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Study of Digital Divide: Measuring ICT gadgets owned and Utilization of Media studies students and teachers in Tamilnadu and Puducherry

V. Monika Hepzibah Pushpabai[1], D. Gomathi[2], S. Selvapandian[3]

[1]Department of Journalism and Mass Communication, Rani Anna Government College for Women, Tirunalveli, Tamilnadu

[2]Department of Journalism and Mass Communication, Thiru. Vi. Ka. Government Arts College, Thiruvarur, Tamilnadu

[3]Department of Visual Communication, S.D.N.B. Vaishnav College for Women, Chromepet, Chennai, Tamilnadu

ARTICLE HISTORY	ABSTRACT
	This paper reports on findings of a study conducted among over 1700 media studies students and teachers in Tamilnadu and Puducherry of India regarding measuring ICT gadgets owned and usage of the same for internet access. This study focuses on the scale, dimensions and reasons for existence of so called "Digital Divide". But it is found that media studies students as well as teachers are not at all having any problem in accessing Internet. The researchers found that even though all the college campuses are not having wifi connectivity still the individual students and teachers are having good internet access. The recent government scheme offering free laptops to all the government and government aided school students has made a remarkable change in accessing internet among media students in Rural and Suburban areas. Most of the colleges offering media courses are in urban areas. Both students and teachers in urban areas using mobile phones for internet access and all other gadgets have are used very less for internet access. Finally, from the above analyse and discussions it is very clear that there is no digital divide among media studies students and teachers in Tamilnadu and Puducherry. ***Key words:*** *Digital Divide, Internet, Media studies Students and Teachers*
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INTRODUCTİON

Digital divide describes the gap between people accessing and using ICT technology due to social, cultural and economic inequality. India is a multicultural, multi-lingual and multi-religion country with complex socio-economic as well as geographical conditions. Due to these reasons digital divide is more in India. According to Servon (2002) ICT includes fixed line telephones, mobile phones, radios, televisions, computers and internet access. In this research consider an ICT gadget means Personal Computers, Laptops, Smart Phones and Tablets. In Tamilnadu and Pondicherry, more than one hundred and sixteen institutions offer various courses in media studies. The under graduate courses are B.A. (Journalism and Mass Communication) , B.Sc (Visual Communication), B.Sc (Electronic Media), B.Sc (Visual Art) and B.Sc (Animation). The post graduate courses are M.Sc (Electronic Media), M.A (Communication), M.A. (Journalism and Mass Communication) and M.Sc.(Visual Communication). Some institutions and deemed universities offer these courses as five year integrated programmes. Research degrees are offered as M.Phil (Mass Communication), M.Phil (Journalism and Mass Communication) and M.Phil (Communication). Furthermore, Ph. D. programmes are also offered in the above given avenues. Hence,

the term media students and teachers mean the students and teachers of the above mentioned courses. This study is an attempt to find out how far the Digital divide split among students and teachers.

Objectives:
1. To understand the kind of gadgets used by media studies students and teachers for internet access.
2. The intention of the study is to find out whether there is any digital divide among Media studies students and teachers.

Review of Literature:
According to Cullen (2001)(p.311) was: "the gap that exists in most countries between those with ready access to the tools of information and communication technologies, and the knowledge that they provide access to, and those without such access or skills". Doh and Stough (2010, p.55) stated that the "... digital divide means the multidimensional inequalities in ICT access, usage capacity, and usage level at the individual, community, state, and global level". In the same vein Sidorenko and Findlay (2001, p.18) gave a more precise definition where "... information haves and have-nots represents the "digital divide". The digital divide can widen the gap between individuals advantaged by the Internet and those relatively disadvantaged by the lack of the Internet (Dada 2006; ITU, 2004; Reddi & Sinha, 2005; Willis & Tranter, 2006). 'The digital divide refers to the uneven distribution of information and communication technology (ICT) between and within nations.' (Evers and Gerke, 2005, p. 7)

MATERIALS AND METHODS
Quantitative survey method was adopted with the structured questionnaire in the study. Unbiased questionnaire is prepared to probe and to find out the opinion of the students and teachers about the digital divide. The media students and teachers in Tamilnadu and Puducherry form the universe of the study. 1700 respondents were participated in the research. Purposive sampling method is used to decide the sample. A questionnaire with open ended and close ended questions to media studies and the demographic factors of the students and teachers was prepared and distributed.

Data Analysis and Interpretation
Analysis of data is a general ways involves a number of closely related operations, which are performed, with the source of summarizing the collected data, organizing these in such a manner that they answer the research questions. The results obtained were classified, tabulated and the following analyses were performed in fulfilling the objectives of the study.

