

New Media Culture and Change: Access and use of Internet in Suburban Areas of Odisha

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Abstract

Communication and technology are perhaps the two most essential innovations of the century. The link between them has made our lives much easier and faster. The amalgamation of both the innovations has resulted in the production of internet. Internet is a medium used by most for information seeking, knowledge sharing, social chatting and many more activities. There have been a lot of studies on the pattern of usage of internet. A gap has been found in the penetration and usage of internet in suburban areas, which has global importance on tourism, of a under developed state. Hence, to comply this gap, primary objective of the study is set to map the preference and pattern of use of internet facility by various occupations in three places of access viz. home, workplace and cybercafé. Dimensions like nature of medium, nature of browsing, interpersonal motive, psychological motive, knowledge dimension and purpose of browsing have been taken as dependent variables. Students and others were two category of occupation taken for the study. 589 respondents have been selected for the study by the method of quota sampling from the sample domain. Hypotheses have been formulated to validate the objective of the study. Tools like ANOVA, MANOVA, t test, z proportion test and F and post-hoc (LSD) have been used for analyzing and interpreting the data. The findings have revealed that students were the most heavy internet users. The psychological motive dimension provides diversion from monotony, scope for escaping immediate reality, relaxing, giving a pleasant feeling and filling ones time. Diversion from monotony, escaping from reality, relaxing while browsing, feeling pleasant and filling time was perceived differently by browsers and mailers. These findings can be kept in mind while formulating penetration strategies in suburban areas.

Keywords: Occupation, Media strategy, Preference, Perception

Introduction

Communication and technology are perhaps the two most essential innovations of the century. The link between them has made our lives much easier and faster. The amalgamation of both innovations has resulted in the production of internet. It is the most sophisticated and fastest electronic media which has a significant role to play in shaping the life and destiny of nations. Internet is a medium used by most for information seeking, knowledge sharing, social chatting and many more activities. In the given scenario the electronic media has an onerous responsibility in addressing the socio-economic problems of societies and disseminating unbiased information. While Internet in

India took more than a decade to move from 10 million to 100 million and 3 years from 100 to 200 million, it took only a year to move from 300 to 400 million users. Clearly, Internet is main-stream in India today. The number of Internet users in India has reached 465 million by June 2017, registering a growth of 4 per cent over last year, says a report by industry body IAMAI. Currently, India is the second largest Internet user base in the world leaving behind US. China currently leads with more than 600 million Internet users. By 2018 India will have 500 million internet users. The age group will shift from over 60 percent below the age of 25 to 55 percent above 25. Moreover the rural population has grown by 22 percent over previous year (AIMAI, 2017). Other reports say that mobile Internet user base in urban India has grown 65 per cent over last year to reach 197 million, while the rural user base surged 99 per cent to 80 million by October this year. This is expected to grow to 219 million (urban) and 87 million (rural), respectively (Indian express, 2015). India has 70 percent of its population living in rural and suburban areas. The penetration of internet in the suburban and rural areas and its usage pattern is a gap in research. Moreover in an underdeveloped state like Odisha there has been no study in this area. This study attempts to explore the pattern of access of internet among users in the sub-urban area of Puri District.

Literature Review

Extant literature has proved that social and psychological needs are the defining factors of purposive internet media exposure. An examination of these factors could prove useful in determining patterns of media exposure and prediction of media use. The role of psychological and social factors in exposure to the Internet, its content, and tools used to navigate and exchange information within this medium is an area to be researched upon.

Patel (2016) performed a survey on the usage, preference and pattern of internet amongst the students of MBA. It was found that all the students use internet and almost 92 percent used on a daily basis. The number of hours was 11-14 per week. Home was the most preferred place of using the internet followed by their institute which has wi-fi connection. 93 percent of the students use internet for social networking whereas 86 percent use for their study purpose. Low speed and poor connectivity were the major problems faced by the users. Time saving and ease to use were the two most advantage of internet use over other traditional methods.

Bohra (2015) studied the internet use amongst 132 researchers of Kumaon University, Nainital. Most of the respondents used internet on a daily basis for their research work. The mostly accessed search engines were google followed by yahoo. Again speed was a major hindrance in

the internet access.

Choudhary & Dasgupta (2014) investigated internet usage pattern and behavior. The major focus was on extent of internet usage, frequency of usage, purposes for using the internet, techniques for retrieving information, and problems encountered while using the internet, with 110 postgraduate students from Assam University, Silchar. The results indicated that 100% of the students used the internet, 65.4% accessed the internet from their home, and 79.0% used their laptops for searching the internet. For frequency of usage, 80.9% indicated they used the internet daily, while 14.5% used the internet several times in a week. When asked about purposes for searching the internet, 85.4% used it for academic/research purposes, 74.5% used it for news/current affairs, 60.0% for employment, and while 49.0% used it for entertainment. Some problems encountered when using the internet included: unaware of important sites in specific field (46.3%), information overload (20.9%), information pollution (20.9%), and lack of searching skills (20.9%).

