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A study of availability and utilization of library electronic resources by undergraduate students in private universities in Ogun State, Nigeria

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The degree of availability and utilization of e-resources in any university library may influence the information services provision to students. The main objective of the study was to investigate the availability and utilization of e-resources by undergraduate in selected private university libraries in Ogun State, Nigeria. Descriptive survey design was adopted and the study population consisted of 9700 undergraduates from Babcock and Redeemer's universities. Simple random sampling was used to select a sample of 291 and the questionnaire was the main instrument used for data collection. Data were analyzed using SPSS specifically descriptive statistics consisting of tables of frequency and percentage. The findings revealed that the Internet was readily available in Babcock (83.5%) and Redeemer (92.8%), while other e-resources were not readily available. Most of the respondents in Babcock (64.0%) and Redeemer (89.1%) used the e-resources for assignment and research/project. Poor Internet connectivity, lack of relevant e-resources in various disciplines, erratic power supply, and lack of technical know-how were the major challenges faced by the respondents. The Internet and e-journals are important sources of information for both universities undergraduate students. Also, the availability and use of e-resources has no doubt contributed meaningfully to the information acquisition for class work, assignment and research needs of the students.

Key words: Availability, utilization, library, electronic resources, undergraduate students, private universities.

INTRODUCTION

Universities are established primarily to support and cater for teaching, learning and research activities of parent institution. University students visit the libraries in order to retrieve accurate, adequate, relevant and current information in electronic resources form for effective and efficient teaching, learning and research work. Library

users include undergraduates, postgraduates' information professionals, staff and other researchers from outside the university community who intend to use the library. The undergraduates are expected to read further after class instructions to collect relevant information for class assignments, seminars, term papers, dissertations, thesis

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and projects. This information could be retrieved from the electronic resources in the library.

The undergraduates of university library need information to satisfy their social and psychological needs to promote and enhance their academic pursuit during their course of study in the university. The purpose of the university libraries is to provide adequate and relevant information resources both in print and non-print formats. The print information resources like journals, textbooks, magazines, newspapers and reference materials and non-print like CD-ROM, audio-visual materials, microfilms, micro fiches, databases and e-resources are to support class assignments, project work, term papers seminar presentation by providing relevant information and services provision for effective and efficient achievement of academic excellence. According to AACR2, in Weitz (2006) an electronic resource is: "Material (data and/or program(s)) encoded manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet). Huge amount of money is spent on e-resources in many university libraries (Bhat, 2009). Furthermore, many Nigerian university libraries spend a great proportion of their annual budget on e-resources for the provision of accurate and timely information for better educational per excellence.

The level of availability and utilization of e-resources in any university library may influence the information services provision to students in that library. Adedeji (2000) noted that the level of e-resources available to any university library and the degree of use to which they are put determine the information services delivery of the library. However, e-resources when available and skillfully used, influence information services provision by making them more meaningful. Efforts have been geared towards the provision of e-resources such as e-journals, e-book, CD ROM databases, and on-line databases in Nigerian private university libraries. These resources are provided in order to improve the information services in private universities; hence the quality of education depends on the level of availability and utilization of the e-resources (Adedeii, 2000).

Library users are a variable influencing the use of eresources in a university. It is reasonable to assume that the more the users use the library, the more familiar they will be with its resources, including its electronic resources. However, if a library user uses the library primarily as a quiet and convenient place to study, they may not be aware of its resources at all, as compared to the one who never visits the library. Several studies have shown that users use the library mostly as a place to study and make photocopies and use the e-resources to provide accurate and timely information (Whitmire, 2001). The introduction of electronic information resources into the library has no doubt brought about paradigm shift in

the information services provision. This is evident in the way people now seek for and use information (Manda, 2006). People do not really have to come to the library physically before they can make use of the resources. However, in spite of these huge advantages of eresources, a number of factors or obstacles still serve as impediments to the utilization of these e-resources by the library users. These include irregular power supply, poor network connectivity, inadequate funding, lack of expertise, lack of technological infrastructure to support the services, as well as poor IT skills, to mention but a few (Manda, 2006).

