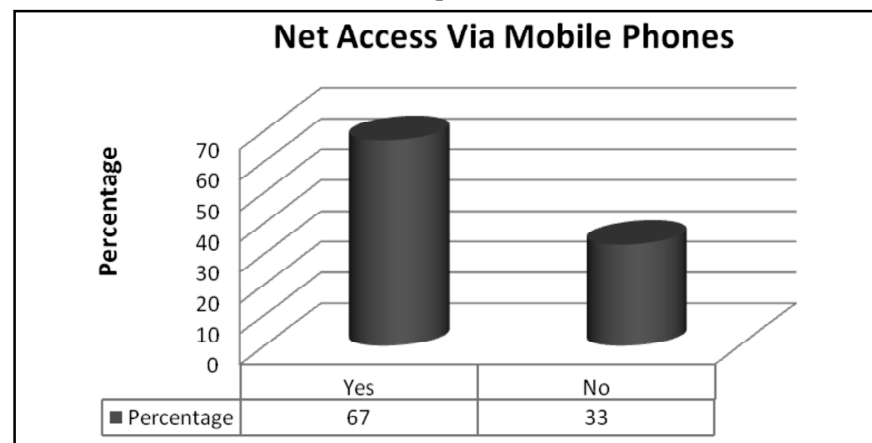
Graph - 3



Net Access via Mobile Phone

The study has revealed that, majority of the respondents have access to Internet through their mobile phones as is evident from the tabulated data that 67% have access to the Internet via their mobiles, while the rest 33% don't have this facility. The data shows a great development in the extent of Internet access as the figures drawn out of this research are quite higher than the figures collected by the researcher in 2010.

Graph - 4



Browsing Internet

Table 3 Frequency of Internet Browsing

Sl No.	Response	f	%
1	Yes	204	68
If yes	Daily	80	39.21
	Occasionally	87	42.64
	Sometimes	37	18.13
2	No	96	32
	Total	300	100

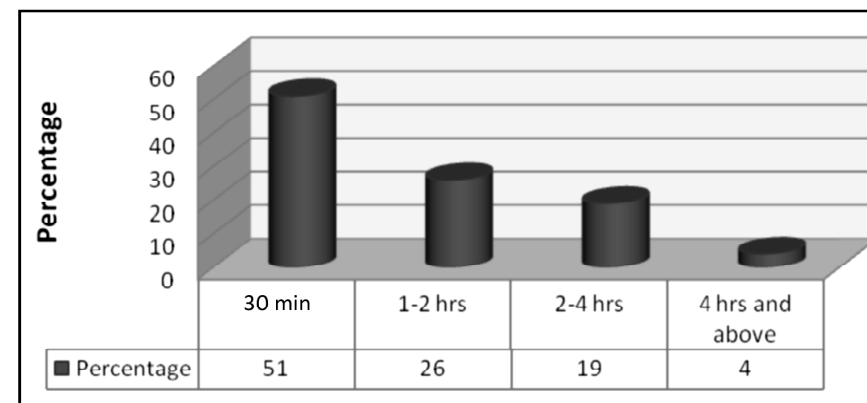
The research has revealed that that majority of the respondents 68% browse Internet for one or the other purposes while as the rest 32% don't browse Internet at all. The study has further revealed that among the Internet browsing respondents 39.21% of them browse it on daily basis, 18% browse it sometimes and the rest 43% browse net on occasional basis.

Time spent on Internet

Keeping in view the cost factor of Internet using either via mobile or broadband service, majority of the youth of this area prefer to use Internet only for a limited duration as is evident from the tabulated data. A substantial

portion 50% of the respondents uses Internet only for half an hour daily. The study has further revealed that only 4% of the respondents are the heavy users of the Internet. However, 26% of the respondents spend 1-2 hours of their time on Internet and the rest 19% use 2-4 hours of their time on Internet.

Graph - 5



Purpose of Browsing Internet

It is evident from the research that a good portion of youth of the study area use Internet for social networking. This argument is supported by the data which reveals that 46% of the respondents prefer social networking on their mobile phones. The study has further revealed that 19% of the respondents use Internet for information, 14% for education, and 12% use Internet for entertainment. Moreover, 9% of the respondents use Internet for information, education and entertainment.

Table 4 Purpose of Internet Browsing

Sl. No.	Purpose	f	%
1	Education	28	13.72
2	Information	39	19.11
3	Entertainment	24	11.76
4	Networking	94	46.07
5	All of above	19	9.31
	Total	204	100

Social Media Network Preferences of Youth

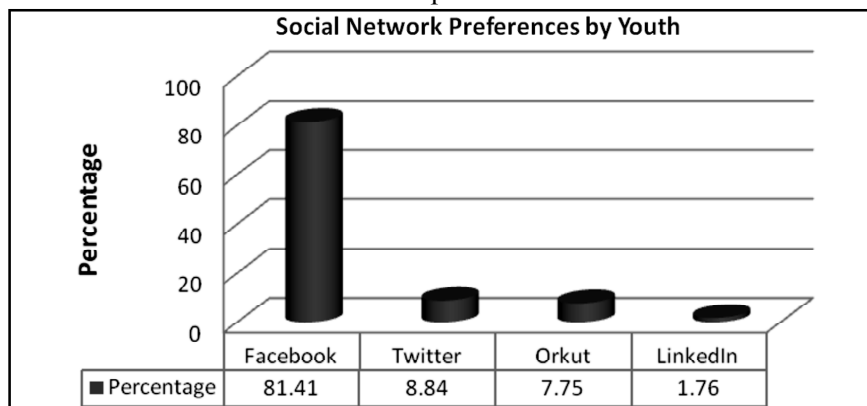
Table 5 Social Media Preferences

SI No.	Preference	f	%
1	Facebook	92	81.41
2	Twitter	10	8.84
3	Orkut	09	7.96
4	LinkedIn	02	1.76
5	Any other	00	00
	Total	113	100%

Note: Only 113 respondents are considered out of 204 as the rest don't use social networking sites.

The study has revealed that Facebook enjoys tremendous popularity among youth in the study area. This is evident from the collected data that 81% of the respondents, among social networking users, use facebook for networking purposes. Furthermore, it was found that facebook is not a choice of educated youth only however, uneducated youth also utilize it according to their needs and interests. The study further reveals that twitter follows facebook by attracting 9% of the respondents which in turn is followed by Orkut having 8% of the respondents on its side. LinkedIn shares the least 2% of the respondents. It is evident that facebook is more popular among the youth and a negligible percentage of them are aware of the other social networking sites.

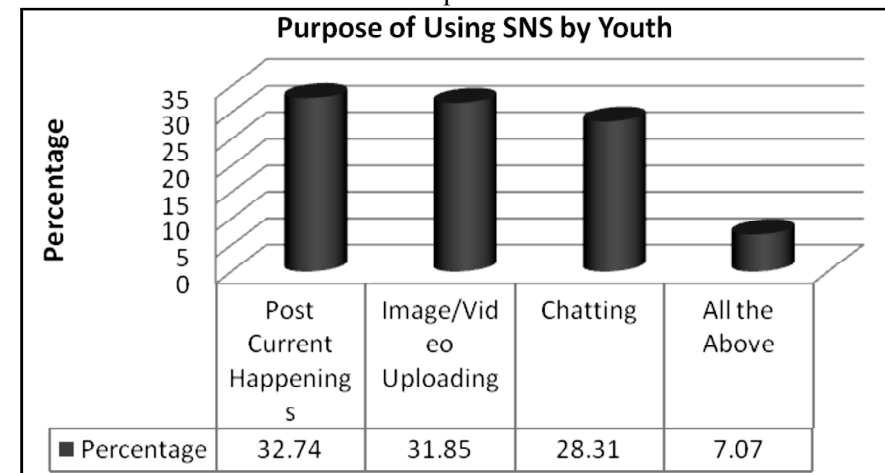
Graph - 6



Purpose of using SNS

The study has revealed that youth in Anantnag use social networking sites for various purposes ranging from chatting to image/video uploading. This is evident from the tabulated data that 33% of the respondents use SNS for posting current events and happenings, 32% upload images/ videos on these sites while 28% of the respondents keep themselves busy in chatting whereas 7% takes benefit of all the mentioned features of social networking.

Graph - 7



Did Social Networking Changed Life of Youth?

Table 6

SI No.	Response	f	%
1	Yes	102	90.26
2	No	11	9.37
	Total	113	100

Note: only 113 respondents are considered out of 204 as the rest don't use social networking sites.

Social networking has penetrated the lives of major portion of the population in Anantnag. As it is evident from that most of the respondents 90% felt changes in their lives due to social networking in one or the other

way. The study has further revealed that social networking has reduced the digital divide among the youth and has provided an opportunity to every citizen for sharing his opinion, feelings, and thoughts in a democratic way. Furthermore, the research revealed that social networking is preferred over the traditional forms of communication by majority of the youth of this district.

Main Outcome of Social Networking

Some years ago people of this area were restricted only to their homes and their social circle was confined to their relatives and the community. But due to advancements in the media technology people have found opportunities to widen their social sphere. The present research supports this argument as majority of the respondents 73% believe that social networking widens the social sphere of the people especially youth.

Table 7 Main Outcome of Social Networking Sites.

Sl. No.	Outcome	f	%
1	Widens social sphere	82	72.56
2	Leads to good governance	17	15.04
3	Leads to social disorder & disturbances	06	5.3
4	Revenue generation	08	7.07
	Total	113	100

Note: only 113 respondents are considered out of 204 as the rest don't use social networking sites.

Furthermore, it was found that social networking leads to good governance as is evident from the tabulated data that 15% of the respondents believe that social networking leads to good governance of a region. Moreover, 7% of the respondents treat it as a source of revenue generation while as for the rest 5% says it causes social disorder and disturbances.

Social Networking and Media Democracy

Social networking has changed the media scenario throughout the world and is treated as the most preferred medium of communication. It was found

that social networking has penetrated in the lives of the inhabitants of Anantnag and has changed the perception of people regarding mass communication. The study has further revealed that majority of the respondents 78% feel that social networking has a great role in media democracy while 22% do not think so

Table 8 Does Social media supports Media Democracy?

S No.	Response	f	%
1	Yes	88	77.87
2	No	25	22.12
	Total	113	100

Note: only 113 respondents are considered out of 204 as the rest don't use social networking sites

Youth and Restrictions on Social Networking Access

Being a part of the conflict region, social networking in Anantnag faces timely curbs from the authorities because of law and order problems. This is the reason why most of the youth cannot use social networking sites as freely as it is used in the other parts of the world. This argument is supported by the tabulated data which reveals that more than 83% of the respondents feel that they have been denied the freedom of social networking.

Table 9 Freedom to Enjoy Social Networking

Sl No.	Response	f	%
1	Yes	19	16.81
2	No	94	83.18
	Total	113	100

Note: only 113 respondents are considered out of 204 as the rest don't use social networking sites

Impact of the Political Unrest on Technological Opportunities

Due to the political turmoil in the state of Jammu and Kashmir, its media

technology faced a number of hurdles to grow as stable institutions. People were unaware of the various forms of media except the traditional ones. Satellite TV, Internet, and mobile phones remained a dream for a long period of time. The present study reveals that majority of youth 78% in Anantnag believes that the political unrest has affected the opportunities of media technology for them to a great extent, while 14% of them are unaware about the relationship of political unrest and media technology.

Table 10 Relation between Political Unrest and Technological Opportunities

SI No.	Response	f	%
1	Yes	160	78.43
2	No	16	7.84
3	Don't know	28	13.72
	Total	204	100

Mobile Phones vis-à-vis Traditional Media

Internet and mobile phones have changed the media scene in the world. It has met the information and communication needs of the people throughout the world in general and India in particular. The introduction of mobile technology in Kashmir has revolutionized the media scene and usage patterns among people especially youth. Being a part of Kashmir, media in Anantnag has also developed to a large extent and is enjoying a good standard. The researcher found that majority of the respondents 63% rate mobile phones as an excellent means of communication as compared to the other forms of media. Furthermore, the research has revealed that 20% of the respondents feel mobile phones equally good as the other media forms while 5% treat mobile phone as a poor medium of communication.