Description of demographic variables of the respondents
The table 4.1 shows the distribution of demographic variables of the respondents observed over the factors of "Age, Gender, Marital status, Parents / Spouse Occupation, Father Education level, Mother Education Level, Monthly Income". Regarding the *Age* the distribution shows that 19.65% of respondents were in the age group of Up to 18, 36.59% were in the age group of 19-20 years old, 18.00% were in the age group of 21-22 years old, 7.41% were in the age group of 23-24 years old and 18.35% were in the age group of above 24 years. Thus it can be interpreted that highest percentage of age group is 19-20 years.

Table: 4.1. Frequency and % regarding the demographic variables of respondents

		Frequency	%
Age	Up to 18	334	19.65
	19 – 20	622	**36.59**
	21 – 22	306	18.00
	23 – 24	126	7.41
	Above 24	312	18.35
Gender	Male	996	**58.59**
	Female	704	41.41
Locality	Urban	741	**43.59**
	Suburban	460	27.06
	Rural	499	29.35
Parents / Spouse Occupation	Private	591	**34.76**
	Government	261	15.35
	Business	276	16.24
	Professional	99	5.82
	Agriculture	114	6.71
	Daily wages	359	21.12
Family monthly Income	Up to 10,000	458	26.94

	10,001 - 20,000	438	25.76
	20,001 - 30,000	298	17.53
	Above 30,000	506	**29.76**
Mode of study	Regular	1636	**96.24**
	Distance Education	64	3.76
Designation	Student	1393	**81.94**
	Teacher	262	15.41
	Teacher cum Researcher	45	2.65
Discipline of study / Teaching	UG	1249	**73.47**
	PG	406	23.88
	Research (M.Phil / Ph.D)	45	2.65
Branch	Science	1263	**74.29**
	Arts	370	21.76
	Technical	67	3.94
Total		1700	100

Opinion about ICT gadgets owned:
The table 4.1 shows the distribution of ICT gadgets owned of the respondents shows that 31% of the respondents are Personal Computer (PC), 75% of the respondents are Laptop, 82% of the respondents are Smart Phones and 12% of the respondents are Palmtop /Tablet.

Table: 4.2. ICT gadgets owned

	No		Yes		Total
	N	%	N	%	
Personal Computer (PC)	1177	69	523	31	1700
Laptop	428	25	1272	75	1700
Smart Phones	306	18	1394	**82**	1700
Tablet	1491	88	209	12	1700

Out of the 1700 respondents 82% of them own smart phones.

Opinion about ICT gadgets used for Internet Browsing
The ICT gadgets considered under the study are "Personal Computer (PC), Laptop, Smart Phones, and Tablet". The distribution of ranks for the various factors assigned by the respondents was shown in the Table 4.3. The table 4.3 shows that regarding the ICT gadget **"Personal Computer (PC)"** 14% of the respondents' assigned rank one, 21% of the respondents assigned rank two, 38% of the respondents assigned rank three, 27% of the respondents assigned rank four. Regarding the ICT gadget "**Laptop**" 34% of the respondents' assigned rank one, 35% of the respondents assigned rank two, 21% of the respondents assigned rank three, 10% of the respondents assigned rank four. Regarding the ICT gadget **"Smart Phones"** 41% of the respondents' assigned rank one, 34% of the respondents assigned rank two, 21% of the respondents assigned rank three, 4% of the respondents assigned rank four.

Table: 4.3. ICT gadgets used for Internet Browsing

	Rank								Total
	1		2		3		4		
	N	%	N	%	N	%	N	%	
Personal Computer (PC)	235	14	357	21	652	**38**	456	27	1700
Laptop	582	34	592	**35**	363	21	163	10	1700
Smart Phones	694	**41**	570	34	365	21	71	4	1700
Tablet	189	11	181	11	320	19	1010	**59**	1700

Regarding the ICT gadget "**Tablet**" 11% of the respondents' assigned rank one, 11% of the respondents assigned rank two, 19% of the respondents assigned rank three, 59% of the respondents assigned rank four. The analysis shows that majority of the respondents' assigned rank three for the factor "Personal Computer (PC)". Towards "Laptop" majority of the respondents' assigned rank two, towards "Smart Phones" majority of the respondents' assigned rank One, towards "Tablet" majority of the respondents assigned rank Four. In order to identify the factor which is more influencing the respondent towards attitude the Garret Rank analysis was used and the results were given in Table 4.3a.