Ka (2005) recommended that university libraries play an importance role in complimenting research by funding, provision of facilities and dissemination of information. University libraries do not just acquire books and journals and offer space for student learning, but they also provide systematically digitized information which helps in prolonging the life span of the school information. University libraries, as they become more and more digitized, will play an important role in offering a greater support service for young professors and doctoral as well as undergraduates which will help in the development of their academic careers.

Aguolu and Aguolu (2002) opined that availability should be viewed from both national and instructional levels. They attribute the lack of availability of information sources to the steady proliferation of universities in Nigeria: federal, state, and private, along with increases in students and faculty, and the diversification of courses and academic and research programmes, without adequate information sources to meet the actual and information needs. They identify obstacles to the development of adequate information sources. Aguolu (2002) also posited that Nigerian universities are in different stages of e-resources development, availability and use.

According to Aguolu and Aguolu (2002), resources may be available in Nigeria university libraries and even identified bibliographically as relevant to one's subject of interest, but the user may not be able to lay hands on them. One may identify citations in indexes, but may not have access to the sources containing the relevant articles. The more available and accessible e-resources are the more likely they are to be used.

A study conducted by Marama and Ogunrombi (2000) confirmed high unavailability of library and information science (LIS) collections in most Nigerian university libraries, which had a negative effect on the use of information sources in the libraries studied. The librarians cannot conduct quality research and get published, and library students cannot even use library services. The authors recommended that at least 5 percent of the book budget be set aside for LIS information sources. The study, though limited to LIS, can be generalized to other subject areas. A similar study by Okiy (2000) showed an unavailability rate of only 7.5%. Iyoro (2004) found that

availability of serials at the University of Ibadan was 94 percent, with 242 of 256 respondents agreeing that serial publications are available and readily accessible.

Aguolu and Aguolu (2002) noted that availability of an information source does not necessarily imply its accessibility, because the source may be available but access to it is prevented for one reason or the other e.g access combination. Availability of relevant e-resources affects how frequently scholars use them (Eason et al., 2000). The provision of e-resources varies among disciplines and is mostly available in science and medicine and least in social sciences and humanities (Borgman, 2000).

There have been many studies on use and users of e-journals in the professional literature in some years back. In a recent exhaustive review of the literature on the subject that is e-journals, Tenopir (2003) analyzed the results of over 200 studies of the use of e-resources in libraries published between 1995 and 2003. The main conclusion of the studied review was that e-resources have been rapidly adopted in academic areas, though the behavior varies according to the discipline or subject area.

Ojo and Akande (2005) in a survey of 350 respondents examined undergraduates' access, usage and awareness of e-resources at the University College Hospital (UCH) Ibadan, Nigeria. The study shows that the level of usage of the e-resources by undergraduates is not high. According to them, major problem however identified is lack of information retrieval skills for exploiting e-resources, thus making the level of usage of resources by medical students very low.

Gakibayo et al. (2013) opined that the merits of electronic resources over printed ones include the following: speedy access, ease of use, ability to search multiple files at a time and ability to access documents from outside the university library to mention but few. The author further lamented that for students to utilize the growing range of electronic resources they must acquire and practice the Information Technology (IT) skills necessary to exploit them.

Jagboro (2003) had also emphasized the emerging reliance and attitude of users to e-resources. In a study she conducted in some Nigerian University libraries, it was revealed that 45.2% of undergraduates accessed e-resources from cybercafés. Though this attitude, according to her is due to the proximity of cybercafés to user facilities. Fatoki (2004) investigated the impact of library resources and the Internet among undergraduate students in Ibadan and found that 65% of the respondents use the Internet for research work while 35% do not use the Internet for research work. Her findings also indicated that 72% of students preferred to use the university library's Internet services, 35% the cybercafé, and 5% neither.

This study was therefore, designed to investigate the availability and use of library e-resources by undergra-

duate students in selected private university libraries in Ogun State, Nigeria.

Objective of the study

The objectives of the study are to:

find out the types and levels of availability of e-resources to undergraduates in the selected private university libraries in Ogun State; identify the purpose of use of e-resources by undergraduates in the selected private university libraries in Ogun State; find the level and frequency of utilization of e-resources by undergraduates in the selected private university libraries in Ogun State and find out the challenges to the utilization of e-resources by undergraduates in the selected private university libraries in Ogun State.