Table 11 Rating of Mobile Phones against Traditional Media

SI No.	Response	Number	Frequency
1	Excellent	190	63.33
2	Equally good	60	20.00
3	Not so good	35	11.66
4	Poor	15	5.00
5	Any other	00	00
	Total	300	100

Youth Rating of Good Medium

Since the introduction of the mobile technology in the state of Jammu and Kashmir, people are more and more attracted towards this medium of communication because of various reasons. Each and every life matter is now determined by this very technology due to its multipurpose nature. The inbuilt networking applications have given a better edge to this media technology. This argument is supported by the collected data which reveals that 46% of the respondents treat mobile phones as the best medium of communication. This clearly indicates that mobile phones are very popular among the youth belonging to the age group of 15-30 years.

Table 12 Youth Preferences of Media

SI No.	Response	f	%
1	Print	36	12
2	Radio	33	11
3	TV	63	21
4	Internet	30	10
5	Mobile phone	138	46
	Total	300	100

The study has further revealed that 21% of the respondents rate TV as their medium of interest, 12% like newspapers, 11% treat radio as the best medium for them while 10% prefer Internet as a good medium. Obviously mobile phone is the preference of majority of youth.

CONCLUSION

Internet has found ways to reach every section of the society and has directly influenced the life affairs of youth in one or the other way. Moreover the developments in the circumstances of the study area are inviting more and more media industries to invest. A decade earlier, the inhabitants of Anantnag were unaware of the media gadgets which were, on the other hand, much famous in other parts of the world. The introduction of mobile phones has proven beneficial to the young generation of Anantnag. These developments have revolutionized the media scene of the study area as a whole. The varied range of handsets attract thousands of youth to this modern media technology. More than 50% of the respondents are heavy users of mobile phones which use it for various purposes ranging from talking to social networking. Internet via mobile phone is becoming very famous among the youth of Anantnag as 68% of them browse Internet through their mobile phones.

Networking is the main purpose of browsing Internet on mobile phones and facebook is the most preferred social networking site for this purpose. Youth in Anantnag are now using social networking as a means of protest in case of unfavorable conditions as the study area is a part of conflict region.

Social networking has changed the perception of youth regarding mass communication. It resulted in a paradigm shift of youth from being passive receivers to distributors and producers of news. Moreover, the social networking has widened the social sphere of the young generation. It has influenced the ways of human communication and life style with popular culture changing the conventional socio- political culture of the study area. To be more precise social networking has given birth to networking culture. Youth, irrespective of the educational qualification and family background use social networking in order to fulfill their needs and desires. Social networking has a great influence on the culture of the society. Nevertheless youth feel that the present situation in Kashmir is restricting the technological opportunities for its inhabitants to a great extent.

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ICT Programmes and Policies for Agricultural Extension in India: A Review

NANDEESHA H K
NAVITHA THIMMAIAH

Abstract

Information and Communication Technology (ICT) in agriculture is an emerging field focusing on the enhancement of agricultural sector in India. It involves application of innovative ways to use ICT in the rural domain. It can provide with accurate information necessary for the farmers this facilitates better Agricultural output. In recent year farmer's attitude to access to agricultural information has changed owing to the emergence of fast network of information and communication technology. Farmers can get the information regarding fertilizers, pesticides, crop patterns and weather forecasting and other information at zero affordable cost. Many of the organizations like government, private, co-operatives and public have also attempted to facilitate the information technology transfer in the agriculture sector. ICT is crucial in facilitating communication and access to information for agriculture and rural development. With this perspective present study is going to find out the relevant ICT applications for agricultural extension in India under the central government initiative with policy perspective.

Keywords: ICT (Information and Communication Technology), Agriculture, Farmers, Policy and programmes.

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INTRODUCTION

Agriculture is one of the predominant sectors in Indian economy. Most of the families are dependent on agriculture sector; more than 60 % of the

India's population is engaged in agriculture sector in India. Agriculture sector's contribution is 16% of total GDP in India. The performance of agriculture basically means the performance of small holder farming. It is only by empowering small and marginal farmers to overcome their handicaps that, they can become instruments of green revolution and growth in agriculture sector. ICT in agricultural extension will provide much needed impetus to agricultural sector and ICT can complement the traditional extension system for "Knowledge Resource" delivery to the millions of the farmers. This study explores the role of ICT in agricultural sector with the review of existing ICT policies and programmes of agriculture sector in India.

Theoretical framework

The theoretical conceptualization of technology in economics can be traced back to neoclassical who considered technology to be an exogenous variable to the economic system and this is formally modeled by Solow in the year 1956. They considered technology to be an exogenous variable to the economic system. However, latter economists like Kenneth Arrow, Paul Romar considered technology as an endogenous factor into the growth process and formulated a new set theories called as new growth theories. From 1984 onwards lot of research has been done on this topic and the noble prize for the year 2001 was awarded to the research on 'asymmetric information'. Many of the central theories and principles of economics have been based on assumptions about perfect information. Starting from Adam Smith many economists have laid emphasis on the subject either directly or indirectly. Economist like Schumpeter, Kenneth J Arrow, Fredrick Von Hayek, George A Akerlof, Michael A Spence, Joesph E Stiglitz have made notable contribution to this subject.

LITERATURE REVIEW

Rabindra Kumar Mahapatra (2012), in the work, "Role of Information in Agricultural Development of Odisha", aims to discuss areas of information needs for various stakeholders in agricultural sector in developing states like

Odisha. Access to right information and its proper utilization for the farming community is the order of the day which needs to be practiced in the state. Author suggests that extension professionals should carry publicity materials and disseminate success stories in agriculture to influence farmers who are in need of information.

R.Saravanan (2012), worked on “ICT for agricultural extension in India: policy implications for developing countries”. This article which has concisely reviewed ICT projects implemented since 1990’s in India, points out the policy implications for the effective ICT based agricultural advisory services in developing countries. Study reveals the significance of national policies with respect to ICT in agricultural extension services in India. It has attributed the successful implementation of agricultural programs to the impact of information and communication technology.

Vivek Ahuja (2011), in the article entitled “A Convergence of ICT and Agricultural Development”, has made an attempt to find out the information needs of farmers and enables holistically in creation of an extended agricultural market through cyber extension. According to this study, developing the capacity of agro-based rural communities through cyber extension with the use of ICT will create opportunities of growth and prosperity and give a chance to Indian agricultural markets for creating a more efficient information and knowledge network. This paper showcases the utilization of ICT for capacity building of agricultural markets through cyber extension.

Robert T.Jensen (2010) worked on “Information, efficiency, and welfare in agricultural market”. This study describes the potential role of ICT in agriculture particularly mobile phones, how mobile phones are getting prominent role in agricultural field and specially developing countries are using mobile phones to provide market information. Study reveals that mobile phones are effective as ICT tool for disseminating information.

After reviewing the literature of using of ICT in agriculture sector in India it was found that studies have been done on different dimensions of ICT in agriculture sector involving mobile phones, radio, television, personal computer and Internet farmer’s portals for agricultural extension work in

India. However, there are very few studies on government policies and programmes promoting ICT in agricultural sector.

OBJECTIVE OF THE STUDY

To review the various government policies and programmes promoting ICT in agriculture in India.

METHODOLOGY

The study is based on the secondary data, which has been collected from different Government reports, reports from department of agriculture and commission reports. Government reports include policy documents viz., agricultural policy, National policy framework for agricultural extension (2000), National policy for farmers (2007), National e-Governance Plan and Knowledge Mission 2007.

REVIEW OF NATIONAL POLICIES ON ICT IN AGRICULTURAL EXTENSION IN INDIA

National policy framework for agricultural extension (2000) stated that information technology revolution is unfolding and has very high visibility. Harnessing information technology for agricultural extension will receive high point in the policy agenda. Extensive use of modern information technology will be promoted for communication between researchers, extension workers and their farmer clients to transfer technologies and information more cost effectively. Further, it emphasized IT application in marketing, wider use of electronic mass media for agricultural extension, farmer participation in IT programmes and support to the state government for using IT in agricultural extension, promoting IT based information kiosks and capacity building for use of IT (DoA&C, 2000).

National policy for farmers (2007) indicated that the potential of ICT would be harnessed by establishing *Gyan chaupels* (Knowledge centers) in villages. Further, the Common Service Centers (CSCs) of the Department of Information Technology, Ministry of Communications and Information

Technology, Government of India and those set up by the state governments and private initiative programmes will be evolved for inclusive broad based development. ‘Last mile and last person’ connectivity would be facilitated with the help of technologies such as broadband Internet, community radio or Internet-mobile phone synergies (NPFF, 2007).

Document of ICAR Framework for Technology Development and Delivery System in Agriculture (2008) outlined the need for the construction of Agri – India knowledge portal – A single electronic gateway to be developed through a peer review process with the help of 15 content accreditation centres from 15 agro – climatic regions of the country. Each accreditation centres will coordinate with other Agricultural Universities and agricultural institutions in their region for development of content in regional language as well as in English and also do its validation, which will be collected in the central data warehouse integrated in the knowledge portal. The portal will also serve as a platform for facilitation of interaction among researchers and extension personnel in the KVKs through high speed server Intranet (ICAR-FFTDDSA, 2008).

National e-Governance Plan indicated that the typical services envisaged in Agriculture as a Mission Mode Projects (MMP) to provide information to the farmers on seeds, fertilizers, pesticides, Govt. Schemes, Soil recommendations, Crop management, Weather and marketing of agriculture produce. Several projects such as ASHA in Assam, *KISSAN* and *e-Krishi* in Kerala and *Krishi Maratha Vahini* in Karnataka have been initiated by the Department of Agriculture and Cooperation (DoA&C), Government of India. To spearhead implementation of MMP in Agriculture, DoA&C has adopted twin strategy through AGRISNET & two portals AGMARKNET & DACNET (Mathur et al., 2009).

Knowledge Mission 2007

The World Summit on the Information Society (WSIS) held at Turin on November 15, 2005 visualization to ‘Connect the World by 2015’. Its aim was to provide and ensure the benefits of the each country by the year

2015, which is also the benchmark year for achieving the UN millennium Development Goals. Information and communication technology (ICT) has been with us for many years, and it has played an imperative task in promoting agriculture and rural development during the last several decades.

The ultimate goal of Knowledge Mission 2007 is to ‘Decrease the gap of Rural Urban Digital Divide’ and provide knowledge connectivity to every village of India by August 15, 2007. In the light of the above mission, a national alliance has been established, involving 22 Governmental organizations, 94 civil societies, 18 academic institutions and 10 financial institutions and still more to join in the course of the time (Thomas William 2011). The main characteristics of a knowledge society is one that empowers people and communities, increasing the effectiveness of their development efforts through informed decision-making and through their capacity to harness science and various forms for knowledge to achieve the objectives for poverty eradication, food security and sustainable development (Ghosh, 2001).

REVIEW OF PUBLIC SECTOR ICT PROGRAMMES FOR AGRICULTURAL EXTENSION IN INDIA

mKisan

The mKisan project has been launched with the support of mFarmer initiative challenge fund. The International Livestock Research Institute (ILRI), India is implementing the mKisan project in partnership with Handygo technologies, a mobile value adding service provider, CABI South Asia, and Digital Green, an NGO for video enabled extension. The project proposes to develop comprehensive agro-advisory services for small holders with access to mobile phones in India. The project has objectives such as to provide daily bulletins on agro-meteorology, crop pest and livestock diseases outbreaks, market information, and information on local service provision sources and information access to women farmers. The CABI will be providing scientifically validated and actionable information from its “Direct2Farm Repository”. mKisan project aims to reach-out one million small holder farmers in the states of Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra,

Andhra Pradesh and Karnataka in India, over a 24 month period (ILRI project profile, 2012).

