

Media Usage by Filipino Students – An Empirical Survey

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Abstract: Between the different traditional learning tools and the rapid rise of technology and ease of access to them, students are presented with a multitude of avenues for learning. With so many resources available, students have to learn to be selective. By finding out what tools and services students use the most, this research aims to determine how students avoid information overload and getting lost in cyberspace. To do this, a survey was carried out at the Ateneo de Manila University in Manila, Philippines. Using a print questionnaire, 942 students were asked 145 questions about their media usage for learning and related topics. Analysis of the data included analysis of variance and comparing mean values by creating rankings of the different media services. It was aimed to find out what services are used the most, and to what extent. The results showed that students are more inclined to use online resources such as Google, online course material and literature, though there is still great appreciation for traditional learning media such as books and printed handouts from teachers. Filipino students seem to prefer self-learning, whether through traditional or non-traditional means, rather than learning through social media.

Keywords: Media, media use, higher education, e-learning, information overload, learning media, web 2.0, information science

1. Introduction

In their article, Khe Foon Hew and Thomas Brush conclude that, despite how helpful the use of technology is to student learning, its use is affected by six barriers, two of which are institution, and attitude and beliefs (Hew and Brush, 2007, p.223). Such things as the school's timetabling structure and planning, and the teachers' attitudes and beliefs towards technology, they say, can cause the underuse of technology. As a result, its impact may not be as transformative as policy makers and educators assert. While this point is debatable, it does compel us to examine how students do indeed make use of their technology resources. Are these being maximized? Are they used to support critical thinking, analysis, and active learning? Do they support meaningful interactions between teachers and students, or are they used mainly for socialization or information dissemination?

Between the different traditional learning tools, the rapid rise of technology, and the ease of access to it, students are presented with a multitude of avenues for learning. With so many resources available to them, disorientation is natural. Information overload is a "state of affairs where an individual's efficiency in using information in their work is hampered by the amount of relevant, and potentially useful, information available to them" (Bawden and Robinson, 2009, p.182). It has been found to lead to stress and physical illness (Edmunds and Morris, 2000, p.18). Students therefore have to be selective in the choice of their resources in order to perform efficiently.

In his study, Ruff enumerates five main factors that can contribute to causing information overload (Ruff, 2002, p.6). Among the five is technology, which he says plays a significant role. Technology "not only helps to create content information, it also gives us access to vast amounts of it (Ruff, 2002, p.7)." He counts email, intranets, extranets, and the Internet as major sources of information overload. More recently, a number of other major sources have come out such as

social networking sites like Facebook and Twitter, smart phones and mobile applications, and instant messengers.

Among the different per-factor solutions Ruff presented in mitigating information overload, one he proposed is to “spend more time and money improving user ability to operate technology fully and successfully (as opposed to buying more and better technology) (Ruff, 2002, p.11)”. It is therefore important to see which forms of tools and technology students find most helpful, which ones they prefer to use, and which ones they find most satisfying in order to inform and direct technology investments in the university.

2. Objectives

The purpose of this media survey was to explore and measure the use of media for learning among students at the Ateneo de Manila University (ADMU). The following questions about Filipino undergraduate students were of interest:

- Which services are often used and to what extent?
- How satisfied are students with the different media services?
- Which media services are accepted by the students, and which are not?
- How do the preferences of ADMU students compare to those from another university?

3. Theoretical Model

Media are seen as technologies supporting and extending communication, while information can be seen as a special (asymmetrical) form of communication. Media acceptance, in the context of this survey, is considered to be a special form of technology acceptance and is an indicator for the quality of media use from a subjective point of view of the students (See Figure 1). As no absolute assessment of this quality is possible, media quality is to be evaluated by measuring the acceptance of as many media services as possible, which are relevant for studying and comparing the results.