RESEARCH METHODOLOGY

The survey research design was adopted for this study and the target population consisted of two private Universities in Ogun State, Nigeria: Babcock and Redeemer University. There were 7,500 library users in Babcock and 2,200 in Redeemer respectively which gave a total of 9,700 respondents. Simple random sampling technique was employed to 225 respondents from Babcock and 66 respondents from Redeemer universities giving a total of 291. The questionnaire was the major instrument used for the data collection. Data collected was analyzed using SPSS specifically descriptive statistics such as tables, frequencies and percentages.

RESULTS AND DISCUSSION

A total of two hundred and ninety one (291) copies of the questionnaire were administered to respondents in both Babcock and Redeemer Universities. Two hundred and twenty five (225) copies were administered to Babcock University, out of which 200 copies were duly filled and returned giving a response rate of 88.9%. For Redeemer University, 66 copies were administered to the respondents in Redeemer University and 55 copies were duly completed and returned giving 83.3% response rate. Thus, the overall response rate was 87.6%.

Table 1 revealed that majority of the respondents 93 (46.5%) in Babcock University were in their 400 level of study while most of those in Redeemer University 17(30.9%) were in 200 level. The least of the respondents 11(5.5) were in 100 level in Babcock and 9(16.4%) in Redeemer. Also, 105(52.5%) of the respondents in Babcock and 32(58.2%) in Redeemer were males while 95(47.5%) in Babcock and 23(41.8%) in Redeemer were females. Most of the respondents 78(39%) in Babcock were between 22 and 24 years of age while majority of those in Redeemer 26(47.3%) were between 19 and 21years of age. The age range that had the least number of respondents in both universities was less than 16 years of age. The analyses also revealed that majority

Table 1. Demographic characteristics of the respondents.

		Babo	cock	Rede	emer's
Variable		N	%	N	%
	100	11	5.5	9	16.4
Level of study	200	28	14.0	17	30.9
	300	53	26.5	14	25.5
	400	93	46.5	15	27.3
	500	15	.5	-	-
	Male	105	52.5	32	58.2
Sex	Female	95	47.5	23	41.8
	Less than 16years	3	1.5	1	1.8
	16-18	24	12.0	12	21.8
Λαο	19-21	70	5.0	26	47.3
Age	22-24	78	39.0	13	23.6
	25-27	16	8.0	3	5.5
	Above 27	9	4.5	-	-
	Christianity	1.79	89.5	44	80.0
Religion	Islam	19	9.5	11	20.0
	ATR	2	1.0	-	-

Table 2. Availability of Electronic Resources by Undergraduates.

		Bab	cock		Redeemer						
Floatmania Bassumasa	Ava	ilable	Not A	vailable	Ava	ilable	Not Available				
Electronic Resources	N	%	N	%	N	%	N	%			
E-Journals	93	46.5	107	53.5	1	32.8	37	67.3			
E-Books	83	41.5	114	57.0	20	36.4	35	63.0			
CD-ROM	65	32.5	130	65.0	13	23.7	47	27.3			
Online databases such as AGORA, HINARI, ERIC, JSTOR, OARE, etc.	66	33.0	126	63.0	17	30.9	38	69.1			
OPAC	91	45.5	101	50.5	18	32.8	37	67.2			
Internet	167	83.5	29	14.5	51	92.8	4	7.2			

of the respondents in Babcock were in their final year, while most of the respondents in Redeemer were in 200 level. It was also shown that respondents in Babcock were a little older than those in Redeemer.

Types and level of availability of e-resources to users in the selected private university libraries in Ogun State

The study established the types and level of availability of e-resources to users in both private university libraries in Ogun State. Table 2 shows that the Internet was more readily available in Redeemer with 92.8% response rate than in Babcock library with 83.5% response rate. The least available e-resources was CD-ROM in Babcock university with 65(32.5%) response rate while e-journal was the least e-resources available in Redeemer with

1(32.8%) response rate. This corresponds with Monopoli, et al.'s study (2002) who reported two third of the respondents (69.5%) in the University of Patras, Greece, favoured the electronic version over the print to read a journal article.