Lal, Malhotra, Ahuja, & Ingle (2006) examined internet use, focusing on purposes for accessing the internet and reasons for dissatisfaction with using the internet among 449 students and residents (332 UG students, 117 PG) from a medical college in North India. It was found that 85.1% of the students used computers. The most cited reasons for using the internet included: education (56.6%), email (48.7%), and browsing (36.5%).

Jali, et al., (2014) examined the pattern of internet and computer usage with 340 dental students (140 male, 192 female) in their 1st through 4th years in Western Rajasthan, India. The results indicated that 92.9% of students had internet knowledge and students tended to use internet services at their home (69.7%) and hostel (19.7%). Students indicated that they used the internet for web browsing (37.4%), email (30.9%), and research (23.5%).

Eduljee and Kumar, (2015) have stated that young adults are heavy users of internet. Students spend less than an hour to almost four hours per day on the internet. The usage pattern was for education, entertainment and research. As per the report of IAMAI and IMRB, 2015, rural India has 31 million active internet users. The main purpose of using internet was for entertainment followed by communication. Around 57.7 percent of users accessed the internet from cyber cafes while only 12 percent from homes.

Research Methodology

The present study attempts to explore the pattern of access of internet among users in the sub-urban area of Puri District. To fulfill the objectives of the study an exploratory research design was adopted. Details of different variables of the study are given below.

Table 1: Categories of different variables of the study

Independent variables			Levels of intervening variables		Dependent Variables	
Variables	Categories	Sub Category	Variable	Level	Sl. No	Dimensions
Gender	Male	Nil	Preferred use	Mail	1	Nature of Medium
	Female	Nil		Browse	2	Nature of Surfing
Category	Students	Nil	Quantum of use	Light	3	Interpersonal Motive
	Others	Business, Professional, Service, Unemployed /Housewife		Moderate	4	Psychological Motive
Place of Access	Home	Nil	Satisfaction	Heavy	5	Knowledge Dimension
	Work Place	Nil		Low	6	Purpose of surfing
	Cyber Café	Nil		Medium		
			High			
			Anxiety/ Anxiousness/ Curiousness	Low		
				Medium		
				High		

Source: Authors own creation

Sample domain for the current research is Konark and Pipili. These two places are NAC in Puri District of Odisha and popular national and international tourist hub. The population of Konark is 16,779 and Pipili is 17,623 as per 2011 census (wikipedia, 2015). The researcher has identified the respondents through quota sampling method. The sample consisted of the users of internet in three places of access viz. home, workplace and cybercafé. Using proportionate random sampling Method 2% of universe is cover for survey. 700 questionnaire were distributed and collected out of which only 589 respondents selected rest 111 number of respondents were eliminated from the study being the questionnaire was found incomplete in some or the other way.

The respondents responses on internet use were measured through a 5 point Likert scale where the questions to be responded through strongly agree to strongly disagree and score 5 assigned to strongly agree with a continuum to 1 to strongly disagree. Further few questions were made on 3 point scale. In order to examine the knowledge, psychological and interpersonal motive and purposes of the uses and access of internet by the respondents, the researcher developed a set of scales. The dependent and independent variables was cross- tabulated. Descriptive and inferential statistics were used for the analysis of data.

Internet Medium Scale (IMS)

Construction of the Internet Medium scale considered various dimensions like; knowledge gained nature of surfing and medium and entertainment value attributed to its use and access. Utmost care has been taken in order to generate as many as (36 items spread over to six dimensions) items to elicit information regarding the internet use and access was following Delphi technique.

The experts for the Delphi technique were from mass communication area, Linguists, IT professional and people from management professionals. Thus, 36 items having relevance to the uses and access of internet medium were selected.

Objectives of The Study

The primary objective of the study consists of

- To map the preference and pattern of use of internet facility by various occupation in three places of access viz. home, workplace and cybercafé.

Hypotheses

In order to realize the objectives of the present study, the following null hypotheses were formed.

H01: Quantum of use of the medium is not associated with the occupation of Internet users.

H02: Occupation of Internet users is not associated with their preferred use of the medium.

H03: The preferred use of the Internet by the respondents did not differ across the various dimensions measured.

H04: Occupation of Internet users and the place of access of the medium are not related.

H05: Occupation of the respondents and perception of dimensions of Internet are not related.

Reliability of The Questionnaire

The reliability analysis was conducted to check reliability of the 36 items in Internet Medium Scale. The reliability of the items was assessed by the coefficient of alpha (Cronbach's, 1951), The Cronbach's Alpha value for overall level is given in Table 2.