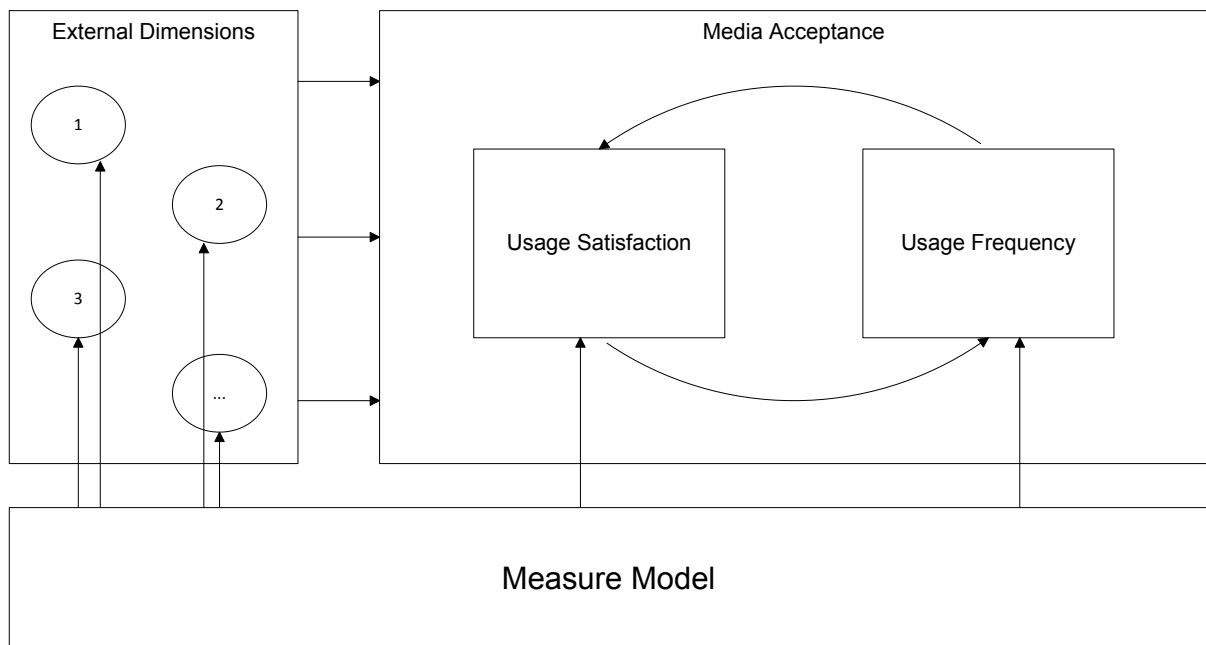


Figure 1. Model of media acceptance (Grosch, 2011)

While media acceptance itself is seen as the dependent dimension, the external factors that possibly influence usage are understood to be independent dimensions. All these dimensions have to be specified in a certain measuring model and survey instrument in an additional step. A total of eight dimensions were defined. The central dimension “media use for studying” was

operationalized in usage frequency and satisfaction variables of 53 media services (106 variables; print, computer and online media). The central dimension “acceptance of media” is represented in the right square above and the external dimensions are placed in the left field in the theory model. They contain the following dimensions and amounts of variables:

- Use of media for leisure (8 Items)
- Educational biography (4 Items)
- Study performance (2 Items)
- Socio-demographic variables (4 Items)
- Media skills (6 Items)
- Learning behavior (8 Items)
- Access to media (9 Items)

4. Methods

The survey used the methodology developed during the Karlsruhe Institute of Technology (KIT) media survey in 2009, which was then again used in the Mahidol University International College (MUIC) media survey in 2012 (Grosch and Gidion, 2011). In this survey, the acceptance of 53 media services was measured, also by creating a mean average of both usage frequency and satisfaction.

4.1 Population and Sampling

The population under study was composed of 942 college students of the Ateneo de Manila University (ADMU), spread out almost evenly across all year levels. The breakdown is as follows: 22% freshmen, 25% sophomores, 29% juniors, and 24% seniors. All four schools of the ADMU were almost equally represented. The distribution of respondents per school is as follows: 22% from the School of Humanities, 31% from the School of Social Sciences, 23% from the School of Management, and 24% from the School of Science and Engineering. Survey questionnaires were handed out over the summer and first semesters of school year 2012-2013.