Purpose of using the e-resources by undergraduate's in the selected private university libraries in Ogun State

The study intended to examine the purpose of use of the e-resources in the private university libraries in Ogun State. Table 3 reveals that most of the respondents in Babcock and Redeemer libraries used the e-resources for assignment with 128(64%) response and 49(89.1%) respectively, while the least of the respondents 30(15%) in Babcock and 18(32.7%) in Redeemer reported that

Durmana	Babo	cock	Red	eemer
Purpose	N	%	N	%
Assignment	128	64.0	49	89.1
Research/Project	111	55.5	31	56.4

23.5

15.0

21.0

32

18

48

58.2

32.7

87.3

Table 3. Purpose of Use of E-Resources by undergraduates.

47

30

42

Table 4. Level of Use of E-Resources by undergraduates.

Term Paper

Class work

Seminar

	Level of use													
			Bab	cock										
Electronic Becoures	High		Average		Low		High		Average		Low			
Electronic Resources	N	%	N	%	N	%	N	%	N	%	N	%		
E-Journals	28	14.0	101	50.5	63	31.5	9	16.4	27	49.1	19	34.5		
E-Books	27	13.5	99	49.5	66	33.0	5	9.1	27	49.1	22	40.0		
CD-ROM	18	9.0	86	43.0	88	44.0	2	3.6	26	47.3	27	49.1		
Online Databases	92	46.0	82	41.0	18	9.0	18	32.7	30	54.5	7	12.7		
OPAC	28	14.0	81	40.5	82	41.0	5	9.1	23	41.8	26	47.3		
Internet	130	65.0	52	26.0	13	6.5	48	87.3	6	10.9	1	1.8		

they used the e-resources for seminar in the university libraries. This supports the finding of Naushad and Nisha (2011) who reported that more than 60% of users in the Central Science Library in India were using e-journals weekly for the purpose of research, teaching and learning.

Level and frequency of utilization of e-resources in the selected private university libraries in Ogun State

The study examined the level and frequency of utilization of the e-resources in the selected private university libraries in Ogun State. Table 4 shows that majority of the respondents from Babcock 130(65%) and Redeemer 48(87.5%) indicated that there was a high level of internet utilization, while 101(50.5%) and 27(49.1%) respondents from Babcock and Redeemer respectively reported that the level of utilization of e-journals was average. Also, only 18(9.0%) respondents from Babcock and 7(12.7%) respondents from Redeemer revealed that online databases utilization was very low in university libraries. This present findings corroborated the findings of a study by Sathe et al. (2002) that undergraduates and medical students at Cornell University preferred electronic journals to print.

The majority 84(42%) of the respondents from Babcock University used the internet on daily basis, while only 15(7.5%) of them used the e-journals on daily basis, and most of them 78(39.0%) never used the CD-ROM (Table 5). For Redeemer's University, less than half of the

respondents 22(40%) used the internet on daily basis, while most of them 42(76.4%) used the online databases occasionally and only 2(3.6%) of them used the OPAC once a week.

Challenges to the utilization of e-resources by undergraduates' users in the selected private university libraries in Ogun State

The study identified the challenges of e-resources in the selected private university libraries in Ogun State. Table 6 indicates that majority of the respondents in Babcock 145(75.5%) and Redeemer 46(83.6%) were faced with the problem of poor internet connectivity. Also, the problem of inability to access the available electronic database was faced by the respondents from both Babcock 103(51.5%) and 32(58.5%) from Redeemer, while only few of the respondents from Babcock 78(39%) and 10(18.2%) from Redeemers disagreed with mal-function of the computer and to access e-resources respectively. However, lack of assistance from the library staff and lack of ICT skills were some of the barriers to the use of eresources which were found to be more peculiar to the respondents in Redeemer than Babcock. This was affirmed by Olatokun (2009) who found that level of education had the strongest influence on the capability to use personal computer and computer with Internet services by different categories of people including students, with the respondents having less education being more disadvantaged in using the facilities.

Table 5. Frequency of Use of E-Resources by Undergraduate in Babcock University.

