

# Home Media Technologies: Implications for Academic Achievement of University Undergraduates

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## Abstract

Home media technologies enhances teaching and learning, promotes better understanding of methods and improves academic achievement. Many students rely on computers and this has increased the rate of collaboration for students, teaches them skills they need for survival in the business world. How can parents mitigate the negative aspects of home media while improving upon the positive results? Moderating the access to home media is one excellent method. Amount of time students spend on social network sites needed to be reduced. Parents should provide ample time for face to face social interaction, like family leisure time in which they should discuss their studies. Social media does more harm than good in youths and adults' alike, many of them spend most of their time on facebook, snap chat, T.V among others. Cybercrime affects the academic achievement and the development of nations. It is productivity killing, getting folks addicted, loss of attention or having partial attention, which limits peoples' ability to focus and do quality work. The result shows, among others that, students' addictiveness to home media technology affect their academic achievement.

**Keywords:** Influence, home media, technology, achievement, undergraduate

## **1. INTRODUCTION**

In recent years, home media such as television, radio, and computers have been used extensively for various reasons by large user groups. University undergraduates use TV, radio, and computers for entertainment, communication, and education, among others. Over the past few years, due to improvements in technology, television, radio, and computers and other similar technologies have become cheaper and more sophisticated. That is why households are both able and willing to buy TV, radio, and computers for their children. They expect to give them the chance to become advanced television, radio, and computers users [1]. [2] stated that not only is the number of computers in education growing exponentially, but also the number of Mobile phones, Smart Phones, Palmtops, Laptops, 3G iPhones, Wikis (online databases), Mass shared storage devices, Lecture CDs DVDs, Flash disks, Wi-Fi SD cards, Portable TV Recorders, Webcams, Handheld projectors, eBook Readers, television, radio, and computers in the home is growing at a rapid rate. Despite the increase in the number of TV, radio, and networks and other related technologies, everyone does not have the same entry to these techniques: Media availability alters depending on such matters as child's age, gender, class/ethnicity, family socioeconomic state, and so forth [1]. The economic level of the countries might also influence the availability of media for university undergraduates either at school or home.

Information and Communication Technologies are transforming home and school environments by influencing the way university undergraduates live as well as the way they learn. Technology devices usually meant for entertainment in the homes has consciously and unconsciously turned into powerful learning tools. The technologies that are particularly relevant in this respect are those who provide ample medium for sourcing educational information and also for communicating with teachers and educational resource persons or fellow students. These home and personal entertainment tools now have mobile, portable features that make them usable by university undergraduates anywhere they are within or outside homes. They come with text, voice image, and Home media capabilities; also, they have interconnectivity and interoperability features [3].

Notable among these devices is the Personal Digital Assistants (PDAs) and Mobile Hand Held Devices. The PDAs are shirt pocket-sized devices equipped with computer capabilities, [4]. Their distinguishing features include having a touch-sensitive screen, a pen styles input interface, customizable application buttons, and a multi-way (button or mini joystick) navigator to browse information on the screen [3]. Mobile phones now also include such sophisticated features as text and image exchange, built-in cameras, mass storage, Home media access, and networking. Another category of devices include those used for Backup and Archiving such as simple flash disks and rewritable compact Disks, DVDs, and memory cards. A recently web-based tool that

has also been used very significantly for educational purposes is the Wiki. These according to [3] are interlinked WebPages based on the hypertext system for storing and modifying information. Devices used as educational presentation tools may also be employed by university undergraduates to create images that show or showcase their thinking ideas expertise and knowledge [3]. Of greater significance are those that enable student's access to learning materials beyond traditional classroom and libraries. The availability of books in digital form (eBooks) has provided university undergraduates with opportunities for mobile reading, and this affects their academic achievement.

Use of media in line with the constructivist theory of learning has been associated with higher achievement, higher motivation, positive student-student and student-teacher relationships and more positive attitudes towards the discipline of study [3]. The use of Backup/Archiving, Capture/Transfer media technologies enhance this collaborative learning relationship through such activities as online authoring and editing of learning instruments. Also in line with Schema theory of learning [5]. The opportunity for university undergraduates to engage in self-reflection and assessment of own learning activities, will enable them to construct their mental model of learning subjects. This is achievable through the use of recording, replay and representation media.