KisanSuvidha

KisanSuvidha is an omnibus mobile app developed to help farmers by providing relevant information to them quickly. With click of a button, they can get the information on weather, dealers, market prices, agro advisories, plant protection, IPM Practices etc. Unique features like extreme weather alerts and market prices of commodity in nearest area and the maximum price in state as well as India have are other variety of information added to empower farmers in the best possible manner. Recently, in the month of March 2016, Govt of India under mkrishi launched two mobile applications that will enable farmers get information related to crop insurance and prices of agri- commodities in different *mandis* (markets) across the country.

The AgriMarket Mobile App: It has been developed with an aim to keep farmers abreast of crop prices and to discourage them from going for distress sale. Farmers can get information related to prices of crops in markets within 50 km of their own device location using the AgriMarket Mobile App. This app automatically captures the location of the farmers using mobile GPS and fetches the market prices of crops in markets which fall within the range of 50 km. There is another option to get price of any market and any crop in case farmers do not want to use GPS feature. The prices of agri commodities are sourced from the Agmarknet portal. Currently, this app is available in English and Hindi languages.

Crop Insurance Mobile App: has been developed by the in-house IT division of the Agriculture Ministry and can be downloaded from Google Store or mKisanportal. “Government spends huge amount in extending crop insurance to farmers. Due to administrative and technical reasons, much of the information related to crop insurance do not reach farmers on time to take advantage of the existing schemes. This mobile app will provide complete details of crop insurance. Farmers can get information related to crop insurance cover available, and also calculate the premium for notified crops

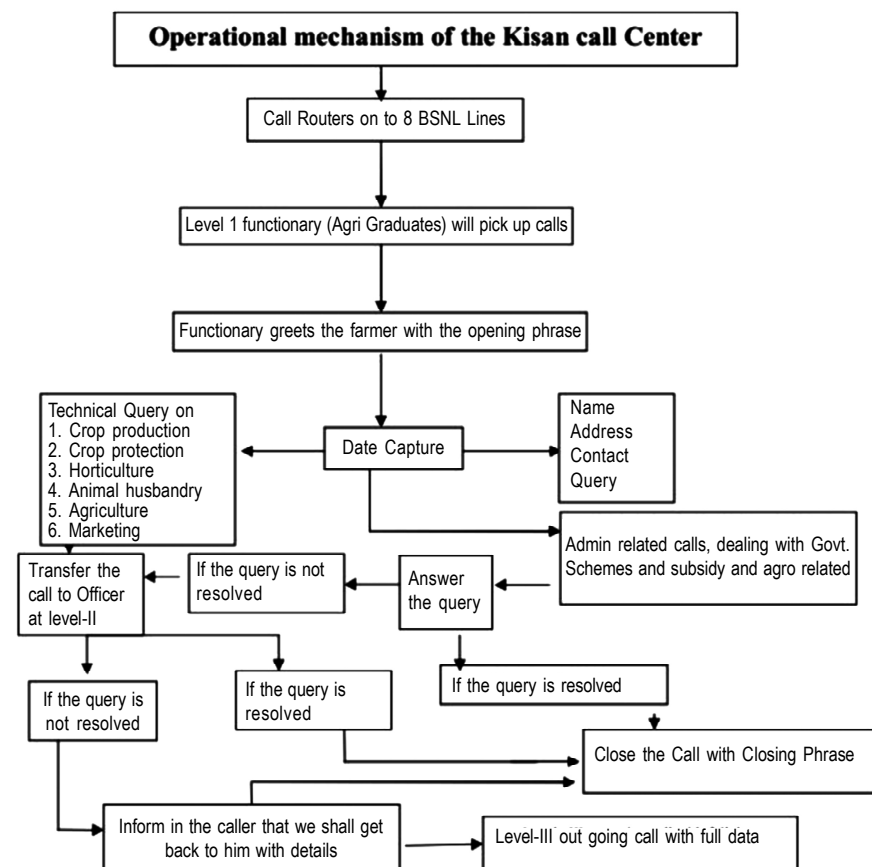
based on area, coverage amount and loan amount. Farmers can also get details of normal sum insured, extended sum insured and subsidy information of any notified crop in any notified area. Currently, this app is available in English and Hindi languages.

Kissan Call Centre –KCC (Farmer Call Centre)

The Department of Agriculture & Cooperation (DoA & C), Ministry of Agriculture, Govt. of India launched *Kissan* Call Centres across the country on January 21, 2004, to deliver extension services to the farming community. The purpose of these call centres is to respond to issues raised by farmers, instantly, in the local language. There are call centres in every state and the states are expected to handle traffic from any part of the country. Queries related to agriculture and allied sectors are being addressed through these call centres. The Farmer Call Centre is a mixture of two hitherto separate technologies namely, the Information and Communication Technology (ICT) and the Agricultural Technology- both have their specialized domains and work cultures. To optimally utilize the strengths of both these systems, it was proposed to take full advantage of professionally managed Call Centre mechanism and dovetail it with the specialized Subject Matter Specialists knowledge of Agricultural Scientists and Extension Officers, so as to facilitate its reach to the farming community (Saravanan R. and Suchira Dipta Bhattacharjee 2013). A countrywide common eleven digit number 1800-180-1551 has been allotted for *Kissan* Call Centre. The number is accessible through all mobile phones and landlines of all telecom networks including private services providers. Calls are attended from 6.00 am to 10.00 pm on all seven days of the week at each KCC location.

Kissan SMS Portal:

Kissan SMS Portal was launched on July 16, 2013 for farmers. SMSs to be sent to the farmers can be broadly classified into three categories, viz. information, services and advisories. The content may include information about the schemes and advisories from the experts. Markets have been grouped based on the State, District, Block and the Crops/Activities selected



by a farmer. Officers can send SMS to the farmers belonging to the entire area of their jurisdiction and their preferred crop/activity will help sending relevant messages in regional languages also. The farmers can register to these services by calling *Kissan* Call Center on the toll free number 1800-180-1551 or through the web portal. SMS based registration is also being introduced shortly. Farmers can give up to 8 choices for their preferred crops/activities. This also includes activities under Animal Husbandry, Fisheries and Dairying in addition to Agriculture and Horticulture.

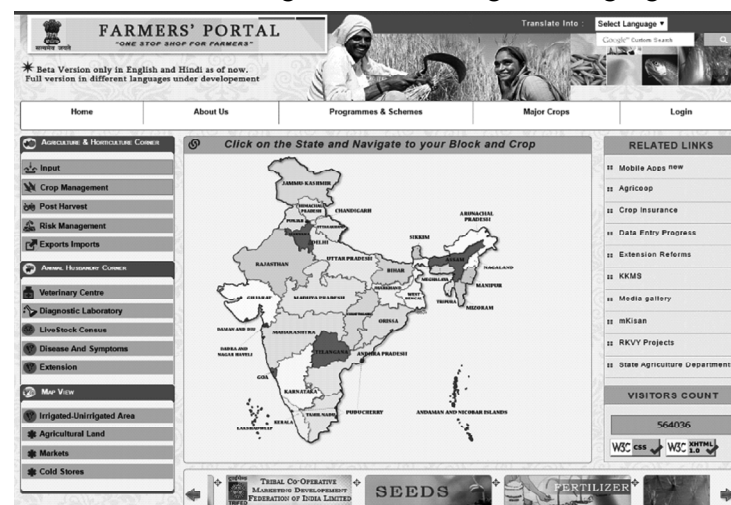
Development of Portals

DAC has developed 80 portals, applications and websites (primarily in collaboration with the National Informatics Centre) covering the headquarters and its field offices/ directorates. The important portals include SEEDNET,

DACNET, AGMARKNET (prices and arrivals in *mandis*), RKVY (*Rashtriya Krishi Vikas Yojana*), ATMA, NHM (National Horticulture Mission), INTRADAC, NFSM (National Food Security Mission) and APY (Acreage, Productivity and Yield). DAC is getting the online data entry done right from the district level, so as to expedite the generation of requisite queries and reports in an efficient manner.

Farmers' Portal

This portal aims to serve as a One Stop Shop for all the farmers for accessing information on agricultural activities. Besides giving links to appropriate pages of the 80 portals already developed so far, the Farmers' Portal links the location of the farmer (from his Block) with NARP (National Agricultural Research Project) Zone that he belongs to. Thereafter, all information related to the crops grown in that area (coupled with agro climatic conditions in that region) is then provided to the farmer using a graphical interface. Farmers can get information about a package of practices; crop and seed varieties; common pests; dealer network for seeds, fertilizers and pesticides; machinery and tools; agro-met advisories, etc. Data for most states has been entered in one language, but the portal will be launched after the data is entered both in English and in the regional language of the state.



Source: farmer.gov.i

Table 1 ICT Networks and Digital Information Services in India

Networks	Agriculture Information Services
AGRISNET	Network to facilitate rural agricultural extension services and agribusiness activities
AGMARKNET	A network of 7,000 agricultural produce wholesale markets and 32,000 rural markets
ARISNET	Agricultural research information system network
SEEDNET	Seed informatics network
CoopNet	Network links 90,000 agricultural primary credit societies and agricultural cooperative marketing societies to usher in ICT-enabled services
HORTNET	Horticultural informatics network
FERTNET	Fertilizers informatics network
VISTARNET	Agricultural extension information system network
PPIN	Plant protection informatics network
APHNET	Animal production and health informatics network connecting about 42,000 animal primary health centres
FISHNET	Fisheries informatics network
LISNET	Land information system network linking all institutions involved in land and water management for agricultural productivity and production systems
AFPINET	Agricultural and food processing industries informatics network
ARINET	Agricultural and rural industries information system network to strengthen small and micro enterprises
NDMNET	Natural disaster management knowledge network in India

CONCLUSION

ICT has the potential to communicate agricultural information to a large number of farmers simultaneously and swiftly. This will make a major contribution to the Indian agricultural sector. This paper is an attempt to discuss the government initiated few ICT programmes on agricultural extension and policies with the aim of encouraging the process of successful implementation of ICT in agriculture sector. This study clearly indicates that, ICT if put to use in the right direction proves advantageous and beneficial to farmers but there is need for an exclusive policy on ICT to promote the successful implementation among farming community. This gap or void between the successful implementation and promotion of ICT among farmers requires an efficient policy execution.

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Usage of Virtual and Social Media for Distance Education in India and Iran

MARYAM VAZIRI

Abstract

Literacy is the main foundation for social and economic growth. The usage of Internet facilitates teaching and learning. Social media is making education easier than before but for optimum result in developing countries, there is a need for using virtual training with some considerations. Due to widespread illiteracy in India E learning will take some time to catch up. On the other hand, e-learning is still in its infancy in oil rich Iran and it seems that there is a need for more attention towards modern training and a new style of education. MOOC- Massive Open Online Course is fast emerging as the favourite destination for open learning breaking the stereotypes of traditional methods of teaching. The main objective of this study is to understand the impact of social networking sites in distance education system.

Keywords: Virtual Training, Distance Education, Social Media, Web Based Learning, Facebook.

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INTRODUCTION

According to John Tiffin et al. (2003), 'knowledge is at the University, at the library, in a section, in a course of study, or at the head of an academic'. At the beginning of human civilisation, knowledge was gained under the guidance of teachers, books and philosophy. Teaching approach was based on manuscripts and traditional oral forms of rhetoric. According to Management Association Information Resources (2010) now modern science-based knowledge is based on rationalism, discovery, assessment, formulas, and something that can be purchased or captured. In the new millennium, there is a belief that if a person is not able to use the computer,

is not literate. Today we can argue that if a computer is not connecting to the Internet, it is useless (Hook, 2002; Quoted by Esmail Ghadimi, 2014). As Management Association, Information Resources explained (2010) that recorded ideas and knowledge seem to have their roots in expert systems and computer programs that can be used to answer a range of problems by mimicking expert humans. While explicit knowledge in the form of texts, films, paintings or manuscripts, music lends itself to be captured and managed as knowledge management, software courses have also been introduced. Ted is a multimedia traditional classroom environment where learning through all five senses, but primarily through writing and speech (Tiffin and Rajasingham, 2003) occurs.