Table 2: Result of Cronbach's Alpha

Measures	Alpha Value	Compare with Standard	Remarks
IMS	0.773	Nunnally and Salvucci and et al	Accepted

Source: Computed Data

Sample Profile

The description of the sample of the respondents is given below in the form of tables. The sample is described based on gender, place of access and category of users. Their

demographic profile like age group they belong to their occupation and level of education attainment are also presented. The selected 589 sample respondents have been grouped under three demographic categories like age, educational qualification and their occupation.

Table 3: Category and gender across the context of internet use and Demographics of the respondents

Category and Gender Details								
User Category / Place of Access	Home		Workplace		Cyber cafe		Total	
	Student	Other	Student	Other	Student	Other		
Male	121	46	53	76	42	24	362	
Female	76	27	28	62	15	19	227	
Total	197	73	81	138	57	43	589	
Occupation and Education Details								
Occupation	No	%	Age group	No.	%	Education Level	No	%
Business	75	12.73	Youth	294	49.92	School final	61	10.36
Professional	50	8.49	Middle aged	213	36.16	Undergraduate	207	35.14
Service	134	22.75	Elders	82	13.92	Post graduate	95	16.13
Housewife	76	12.90			0	Professional & Technical	161	27.33
Student	254	43.12			0	Others	65	11.04
Total	589	100	Total	589	100	Total	589	100

Source: Computed Data

Quantum of use of Internet in House / Week

The quantum of usage of the Internet was calculated as number of hours of logging per week. People accessed Internet from 4 hour daily to 4 hour weekly. For the sake of meaningful analysis, the use of Internet was grouped into three categories viz. Light users, moderate users and Heavy users. Those who averaged less than eight hours per week were grouped into light users category. Those with more

than eight and less than fifteen hours of browsing per week were termed as moderate users category. More than fifteen hours of Internet use per week earned them the heavy category. For further analysis users grouped in one of the three categories were used.

H01: Quantum of use of the medium is not associated with the occupation of Internet users.

Table 4: The occupation of the respondents across the quantum of these of internet

Quantum of Use/ Occupation	Business	Professional	Service	Housewife	Student
Light	13	6	18	14	21
Moderate	25	17	43	22	100
Heavy	37	27	73	40	133
Total	75	50	134	76	254
Average Use	25.00	16.67	44.67	25.33	84.67

Source: Computed Data

Certain occupations demanded the use of internet more often than others did. Hence the assumption was tested with the scores of the use of Internet vis a vis the occupation of the users. Among different user group so far as

occupation is concerned the students uses maximum where as the business man uses the minimum internet. To verify the statement certain statistical tools have been used and the resulted was described.

Table 5: ANOVA Summary comparison of quantum of use of the medium over Occupation of the user

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8996.267	4	2249.067	2.498	.110
Within Groups	9004.667	10	900.467		
Total	18000.933	14			

Source: Computed Data

The result of ANOVA is presented in Table 5. The obtained value of 'F' is (=2.498. >.05) indicates numerator of F ratio is greater than the denominator. The test carried out at 4 (n1) and 10 (n2) degrees of freedom at 95% confidence level. The significance value is 0.110 which is greater than 0.05. Since the p value > significance level (0.05), the use of internet across different occupation is statistically significantly not different. So the null hypothesis

(Quantum of use of the medium is not associated with the occupation of Internet users) is accepted with 95% confidence.

Further, an attempt has been made to identify whether the difference is observed at individual level on each pair of occupation is significant or not. Multiple Comparison is made applying LSD in post hoc test at the 0.05 level. The summary is presented in Table 6.

Table 6: Summary of Multiple Comparisons applying LSD in Post Hoc Tests

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Business	Professional	8.33333	24.50125	.741	-46.2588	62.9255
	Service	-19.66667	24.50125	.441	-74.2588	34.9255
	Other	-.33333	24.50125	.989	-54.9255	54.2588
	Student	-59.66667*	24.50125	.035	-114.2588	-5.0745
Professional	Business	-8.33333	24.50125	.741	-62.9255	46.2588
	Service	-28.00000	24.50125	.280	-82.5922	26.5922
	Other	-8.66667	24.50125	.731	-63.2588	45.9255
	Student	-68.00000*	24.50125	.020	-122.5922	-13.4078
Service	Business	19.66667	24.50125	.441	-34.9255	74.2588
	Professional	28.00000	24.50125	.280	-26.5922	82.5922
	Other	19.33333	24.50125	.448	-35.2588	73.9255
	Student	-40.00000	24.50125	.134	-94.5922	14.5922
Other	Business	.33333	24.50125	.989	-54.2588	54.9255
	Professional	8.66667	24.50125	.731	-45.9255	63.2588
	Service	-19.33333	24.50125	.448	-73.9255	35.2588
	Student	-59.33333*	24.50125	.036	-113.9255	-4.7412
Student	Business	59.66667*	24.50125	.035	5.0745	114.2588
	Professional	68.00000*	24.50125	.020	13.4078	122.5922
	Service	40.00000	24.50125	.134	-14.5922	94.5922
	Other	59.33333*	24.50125	.036	4.7412	113.9255

Source: Computed Data

It is observed from the table that the significance value is less than 0.05 for students with professional, business and others. Further, for all the pairs the significance value is greater than 0.05. So it can be concluded that the students

are the most heavy internet users.