Using television, radio, and computers promote children's visual attention because some applications require users to keep track of or regulate many activities at the same time. [5] also stated that computer games have positive impacts on students. Children are not only opened to technology at home but also at school by new learning and communications technologies (ICT). Due to producing new computers and related technologies, schools are in need of new technology plans and designs. According to [6], Teachers in many countries are beginning to use ICT to help change classroom teaching and training, and are integrating technology into the curriculum. Therefore, it is necessary to develop strategies for university undergraduates to use computers efficiently and other advanced home media communication technologies that can help them to improve their academic achievement [6]. [7] Argued that university undergraduates who have available computers at home and in the library have higher levels of understanding economics as a subject. [6] Found in their study that university undergraduates who were using home media 1 hour per day had better math scores. [6], stated that television, radio and computer use for math was linked with reducing the performance gap among different diverse backgrounds. It is clear that there might be many factors affecting university undergraduate academic achievement. Technology is one of these constituents; that is why it is essential to explore how we can explain university undergraduates' academic achievements by looking at the use and accessibility of computers and related technologies, as suggested by [8].

Academic excellence or achievement plays an important role in an individual placement, be it in the academic institutions or job placement. Due to this, many people are concerned with the ways they can enhance their academic achievement. The emphasis on academic excellence which is also prevalent worldwide has encouraged many studies about the conditions promoting it. The role of academic performance as one of the predictors of one's life success and even in the aspect of educational placement in schools to higher institutions as well as the level of employability in one's career is inevitable [9]. Academic achievement, which is measured by the examination results, is one of the primary goals of a school. [10], argued that schools are established with the aim of imparting knowledge and skills to those who go through them and behind all this is the idea of enhancing excellent academic achievement. Academic achievement or achievement is the outcome of education, the degree to which a student, teacher or institution has achieved their educational goals. Educational attainment is regulated through tests or continuous evaluation, but there is no consensus on whence it is best tested instead which aspects are most relevant, procedural knowledge such as experiences or declarative learning such as facts [10]. It appears that home media technology has affected university undergraduates' academic achievement since most of them spend their time in watching television, Videos, etc. Hence the problem of this study is what is the influence of home media technology on university undergraduates' academic achievement?

### **1.1 Theoretical Underpinning**

[11], propounded social construction of technology (SCOT)/ the proponent of this theory argue that technology does not define a human action, but human action shapes technology. Present undergraduate students prefer fun over studies, and the most common way of getting it is through media technology, this has hampered much on the academic achievement of students.

Actor-network theory (ANT) - post a heterogeneous network of humans and non-humans as same interrelated actors. It attempts for impartiality in the description of human and non-human actors and the integration of the natural and social worlds. For example, [12], argue that instead of worrying whether we are anthropomorphising technology we should include it as inherently anthropomorphic: technology is made by human's substitutes for the actions of human and shapes human activity. What is important is the chain and gradient of actors' work and competencies and the degree to which we choose to have figurative representation. Here it is expected that we should not allow home media technology to take over our studies because if we do, it will affect our academic achievement.

System theory [13] consider the historical development of technology and media with an emphasis of inertia and heterogeneity, stressing the connection between the artifact built and the social, economic, political and cultural factors surrounding it. Fundamental concepts include; reverse salient when elements of a system lag in development concerning others, differentiation, operational closure, and autopoietic autonomy. The above theory implies that what we have should not constitute failure in our future endeavours instead it should be a success in our academic achievement.

Media richness theory [14], posits that the amount of information communicated differs concerning a medium richness. The method assumes that resolving ambiguity and reducing uncertainty is the primary goals of communication. Home media technology acts as a second teacher that will help to remind student what they were taught by their teacher at home hence its relevance of home media to student academic achievement in university

## **2. PURPOSE OF THE STUDY**

The main purpose of this study is to assess the influence of home media technology on university undergraduates' academic achievement. The study specifically sought:

1. To examine the level of student addictiveness to home media technology,
2. Identify the types of Home media technology that university undergraduates use for academic achievement,
3. To find out the effects of using Home media technology on the university undergraduates academic achievement, and
4. Identify the limitations of using Home media technology, in university undergraduates' academic achievement.

## **3. RESEARCH QUESTIONS**

The following research questions guided the study:

1. What are the levels of university undergraduates' addictiveness to home media technology?
2. What are the types of Home media technology that university undergraduates use for academic achievement?
3. What are the effects of using Home media technology on the university undergraduates' academic achievement?
4. What are the limitations of using Home media technology on university undergraduates' academic achievement?

## **4. METHODOLOGY**

### **4.1 Research Design**

This study adopts the survey research design. Survey design is explained by [15], as a procedure used in obtaining information from a sample or related population that is accustomed to the ideas relating to the objectives of the study. In the opinion of [16], survey design is one who studies large or small population by selecting and analyzing (sample) data collected from the group through the use of a questionnaire, telephone or personal interview. The design is therefore appropriate for this study as it intends to obtain data using questionnaire from university undergraduates and teachers.