According to Aliasghar Kia (2010) there are some issues even Europeans emphasised. For example, a person who just sat in front of a computer and gained Ph.D but did not have any social communication with others, may not have the expertise to manage an institute with 30-40 employees and run it well. The second issue is that some countries have few students so using e-learning is more useful than have a class with only one or two students. But in Iran we are faced with student density so we need not copy e-learning from western countries. The purpose of virtual training in Iran should focus on courses which lack facilities or for which our traditional system is not sufficient. According to Lalita Rajasinghamat 'this time of the "spectacle" in which our programs are increasingly electronically with television, the Internet and the World Wide Web, image processing and making sense of the meaning of the images that we are increasingly bombarded with, skills become critical.' (www.eurodl.org) To use the facility of new technology independence and flexibility to teach, organisational structure of the institutions must change. Changing the traditional approach to government and private sector investment and participation is required.

E-learning

According to Tony Karter (2007) e-learning 2.0 was invented by a Canadian researcher Stephen Downes, and it is from the general trend of

e-learning that Web 2.0 is derived. In its simplest form, Web 2.0 means that everyone should be able to easily create and contribute content on the Internet. These range from writing a blog, a video presentation on YouTube, to put images on Flickr, with the help of written content on the wiki like Wikipedia, as well as developing a social network similar to MySpace. One interesting result of Web 2.0 is something called collective intelligence. Five main global generation technology distance learning by Taylor (2001) have identified the correspondence model (first generation), the multimedia (second generation), e-learning model (third generation), flexible learning model (generation IV) and flexible model smart (fifth generation). Trisha Dowerah Baruah (2011) wrote that many of the e-learning technologies can be divided into two groups: synchronous and asynchronous. In the case of synchronous technology, the online delivery where all participants are “present” at the same time the organisation is in need of a timeline. Khalil Sadat (2009) ‘In asynchronous online delivery it is the participants who access course materials at their own time.’

Social Networks

Karen Santana (2013) states, ‘Social networks inherently encourage collaboration and interaction. They can be used as a motivational tool to promote self-efficacy among students’. In a study conducted by Bowers & Campbell (2008) Facebook, as a tool of motivation for students in a period of growth, was leading. Social networking is important for coaches. Rachel Jones (2015) uses social media website, Twitter, daily chats and shares information between teachers with hashtag (label) “#edtech” by sending it during the day and coaches at the international level linked via the Internet. This is shared learning network in the world. As Trisha Dowerah Baruah (2012) explains that the play Massively Multiplayer Online (MMO) is a multiplayer video game capable of supporting hundreds or thousands of players simultaneously. Cartrider, World of Warcraft MMO are some examples. Baruah says, ‘through Social Media, a person can also publish news and views via the web’. User is a prime example of such media. This

is a social news website. Connect to Facebook, Digg dialogue, bar Avatar, Avatar API (application programming interface) are important features of the User.

According to Leila Karimi et al (2013) “Statistics FB”, 85 percent of students at four-year universities use FB, which most of them do daily (comScore, 2007). Although FB for educational purposes (Dalsgaard, 2008) has been created, it is argued that they may informally discuss and share knowledge and students are encouraged by their intermediaries (Anderson, 2008; McLaughlin, and Lee, 2008; Selwyn, 2007). Several sites also draw interest from higher education institutions, faculty and coaches and their potential for scientific purposes. Use of FB can help students adjust to college life, develop friendships (Ellison, Steinfield, and Lampe, 2007), and experiment with English. Since its introduction, a global streaming media attention is on the phenomenon of FB. However, most of the academic research on this topic is about North America (Bush, 2009).

LITERATURE REVIEW

A. Theoretical Framework

Thomas Friedman (2006) in the late 1980s and early 1990s said, ‘using the Internet requires considerable expertise and was often conducted over black-and-white text terminals meaning everyone, no matter what computer they were using, could see the same web pages, access the same data’. In the early 1990s, a scientist named Tim Berners-Lee at CERN used programming language for writing Web pages (called HTML) that allow authors to do things like “links” from one page to another and to store and share images. Japanese writer Yoneji Masuda pioneered the Information Society term used to describe a society finally to the point where constructive force in the production of valuable information for the development of society (Mou Mukherjee - Das, 2014) was moving. Punjab Technical University in the 1970s and 1980s acquired extensive information society concept to explain social, economic and technological changes (www.nraismc.com). For Castells (2005) the network society is a social structure based on network

operated by information and communication technology based on microelectronics and digital computer networks that generate, process, and distribute information on the basis of the knowledge accumulated in the nodes of the network. Hiltz (1986) coined the term ‘virtual classroom’ for the use of computer generated communications ‘to create an electronic analogue of the communications forms that usually occur in a classroom including discussion as well as lectures and tests (Pagani, Margherita, 2009). “Educational Networking” has defined itself as the use of social networking technologies for educational purposes (www.educationalnetworking.com). Negroponte (1995) said, according to Webster’s College Dictionary (1981) Virtual reality is that which has a “reality effect ‘in terms of education, where teachers and students come together as bits of information and not nuclear material.’ In the present day we have the World Wide Web, which is the largest library in the world has ever known. (www.eurodl.org)

B. Previous Studies

Anderson M. in research about “Virtual Universities—Future Implication for Students and Academics for Global Services Australia” (www.ascilite.org) has pointed out the Problems associated with the virtual university : the education of academics to use technology, security issues related to electronic testing, remote dial-in access, costs associated with staff training, and technical support. Once again, although the authors have identified problems associated with the virtual university, they have failed to talk about the future consequences for students and academics. Finally, the literature review revealed a number of guidelines to consider when to make the transition to a virtual university. These guidelines include: the promotion of user participation and planning, design and implementation of training programs for faculty, allow students to submit their assignments online, and provide students with the opportunity to participate in online class discussions.

Subrahmanyam C. V and el. (2013) in “Technology & Online Distance Mode of Learning” have opined that, Universities or Institutions offering

Online Distance Learning can give up the conventional methods and can take up the Hybrid Learning as a tool in their course offerings in order to get the best results. Although, at first, seems to be a combination of training implementation expenses, costs can be recovered easily and can easily reach break-even in a short time. Nicole B. Ellison et al. (2009) says as more systems emerge, there will be more capacity for groups to organise and engage in collective action, a characteristic of civil society. Trisha Dowerah Baruah (2012) in a study on “the effectiveness of social media as a communication tool and its potential and its relationship; a micro-level study” reported that social media can be effective for building social authority; individuals or organisations can establish themselves as experts in their fields, and then they can begin to influence in this area. So, one of the fundamental concepts in social media is that a message can be controlled completely, but we can help the debate. Social media technology reaches audiences around the world.

Jafar Yaghoubiandandel (2008) on “Virtual Students Perceptions of E-Learning in Iran” claimed a significant relationship between the level of Internet use, the use of computers, internet access, shortcomings of the traditional higher education system and assessment of competence in e-learning students. The regression lines to predict changes in the perception of students are allowed linear regression to predict a change in perception about e-learning which students are allowed to use. Stepwise regression analysis showed that 68% ($R^2 = 0.680$) of the variation in students ‘perceptions of e-learning was determined by four variables: students’ assessment of competence in e-learning, Internet access, computer and Internet use, and assessing the shortcomings of traditional higher education system. As the authors of this article have proposed, developing e-learning systems can be used as a solution for the situation in Iran. If e-learning has a meaningful role in higher education, it is important that universities focus on students’ attitudes and their expectations. Ali Asghar Kia (2010) on “a look on virtual learning” predicted that during the next 10 years, the majority of universities in Iran will take action to recruit and train students in electronics

for operation of virtual education on a very broad level.

Vahideh Alipour (2010) in a study on “Culture of education, social - cultural factors, and its role in the development of virtual learning in Iran” has considered: Learning should be to educate the public and raise all sectors of the population. It should be noted that the period should be set for the use of virtual training. (Leila Karimi and el. 2013) “Perspective of Iranian University Students about Academic Use of Social Networking Sites: A Study of Facebook” showed that undergraduate university students in Iran, showed more interest in social media like Facebook. The findings endorse earlier research (Downes’s, 2007; Fernandez and Gil-Rodriguez, 2011; and H. et al., 2012). For example, Downes’s (2007) found that FB is distinct from the SNSD because of its stronger roots in the academic community. They enjoy social networking sites to capture, search and find friends. In students’ engagement they use Facebook to communicate with classmates. Latest information related to the use of FB should be integrated completely into the higher education process in the future studies. In addition, the findings of this study confirmed that students use Facebook for academic purpose. Finally, the findings of this study confirmed that significant differences between men and women in the scientific use of FB instance do not exist.

METHODOLOGY

Research Questions

This study has following objectives:

- RQ1. How do social networking sites make a difference in teaching – learning in higher education?
- RQ2. How do intervention of virtual learning and social media networks in Distance Education influence higher education in India and Iran?

Method of Study

The nature of this research is descriptive and exploratory depending on secondary data documented by government and other organizations. Statistics, programmes and policy of the government in the form of documented

information was accessed to understand and analyze the intervention of virtual learning and social media in distance education in India and Iran.

E-learning and Usage of Social Media in India

India may succeed in adopting e-learning having watched the west and is working hard to implement it. Over the past few years, Ministry of Human Resource Development has been trying to reach the goal of making education accessible to every corner of the country. Still many parts of the country are in the dark about e-learning (Malik, 2009). According to Venkata Subrahmanyam C. V et al. (2013) Andhra Pradesh government took the initiative for the first time in 1982, to start Andhra Pradesh Azad University (now renamed as Dr. B.R. Ambedkar Open University) in Hyderabad. In 1985, the Government of India, through an Act of Parliament established Indira Gandhi National Open University (IGNOU) for the sole purpose of promoting continuing education across India. Now according to Venkata Subramanyam CV. et al. (2013) there are 14 Open Universities in India - one national and 13 state universities. Abbreviations like CBT (Computer Based Training), IBT (Internet Based Training) or WBT (Web Based Training) have been used as a synonym for e-learning. As Pagani et al. (2008) wrote an e-learning applications and processes include Web-based learning, computer-based training, virtual education opportunities and digital collaboration. Content via Internet, intranet / extranet, audio or video tape, satellite TV, and CD-ROM (Elearn frame, 2004) is presented. This can be self-paced and instructor-led and includes media or in the form of text, image, animation, video and sound.

