E-learning as an alternative to physical expansion?-Exploring the internet's potential as a platform for teaching Broadcast Journalism in a developing world context.

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Abstract

Modern communications technology and the changes they are bringing to personal interactions and societies at large compels educators to reassess their ways of teaching and learning. How then can journalism schools in technologically poor nations benefit from these technologies? In the early part of 2009 ten lecturers at the Ghana Institute of Journalism, GIJ, underwent training in delivering education on an e-learning platform, as a way of preparing the institute to offer its courses online. The lecturers, drawn from different departments were taken through a number of topics over a five month period and assessed online. Three out of the initial 10 dropped out for various reasons from busy schedule to inadequacies in the use of computers, five out of the remaining seven completed all assignments according to the schedule with the remaining two completing at a later date. The project was in collaboration with the Stockholm college of Sweden.

This experience has exposed GIJ to the challenges and promise of mounting a full scale course on an e-learning platform, especially in the light of inadequate physical facilities at the institute. Could this be the solution to the chronic infrastructural problems GIJ faces? The Ghana Institute of Journalism receives about one thousand applications for admission each year but is only able to admit about three hundred after a rigorous selection process. This is mainly due to the size of the institute, with a total student population of six hundred and fifty seven. What happens to the rest is unknown but it is fair to speculate that some at least end up at other journalism schools in the country. e-Learning thus presents the institute with the opportunity to enrol more qualified applicants than it is capable of at the moment.

For this to happen GIJ must confront the challenges it faces in equipping its self with the appropriate technology, retraining faculty in the use of ICT, reviewing its curriculum and overcoming an antiquated mindset that sees education only in terms of the physical presence of the teacher in the classroom.

This paper will assess the viability of using the e-learning platform to teach broadcast journalism- radio and television- at the Ghana Institute of Journalism within a developing world context of poor levels of ICT infrastructure and technological know how. It will also look at other tertiary journalism schools in the country and their preparedness for such teaching innovations in terms of technological infrastructure, curriculum and staff expertise.

The focus will be on the current curriculum and teaching methods utilised for radio and television journalism and how that might change when delivered on an online platform in terms of expectations from student and lecturer.

The paper will then discuss broadly the implications of delivering broadcast journalism education on an online platform for curriculum, teaching methods, admission procedures and requirements at the tertiary level in Ghana.

A combination of personal experience, reviews of curriculum of the journalism institutions, assessments of the infrastructure requirements and audits, interviews with students and lecturers plus classroom observations will form part of methods to collect information for this paper.

Introduction

The relevance of the internet as an information and communicative resource can not be doubted in our information age. It has networked the globe, transcending time and space and transformed social interactions. This can be seen in the uses to which the internet is put, from the speed of emailing, the regularity of chat and discussions from far flung corners of the world and the flourishing of e-commerce. The internet has also emerged as a viable and transformative platform for the delivery of journalism in the form of blog posts, pobcasts, and vodcasts, with social media platforms such as facebook, myspace and youtube, providing spaces for global networked communities from which information, knowledge and global organisation originates.

This information revolution wrought by the internet is also challenging traditional journalism forms in the shape of newspapers and magazines, radio and television. As more and more people on the move find accessing the internet for their information easier and convenient on their mobile phones and laptops, as age old print publications like the *Philadelphia Inquirer* and the *Philadelphia Daily News* go bankrupt and consider publishing solely online, the "generic and discursive instability that had been the model of journalism in the 20th century is fragmenting in the face of the unprecedented networked globalized and participatory media environment of the 21st century". This does not herald the death of journalism but its evolution. (McNair, 2009, p 347)

e-Pedagogy is a reality. The internet through e-Learning platforms is also increasingly providing the context within which learning is delivered and has brought home the reality of delivering education without the student entering a classroom. More and more educational courses are delivered solely online such as those offered by Elsevier and the African Virtual University, AVU. (<u>http://libraryconnect.elsevier.com</u>, <u>http://www.avu.org/home.asp</u>).

E-Learning lessons are provided as structured modular content with time lines and deadlines for completion. In addition to text, course content can also include audio and video or wikis plus links to other websites for further information. The model of distance education perhaps pioneered by the Open University in the United Kingdom in the late 1960's utilized television programmes, cassette recordings and hard copy course materials in addition to limited classroom lectures to deliver non residential education to students, but e-Learning takes that model a bit further by eliminating entirely the necessity for campus based classroom teaching and also increasing the frontiers for educational reception. In some instances however as a result of the uneven availability of telecommunications infrastructure, elements of traditional distance education arrangements combine with e-Learning arrangements to deliver

The increasing use of the internet and other modern communication technologies in modern life has led Kellner (2009) to call for new media competencies to equip people to engage fruitfully as citizens in the democracies of the future and the emergent global informational economy.