### **4.2 Area of the Study**

The field of this study is Faculty of Education at Ebonyi State University, Abakaliki. It is located at Ikelagu Ishieke, in Ebonyi Local Government; it has an area of 305km<sup>2</sup>. It has shared a boundary with three communities which include Idembia, Edomia, and Enyibuchiri. Faculty of education is made up of seven departments which include Business Education, Educational Foundations, Science Education, and Human Kinetics/Health Education, Art/Social Science Education and technology and vocational education. The researchers chose this university because of the influence of home media technology undergraduates' academic achievement.

### **4.3 Population of the Study**

The population of the study comprises two thousand and sixty-seven university undergraduates of the faculty of Education. Which is as follows; Arts and Social Science eight hundred and fifty-two, Business Education two hundred and eighty-six, Educational Foundations three hundred and seventy, Home Economics twenty-six, Human Kinetics one hundred and forty-nine, Science Education two hundred and forty-one, and Technology and Vocational Education (TVE) one hundred and forty-three. The total population of the university undergraduates in the faculty of education is two thousand and sixty-seven [17].

### **4.4 Sample and Sampling Techniques**

Simple random sampling techniques were used to draw the sample size from the seven departments as follows;

Arts And Social Science Education 10% of 852 = 85.2, Business Education 10% of 286 = 28.6, Educational foundation 10% of 370 = 37, Home Economics 10% of 26 = 2.6, Human Kinetics 10% of 149 = 14.9, Science Education 10% of 241 = 24.1, and

TVE 10% of 143 = 14.3. The reason for using 10% is for equal representation. Therefore, the sample size is 206 University undergraduates.

#### 4.5 Validation of the Instrument

The instrument was validated by one expert each from Measurement and Evaluation, Arts and Social Science Education and Home Economics Departments in Ebonyi State University. The reliability coefficient of 0.87 was obtained using Cronbach Alpha coefficient indicating high reliability.

#### 4.6 Method of Data Analysis

Research questions were responded on individual item basis using mean and standard deviation. The items that scored 2.50 and above are accepted while items that scored below 2.50 were rejected as a decision rule.

### 5. RESULTS

Research question 1: What are the level of student's addictiveness to home media technology and the influence on their academic achievement?

**Table 1:** Response on the level of student's addictiveness to home media technology

ITEMS No..	The level of student's addictiveness to home media technology	$\bar{x}$	SD	Remark
1	Addiction to online social networks is a problematic issue that affects students' academic life	2.59	0.65	Agreed
2	Online social networks distract university undergraduates studies	2.71	0.77	Agreed
3	Hours spent on home media technology can never be compared to the number of hours university undergraduates spend on reading.	2.59	0.65	Agreed
4	University undergraduates who are addicted to Face booking fail their exam	2.59	0.65	Agreed
5	University undergraduates who are addicted to TV program find it difficult to read their book	2.57	0.64	Agreed

6	Addiction makes student face book in class during lecture	2.53	0.63	Agreed
7	University undergraduates who are addicted to music find it difficult to concentrate	2.55	0.63	Agreed
8	University undergraduates who are addicted to watching films forget themselves	2.50	0.62	Agreed
9	Some student spend time on night calls don't stay in classroom	2.57	0.64	Agreed
10	University undergraduates who addicted to home media play game even on the road	2.53	0.63	Agreed
<b>Grand Mean</b>				<b>2.57</b>

Table 1 reveals that, items 1-10 are the level of student's addictiveness to home media technology. **Research Question 2:** What are the types of Home media technology used by university undergraduates?

**Table 2: Response on the types of Home Media Technology used by university undergraduates**

ITEMS No.	Types of Home Media Technology used by university undergraduates	$\bar{x}$	SD	Remark
11	Personal Digital Assistants (PDA) such as /related devices, Mobile phones, Smart phones, Palm tops, Lap tops, and 3G iPhones.	2.50	0.62	Agreed
12	Backup and archiving such asMemory cards, Wikis (online databases), Mass shared storage devices, Lecture CDs DVDs, and Flash disks	2.57	0.64	Agreed
13	Capture and Transfer such as Wi-Fi SD cards, Portable TV Recorders, Audio recorders, Video recorders, and Webcams	2.53	0.63	Agreed
14	Presentation Tools such asMedia player, Hand held Projectors, Holographic Projectors, Tablets and eBook Readers	2.59	0.64	Agreed



15	Television and Radio	2.71	0.67	Agreed
16	Tablets	2.59	0.64	Agreed
17	Holographic Projectors	2.59	0.64	Agreed
18	eBook Readers	2.57	0.64	Agreed
19	Home threat	2.53	0.63	Agreed
20	VCD machine	2.55	0.63	Agreed
<b>Grand Mean</b>				<b>2.61</b>

Table 2 reveals that items 11-20 are the types of Home media technology that university undergraduates use for academic achievement

**Research question 3:** What are the effects of using Home media technology on the university undergraduates’ academic achievement?