‘The year 2011-2012 saw the launch of this new phenomenon of MOOC – Massive Open Online Course, wherein faculty from the top universities, through several new organisations made complete courses available online for free, to anyone who is willing to enrol’ (Hindu, 1 July 2014). MOOC courses in higher education in countries such as India and China could be one such intervention with unlimited participation and open access. MOOC courses began in 2008, but their potential as a valuable tool in Higher

Education was recognised completely by 2012. A large number of universities in the United States, Europe and other parts of the world are now offering the course to supplement training-learning. In India, MOOC courses have not yet formally entered the wider university system, except for some IITs floating MOOC courses. However, it is interesting to note that in about a quarter of all registered MOOC courses around the world, India is second only to the United States, clearly underlining the fact that language learners in India are quick to adopt new technologies. But it should also be noted that the rate of successful completion MOOC courses around the world being 5 to 15 % can MOOC courses be useful in a country like India? The most attractive feature of this period is the ease with which both students and teachers can access the content. MOOC courses in high-quality conventional courses like engineering and science reach people in different places, thus bridging the gap between well-established educational institutions and the not so established ones. As Sheikh Omran (2012) claimed: Educational institutions need appropriate strategies in place for the successful deployment of e-learning process. But, call it Web-based training (WBT) or, less border education e-learning is here to stay. E-learning will soon replace classroom learning in India. In addition, the government also comes forward with plans to improve the technical quality of new graduates inviting them to go to research and teaching career. E-Learning is rapidly growing and seems to take control of the world because of its educational benefits. (SAHA, 2010)

E-learning and Usage of Social Media in Iran

Jafar Yaghoubi et al. (2008) states that many universities in developing countries like Iran are investing significant capital to develop the virtual university or virtual parts in conventional universities. E-learning in Iran is still in its infancy and there are only a few online programs. E-learning history in Iran currently does not exceed more than 6 years, yet from a realistic point of view we may say that electronic-based learning in Iran has been around for 5 years, delivered by both the private sector and government organisations. A lot of virtual universities or centers such as University of

Technology, University of Science and Technology, Virtual University of Shiraz and some colleges and centers such as the Virtual Islamic penal centers and schools have increased. Yaghoubi says: The process of changing traditional education to modern style in Iranian society contains many important problems, according to recent studies (Dilmaghani, 2003; Nouri, 2003) are, lack a realistic understanding about the process of learning the educational needs of students at different levels, faulty implementation of computer hardware and software, poor education infrastructure, IT realistic point of view or weakness, no strategic plan for higher education budget and equipment, lack of space affecting the political, social and economic aspects and lack of information literacy. Leila, Karimi et al. (2013) explained that although FB use by university students in Iran has grown rapidly in the past, to date a search of major library databases and online journals yielded no results for studies on FB within the Iranian students particularly, in recognition of students' views on the use of this site for scientific purposes. Karimi added due to the lack of research, studies on FB being used for scientific purposes should be done. As a result, this paper contributes to the growing discussion on students' perspective in using FB for academic purposes and to explore to what extent university students are using FB to engage in study-related activities.

Maryam Haghshenas et al. (2014) reported that at work, informal learning through questioning colleagues, viewing other uncoordinated and independent learning activities accounted for 80% of one's knowledge about his / her work. A significant value in many social media sites are seen for classroom use. The survey of different schools around the world shows online videos on YouTube or other online video sites as having been the greatest value for use in classes. All social media sites cannot be seen as valuable for teaching and Facebook and Twitter are not considered as having value in class. A large part of the faculty believes that Facebook and Twitter have negative value for classroom use. Talk about the difference between positive and negative social use in higher education continues but no one can consistently grow fast and efficient sharing of information among peers.

Despite all of the above, the Iranians began to find ways of using the media to develop and grow. New technologies create a new structure of learning and teaching in this country. People and Organisations have started few websites on virtual learning such as *Kelasedars*, *Maktankhooneh*, *Khanacademy*, *Takhtesefid* and *Iranacademia* which all have options of downloading, uploading, sharing between social networks, chatting, writing comments, using videos and sounds for school and university students.

FINDINGS

Harishchandra S. B. (2014) believed the digital revolution and economic globalisation become the driving forces of economic and social development. Rajasingham refers to the problems associated with this change can no longer be solved by traditional means. At no time is a suggestion in this article that there are alternative conventional virtual university campuses. They will be complementary and seek to work with them and through them. Both exist in tandem because education is about contextualising, and network connectivity environment in the global environment, learning to choose where, when and how they access learning. Yaghoubi (2008) believes E-learning in Iran is still in its infancy and there are only a few online programs. The current model of education in Iran is through the traditional methods of teaching and learning using notes and discussion in class. While connecting to the Internet in universities, using these new media need to cast in all areas.

According to Iran's standing in the world, it should soon make greater use of new media in schools and universities adopted than before, and free communication between people inside and outside the country who can exchange ideas and knowledge in the sphere of the educational system. Yaghoubi noted the deployment of advanced institutions of higher education and colleges equipped with modern e-learning as one of the urgent needs of today's developing countries like Iran. But learning systems such as stability depend on sound, realistic instructional strategies. New learning technologies need to be targeted so that they may teach practical skills to students. Iran

with long history of connection with modernity and a young population seeking knowledge from around the world needs to empower its abilities and facilities for making Internet available all over the country and let people, including more media, freedom of choice. This country, considering its long history of knowledge and philosophy, has potential to use Internet and social media to introduce itself and its people to the world and encourage all to get more idea about Middle East civilisation. With an astounding population of 1.25 billion and almost half of them under the age of 25 years, India faces huge challenges as it plans to fulfil the wishes of its people. However, despite these challenges, it has the potential to become a leading country in many areas of development, including education. As Pavan Chauhan (1 July 2014, the Hindu newspaper) says India needs a knowledge-based society, with access to good education, especially higher education. The current model of higher education in India, is mainly from developed countries, adopted largely from the university, limited in its range of learning, and basically trying to adapt to the needs of the industrial world. While it is true that higher education in India has enabled social mobility for many, it is also true that those who have access to higher education belong to the more affluent sections of society. To change the character limit in higher education and meet the growing demands of students and teachers, we need to develop and adopt innovative ways of teaching and learning. We need to provide more equitable access to higher education through changes in existing models. It requires a clear and real disrupter that will usher in change.

CONCLUSION

We need to bring changes in the education system. This development should be a division of labor between formal educational processes and media. The formation of both physical and electronic education expanding it to all classes and strata of society, especially deprived areas, is one aspect of reconstruction. Classrooms equipped with teaching aids and use of the Internet and new technology is inevitable. E-learning represents an important growing trend in the use of technology to facilitate learning students to study

virtual and distance education and social media. This Study shows importance of e-learning and its role in changing the face of education.

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Book Review

VAGDEVI H.S.

Title : LANGUAGE DISCRIMINATION AND HUMAN DEVELOPMENT

Author : K. SETHURAMAN

Publisher : MAKHANLAL CHATURVEDI NATIONAL UNIVERSITY OF JOURNALISM AND COMMUNICATION, BHOPAL

Price : 375/-

The book in essence upholds the Gandhian spirit by emphasizing the fact that, India with such glorious tradition of centuries of literature in all her regional languages has failed to employ the same in professional training and thus having conspicuously made 131.69 million children studying in language schools across India unfit for future employment. The author makes it clear in first few pages of the book that, the book does not banish English but it only banishes Anglicism. The stance of the author is very clear when he comes down heavily on usage of English and brings in instances from Norway and Iceland where, native languages are used for professional training including Science, Federal Bank Governance, Software Programming. The author endeavours to explode the myth created in India on the usage of English as inevitable and Indian languages being inadequate to impart professional training and owing to the use of English that India is heading towards development. The book tries to put in the facts and figures in relation to use of English language across the world and takes a peek into the recognition of major world languages in comparison to that of Indian languages in professional education, international forum and cyber space. The irony of the situation is, most of us usually think in local languages or as we call mother tongue and then translate it into English. Thus, book brings out a clear account on Knowledge, Educational, Diplomatic, Employment,

Commercial, Social and Political Exclusion of Indian languages and result of which leads to instability and under development within the given socio political paradigm. The book gives a strong call to develop link languages to provide equal opportunities.

Throughout the book various examples from different countries with accompanying data and statistics both from India and the world are quoted. The book spreads out in six parts covering Language Hierarchy, Foundations and Myths, Deconstruction of Myths, Costs of Linguistic Imperialism, Lessons from Transition and Reform Effort with concentration on India. The first part throws light upon Indian Languages, viz., national status, international recognition and presence of Indian Languages in Cyber space and also in Indian print medium. With interesting titles and sub heads the figures that are quoted to show the drastic difference in Indians using English as compared to other countries will throw you off cliff. An example of language trend in global Internet usage to speak, shows that, in 1997, 84.0% used English which declined to 29.1% by 2009 at the same time share of Chinese language went up from 0.05% in 1997 to 20.1% in 2009 where the share of Indian languages from then to now is negligible. The author uses connotative and punned sub heads all along the book one such part is where he puts it 'Indians Sow and English Reap'. A lot of effort is put to extract and compile the data.

The book takes you through the details on how Indian languages are excluded from professional education which has reflected in limiting employment potential among rural language medium educated dividend. The book looks at the nuances like; how the neo – colonial elite have created the unnatural situation where we lack confidence in our mother tongue in imparting professional training. It throws light on language policies across the world in comparison with Indian language policy which favours English in comparison to any other regional languages. It also shuns, 'anglophile' argument that English unifies and brings in spirit of nationalism. Rather the author observes that, equal opportunity can be created only through organic revolution of link languages. Though, the author himself is IPS officer, it is appreciable that he

gets out of his comfort zone and boldly talks on implementing multi lingual education and recruitment policies to union services there by promoting equal opportunities.

Right from the start it is stressed that the fetish towards the Anglicism is increasing the knowledge gap among the inhabitants of this country and effecting its development the author details out that, the colonized countries that have adopted linguistic policies for empowering native languages have seen higher growth rate as compared to countries where English based higher education and official language policies are followed. This is done by analysing various socio, economic indicators in the above light.

With the worrisome data on diminishing native languages the book takes us through the trends in native English speaking countries along with language trends across the world. It also applauds the recent shifting trends towards the effort made in changing the language policy and introducing native language for professional education. A detailed study of Kerala in comparison with Catalonia a state in Spain in the above light is being done. The book just doesn't state the problems and leaves it but it also accompanies some of suggestions based on findings where future of Indian languages in a situation where anglophile intelligentsia and colonial bureaucracy have the final say in all its policies and native language speaking talented politician is sidelined and dubbed as regional fanatic and thus marginalizing a majority of population. The book put forth some interesting findings and suggestions to empower Indian people by providing rightful place for its native languages.

The book has all the facts and figures complied with great effort and put precisely to make the reading interesting. It is not only interesting but also informative. This book is not just for the academicians who can take the knowledge to classroom and thereby sensitize the generation next but also to general public who have to be sensitized in making our regional languages more powerful for which it is imperative to understand the language politics and this book makes an effort towards creating awareness. Use of simple language gives more readability to the book where, a student can read and understand the crux of it. Definitely the issues presented in the

book are to be looked in to and taken seriously. The persistent call of the author for moving away from being 'race of imitators' to becoming the 'nation of innovators' is indeed the call of the day.

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Review of New Media Studies in Political Communication

ASHA K
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Abstract

New media, simply put, is new form of mass communication. Another term for it is digital media. Relatively, it is recent media based on new information technology, a 21st century's people's media. It is dynamic as the Internet-based tools and technology keep changing in unpredictable ways, and evolving too. New media has redefined, given a new dimension to the very concept of communication, whether internal, intrapersonal, one to one or one to many. New technologies, which are emerging on a daily basis, are enabling new media to evolve. Inarguably, social media is shaping opinion, helping to build profiles of people, companies and government. Moreover, it is helping to get people 'connected' and draw moral support sometimes. Political communication, which is a sub-field of communication, has dramatically changed in the last decade. Many traditional media as well as new media have changed politics which is inclusive of governance and players involved in it. New media platforms and social media tools have made democracy more vibrant, at least in the cyber world. This does not imply that the quality of governance has improved and society at large is happier because the quality of life has improved. But with the media becoming more and more interactive, public communication has increased which in turn has an impact on policy makers. 'Social media afford new opportunities for engaging citizens in democratic processes. Use of social media is increasing rapidly, these forms of media offer increased access to voters and potential voters,' (McNamara et.al, 2012) says the study on the usage of social media in Australia. A study on political changes in China (Ashley Esarey, 2011) observes that digital technologies empower citizens by providing forums for the expression of political views and critics of the state. The present paper is a Meta review of studies undertaken on new media as agents of political communication.

Keywords: New Media, politics, voters, elections

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INTRODUCTION

New media is rapidly growing in importance, bringing swift changes in the modes of communication. The process of communication has become an ever evolving field with the advent of technology. The impact of new media is such that it has helped in redefining the world's economic order, changed many aspects of social life and helped in spreading information and knowledge in a democratic and cost-effective way.

Political communication, which is a sub-field of communication, has dramatically changed in the last decade. David L Swanson, an American activist and writer, and Dan Nimmo, political science professor, in their book, 'Political Communication: A Resource Book', define political communication as the strategic use of communication to influence public knowledge, beliefs, and action on political matters. Politics and media are entwined. Here media includes both conventional and new media. The global village concept has become a reality. Online media is speaking and is being heard. Citizens themselves are breaking news and disseminating information on social media. So, a new order of communication, independent of the media houses, has developed. This shows the significance and power of new media.