"Computer and multimedia technologies demand novel skills and competencies, and if education is to be relevant to the problems and challenges of contemporary life it must expand the concept of literacy and develop new curricula and pedagogies" (Kellner, date unkown, P5)

How such competencies are acquired demands a new type of relationship between the teacher and student and a rethinking of the purposes, outcomes and contexts of education which are very different from our contemporary understanding of Education. This simply requires that old methods of teaching and learning be reassessed, but what does old teaching methods entail? This "... *emphasizes submission to authority, rote memorization, and ... the "banking concept" of education in which learned teachers deposit knowledge into passive students, inculcating conformity, subordination, and normalization. These traits are becoming obsolete in a global postindustrial and networked society with its demands for new skills for the workplace, participation in emergent social and political environs, and interaction within novel forms of culture and everyday life.*

(Kellner, unknown, p2)

This is in sharp contrast to e-Learning and the new digital learning context which requires students to develop their own understandings far removed from the physical presence of the teacher in addition to having the skills to manage the technology. It demands of the student a level of academic independence and strong commitment to learning which traditional methods of teaching and learning do not encourage. e-Learning thus comes as a revolution in the thinking and delivery of education in the information age.

For the successful implementation of any e-learning programme though, the technological infrastructure needs to be in place and be reliable. This however cannot be assumed as a globally homogenous fact. In fact the infrastructure for accessing the

internet and the costs involved in doing so vary across the globe and are much more available, secured and relatively cheaper to acquire in the developed world than in the developing world. For example internet penetration rates in North America are 76.2% for a regional population of around 300 million people, that of Europe is 53.4% for a regional population of just over 800 million (www.internetworldstats.com). The developed world also have broadband internet connectivity delivering high speed multimedia internet services to web surfers.

By contrast the experience of the developing world particularly Africa is the very opposite of the developed world. Internet penetration rates on the continent stand at 4.8% for a continental population of nearly a billion people. In Ghana, which is the country in focus for this paper, the penetration rate is 4.7% for an estimated population of 23 million people (www.internetworldstats.com).

Part of the problem is the limited availability of ICT infrastructure in the country. Where they exist they tend to be concentrated in the big cities (Opoku-Dapaah E 2009). Then there is the problem of high illiteracy generally and computer illiteracy in particular found on the continent. Ghana has an illiteracy rate of 40%, in addition to this 65% of students entering university are not computer literate. (Awidi, 2008). Thus a veritable digital divide is created across the world between the haves and have nots and within Africa especially between urban and rural dwellers. How then can the internet's educational promise be realised in regions of the world struggling to catch up with the digital reality that beckons? Within the context of e-Learning what will be the infrastructural challenges to be overcome for universities in Africa generally and Ghana in particular to benefit? This paper explores the potential of using the internet

as an alternative to physical infrastructural expansion at the Ghana Institute of Journalism within the context of the ICT challenges the country faces. It will also look at the state of readiness at other Journalism training institutions in Ghana such as the African University College of Communications AUCC, and Jayee University College, Jayee, and ask how e-Learning can enhance their respective pedagogy. To achieve this, the broadcast journalism curriculum of the institutions will be reviewed to find out how that might look like on an e-Learning platform. In addition thirty students each from these institutions will be interviewed for their internet usage and their attitudes to classroom based learning and online learning. Finally audits of the ICT and internet infrastructure in these institutions will be conducted in addition to interviews with the respective systems administrators and lecturers for information on the requirements for an online platform for their institutions.

GHANA INSTITUTE OF JOURNALISM, GIJ

The Ghana Institute of Journalism was founded in 1959 as a tertiary institution to train and award diplomas in journalism, public relations and advertising by the late Dr Kwame Nkrumah, first president of the country. It was the first of its kind in the sub region and students came from a wide range of countries in Africa to study at the institute. Its educational status notwithstanding, the institute was placed under the ministry of information and its head was the equivalent of a director at the ministry. This situation meant that the institute was treated as a mere department of the ministry and thus its budgetary allocation came from the ministry which was paltry compared to those received by other such institutions under the ministry of education.

In the year 2001 the institute began a mentoring programme with the university of Ghana, Legon to award degrees in communication studies with public relations and journalism options. This was necessary because GIJ then did not have the capacity to award degrees. This changed in 2006 when the parliament of Ghana passed a law, The Ghana Institute of Journalism Act, ACT 717 to recognise the institute as a university and legally move it from under the jurisdiction of the ministry of information to the ministry of education. This was followed by a presidential charter empowering the institute to award its own degrees, diplomas and certificates. This is significant because being under the ministry of information meant GIJ was starved of vital funds for improvements in its infrastructure and teaching staff, whereas its new status makes it possible for GIJ to benefit from the GETFUND, a financing arrangement designed to improve infrastructure in educational institutions under the ministry of education. The institute has inhabited the same location since 1966 even though its mission has changed but current arrangements have renewed optimism in long held plans to construct a new campus for the institute.