**Table 3:** Response on effects of using Home media technology by university undergraduates

ITEMS No.	Effects of using Home media technology by university undergraduates	$\bar{x}$		Remark
21	The usage of Wikipedia for research has helped improve academic achievement	2.59	0.64	Agreed
22	Engaging in academic forums on yahoo reduces university undergraduates rate of understanding	2.57	0.64	Agreed
23	materials gotten from blogging Sites to complement lecturers materials for university undergraduates study	2.53	0.63	Agreed
24	Home media help university undergraduates in further research	2.55	0.63	Agreed
25	Home media educate student on other areas of study	2.50	0.62	Agreed
26	Home media sometimes cause student low performance	2.59	0.64	Agreed

27	Home media distract university undergraduates from reading their book	2.71	0.67	Agreed
28	Home media effect university undergraduates attendance to school	2.50	0.62	Agreed
29	Home media makes university undergraduates to lose concentration on the class	2.57	0.64	Agreed
30	Some home media effect university undergraduates memory	2.53	0.63	Agreed
<b>Grand Mean</b>			<b>2.55</b>	

Table 3 reveals that items 21-30 are the effect of using Home media technology on the university undergraduates' academic achievement

**Research Question 4:** What are the limitations of using Home media technology on the university undergraduates' academic achievement?

**Table 4:** Response on limitations of using Home media technology

ITEMS No.	Limitations of using Home media technology	$\bar{x}$		Remark
31	The devices were difficult to set up for use	2.83	0.70	Agreed
32	Activation/registering of the devices with the digital rights managing body is difficult or impossible	2.75	0.68	Agreed
33	The devices operate with different and incompatible file formats	2.95	0.73	Agreed
34	Some digital books (eBooks) expire too soon	3.11	0.77	Agreed
35	Finding and downloading relevant digital content is difficult	2.77	0.69	Agreed
36	Power failure	2.79	0.69	Agreed
37	Some of them are difficulty to use	2.82	0.70	Agreed
38	You cannot use some of the home media without a teacher	2.51	0.62	Agreed

39	Most of them are not educative therefore parent avoid their children from using them	2.67	0.66	Agreed
40	High cost of home media technology	2.85	0.71	Agreed
<b>Grand Mean</b>		<b>2.81</b>		

Table 4 reveals that items 31-40 are the limitations of using Home media technology on the university undergraduates’ academic achievement

### 5.1 Findings

University undergraduates are addicted to home media technology and this influence their academic achievements.

The types of Home media technology used by university undergraduates affect their academic achievement. The use of Home media technology by university undergraduates affectstheir academic performance. The method of Home media technology shows that there are limitations in university undergraduates' academic achievement

## 6. DISCUSSION

In research question 1, the level of university undergraduates' addictiveness to home media technology and this influence their academic achievement. The results shows that item 1-10 have a mean score above 2.50 meaning that, the respondents agreed that addiction to online social networks is a problematic issue that affects students' academic achievement. Online social networks distract university undergraduates in their studies. The number of hours spent on home media technology can never be related to the number of hours, University undergraduates spend in their take-home assignments and examinations. Most university undergraduates who are addicted to Face booking fail their exam, and this affects their academic achievement as no one can eat his/her cake and have it back. University undergraduates who are addicted to TV program, Snapchat, Twitter, Instagram and video games among others find it difficult to read their books or focus in class, addiction defocusses them in class during lecture as they pursue chaff instead of substance. Students who are addicted to music find it difficult to concentrate, university undergraduates who are addicted to watching films forget themselves, some student spend time on night calls, they don't stay in the classroom. University undergraduates who addicted to home media play the game even on the road with the mean score of 2.83, 2.75, 2.95, 3.11, 2.77, 2.79, 2.82, 2.51, 2.67 and 2.85. This is in line with [18]who stated that Information and

Communication Technologies are transforming home and school environments by influencing the way university undergraduates live as well as the way they learn. Technology devices usually meant for performance in the homes has consciously and unconsciously turned into powerful learning tools [18]. The technologies that are particularly suitable in this respect are those who provide ample medium for sourcing educational information and also for communicating with teachers and educational resource persons or fellow students [18]. These home and personal performance tools now have mobile, portable features that make them usable by university undergraduates anywhere they are within or outside homes. They come with text, voice image, and internet capabilities. Also, they have inter-connectivity and interoperability features.