Frequency of use of Electronic Resources	Daily		Once a Week		Twice a week		Twice monthly		Once a month		Occasion- ally		Never	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
E-Journal	15	7.5	17	8.5	17	6.5	6	3.0	15	7.5	73	36.5	52	26.0
E-Book	16	8.0	18	9.0	15	7.5	7	3.5	11	5.5	64	32.0	59	29.5
CD-ROM	11	5.5	7	3.5	16	8.0	9	4.5	14	7.0	55	27.5	78	39.0
Online Databases	19	9.5	21	10.5	19	9.5	11	5.5	12	6.0	70	35.0	40	20.0
OPAC	16	8.0	11	5.5	19	9.5	8	4.0	3	1.5	61	30.5	74	37.0
Internet	84	42.0	25	12.5	27	13.5	6	3.0	4	2.0	47	23.5	1	5.0

Frequency of Use of E-Resources by Undergraduate in Redeemer University

Electronic	Daily		Once a Week		Twice a Week		Twice monthly		Once a month			asion- ally	Never	
Resources	N	%	N	%	N	%	N	%	N	%	N	%	N	%
E-Journal	-	-	3	5.5	2	3.6	1	1.8	3	5.5	30	54.5	15	27.3
E-Book	-	-	2	3.6	-	-	1	1.8	5	9.1	32	58.2	14	25.5
CD-ROM	-	-	-	-	2	3.6	-	-	-	-	35	63.6	17	30.9
Online Databases	1	1.8	1	1.8	-	-	3	1.5	4	7.3	42	76.4	3	5.5
OPAC	-	-	2	3.6	4	7.3	1	1.8	4	7.3	11	20.0	32	58.2
Internet	22	40	11	20.0	14	25.5	4	7.3	-	-	3	5.5	-	-

Table 6. Challenges to the use of e-resources by undergraduates.

	Babo	cock		Rec				
Challanges	Agre	e	Disa	gree	Agr	ee	Disagree	
Challenges	N	%	N	%	N	%	N	%
Poor internet connectivity	145	75.5	49	24.5	46	83.6	9	16.4
Lack of relevant electronic resources in my discipline	105	52.5	86	43.0	39	70.9	16	29.1
Difficulty to access	95	47.5	95	47.5	38	69.1	17	30.9
Erratic power supply	115	57.5	75	37.5	42	76.3	12	21.9
No assistance from the library staff	78	39.0	113	56.5	34	61.8	21	38.2
Costly to access and use	64	32.0	129	64.5	35	63.7	20	36.3
Lack of technical know-how	88	44.0	102	51.0	34	61.8	21	38.2
Lack of training and support of staffs and users	103	51.5	89	44.5	33	60.0	22	40.0
Inability to access the available electronic database	103	51.5	87	43.5	32	58.2	22	40.0
Technological constraints	101	50.5	88	44.0	28	50.9	27	49.1
Lack of ICT skills	82	41.0	110	55.0	37	67.3	18	32.7
Social factor	96	48.0	92	46.0	31	56.3	23	41.8
Malfunction of the computer and access to e-resources	115	57.5	78	39.0	45	81.8	10	18.2

Conclusion

The availability and utilization of e-resources is a sine qua non to information acquisition by undergraduate students in the university libraries. The e-resources, particularly the Internet and e-journals are important sources of information for the university undergraduate students in Babcock and Redeemers Universities. This is evident in the study as the students continuously used these resources for various activities like assignments,

research/project, term paper and class works usually on daily basis and sometimes.

The study also concluded that the Internet was readily available in the university libraries. In addition, respondents from both university libraries affirmed the Internet was highly utilized and the level of utilization of e-journal was average. Moreso, the Internet and e-journal were used on a daily basis, OPAC was used once a week and CD-ROM was never used as indicated by the respondents.

The availability and use of e-resources has no doubt contributed meaningfully to the information acquisition for class work and research needs of the students. It is therefore important to note that as undergraduate students, there is always the need to consult and use the e-resources for information, academics and research needs.

Finally, the respondents identify challenges encountered while using the e-resources, some of which are: poor Internet connectivity, lack of assistance from the library staff and lack of ICT skills, erratic power supply as well as malfunction of system were some of the problems faced by the respondents.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study;

- More relevant, adequate and up-to-date e-resources should be made available to the library users at all times to satisfy their information needs.
- Efforts should be made by the university administrators and library management to improve on the bandwidth and enhance the internet connectivity so as to enable the students has easy access to online e-resources.
- 3. Level of awareness of the availability of e-resources should be increased to the library users.
- 4. Trained personnel should be on ground to assist the students in the use of the available e-resources in the university libraries.