The institute has 25 full time lecturers with a minimum qualification¹ of a masters degree in the relevant discipline. In addition to this are 10 part-time lecturers serving a student population of 657. There are two streams of programmes at the institute, the morning and evening diploma and the morning and evening² degree programmes. The institute also runs short courses on various communications subjects. In total diploma students number 333 whilst degree students number 324. The diploma is a two year course whilst the degree is a four course. Average class sizes in the diploma class are 60 for each class in the first year but combines to between 110-120 for the second

¹ The institute's statutes gives lecturers 6 years to complete their PhDs

² Top Up

year. The degree programme averages 50 students per stream throughout the four years of the course.

50 years of teaching has ensured that almost 70% of journalists, advertisers and public relations practitioners in the media industry are graduates of GIJ, and this has made it the most preferred institution for studying communications related courses at undergraduate level³. This is evidenced by the large numbers that continue to apply for admission to the Institute. However the inadequate physical infrastructure available means only a limited number of applicants can be admitted even when they have qualified.

On average GIJ admits around 300 students each year to pursue various courses in broadcast journalism, public relations and advertising at diploma and degree levels. This figure represents about 30% of the applications received which has been averaging around 900 a year. A major reason for the low admission figure is the limited space available. There are 7 rooms which serve as classrooms for the students. Four of these serve diplomas one and two each morning and evening. The remaining three serve the morning and evening degree programme.

To qualify for admission to University an applicant must have a maximum aggregate of 24 in six subjects taken in secondary school. This is made up of the core subjects of Mathematics, English, Integrated Science, Social studies plus two other electives chosen by the student (Addae-Mensah, 2010). Each institution will have their own cut-off point depending on the quality of the passes.

³ The School of Communications since its inception in 1973 has concentrated on postgraduate diplomas, masters and master of philosophy degrees

In the case of GIJ, applicants must pass an entrance examination in English⁴ before being invited for an interview. It is interesting to note that ICT or computer skills training is not part of the core course examined at secondary school level. This perhaps accounts for the high incidence of computer illiteracy among students entering universities and other tertiary institutions in Ghana.

Table 1: GHANA INSTITUTE OF JOURNALISMSTUDENT APPLICATIONS AND ADMISSIONS DATA

Year	No of	Qualified	Admissions	Degree	Diploma	Percentage
	Applications	Applicants				Admitted
2006	566	404	277	67	210	68.5%
2007	869	764	297	97	200	38.8%
2008	1093	799	322	97	227	40.3%
2009	1240	822	312	95	217	37.9%
2010	N/A	N/A	N/A	N/A	N/A	N/A

Source: GIJ Registry

The central question being posed here is what happens to those who are not admitted to pursue their dream courses at GIJ? A detailed empirical study could yield this answer but it is fair to speculate that some end up at the other journalism training institutions but still wish to study at GIJ⁵. Also can the institute continue on this path by admitting fewer and fewer students in the face of new competition⁶, weak internally generated funds, IGF, and government subventions?

⁴ Entrance exams will not be a criteria for admission in this year's selection but rather applicants must have a pass of C or better in English to be invited for an interview

⁵ Over the past three years the short course in broadcast journalism run at GIJ has attracted up to 50% of graduated and active students from other journalism institutions

⁶ Kwame Nkrumah University of Science and Technology, University of Cape Coast and University of Winneba have all announced the introduction of Communications courses.

How does the current ICT and internet infrastructure at GIJ look like? and most importantly is GIJ ready to use the internet to provide its courses on an e-learning platform? The management of GIJ have not announced any plans to introduce any of their courses online. Indeed the strategy being adopted seems to be to concentrate on acquiring a bigger campus to admit more students, but the challenges remain.

A World Bank study in 1995 revealed that the "higher-education sector in Sub-Saharan Africa had various problems related to access, finances, quality, internal and external efficiency, limited space and declining budgets"

(http://libraryconnect.elsevier.com/lcn/0603/lcn060304.html). It seems nothing much has changed since then. In fact regarding space in some instances, the situation can even be described as worse than in the 1990's. Some Universities in Ghana have over one thousand students studying a subject and have to cram themselves in lecture halls designed to accommodate four hundred people or less. This means Universities cannot continue to build their way out of the problem as Darkwa (2010) suggests. Perhaps part of the answer to these challenges could be in the internet's extraordinary capacity to deliver education wherever the student may be. The numerous actual examples of e-Learning with the internet serving as library, archive, and classroom for students and teachers alike, seems like an inviting alternative that can be harnessed to serve those who qualify but are not able to gain admission at GIJ and other universities.