New media platforms and social media tools have made democracy more vibrant, at least in the cyber world. This does not imply that the quality of governance has improved and society at large is happier because the quality of life has improved. But with the media becoming more and more interactive, public communication has increased which in turn has an impact on policy makers. Many traditional media as well as new media have changed politics which is inclusive of governance and players involved in it.

New media and social media are being increasingly used in political campaigns with youngsters constituting a majority of the voting population in

India. Politicians are trying to get a footing in the cyber world to reach and engage with the voters. Slowly but steadily, traditional media is facing stiff competition from new media. Convergence of traditional and new media is taking place in both developed and developing countries. Political activism is slowly shifting from conventional media to social media.

Political leaders, government leaders and political parties are getting closer to the masses with new media and social media platforms turning into mass media. However, the usage of digital platforms by politicians is not uniform. Those who are active in politics are also found to be active online. Political engagement with technology interface is going to increase. The impact of usage of digital forums has set the trend for personalisation of politics. Comparison between politicians who use social media and those who do not have online presence is inevitable in this e-world. New media is an evolving media that registers growth almost on a daily basis. Also, it is interesting to note that over the last few years, convergence of traditional or conventional media and new media is taking place.

Politicians are increasingly engaging with people through new media besides traditional media. Face-to-face social networks are slowly turning into Facebook social network. In personal interactions one can see the reactions and body language of those involved in communication, while in technology mediated communication where there is no visual usage, observations cannot be made instantly. However, reactions will come in verbal, visual and image forms. One-on-one message and one-to-many message in digital world can have great influence. Academic researchers have established that political and civic engagements are happening in the cyber world. Of course, this is still-emerging relationship which calls for in-depth constant studies. Nature (journal:2012) through a study, referring to the US congressional elections of 2010, had published that that “A 61 million person experiment in social influence and political mobilisation,” had contended that messages on users’ Facebook feeds could significantly influence voting pattern. Virtual world may be gaining importance. However, one cannot undermine the influence and impact of one-to-one communication and personal touch between politicians and people. Network in the real world

and the cyber world both have significance of their own. Social media movement has a rich history that has changed at a rapid rate since new media became widely used.

OBJECTIVES

The basic objective is to conduct a comprehensive review of studies to draw inferences on the influence and impact of new media in political communication. Research focuses on the studies on new media usage by politicians around the world to comprehend the validity of studies on effectiveness and credibility of new media usage in politics.

METHODOLOGY

This paper is a Meta review initiative to give insight into the type of studies and new methodologies that are gradually evolving in the field of new media and political communication. Meta review enables researchers to perceive the quantity and quality of new research initiatives on emerging media like digital technology based media. Meta study is a systematic review of studies on a specific subject consisting of qualitative and quantitative studies. It is a mother analysis of multiple analyses meaning that it attempts to systematically study the several studies that have already been done by the researchers. It gives an elevated view of studies on a specific subject under one roof integrating similar studies with a view to understand the subject from different perspectives. It is a challenge for any researcher to undertake a study on new media’s impact, influence or process and theoretical framework as methodology and findings are still calling for validation.

A Meta study would bring whole range of studies on a common subject and enable researcher to summarize the several studies done on the same subject. A Meta study helps in combining data from multiple studies undertaken on the same subject. New media are new to the researchers and therefore methodologies are evolving. A new media study validates not only the subject under study but also contributes to method of study. This study is confined to the research on new media intervention in politics. It is in this perspective, the present study assumes importance.

NEW MEDIA STUDIES- A REVIEW

Usage of new media by politicians during elections has yielded sufficient study material for academicians, researchers and research institutions. A lot of research has been done to study the usage of new media in the US presidential elections. However, not much research has been done when it comes to the usage of new media by Indian politicians and this became obvious when the review of relevant literature was taken for the present study. The study done in the last little-more-than-a-decade has been reviewed here, according to which both developed and developing countries are eager to employ new media for political communication and engagement. However, the degree varies depending on the extent of Internet coverage, technology and affordability of a country to invest in infrastructure development to make use of wireless communication.

The usage of information and communication tools is different in developed countries. A study (Ron Davies, 2014) on the effectiveness of social media in election campaigning highlights how since the 1980s, democracy across the European Union (EU) was characterised by the increasing disengagement of citizens, particularly younger ones. The study says that the usage of social media form of communication among politicians and citizens may provide a way of increasing citizen involvement in political life, especially during election campaigns. The author says social media allows political actors, particularly smaller parties or less well-known candidates, to bypass mass media filters. They can influence journalists who follow social media for story ideas. He opines that whilst specific targeting of voters, which has proven effective elsewhere, may be problematic in much of the EU, messages can at least be targeted at the young, the largest group of social media users. "The network effects of social media, amplifying as they do the transmission of a political message through social connections, make social media a valuable part of an election campaign," the author points out. He also says that while social media is increasingly used in campaigns across Europe, the ultimate effect of this usage remains unclear. Some attribute the increasing levels of political activity on the Internet to citizens who are already politically committed. It may be that social media

has only a very limited effect on getting otherwise disengaged citizens to engage – even just to go out to vote, the study says. (Ibid)

The author sums up saying that the influence of social media use in elections may be different in countries with populations of different size and with different political and electoral systems. Nevertheless, even motivating a small percentage of the population can (at least in some electoral systems) make a considerable difference to the result of a party or an individual candidate. Certainly an upward trend in citizen participation in European elections due to any media, social or not, would be taken by many as a good sign. (Ibid)

New media technologies have their own impact on political communication and this has been delineated in the study (Saqib Riaz, 2014). The author elaborates on how the extensive usage of the Internet and mobile phone has its own impact on election campaign in developed and developing countries. It also suggests some new horizons of political communication through new media technology, especially in developing countries. Riaz observes that political behavior of people living in developed and developing countries is totally different. New media technologies can "flourish" only in societies where democracy is promoted and participatory. However, in undemocratic countries, media is "controlled" and used for propaganda against the enemies and for publicity of those in power and their policies. "In such countries, digital media cannot play its role in spreading democratic values in society," the study says. The author points out that in many developing countries political freedom does not exist. That the Internet connection is limited in developing countries and hence in such situations digital media cannot play an effective role is the argument of the author. However, the author does not stop at this. He says new media technology has "greatly influenced" political communication in the whole world. However, its efforts are more evident in the developed parts of the world where this technology is easily available. Technology has influenced the process of political communication in developing countries and such countries are focusing more on spreading modern technologies like the Internet and mobile phones. The usage has also found to have impact on political attitudes and

behaviour in the countries where it is used frequently. The developing countries can adopt similar methods to bring a positive change in the political attitude and behaviours of their public. The wide-range availability of Internet in remote areas of developing countries like Pakistan is a major challenge in this regard, the researcher feels. (Ibid)

While discussing about the increase in the networked population from the early 1990s and for mass movement, the study on the impact of social media on politics (Surjit Kaur and Manpreet Kautm, 2013), discusses how social media was used in India for movement against corruption and to raise voice against the Delhi rape incident and the Telangana statehood movement among others. The advent of social media has enabled an “unprecedented” empowerment and engagement of the common man for expressing political opinions. One positive development the authors see is the youth talking about political issues mainly because of the emergence of social media. Earlier, political discussions were confined only to those who used to read newspaper and watch television news channels or participate in discussions. However, social media networking has made the youth of India “sit up and discuss political issues.” But, the authors say that it is difficult to make youngsters participate in the voting process even with the usage of social media platforms. Getting youngsters together to vote in elections, even through the networking sites to help political parties is “still a pipeline dream”. However, the researchers (Ibid) conclude that it may take decades in India to replicate the US in the use of social media campaigning and influence the voters.

An empirical study about the use of social media by the political candidates in India’s main elections to Parliament in 2014– the high seat of power in India (Asha and Usha rani, 2014) makes interesting revelations in Indian context. The study shows that the two national parties and one regional party made efforts to make use of the Internet based tools, though their efforts, interest and investments in terms of money were not equal. However, the social media tools used by them were more or less same. The two national parties – the Indian National Congress (INC) commonly referred as the Congress party, and the Bharatiya Janata Party (BJP), the right wing party – were way ahead of other national parties when it comes to using

social media. Between the two, the BJP was more aggressive than its nearest rival the Congress on social media plank. Like in many parts of urban India, urban Karnataka State, known as IT capital of India, too witnessed for the first time usage of Twitter for campaigning in LS elections. Parties seem to have been well influenced by the presidential form of campaigning in the US where in addition to usage of social media tools volunteers were engaged in large numbers. More than political parties, key contestants in urban constituencies used social media to maximise their reach to voters. The content of social media is by and large in English. Twitter seems to be emerging as the easy and quick mode of communication with the usage of smartphone increasing. Social media left the netizens energised to engage in electoral process. Journalists of print and television, which are considered as traditional media, had to follow up on social media for keeping track of developments as tech-savvy candidates chose to break news and react on Facebook and Twitter. Social media is growing stronger than opinion polls in urban areas. Social media has arrived to stay and politicians can’t ignore it anymore as its usage will only grow. Political parties and candidates are mainly depending on traditional or traditional mode of campaigning while not averse to social media in urban areas, says the study.

The 2011 elections in Switzerland also saw the usage of digital forums for campaigning. A research study (Ulrike Klinger, 2013), while giving an insight into the usage of social media and Swiss elections, says that all major political parties have their own websites and are active on social media. While analyzing structurally the usage of Facebook sites and Twitter feeds, the researcher says, “While political parties claim to appreciate the dialogue and mobilization potentials of social media, they mainly use social media as an additional channel to spread information and electoral propaganda. The overall resonance is still at a very low level.” (Ibid)

The usage of online media for political communication in advanced countries may not be a tough challenge but the situation will be different in underdeveloped countries. The research on the impact of social media on political mobilization in East and West Africa (Yusuf Kalyango Jr and Benjamin Adu-Kumi, 2012) examines whether the online and wireless digital

media have aided political mobilization in Africa more than the traditional media in the past five years. The digital media, such as cellular phone, have penetrated areas in many African countries that are inaccessible to traditional media. The study covers four countries of interest - Ghana, Ivory Coast, Uganda, and Kenya. Online and wireless digital media are conceptualized here to include the Internet information from social online networks. Mentioning various social media sites like Friendster, MySpace and Facebook, the study says that the data shows that the sites have helped African netizens to perform the crucial function of keeping in touch with people from around the world. (Ibid)

Explaining how the new technology has helped the common man to get better-connected with even politicians and people of all classes in the digital space, the researchers say people use it to connect with distant others including leaders and policy makers who are otherwise not easily reachable by any other means. The respondents had overwhelmingly said that social media platforms provide an enabling environment for low cadres to network with middle class and very wealthy netizens through mutual social networks to collectively discuss familiar communal obstacles, shared opportunities, mutual social events, and shared ideological politics, the study contends. (Ibid) The authors capture the optimistic view of Africans that new media would help in getting involved in the political process for a better order. The study reveals that for African netizens in the four countries, political mobilization for social change is part of that enjoyment.

One of the key observations of the study is that though Africa is still at the bottom of Internet usage in the world, all hope is not lost because there is growing optimism among netizens in Uganda that what social media did for the Egyptians and the Tunisians in North Africa will be replicated in East Africa too. Voting citizens in many countries are now demanding better treatment and better economic opportunities from their government. Further the authors, in their concluding observation, say, "There is a paradigm shift in narratives and a very good indication that Africa is slowly heading in the right direction as far as the freedom of expression via the Internet is concerned." (Ibid)

While the researchers Yusuf Kalyango Jr and Benjamin Adu-Kumi have explained the trends in the usage of new media in a developing country like Africa, there are many research-based studies that explain how the US is far ahead of other countries in the world in terms of using the social media for political changes and elections campaigns in particular. There has been sufficient interest shown by academicians and researchers to assess the impact of new media on the US presidential elections. In one such study (Aronson Elise D, 2012), the research addresses the impact new media tools have on different segments of the electoral process in the US. The impact is assessed from the point of providing information, influencing news, setting agendas, moulding public opinion, opportunities to raise funds, increasing political participation and influencing youth voters and finally, changing poll results.