4.2 Instrumentation

The research team made use of the paper-based survey questionnaire designed to gather data regarding the ADMU college students and their media service usage. The questionnaire was based on the survey developed by Grosch and Gidion during the KIT media survey in 2009 (Grosch and Philips, 2012, p.65). Two sub-sections were of main concern to this paper: the frequency of use of each media service, and the satisfaction of using each media service. The other sub-sections that were of interest were the student’s educational background and personal data, patterns of media service use, and media service literacy. For the questions on frequency of use, the scale was from “Never” (0) to “Very often” (5). For questions on satisfaction, the scale was from “Very unsatisfied” (0) to “Very satisfied” (5). All questions had an “I don’t know” option, which was tantamount to a “Not applicable”.

4.3 Routing of the Questionnaire, and Gathering of Results

When the questionnaire was finalized, the research team went from class to class of the sample population, and handed out the surveys. The respondents were given about 10 to 15 minutes to complete the questionnaire, upon which they were immediately collected.

4.4 Analysis

Once the answered survey questionnaires were gathered, the results were tabulated using an appropriate statistical software package. The analysis included the following:

- A. The profile of respondents
 - General demographics
 - Patterns of media service use
 - Media service literacy
- B. Media service acceptance
 - Frequency of media service usage
 - Satisfaction of media service

A total of 942 questionnaires were collected. The database was edited by changing the labels, transcoding values, and creating additional variables. Following the theory concept of media service acceptance, the variables “usage satisfaction” and “usage frequency” were merged into a media acceptance variable $((\text{Value}_{\text{usage frequency}} + \text{Value}_{\text{usage satisfaction}})/2)$.

5. Results

Of the 942 students surveyed, 56% were male and 44% were female. Their ages ranged from 15 years to 24 years, with mean of 18 years of age. It is interesting to note that such an age range for university students is possible in the Philippines because basic education previously only required 10 years of education: 6 in elementary and 4 in high school. So if a student began elementary at the age of 5, he’d only be 15 by the time he entered university. 94% of the respondents were Filipino. The mean year level of the students was second year college and in their undergraduate studies. The respondents had high levels of skill in the use of digital media services such as presentation software, spreadsheet, and word-processing software. They were adept at Internet searching. In their free time, activities with highest means are Facebook, YouTube, reading books, and watching TV. Respondents also preferred to study and do research on their own, on their computers and over the Internet rather than at the library or in groups.

The usage frequency and satisfaction values were used to calculate media acceptance ranking of the surveyed media services. The questionnaire for the 53 services asked both “how often do you use the following services for study?” and “how satisfied are you with the following services for studying?” See Table 1 for the top 10 media services, and Table 2 for the bottom 6 media services based on their calculated media acceptance.

The results show strong inclination towards Google search and having Internet connections at home for being most accepted media services in terms of studying, followed by a student’s personal Notebook/Netbook, printed handouts and online slides from teachers, and other self-learning tools and resources. More alternative learning methods such as less used social networks, mobile phones, tablets, and mobile applications showed very low acceptance values, receiving acceptance means ranging from 1.50 to 2.00. The difference gaps between frequency of use and satisfaction of the most accepted media services are very minimal, which would mean that ADMU students prefer using services they are satisfied with, rather than services they are simply obliged to use.

Table 1: Top 10 media service usage of Ateneo de Manila University students.

Media Service	Acceptance				Frequency				Satisfaction			
	Rank	M	SD	N	Rk	M	SD	N	Rk	M	SD	N
Google search	1	3.62	0.56	708	1	3.64	0.80	787	1	3.52	0.73	708
Internet at home	2	3.53	0.68	723	2	3.58	0.85	793	2	3.46	0.87	723
Notebook/Netbook	3	3.27	0.95	688	5	3.14	1.31	787	3	3.28	1.00	692
Printed handouts from teacher	4	3.26	0.75	702	3	3.23	0.99	790	5	3.23	0.92	702
Online slides from teacher	5	3.24	0.73	695	4	3.16	1.01	786	6	3.21	0.90	695
Working with own notebook on campus	6	3.17	0.84	612	13	2.69	1.43	781	4	3.24	0.92	612