H02: Occupation of Internet users is not associated with their preferred use of the medium

Table 7: Occupation of the respondents across the preferred use of Internet

Use/ Education	Business		Professional		Service		Others		Student	
	N	%	N	%	N	%	N	%	N	%
Mail	31	41	32	64	47	35	28	37	105	41
Surf	44	59	18	36	87	65	48	63	149	59
Total	75		50		134		76		254	

Source: Computed Data

The preferred use of the respondents was cross tabulated to find out if their occupation influenced their behavior. Percentage analysis reveals that professional preferred to mail more than any other occupation category. In terms of

percentage, users in service category surfed more than any other group of responded. Surfing was the main preference among users across categories.

Table 8: Z-Proportion Summary for mail and surf of internet

Service	Mail	Surf	Difference
Sample proportion	0.35	0.65	0.3
95% CI (asymptotic)	0.2692 - 0.4308	0.5692 - 0.7308	0.1803 - 0.4197
z-value	4.9		
P-value	<0.0001		
Interpretation	<i>Statistically significant, reject null hypothesis that sample proportions are equal</i>		
Others	Mail	Surf	Difference
Sample proportion	0.37	0.63	0.26
95% CI (asymptotic)	0.2615 - 0.4785	0.5215 - 0.7385	0.101 - 0.419
z-value	3.2		
P-value	0.0013		
Interpretation	<i>Statistically significant, reject null hypothesis that sample proportions are equal</i>		
Business	Mail	Surf	Difference
Sample proportion	0.41	0.59	0.18
95% CI (asymptotic)	0.3495 - 0.4705	0.5295 - 0.6505	0.093 - 0.267
z-value	4.1		
P-value	<0.0001		
Interpretation	<i>Statistically significant, reject null hypothesis that sample proportions are equal</i>		
Students	Mail	Surf	Difference
Sample proportion	0.41	0.59	0.18
95% CI (asymptotic)	0.2987 - 0.5213	0.4787 - 0.7013	0.02 - 0.34
z-value	2.2		
P-value	0.0275		
Interpretation	<i>Statistically significant, reject null hypothesis that sample proportions are equal</i>		
Professional	Mail	Surf	Difference
Sample proportion	0.64	0.36	0.28
95% CI (asymptotic)	0.507 - 0.773	0.227 - 0.493	0.084 - 0.476
z-value	2.8		
P-value	0.0051		
Interpretation	<i>Statistically significant, reject null hypothesis that sample proportions are equal</i>		

Source: Computed Data

Z proportionate test was conducted at 5% level of significance to identify whether the difference between mail and surfing among different educational groups was significant or not. The P-value for all the groups was less than 0.05, hence rejecting the null hypothesis (Preferred use of the medium is not associated with the level of education of internet users).

H03: The preferred use of the Internet by the respondents

did not differ across the various dimensions measured.

Mean testing of the dependent variables was done using student t test when the independent variable under study was measured in two levels. The preferred use of the respondents was mailing and browsing. Whether their preference to browse or mail influenced their perception and use of the net was the hypothesis under test.

Table 9: t- test results of the dimensions of internet across the preferred use

SI No	Dimensions	t- Value*
1	Purpose of browsing	4.059
2	Nature of browsing	3.653
3	Interpersonal motive	4.546
4	Psychological motive	3.732
5	Nature of medium	3.878
6	Knowledge	7.231

Source: Computed Data

Between those who chose to mail and the ones who browsed, the purpose of browsing was different. A significant value of 4.06 indicated that the means of those who preferred to browse and mail were statistically significant. All the dependent variables under study exhibited a significant difference between those who browsed and those who mailed, revealing that the preference factor did influence their perception and use of the new medium.

Context of Internet Use

The place where Internet was accessed provided the context of the new media use and determined to a certain

extent the content and the purposes of browsing. Hence two hypotheses were tested for the age and occupation of the respondents across the context of use.

H04: Occupation of Internet users and the place of access of the medium are not related

The place of access of Internet was cross – classified with the occupation of the users. The access to Internet services in colleges by students is the highest in terms of absolute number. Respondents used the Internet the most followed by users with professional degree. The use of these two Groups was significantly different from respondents in other levels of educational attainment.