Aronson Elise says that this trend was demonstrated throughout the 2008 presidential campaign of Barack Obama. He used new media in ways not used before and to an extent not previously done to win the highest office by effectively integrating new media usage into his campaign strategy. "As far as election results go, while new media may not be the one resource that will mean if a candidate wins or loses, it is very likely that it could make a difference at the margins. This is especially the case in an extremely close election," his study finds. (Ibid)

The author says new media, in its speed and democratic nature, is a completely unique tool that has infinite capabilities in influencing the electoral process. The impact new media can have on campaigns has many implications for future elections. Some of the impact of new media may be indirect in that it amplifies the existing forces in politics. New media usage will continue to be employed in presidential election campaigns and other campaigns too. It will be easier to assess and measure its impact. The electoral process in the United States, going by the case studies and systematic analyses, and data in the study, indicates that new media has already begun to heavily influence the electoral process. From the study it is clear that the author is confident that new media is an inseparable part of election campaigns in the US. (Ibid)

When new media is discussed, two things come into focus – one is the online news consumption, and another is the increasing social media networking sites. It is not that the usage of online news consumption is growing; even the usage of various Internet based social media networking sites has gone up dramatically. This only shows that new media is here to stay. Politicians choose the media they want to reach out to people, and credibility definitely becomes an issue. One needs to develop skills to assess the credibility of the media in general, and the online media in particular.

To understand the credibility point of view of online media, the study conducted on exploring online news credibility (Chung *et al.*, 2012), helps. While investigating a range of traditional and technological factors that contribute to the credibility perceptions for three categories of online news, the authors say that mere online presence does not add much credibility if online sites do not employ hyperlinks to extend access to related topics. The researchers endorse that credibility is a “very complex issue”, and that multimediality and interactivity do not influence credibility perceptions. Usually, media houses which are online try to build data bank so that it can be linked to the stories they put up on their sites. It is generally believed that hyperlinks can enhance the credibility of news offered. But Chung *et al.*, have countered this through the study. (Ibid) This point becomes relevant when people try to consume maximum news during elections.

Coming to political news and media, there is a general notion that media gives too much coverage to politics. This may not be demand driven. This argument gets support from a study of Pew Research Centre conducted in 2012. The study had concluded that all content receivers are not equally interested in politics, and also, usually all prominent political parties in the US were by and large making similar efforts to use social media platforms.

Like the Pew research, there is one more in-depth study on social media usage and democratic participation. A report by University of Technology, Sydney, accessed by Australian Electoral Commission (AEC) elaborately explains different dimensions and partners in e -democratic initiatives and learning at different levels. The study report (McNamara *et al.*, 2012) aims at examining approaches to social media by government agencies and the

election management bodies (EMBs) in order to inform the Australian Election Commission in social media. The three authors, in their 95 pages report, say that a number of EMBs and other government departments and agencies, as well as political parties and politicians in Australia and internationally, have demonstrated that ‘social media afford new opportunities for engaging citizens in democratic processes.’ While citing the reasons for the same, they say the readership, listenership and viewership of traditional media are declining among most demographic groups, particularly among the youth. ‘Use of social media is increasing rapidly, these forms of media offer increased access to voters and potential voters,’ the study says. (Ibid)

The researchers, while explaining the contingent factors affecting and limiting e-democracy initiatives, point to the hard reality – social media, by and large, is personal and entertainment-oriented. In the political environment, they say, ‘Social media are most effective in engaging citizens in new, non-traditional forms of political participation such as single ‘issue politics’ and direct action (Occupy and Kony 2012). Research indicates that social media is less effective in engaging citizens in traditional forms of political participation.’ (Report 2012)

Politicians and political parties do every sort of exercise to reach out to their voters during campaign. But the question is how consumers react to the content. Are politicians and political parties are just giving what information they would like to give and thus turn the content into monologue? Is it out of curiosity that people read the content, or are they receptive? These questions, to some extent, are answered in one study. Pew Research Centre of the US conducted a survey from January 20 to February 19, 2012 among 2,253 adults to find out how social networking sites influence voters’ views and political activities. The research (Lee Rainie and Aaron Smith, 2012) focuses on the social networking sites (SNS) of Democrats, Republicans and Independents, and getting feedback from the visitors to the sites. The study has come out with a good number of findings. One finding is that the vast majority of social networking site users (84%) say they have posted little or nothing related to politics in their recent updates, comments and links. Only six per cent of these users said that most or all of what they posted recently

on the sites is related to politics, issues, or the 2012 campaign, and the rest ten per cent had said some of what they have recently posted has been about politics. The politically engaged citizens had observed that ‘the sites were useful to them in their political activities and they had become more involved in an issue after reading what others had said on the sites.’ (Ibid)

The survey conducted for the study points out that, ‘80% of American adults use the Internet and 66% of those online adults participate in social networking sites such as Facebook, LinkedIn, or Google+. That amounts to more than half of the entire US population who are the site users.’ It further found that those who describe their political beliefs as moderate or liberal are more likely than conservatives to use social networking sites: 74% of the Internet users who describe themselves as liberal use SNS and 70% of the Internet users who are moderate are SNS users – that compares with 60% of the conservative Internet users who are SNS users. There were no statistically significant differences among Democrats, Republicans, and Independents in their overall use of SNS. All were equally likely to be social networking site users, says the study. (Ibid)

People in every sphere of life have begun using new media and social media. It goes without saying that men in public life are no exception to this. The often quoted example as how new media was used to the hilt during elections is that of US President Barack Obama during his poll campaign in 2008. Obama mobilized the youth over the Internet for his victory in 2008. A study on twin social media outlets Facebook and Twitter (Annie Hellweg, 2011) observed that these sites have impact on the constituents. Social media’s role continues to evolve within the political realm, and there are definitive relationships to be explored between a politician’s use of their sites and the opinion of public. Facebook and Twitter have enabled people to ‘access public figures at an unprecedented level; campaigns can no longer rely on traditional media to reach constituents without the risk of overlooking a new population of voters,’ the researcher explains. (Ibid)

Hellweg sums up by saying whatever may be the tools used by politicians to engage people in political process, still people want politicians to be what they should be. In the midst of Facebook and Twitter’s revolutionary impact

over political campaigns and elected officials, it should be noted that, like everything, there is a limit. Ultimately, constituents still want their politicians to be politicians; while snippets into their personal lives are beneficial, this cannot take precedent over career-driven content. When it does, politicians lose credibility and trust with their voters. The author is right in pointing out that frivolous news alone cannot make people get attracted to social media sites. (Ibid) If politicians have to win the confidence of people, they would have to discharge their public duties. Whatever may be the media they use to reach out to people, their work also matters.

Usage of new media and communication strategies are best experimented in a developed and tech-savvy US, which is not surprising. What is interesting is even communist countries are now slowly being forced to open up to new communication platforms. Take, for example, a communist country like China, where there is no free media, which is also moving towards new media. A study on political changes in China (Ashley Esarey, 2011) observes that digital technologies empower citizens by providing forums for the expression of political views and critics of the state. Chinese online space has become a forum for advocating political reform, a phenomena rarely seen in the official media since the founding of the People’s Republic in 1949. “While not large ... China is moving towards liberal communications, at least on the Internet. Even political institutions would find it difficult to resist new media, even in a communist country like China,” Esarey says. (Ibid)

It is always interesting to make a comparative study of new media and traditional media, and the impact of new media on traditional or conventional media like newspaper, television and radio. Such a comparison is pertinent as people are now bombarded with news and information from many sources. Another pertinent question here is whether political communication happen more on digital space than through traditional media in the days to come. In a study on new and traditional media in Malaysia, it is observed by the researchers (Salman et al., 2011) that the advent of new media has posed a challenge to conventional media. While illustrating to it, they have pointed out that the impact has been felt on the circulation of print newspapers,

especially in the US. However, in Malaysia, the effect of new media on conventional media is still manageable, they say. According to the researchers the credibility the new media gained prior to and after the General Election in 2008 is not something which is guaranteed to continue without any efforts as Malaysians generally favour TV as compared to the Internet when it comes to credibility. However, there are still complementarities between the new and conventional media. They will continue to coexist and reinforce each other particularly in Malaysia and other developing countries is the view of the researchers. (Ibid)

In another study on communist country China and youth participation in politics (Cara Wallis, 2011), it is admitted that the manner of communication is changing. The old order is changing and all may not have the same views on changing priorities. For some it may look good, and for others, it may not. But the truth remains that change is permanent in case of new technologies. It is a challenge for any government to stifle the voices of citizens in cyber space. In a tech-driven country like China, it is impossible for citizens to resist the usage of technology, and even authorities cannot be selective, is the argument put forth by the author. (Ibid)

As earlier said, the usage of new media for political engagements is yet to go a long way in many countries. This is highlighted in a study on the usage of social media in the Romanian presidential campaign in 2009 (Paul Adrian Aparaschivei, 2011). The author contends that the use of new media and the social media as a tool of political and electoral communication represents a field “not yet fully explored” by Romanian researchers. A series of strategic and communication errors were made on the Internet by the Romanian candidates running for the presidential post. The finding was that no candidate had a positive presence on all the online platforms under the analysis for the study. The candidates were not guided properly by their campaign manager to maintain the Internet activity by a coherent strategy to win an election. (Ibid)

The general assumption is that technology is helping politicians to have a better reach and make their election campaigns easier. However a study on the elections in the Netherlands in 2010 and 2011 (Robin Effing, Jos van

Hillegersberg and Theo Huibers, 2011), differs by throwing light on the usage of social media, public participation and the elections in that country. “Web 2.0 is not a completely new kind of web, but a new strategy reached with higher user participation,” they say. They also observe that with the current increase in the use of social media, user participation level can increase dramatically and this does not mean that e-empowerment was not possible during the beginning of the www. Social media is a new stage of development where users are actively participating more than ever, they conclude. (Ibid)

New media with ever changing technology offers plenty of opportunities for politicians to change their communication strategy. The best example is the US presidential elections. But there are other smaller countries which have employed new media for poll campaigns, but not maximised their efforts. The situation is not much different in India.

After making certain comparisons on the usage of new media in a developed country like the US, a communist country like China, and a developing country like Africa, it is interesting to understand how smaller countries are responding to new communication modes. There are studies to suggest that the usage of social media is growing even in smaller countries. In a study (Sali Emruli, Tahir Zejneli and Florin Agai, 2011) on the usage of Facebook and political communication in Macedonia, a small state in transition, it is observed that the Internet is not fully involved in political communication in Macedonia. Government institutions and political parties understand the information given out in the digital platforms as a bulletin board, so the network is mainly used to write pages that are basically monologues rather than dialogues, they say, and conclude that all political parties give the same result as compared to the number of mandates won in party elections, and political parties have not yet exploited the potential of Facebook. (Ibid) Probably, this is the scenario in India, too. Neither government nor political leaders are exploiting the digital platforms for public utility. Networking sites are still serving as advertisement platforms.