Table: 4.3a Garret Ranking – ICT gadgets that you use for Internet Browsing

	Mean	SD	Garret Score	Garret Rank
Personal Computer (PC)	**2.78**	0.99	46.18	III
Laptop	**2.06**	0.97	56.83	II
Mobile/Smart Phones	1.89	0.88	59.49	I
Palmtop /Tablet	**3.27**	1.04	38.51	IV

It could be noted from the above table that among the 4 ICT gadgets "Mobile/Smart Phones" was ranked first. It is followed by the "Laptop". "Personal Computer" was ranked third.

Opinion about Place of Accessing Internet

The Table 4.4 describes the distribution of the opinion about Place of Accessing Internet. The level of satisfaction was observed over the factors of "Home, Hostel, College Department /Class room/Library, Internet Browsing Centre / Café, KIOSK / Village Knowledge Centre, Mobile Data" are analyzed. It is clear from the table 4.3 that 4% of the respondents stated as never, 2% of the respondents stated as rarely, 20% of the respondents stated as sometimes, 12% of the respondents stated as often and 61% of the respondents stated as always accessing the Internet at '**Home'.**

Table: 4.4. Place of Accessing Internet

Place of Accessing Internet	Never		Rarely		Sometimes		Often		Always		Total
	N	%	N	%	N	%	N	%	N	%	
Home	74	4	42	2	337	20	211	12	1036	**61**	1700
Hostel	724	**43**	56	3	228	13	305	18	387	23	1700
College Department /Class room/Library	210	12	251	15	704	**41**	227	13	308	18	1700
Internet Browsing Centre / Café	498	**29**	453	27	373	22	157	9	219	13	1700
KIOSK / Village Knowledge Centre	987	**58**	146	9	282	17	112	7	173	10	1700
Mobile Data	-	-	33	2	434	26	801	**47**	432	25	1700

Regarding the place of accessing internet "**Hostel**" 43% of the respondents stated as never, 3% of the respondents stated as rarely, 13% of the respondents stated as sometimes, 18% of the respondents stated as often and 23% of the respondents stated as always.

Regarding the place of accessing internet "**College Department /Class room/Library**" 12% of the respondents stated as never, 15% of the respondents stated as rarely, 41% of the respondents stated as sometimes, 13% of the respondents stated as often and 18% of the respondents stated as always.

Regarding the place of accessing internet "**Internet Browsing Centre / Café"**29% of the respondents stated as never, 27% of the respondents stated as rarely, 22% of the respondents stated as sometimes, 9% of the respondents stated as often and 13% of the respondents stated as always.

Regarding the place of accessing internet "**KIOSK / Village Knowledge Centre**" 58% of the respondents stated as never, 9% of the respondents stated as rarely, 17% of the respondents stated as sometimes, 7% of the respondents stated as often and 10% of the respondents stated as always.

Regarding the place of accessing internet "**Mobile Data**" 2% of the respondents stated as rarely, 26% of the respondents stated as sometimes, 47% of the respondents stated as often and 25% of the respondents stated as always. It is clear from the table 4.4that majority of the respondents stated as Never with the place of accessing internet of "Hostel, Internet Browsing Centre / Café, KIOSK / Village Knowledge Centre", Sometimes with the place of accessing internet of "College Department /Class room/Library", often with the place of accessing internet of "Mobile Data", always with the place of accessing internet of "Home".

In order to identify the place of accessing internet which is more influencing the respondent towards Place of Accessing Internet the Friedman's test analysis was used and the results were given in Table 4.4a. It could be noted from the table that among the 6 place of accessing internets "Home" was ranked first. It is follow by the "Mobile data", "College Department /Class room/Library" was ranked third.

Table 4.4a Friedman Test- Place of Accessing Internet

Place of accessing internets	Mean	SD	Mean Rank	Reliability
Home	4.23	1.12	**4.85**	
Hostel	2.75	1.66	3.17	
College Department /Class room/Library	3.10	1.22	**3.48**	
Internet Browsing Centre / Café	2.50	1.34	2.84	0.650
KIOSK / Village Knowledge Centre	2.02	1.39	2.26	
Mobile Data	3.96	0.77	**4.40**	

FINDINGS AND CONCLUSIONS

It is found that media studies students as well as teachers are not at all having any problem in accessing Internet. The researchers found that even though all the college campuses are not having wifi connectivity still the individual students and teachers are having good internet access. The recent government scheme offering free laptops to all the government and government aided school students has made a remarkable change in accessing internet among media students in Rural and Suburban areas. Most of the colleges offering media courses are in urban areas. Both students and teachers in urban areas using mobile phones for internet access and all other gadgets have are used very less for internet access. Finally, from the above analyse and discussions it is very clear that there is no digital divide among media studies students and teachers in Tamilnadu and Puducherry.

LIMITATIONS

In this study the diploma programmes students are not considered.

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