Table 10: Occupation of the respondents across the place of access of Internet

Place/User	Business		Professional		Service		Others		Student		Average User
	N	%	N	%	N	%	N	%	N	%	
Home	48	64	30	60	76	57	43	57	73	29	54.00
Work	14	19	13	26	32	24	22	29	138	54	43.80
Cyber café	13	17	7	14	26	19	11	14	43	17	20.00
Total	75		50		134		76		254		

Source: Computed Data , Description: N – Number: % = Percentage of access within occupation categories

Table 11: ANOVA Summary comparison of quantum of use of the medium over different place across profession

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3044.133	2	1522.067	1.327	.302
Within Groups	13766.800	12	1147.233		
Total	16810.933	14			

Source: Computed Data

Table 12: Summary of Multiple Comparisons applying LSD in Post Hoc Tests

		Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Home	Work Place	10.20000	21.42180	.643	-36.4741	56.8741
	Cyber café	34.00000	21.42180	.138	-12.6741	80.6741
Work Place	Home	-10.20000	21.42180	.643	-56.8741	36.4741
	Cyber café	23.80000	21.42180	.288	-22.8741	70.4741
Cyber Café	Home	-34.00000	21.42180	.138	-80.6741	12.6741
	Work Place	-23.80000	21.42180	.288	-70.4741	22.8741

Source: Computed Data

For the above said hypothesis the researcher has applied ANOVA and multiple comparisons applying LSD in Post Hoc Tests at 95% confidence interval. The result of these tests summarized in Table 11 and 12. It is indentified from the table that the significance value for each test was greater than 0.05. So the null hypothesis (age of Internet users is not associated with their place of access of the medium) is accepted with 95% of confidence.

Dimension of Internet

The six dimensions of the Internet medium studied using the IMS was cross classified across the various demographic characteristics to find out the effect of independent variables on the dependent ones.

H05: Occupation of the respondents and perception of dimensions of Internet are not related.

Classifying the dependent variables respondents based on five occupation groups demanded a tool which was able to compare more than two variables at a time. Hence an F test was performed. It allows simultaneous comparison of the

effect of the independent variable i.e the different groups of occupation of the respondents on the dependent variable under the study, the functions of the Internet

Table 13: ANOVA results of the dimensions of Internet scale vis a vis the occupation of the respondents

Dimension	F	p	Homogeneity of Variance
Purpose of surfing's	6.01 ¹	.0001	6.34 [p = .0001]
Nature of Medium	3.53 ²	.007	1.88 [ns]

Source: Computed Data

Business and student groups were significantly different as null hypothesis has been rejected. As homogeneity of variance is violated evident from a non significant value, the F test is also considered to be not significant.

To test above hypothesis MANOVA (multivariate analysis of variance) is applied. It is a technique that will reveal the main and interaction effects of independent variables on

the dependent variables and will help to reduce data into simple meaningful patterns in a single analysis. This procedure is adopted to find out effect of the independent variables on the dependent variables in the study. Details of independent, dependent and intervening variables of the study are given below along with their levels of measurement.

Table 14: Detail list of independent variables

SI No	Nature of variable	Name	Levels	Label
2	Independent	Category	2	Non Student Student
3	Independent	Place of access	3	Home Workplace Cybercafe

Source: Computed Data

The independent variables that were considered for the analysis are gender and category of the respondents and

context of use of the medium.

Table 15: Detail list of dependent variables

SI No	Nature of variable	Name	Levels	Label
1	Intervening	Quantum of use	3	Heavy Moderate Light
2	Intervening	Preferred use	2	Mail Surf
3	Intervening	Anxiety	3	High Moderate Low
4	Intervening	Satisfaction	3	High Moderate Low

Source: Computed Data

The quantum of use of the internet is considered as an intervening variable. Time spent with the medium is initially high and plateaus after the novelty effect of the medium wears off. The preferred use refers to the choice of the respondents as to whether they liked browsing the net first or liked to send and receive emails. The anxiety and satisfaction related to computer use is considered an important variable in the study as this would have a bearing directly on the nature of internet use and the perception

about it.

Results of Main Effect on Place of Access

The context use of the medium is considered significant in the nature and scope of media use. The microenvironment in which the medium is accessed will to a great extent determine the content and purpose of the activity. The context of access has been significant in the study of internet.

Table 16: of means of dependent variables classified by place of access

Dependent variable/ Place of Access	Home	Work Place	Cafe
Purpose	3.49	3.03	3.62
Interpersonal....	3.79	3.35	3.24
Psychological.....	3.55	3.55	3.70
Nature of medium	3.60	3.57	3.05
Knowledge	3.65	3.68	3.87
Main Effect	F		Sig.
Place of access	49.13		P=0.0002

Source: Computed Data

A multivariate F value of 49.13 at .0002 level indicates the influence of the independent variable place of access on the dependent variables. The context of media use has been very significant in the content consumed and the type of use put to by the users.