Campus Wi-Fi	7	3.11	0.86	642	9	2.80	1.35	786	9	3.10	1.05	642
E-mail account not from university	8	3.08	0.87	533	14	2.64	1.49	771	16	2.94	1.08	533
E-books	9	3.05	0.84	653	10	2.76	1.24	788	10	3.09	1.00	653
Print-version textbooks	10	3.04	0.85	701	7	2.88	1.11	787	8	3.12	0.98	701

Table 2: Bottom 6 media usage of Ateneo de Manila University students.

Media Service	Acceptance				Frequency				Satisfaction			
	Rank	M	SD	N	Rk	M	SD	N	Rk	M	SD	N
Mobile phone	48	2.00	1.18	605	28	1.55	1.44	791	45	2.22	1.27	607
Tablet computer	49	1.98	1.27	496	39	1.16	1.47	774	37	2.36	1.31	500
E-learning as part of the class	50	1.96	1.00	515	29	1.48	1.28	748	46	2.21	1.18	538
Mobile apps for learning	51	1.84	1.15	483	40	1.12	1.30	771	48	2.18	1.28	488
Google+	52	1.59	1.24	400	44	0.84	1.31	769	53	1.81	1.39	408
E-book reader	53	1.50	1.10	414	48	0.62	1.12	770	51	2.06	1.31	419

The results are similar to the Mahidol University International College (MUIC) 2012 survey results (Grosch and Philips, 2012) in that Google search, printed handouts from teachers, personal Netbooks, and email were among the top ten most accepted media services. The rankings of the most accepted services differ after that. See Table 3 for the top 10 comparative results.

Table 3: Comparative results of the ADMU 2012 and MUIC 2012 surveys.

Media Service	ADMU, PH	MUIC, TH
	Rank	Rank
Google search	1	1
Internet connection at home	2	*
Notebook/Netbook	3	5
Printed handouts from teacher	4	2
Online slides from teacher	5	14
Working with own notebook on campus	6	18
Campus Wi-Fi	7	15
E-mail account not from university	8	6
E-books	9	25
Print-version textbooks	10	13

* Not included in the MUIC 2012 survey

6. Summary

The purpose of this paper was to determine which media services Ateneo de Manila University (ADMU) students prefer (operationalized as acceptance of use, frequency of use, and satisfaction of use), how accepted these media services were among them, and how their preferences compare to those of students from the Mahidol University International College (MUIC). We found that Google search, the Internet, portable computers, online slides, on-campus wi-fi, and online lecture notes were most accepted by ADMU college students. It is interesting to note that printed media—handouts and textbooks—still rank in the top 10 most accepted media services. This implies that the technology infrastructure of ADMU is used largely for information dissemination and literature searches. This may be explained by the fact that ADMU is still a traditional university in which students and teachers meet at regular times, face-to-face. There are

opportunities, though, to use these technologies to support complex learning through learning software, e.g. simulations and games.

There were a few similarities between ADMU and MUIC students. Google search, printed handouts, and their own personal Netbook computers were among the most accepted media services among MUIC students, much like their ADMU counterparts. However, print versions of textbooks, and working with personal notebooks on campus were less accepted by MUIC students. These findings seem to point to differences in available infrastructure. ADMU's support for notebook computers might be more satisfying than that of MUIC. In this regard, MUIC might benefit from more investments in on-campus mobility support. On the other hand, ADMU might invest even more on on-campus wi-fi. ADMU might also consider partnering with hardware vendors to help students avail of student pricing for acquiring their own mobile devices. Finally, ADMU may be able to use its resources to further support learning by investing in more subject-specific learning software.

Acknowledgements

We thank Marc Lester Armenta, John Paul Contillo, John Boni Corpuz, and Michelle Macalinao for assisting with the data gathering. We also thank the Department of Information Systems and Computer Science, the Ateneo Laboratory for the Learning Sciences, and the Office of International Relations for their support.

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