Research question 2 discusses the types of Home media technology that university undergraduates use for academic achievement. The findings show that items, 11-20 has the means score above 2.5, indicating that the respondent agreed that Personal Digital Assistants (PDA) such as /related devices, Mobile phones, Smartphones, Palmtops, Laptops, and 3G iPhones, Backup and archiving such as Memory cards, Wikis (online databases). Mass shared storage devices, Lecture CDs DVDs, and Flash disks, Capture and Transfer such as Wi-Fi SD cards, Portable TV Recorders, Audio recorders, Video recorders, and Webcams. Presentation Tools such as Media player, Handheld Projectors, Holographic Projectors, Tablets and eBook Readers, Television and Radio, Tablets, Holographic Projectors, eBook Readers, Home threat and VCD machine. This is in line with [19], stated that access to technology such as personal computers and laptops had made the boundary between work time and family time more permeable than ever. As a result, individuals have the opportunity to do their paid work at home. In turn, this increases the time spent together, communication and social interaction between one another. On the other hand, however, this can also mean that individuals are distracted into the separate world of technology, which demands their attention. This can have an adverse impact on social interaction within a household as well as provide individuals with the opportunity for shared activity within the home.

Research question 3 discusses the effect of using Home media technology on the university undergraduates' academic achievement. Table 3 shows that items, 21-30 have a mean score above 2.50, indicating that the respondent agreed that, the usage of Wikipedia for research has helped improve academic achievement. Engaging in educational forums on yahoo reduces university undergraduate's rate of understanding. Materials got from blogging Sites to complement lecturers materials for university undergraduates study, help Students in further research. Home media educate the student in other areas of education, Home media sometimes cause low student performance as a result of distraction because of much time devoted to home media instead of reading their books. Some home media technology affects Students'

memory. This is in line with [20] studied technology has affected the lives of a household in some different ways and has become a basis for future social behavior [19]. The submersion of new media technologies into society has led to a significant social development which has indicated that individuals, families, and households have had to adapt in some ways. Social change as the process by which alteration occurs in the structure and function of a social system; one of the primary impacts that it has had, is on that of social interaction and the communication between family members and between individuals in a household.

Research question four discussed the limitations of using Home media technology in regular academic achievement. The findings show that item 31-40 have a mean score above 2.50 indicating that the respondents agreed that the use of Wikipedia for research has helped to improve the academic achievement of students. Engaging in educational forums on yahoo reduces university undergraduates rate of other areas of study, home media sometimes cause low student performance. Home media distract university undergraduates from reading their book because while surfing the internet, a nude advert pops out thereby defocussing the student's attention from studying which becomes a trivial issue. Home media affect university undergraduate's attendance to school; home media makes university undergraduates to lose concentration on the class and some home media affect the university undergraduate's memory. This is in line with [19]studied the Technology within the home has many benefits for a household and a family and it has changed the meaning of family over time. New media technologies have created new prospects for individuals within a home by enhancing different patterns of social interaction, access to information, and allocation of time.

### **6.1 Educational Implication**

From the results obtained after the analysis of data, it has been observed that the findings have far-reaching implications.

Home media technology has a lot of implication on the educational system; it makes the university undergraduates learn on their own, however makes them absent from classrooms leading to poor academic achievement of university undergraduate. The implication here is that student devotes most of their time in watching television, playing video games and this affects their academic performance.

## **7. CONCLUSION**

The findings of this study show that the university undergraduates who are addicted to home video technology end up achieving very low or nothing at all as they become a nuisance to the society contributing to cybercrimes. This research work has also

revealed that the level of student's addictiveness to home media technology and the influence on their academic achievement, the types of Home media technology that university undergraduates use affect academic performance.

Therefore, there is the need for school authority to look into the significant challenges of the use of home media technology on university undergraduates.

## RECOMMENDATIONS

The following recommendations were made:

The university authority should keep up to date lecture attendance, any student who does not have 75% lecture attendance should not be allowed to write semester examination.

Assignments should be given on daily basis as this will not allow university undergraduate get addicted to home video technology.

As a matter of importance, the University authority should emphasize any student who did not score up to 2.00 as the cumulative grade point should be made to repeat.

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