The ambience of cybercafé is different from the ambience of one's own house. The context of media use plays a very significant role in the interpersonal motive for the user. The way the medium is conceived dependent on the place of access of it. Hence the context does contribute to the way the medium is perceived and put to use. Further knowledge gained from the medium is dependent on the place it was accessed and the goals with which the task was set out. The entire issue of media use directly dependent on where the medium was accessed from which further guided the activity on the net. The preference motive did seem to chance with the context of use of the new medium.

Realizing the possibilities of communicating with words and pictures is perceived differently by people accessing Internet is different places. The feeling of credibility for professionals at workplace is very different from the since of satisfaction while browsing at the private atmosphere of one's own home. Seeking information from home is different from seeking it at college or workplace and at cafe. The medium offers different information to millions of users and to the different kinds of users accessing it from different places. The only dimension that did not vary with the contest of use was the nature of surfing. Users in all the places accepted that it is a creative work exciting and fun filled being done by all at regular intervals.

Results of main Effect: Category of user

The fact that the user is a student would determine the nature of media use and the content accessed in the net. Hence, the classification of users as

Table 17: Multivariate test of significance

Main effect	F	Sig.
Category of respondents	4.27	P = .003

Source: Computed Data

Students and others helped segregate the kind of response that the users gave students and others did not differ in the purpose for browsing Internet between them. Whether it

was to find better solutions or as an educative process, both felt the same way about their professional growth and surfing with a fixed agenda.

Table 18: Means of dependent variables classified by user category

Dependent variables	Category	
	Student	Other
Interpersonal motive	3.59	3.47
Psychological motive	3.54	3.62
Nature of medium	3.46	3.53

Source: Computed Data

Information was available to them in plenty and that current information was provided to them. Interpersonal

and psychological motives of using the net seemed to differ with the category of users.

Table 19: The main effect of category of respondents on dependent variables

Dependent variables	F value	Sig.
Interpersonal motive	5.56	P = .05
Psychological motive	5.40	P = 0.5
Nature of medium	6.68	P = 0.3

Source: Computed Data

The nature of internet as a medium offering certain credibility and identity to the users was perceived differently by the two categories of respondents.

Interaction effect: Gender by Category of user

Table 20: Multivariate test of significance

Interaction effect	F value	Sig.
Gender by category	6.57	P = .0004

Source: Computed Data

The researcher has taken first pair for analysis - the gender and category of respondents. The interaction effect of either the respondent was a male or a female together with

After the main effect of each variable has been analyzed, the interaction effects of the pairs of variable are taken care of. As there are three independent variables, three pairs of interaction are possible.

the fact whether he or she is a student or not influenced the values on the dependent variables.

Table 21: of Means of dependent variables classified by gender across category of users

Gender/ Category	Men		Women	
	Student	Other	Student	Other
Dependent variable purpose	3.14	3.54	3.31	3.26
Knowledge	3.74	3.77	3.68	3.54

Source: Computed Data

Table 22: The interaction effect of gender across category of respondents

Dependent variables	F value	Sig.
Purpose of surfing	16.18	P = .0003
Knowledge	4.17	P = 0.5

Source: Computed Data

A significant F ratio of 6.57 indicates that the values on the dependent variables did not differ by chance and that the probability of .0004 exists for it to be actually false. A multivariate F value signified the interaction effect of gender and the categories of respondents. The student and non – student male and females users differed significantly in their perception about the Internet. The purpose of surfing and knowledge sought from Internet were significantly different for men and women student and non-student users. Rest of the functions like interpersonal

motive , psychological motive nature of medium and nature of surfing did not assume statistical significance as regards their difference among men and women users who were students and non – students.

Interaction effect: Place by category

The third pairs of variables are taken up for the interaction effect is the context of use of internet and the category of the respondents.

Table 23: Multivariate test of significance

Interaction effect	F value	Sig.
Place by category	30.66	P = .00004

Source: Computed Data

A student accessing Internet services in college would be different from a non- student user accessing the net from his workplace. Students and others differed significantly if they accessed Internet places. The context of access being a

significant factor in internet use interacted with the category of user to produce very significant effect on the dependent variables.

Table 24: of Means of dependent variables classified by category across place of access

Dependent variable/ Category of User	Student			Other		
	Place of access			Place of access		
	Home	Work	Cafe	Home	Work	Cafe
Purpose of surfing	3.10	3.21	3.42	3.64	2.73	3.78
Interpersonal...	3.63	3.37	3.51	3.85	3.33	3.03
Psychological motive	3.28	3.73	3.85	3.65	3.23	3.59
Nature of Medium	3.53	3.74	3.16	3.69	3.27	2.96
Knowledge	3.37	3.84	3.90	3.75	3.42	3.85
Nature of surfing	3.28	3.49	3.88	3.67	3.67	3.13

Source: Computed Data

Table 25: The interaction effect of place of access and category of respondents

Dependent variables	F value
Purpose of surfing	43.13
Interpersonal motive	17.65
Psychological motive	20.08
Nature of Medium	55.20
Knowledge	34.52
Nature of surfing	34.42

Source: Computed Data

Interaction of gender and category of the users affected all the dependent variables. Be it is the nature of surfing and the purpose of surfing, or browsing to gain knowledge or still to gratify the interpersonal and psychological motives – the fact remains that gender interacts with the context of use and effects significant changes in the values of the dependent variables.