Again, coming back to the US presidential elections, there is one more study on the topic which is worth taking note of as it discusses the quality of content. In the study (Daniel Kreiss and Philip N Howard, 2010) on the new

challenges faced by political parties and lessons learnt from the first US presidential race in the cyber era, the authors recall that one month before the 2008 presidential election, Barack Obama sent an e-mail to his earliest supporters, purportedly from Campaign Manager David Plouffe, who reminded them that they were, ‘one of the first million people to own a piece of this campaign’ and ‘helped build this movement when the odds were long and the Election Day was far in the future.’ (Ibid)

According to the authors, many pundits and academicians argue that millions of citizens were the driving force behind the Obama campaign. The account of Obama campaign, however, mentions little about political data. The study also says that, “Despite two decades of research into the new media practices of campaigns, the working of the data and analysis ‘backend’ (Hindman, 2007) of electoral politics and the industry that supports it are still largely hidden from view, particularly given the press focus on social media.” (Ibid)

The study says that the uptake of digital media in campaigning is primarily about voter identification, persuasion, and mobilization in the service of very narrow electoral ends. The researchers further observe that there is little to suggest that data transparency and regulation will come about on its own. The interests of political leadership and large data mining firms are closely aligned against the state regulation that would secure transparency in data practices. Interfaces, databases and consultancies form the largely invisible backend to web 2.0 politics. The lack of transparency and security in political data raises significant concerns for citizens. There could be a democratic deficit where only the wealthiest candidates can seriously compete and where vast swathes of the citizenry remain unengaged in the political process. Data practices and storehouses of information should be made transparent and accessible. Much more scholarly work is needed into the democratic effects of the data-driven polity, the authors conclude. (Ibid)

Indeed Kreiss and Howard have given food for thought by discussing content from the point of transparency and also how people who have no access to the Internet may remain unaware of the issues being discussed. Such a trend is akin to what is being seen in India. While a good number of

politicians and parties and governments are taking an e-route to communicate, a large majority have not been accessed due to various reasons including the lack of Internet access and affordability to use technology.

The United States Institute of Peace has brought out a report titled *Blogs and Bullets: New Media in Contentious Politics*. The research-based study (Aday, Farrell, Lynch and Sides, 2010) aims at critically assessing both the ‘cyberutopian’ and ‘cyberskeptic’ perspectives on the impact of new media on political movements at five levels. Referring to the democratizing power of new media, the authors observe that though new media can plausibly shape contentious politics, they are only one among a number of important political factors.

One more observation cautiously made by the researchers is that opening up the Internet may not be a panacea. While a free media may improve the prospects for collective action, the effects on intergroup relations may be more troubling. New media maybe more likely to promote polarization and to provide targeted communication channels for already polarized groups than do traditional forms of broadcasting and mass media. (Ibid)

The Sean Aday team leaves many cautions when it comes to analyzing the effect of new media in political process. They observe new media, such as blogs, Twitter, Facebook and Twitter, and YouTube, have played a major role in episodes of contentious political action. Despite the prominence of social media tool based revolutions, policymakers and scholars know “very little” about whether and how new media affect contentious politics. Scholars and policymakers should adopt a more nuanced view of new media’s role in democratization and social change, one that recognizes that new media can have both positive and negative effects, they categorically say. (Ibid)

There could be several studies to analyze the 2008 US Presidential elections. Still, one study is unique as it used Radian6, a real time online social media tracking tool, to examine major topics of conversation during the general election campaign. The study on social media and the US elections 2008 (Emily Metzgar and Albert Maruggi, 2009) has attempted to evaluate conventional wisdom with empirical findings taken from the 2008 presidential campaign season, using data collected with Radian6. Metzgar and Maruggi

say the elections gave an opportunity to evaluate the usefulness of social media technology. Social media platforms played a “facilitating role” in the unfolding of the 2008 election, there is “little evidence” that any of these social media venues actually drove “discussion, participation, or outcomes.” They further say, “The bottom line is that social media tools are only tools. They are no replacement for message, motivation, or strategy.” The authors point out that one crucial though obvious point - one-way mode of communication in mass media is fading with the advent of interactive media technologies. (Ibid)

Among the several observations made by the researchers, one is that social media was useful not just for its facility in distributing a campaign message, but also for its utility in offering a mechanism for the ongoing engagement on the part of those moved by the message. The second observation in the study is that though conventional wisdom suggests that “the medium was the message” in this election, the evidence considered here does not bear that out. In one more observation, it said that though the scale of coverage varied considerably between traditional media and social media, generally speaking the priority given to the coverage of an issue in traditional media was reflected in social media and vice versa. Some of the biggest issues, traditional media and social media coverage merged. Finally, they point out that social media has profoundly changed political communication in the United States. As tumultuous as the 2008 election season was, there will surely be stories to top this season the next time around. (Ibid)

One of the early study papers which have thrown light on how the US presidential campaign of 2008 went on and how the media covered new media usage was published in 2009. The research study (Michael Schudson, 2009) says that reading of *New York Time*’s coverage of the 2008 presidential campaign demonstrates that America’s most influential newspaper paid a great deal of attention to the role of new media and some old media in the campaign. While analysing the coverage of elections over the months, the author concludes it may be that the technological changes all around us and the cultural changes, too – The Daily Show and The Colbert Report are

products not of a new technology, but of a newly exploitable cultural opening for irreverence – will become familiar, will settle into predictable patterns. Perhaps traditional centres of economic and political power that seemed shaken in 2008 will regain control, but that does not seem likely in the near future. The new media singly and collectively are sponsors of a new intensity, ubiquity, and anarchism in our mediated public world. (Ibid)

Since this study was done, a lot of changes have taken place in terms of new media technology innovation and the consumption pattern of content. Constituents, who earlier had no belief, or who were not very sure of the impact of social media, have also accepted the tech-based media for daily use. Even the writing style of the content, be it in new or old media, has changed over the years, mainly because users of interactive media have turned into writers, and they express their mind. (Ibid)

Trends in election campaigns, online and offline, are continuously changing. There are also apprehensions whether there is a digital divide when it comes to political discourses as increasingly discussions and debates have now been reduced to digital platforms. This is obvious from the trends in American elections. This is well explained in the study (A. Baum and Tim Groeling, 2008) on how new media is polarizing American political discourse. The authors say that blog users are more likely to discuss politics with others, than non-bloggers, and, in doing so, disseminate their views to the broader public. “News coverage in the blogosphere and the attitude of blog consumers may increasingly influence, and as a consequence, ultimately reflect political opinion and the broader citizenry,” they conclude. (Ibid)

And, this trend of creating opinion blogs is happening in India. Yet blogging is not very extensive, especially by political, government and opinion leaders. Compared to political parties and their players, civic agencies and business houses which are into product manufacturing and selling are making more use of blogs.

When many studies post 2008 US presidential elections have focused on new media and politics, an early study in Spain discusses new media in a different background. New media and political participation in Europe, the terrorists attack in Madrid and the demonstrations that followed in Spain on

March 13, 2004 has been captured in the study (Oscar Garcia Luengo, 2006). He says the demonstrations in Madrid present an interesting challenge for political communication research and comparisons between political activism and the consumption of new and old media in European countries.

Pointing out that people employed communication technologies in order to create the dynamics of peaceful civil disobedience, Luengo says that there were clear differences in the levels of activism between the countries. Respondents from well established democracies show high levels of political activism, while respondents from the younger democracies show lower levels of the same dimension. However, respondents from extremely young democracies show the lowest levels of non-conventional political participation. (Ibid)

Finally, the researcher concludes that these new communicational processes are not under the control of the state, the political parties or the democratic institutions. They are mechanisms that belong exclusively to the citizens who are able to demand responsibility from politicians. These developments show that new technologies are not necessarily elements of suspicion or distrust, as suggested by some pessimistic scholars. On the contrary, sometimes they can provide tools to facilitate a real intensification and extension of democratic principles and civic commitment. (Ibid)

There are arguments that it is not easy to assess the effect of new media on politics and voters. Similarly its influence on civic organizations is also difficult to fathom. In the study (Ken'ichi Ikeda & Sean E Richey, 2005) analyzing the impact of social media on Japanese political participation, it is concluded that social networking does increase political participation. "Vertical associations and networks influence to positively encourage civic-mindedness," it finds. However, the study says that openness in formal social networks has a significant positive impact but the data collected for research shows that none favour open informal networks. The possible explanation is that politicians visit civic organizations only occasionally. The political participation itself has not increased at the aggregate level in the recent years, but the number of civic organizations has increased. (Ibid)

Way back in 2005, the study (Philip N Howard, 2005) on democracy,

citizenship and the impact of digital media in the political campaign strategy, the researcher had observed that Americans were increasingly using digital tools to research politics and engage their friends, family, and political leaders in discussions. Ethnographic observation suggests that political campaign strategies are increasingly geared toward fragmenting the public sphere, either by sending particular messages to particular people or by designing tools for citizens to encode their personal interests and sequester their consumption of news. Though the excitement of the digital age was based in technological potential, one can be less confident that everyone in polity has access to the same quality of regularly published, generally accessible political information, Howard reasons. (Ibid)

Political parties do their best to exploit the usage of information and communications technology (ICTs) for not just electioneering but also to promote intra-party democracy. A study (Andrea Rommele, 2003) says that findings from the US and the UK party system indicate that mainstream vote-maximizing parties are proving to be keen to exploit the new ICTs for top down information provision, with participatory elements occupying less prominence. The research says that ICTs help in promoting specific advocacy groups. However, they are generally not leading to any far-reaching redress of existing power relations. It raises doubts over sustainability about advocacy campaigns on the Internet. (Ibid)

In another study (Philip N Howard, 2003) on the American political culture in new media age, the researcher opined that an immense source of power lies in the ability to produce political culture. An effective political campaign is about defining and acknowledging the stake-holders, framing arguments, and creating icons, and all three of these kinds of political objects are much easier to manage using the new communication tools developed over the last one decade.

The author argues that "information is still power, but having raw data does not lead anywhere". Instead, it is the careful production of political culture through the manipulation of data that makes political power. The data is used to produce opportunities for exercises in this citizenship and to produce data shadows for occasions when citizens are not engaged but need reputation on a specific issue, the author points out. (Ibid)

CONCLUSION

The digital world, which has a history of about two decades, includes various communicating forms, including compact discs (CDs), digital versatile discs (DVDs), on the Internet. Content is received through different gadgets like desktop computers, laptops, iPads, tablets and smartphones. It is rightly billed as the “network of networks”. In new media, the sky is the limit for ideas and content generation. It is non-sequential interpretation with more than one source connecting or intersecting on a single platform.

The Pew Research Centre, an American think-tank based in Washington, says in its April, 2014 post that the growing digital new world largely made up of hundreds of smaller sites, often local in scope, is working to fill gaps left by the legacy of reporting. Emarsys, a digital marketing company of Austria, while listing seven social media trends dominating 2015, quoting a study, states that one-quarter of the world’s population uses social media. They are posting, pinning, Tweeting, vining and Instagramming. Every 60 seconds 4.7 million posts are produced to Tumblr; 277,000 snaps are shared on SnapChat, and more than five million videos are viewed on YouTube.

The meta review suggests that one of the studies endorses the power and presence of new media in the context of Indian elections of 2014 where the country witnessed extensive usage of social media by a politician, the Prime Ministerial candidate Narendra Modi who created history in the use of new media and was placed several notches above other contestants from major political parties. It was Narendra Modi who adopted all methods to reach the masses across the nation. He was the prime ministerial candidate of the right wing political party - BJP, and he had twin goals – to bring the party to power at the Centre and also become the prime minister. To attain both, he did not shy away from using all types of media in a calculated but extensive way proving in the process the enormous power of new media, says the study. The studies have revealed that new media intervention in elections around the world has proved the usage of new media for engaging citizens in political participation. The research points out that new media are a way of increasing citizen involvement in political life particularly young citizens who have demonstrated total disengagement in public affairs. It is

amply evident from the body of research studies that social media networking has promoted inclusiveness of youth in political process even in Africa where political mobilization for social change has been initiated say the studies.

Nevertheless, social media which is increasingly used in campaigns across Europe, the ultimate effect of this usage remains unclear. New media cannot be the single factor in influencing winning or losing in elections. However, these digital media can amplify the existing forces in politics and influence the electoral process indicating the other variables that determine the fortunes of politicians. Studies point out that new media flourish in democracies promoting participatory political process than in totalitarian countries. Some studies have raised the crucial issue of new media promoting polarization by providing targeted communication channels for already polarized groups unlike traditional media. One of the notions affecting New media is its credibility as studies vouches for the fact that they are not institutionalized enough to influence credibility perceptions.

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