Conflict of Interests

The authors have not declared any conflict of interests.

REFERENCES

- Adedeji SO (2000). Resources adequacy and academic performance in Osun State vocational secondary schools. Afr. J. Edu. Manage. 5(182):35-41.
- Aguolu ĆC, Aguolu IE (2002). Libraries and Information Management in Nigeria. Maidugujri: Ed-Linform Services.
- Bhat M (2009). Increasing the discovery and use of e-resources in university libraries. Retrieved March 25, 2011, from http://www.lnflibnet.ac.in/caliber2009/Calabar.PDF/6.7pdc:1-5
- Borgman CL (2000). From Gutenberg to the global information infrastructure: access to information in the networked world. Cambridge, MA: MIT Press.
- Eason K, Richardson S, Yu L (2000). Patterns of use of electronic journals. Journal of Documentation 56.5: 477-504.

- Fatoki OC (2004). Library automation in Nigeria: the Kenneth Dike Library experience, Lagos. J. Libr. Inform. Sci 2.2: 111-116.
- Gakibayó A, Ikoja-Odongo JR, Okello-Obura C (2013). Electronic information resourcesutilization by students in mbarara university library. Library Philosophy and Practice (e-journal). Paper 869. Available at http://digitalcommons.unl.edu/libphilprac/869
- Iyoro AO (2004). Serial availability, accessibility and utilization: perceptions of in-training information professionals in a Nigerian university. Niger. Libr. Link 11(2):66-71.
- Jagboro KO (2003). A study of Internet use in Nigerian Universities: A case study of Obafemi Awolowo University, Ile-Ife, Nigeria. First Monday Volume 8(2). Available at: http://dx.doi.org/10.5210%2Ffm.v8i2.1033
- Ka WF (2005). The role of university libraries in supporting research in Hong Kong: facing a new challenge. Campus-Wide Inform. Syst. 22(1):43-50.
- Manda PA (2006). State of ICTs in LIS curriculum in Tanzania. A paper presented at the IFLA workshop on Integrating ICTs in LIS curriculum in Africa. 21-23 November at Safari Court Hotel, Windhoek Namibia.
- Marama ID, Ogunrombi SA (2000). Availability of library and information science collections in Nigerian university libraries. Library Bulletin: Niger. Uni. Libr. Syst.1:2.
- Monopoli M, Nicholas D, Georgiou P, Korfiati M (2002). A user-oriented evaluation of Digital Libraries: Case study the electronic journals' service of the library and information service of the university of Patras, Greece. Aslib Proceedings. 54(2):103-117.
- Naushad Ali P, Nisha F (2011). Use of e-journals among research scholars at Central Science Library, University of Delhi. Collection Building. 30(1):53-60.
- Ojo RA, Akande SO (2005). Students access, usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria. Lagos J. Libr. Inform. Sci. 3.1: 16-24.
- Okiy RB (2000). Assessing students' and faculty use of academic libraries in Nigeria: the case study of Delta State University, Abraka. Frontiers Libr. Inform. Sci. 1(1): 65-75.
- Olatokun WM (2009). Analyzing socio-demographic differences in access and use of ICTs in Nigeria using the capability approach. Issues in Inform. Sci. Inform. Technol. 6:479-496.
- Sathe NA, Grady JL, Giuse NB (2002). Print versus electronic journals: a preliminary investigation into the effect of journal format on research Processes. J. Med. Libr. Asso. 90(2):235-243.
- Tenopir C (2003). Use and users of electronic library resources: an overview and analysis of recent research studies. Washington, DC: Council on Library and Information Resources Retrieved 12 July 2011 from http://www.clir.org/pubs/reports/pub120/pub120.pdf.html
- Weitz J (2006). Cataloguing electronic resources: OCLC-MARC coding guidelines.Retrieves 10 March 2014 from http://www.oclc.org/support/services/worldcat/documentation/cataloging/electronicresources.en.html