Interaction effect: gender by place by Student

The gender (men, women) category of user (student, non student) and the place of access of Internet (home, workplace, cybercafé) were examined simultaneously if there was any significant effect on the dependent variables under study.

Table 26: Multivariate test of significance

Interaction effect	F value	Sig.
Gender by category by place of access	8.53	P = .0004

Source: Computed Data

A multivariate F value of 8.53 at .0004 indicated the interaction effect of all the three independent variables on the dependent variables.

Table 27: The interaction effect of gender, place of access and category of respondents

Dependent variables	F value	All F values significant at .0005 level
Purpose of surfing	8.47	
Interpersonal motive	14.43	
Psychological motive	6.32	
Nature of Medium	5.84	
Knowledge	16.45	
Nature of surfing	7.68	

Source: Computed Data

A non –student male respondent accessing Internet at cybercafé would be using the medium for a different purpose in comparison to that of a non- student male accessing Internet in workplace. Likewise, the interaction effect was evident in at least four of the six dependent variables under study. Purpose of surfing the net and the psychological motive for using the same were not influenced by the three –way interaction.

Table 28. Interaction of dependent variables accessing at home

Dependent variables	Men	Men	Women	Women
	Student	Other	Student	Other
Purpose of surfing	3.09	3.72	3.10	3.50
Interpersonal motive	3.60	3.83	3.67	3.87
Psychological motive	3.17	3.75	3.47	3.49
Nature of Medium	3.41	3.74	3.24	3.61
Knowledge	3.25	3.86	3.56	3.59
Nature of surfing	3.21	3.75	3.40	3.55

Source: Computed Data

Interpersonal motive for which Internet was accessed was significantly different in the way interaction of the independent variables.

Table 29: Interaction of dependent variables accessing at workplace

Dependent variables	Men	Men	Women	Women
	Student	Other	Student	Other
Purpose of surfing	3.06	2.80	3.39	2.59
Interpersonal motive	3.53	3.38	3.16	3.24
Psychological motive	3.73	3.25	3.74	3.19
Nature of Medium	3.67	3.34	3.84	3.14
Knowledge	3.95	3.42	3.70	3.43
Nature of surfing	3.59	3.69	3.38	3.64

Source: Computed Data

Perception about the nature of the medium was significantly different for men and women who were students and non students accessing in three different places. The information sought to be processed in the

Internet by the respondents was significant among the gender and category of respondent and the context of their use.

Table 30: Interaction of dependent variables accessing at cybercafé

Dependent variables	Men	Men	Women	Women
	Student	Other	Student	Other
Purpose of surfing	3.49	3.96	3.33	3.25
Interpersonal motive	3.41	3.13	3.63	2.75
Psychological motive	3.96	3.61	3.72	3.52
Nature of Medium	3.42	2.97	2.84	2.95
Knowledge	3.97	3.96	3.80	3.53
Nature of surfing	3.86	3.13	3.91	3.15

Source: Computed Data

Perception about the excitement and fun of browsing Internet was significantly different across all the independent variables.

These factors were also significant among those respondents who chose to browse or mail. The psychological motives like escapist fare, time filler and a means of relaxation were gratified by heavy and light users and mailers and surfers differently. The anxiety and satisfaction scores did not influence their psychological motives for which users browsed Internet.

Internet allowing exchange of words and pictures and that it expands possibilities of finding more and more options and provides a sense of credibility and status was agreed to generally by all respondents. Quantum of use, levels of satisfaction and anxiety did not differentiate their perceptions except the intervening variable called the preferred use of the net. Those who mailed and surfed differed in their opinion about the qualities of the net aforementioned.

Findings

The psychological motive dimension sought opinion like the net providing diversion from monotony, scope for escaping immediate reality, relaxing, giving a pleasant feeling and filling ones time. This dimension of the Internet use was agreed to positively by most respondents. Even in the workplace, e-mail use, was to fill time passing, diversion, and entertainment needs – the three motivators for computer use from the parse and Court right study’ –

Those who preferred to e-mail and those who wanted to browse had different views about the Internet and its uses. There were perceptible differences between the users who had dissimilar preferences. For net surfers with either preference, the medium satisfied their curiosity to learn and offered wider scope solutions. It aided their professional growth and it was an educative process in many ways.

But for the rest of the dimensions, there have been clear statistically significant differences to that those who browsed and mailed using Internet held distinctive viewpoints. Diversion from monotony, escaping from reality, relaxing while surfing, feeling pleasant and filling time was perceived differently by surfers and mailers. The interpersonal dimension of picking up conversation, establishing professional contact, and avoiding problems of face to face communication was also dealt with differently by people with different perceptions.

There have been significant differences between student and non- student users in the perception and use of Internet and the context of use of the medium i.e. among those who accessed it in home, workplace and cybercafé. The general findings are presented in accordance with the objectives stated earlier. Internet is being used widely by the respondents. Specific to research questions raised in the study the findings are revealing. Two categories of respondents were studied for their use and access pattern. As was hypothesized, their use markedly varied in both purpose and pattern. Their information seeking habit was distinct, evident from the significant mean differences. The

objective of the student going to the net was different from that of the non- student. The perception of entertainment by the students and non- students were different. The perception of the medium per se was very different for the two categories of users. The fact that the net gave them visibility was viewed differently by students and non-students users.

Internet is used by students and others for very different purposes. That the net provides that scope for finding better alternatives was perceived very differently by the two categories of users. Similarly browsing as a creative process was perceived very differently across categories. In terms of the access of the Internet medium, women for the first time in the history of medium diffusion have come on equal terms with men. No significant difference could be found as regards the quantum of usage of the net between men and women respondents. Neither could there be any difference in terms of access to the medium at home, in workplace and in cyber cafes.

In terms of the contest of use, students accessing Internet in academic institutions were more than the non students in their officers and institutions. At home, non students had a slight edge over the students. The preferred use of the Internet medium to either browse or to mail was through to influence the perception and utility of the medium. Except in certain cases, preferred use was not of any significance in altering the perceptions of the users.

Computer related anxiety and perceptions of satisfaction while computing were associated with the use and access of internet. In the analysis these two variables were treated as intervening variables and monitored for their influence on the nature and use of Internet. More than the satisfaction derived while using computer the anxiety related to the computers had a significant influence on their perceptions of the uses of the medium and the access to it. The aforementioned general findings of the study reveal the various facets of Internet as a mass medium and the perceptions of the people. The study raises several issues.

Conclusion

The mass media provided information about the world beyond ones primary contact. In the information age, the audience at the cost of primary contact establishes active links with the world beyond them. In fact , with internet there could be nothing beyond him. The study attempted to understand the initial users of the internet and its uses and gratificationa. As the medium is in its infancy, a cross section study revealed that the initial users were amazed by the advancement in the satellite communication and consequently in accessing and using internet.

Members of the sample differed their opinion on the

perception of the nature, function and utility of the medium. Students and other users held different views about the medium and what it can do to them. Similarly, men and women users put the internet to different uses. Computer related anxiety and the attainment of satisfaction while working in computers influenced their perception about the medium and its associated functions. The place of access of internet determined to a certain extent accessed and the gratifications sought. By developing the network in the country the system of governance would improve. The inherent nature of the medium would pave way for ensuring transparency of functioning and improving participatory democracy.

Implications for Development Agencies

The main concern for non- governmental organisations is to aid the government in taking development initiatives to the common man. Internet as a medium would enhance the reach of the agency to the people in distress. Information access would improve the nature and quality of support provided to the people in need. Information nowadays has become a key factor to the people both in power and those who are affected by it. Accessing and providing right information sometimes is crucial to speed up the process of working. Points to ponder would include in times of crisis such as a natural calamity ; when there is threat to peace and security of the region due to violence etc. Accurate information exchange would become crucial for restoration of normalcy and also to bring to book the culprits involved the activity.

Implication to other media:

With improvement in technology, this would subsume everything that comes by its way to improve the transmission and playback of text, sound and video. Internet is going to be the main news provider in the next century. All newspapers have their e-publications. All television channels have their web sites and provide 24 hour current events section. The ad-spend on the other media will have to be partitioned with the internet medium. Already crores of rupees are being spent by organisations to promote websites that should have gone to other media.

Implications for the government:

The government should build the necessary infrastructure and restructure and update the existing ones. For better reception and connectivity, basic data transmission lines will have to improve and modernise. Where individuals cannot afford internet connectivity, cybercafes at subsidised rates and net like radio rural forums and community receivers , by ensuring connectivity, the nation can plan for better information networking and improve governance.

Scope for Future Research

Internet opens up numerous avenues for future research. By redefining the medium of communication and rethinking about the concept of sending and receiving, research should begin by defining internet medium? Are we looking at internet as a mass or interpersonal medium? What is the efficacy of interpersonal transaction via a virtual internet communication? How are we going to deal with telepresence of the participants in a netchat group? What is the hyperpersonal nature of the medium? If communication through internet is impersonal and asynchronous, what are the advantages and limitations? How far is internet suited for development support communication? These are some of the research areas that need to be developed further and probed. By understanding internet as a mass medium, India could exploit the reach and nature and utilize it effectively for better governance marked by transparency, easy reach and speedier action.

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