JAYEE UNIVERSITY COLLEGE

Jayee University college began life as a post secondary secretarial training school in 1988. This later changed in the early 2000's to a tertiary institution providing training in business management and journalism. The institution is now a university college affiliated to the University of Education, Winneba, UEW, with full accreditation pending. There are two faculties, the faculties of business management and communications. There are about 25 lecturers but the vast majority are part-timers. The student population at Jayee number around 700 studying business management, and journalism at diploma and degree levels with the vast majority of students studying journalism. Applications to study journalism at Jayee have been rising steadily over the past few years.⁷ Class sizes at Jayee average 60 students for those on the journalism course.

Year	No of Applicants	No of Admissions	% Admitted
2006	285	109	38%
2007	310	144	46%
2008	421	236	56%
2009	505	395	78%
2010	N/A	N/A	N/A

Table 2: Jayee University College Applications and Admissions Data

Source: Registry, Jayee University College

⁷ In informational interviews with some students at Jayee nearly half had written the GIJ entrance exams and not been successful.

The aggregate for admissions into Jayee is currently pegged at the legal 24 with no entrance examinations but the registrar indicated in an interview there would be a review of admissions criteria for coming years.⁸

The broadcast journalism curriculum at Jayee combine theoretical concepts with hands on practical training. However there are no studios for conducting practical exercises in broadcasting so there is a heavy reliance on internship programmes to bridge that gap.

INTERNET INFRASTRUCTURE

The Ghana Institute of Journalism currently has 87 computers with dedicated broadband internet access. Of these 29 are available for student use with the breakdown as follows;

8 are located in a small section of the institute's library

14 are in the computer lab for audio and video editing, graphics and browsing5 in the audio-visual unit for video editing and packaging of audio-visual productions.2 in the Media centre.

The remainder are as follows 3 in the lecturer's common room and the rest for the administration staff. In addition to this there is an unsecured WiFi on the institute's campus. With a bandwidth of 256kb/s upload/download this is minuscule for a student population of 657. The monthly recurrent costs for this service is \$1,100, initial set up costs amounted to \$3000 with the link system router costing a further \$600.

⁸ AUCC had not granted access to their students or provided any information requested for this paper.

Technical support comes from two permanent staff members supported by a national service person. Their responsibility is to ensure the reliability of the entire system, fix broken down PCs and make recommendations for improvement and expansion of the system. The network infrastructure is not centralised or server based but router based and as a result administration and broadband management is difficult and at times impossible.9

Sustained connectivity to the internet is a major problem. The internet can go off for hours before coming back on. This can be caused by a variety of factors from weather conditions to power fluctuations or cuts from the supplier. In addition even though there is a wireless internet system, its coverage is patchy. Wireless access to the internet is only possible at particular locations on the campus with the classrooms not being one of them. Generally because of limited bandwidth, browsing the internet can be very slow particularly at peak periods between 11:am to 5:pm.

The bandwidth is 256 kb/s serving a student population of 657 and a staff population of 77. Roughly 10% of the students own laptops¹⁰ and use them regularly on campus. That amounts to under 70 students who browse the internet on campus in addition to those browsing from PC's and it equates to 0.2734kbps per student with a computer. Connectivity speeds, down loading or uploading material thus can take hours and sometimes does not work at all. This frustrates learning and teaching for students and lecturers and can be a disincentive for using the internet.

All this illustrates the inadequacy of the current internet infrastructure at a time pedagogy is primarily classroom based with a lot of lecturer student contact. In

⁹ Interview with GIJ systems administrator 14-04-2010 ¹⁰ Personal Survey

the event of running courses online, this infrastructure will have to be substantially improved upon.

Jayee University College has 35 computers with dial up connection to the internet. It is not clear how many of these are available to the students. There are 10 PC's with internet connection at the school's library but the campus has no WiFi internet connection. In informal interviews with some students they claimed 90% of their number own lap tops but this is not verified. Connectivity is generally poor particularly at peak periods so the vast majority browse at cyber cafes nearby.

INTERNET USAGE

The next challenge to overcome is actual internet usage. The success of any Online pedagogy will depend to a large extent on the easy access to the internet and a fairly competent use of computers or laptops by the students. The general internet usage rate in Ghana however is very low compared to other countries. For an estimated population¹¹ of 23 million people the internet penetration rate currently stands at 4.7%. Table 3 below shows the internet users and population growth over the last nine years in Ghana.

¹¹ The last census was in 2000 and there are preparations for a census this year

YEAR	Users	Population	% Pen.	Usage Source
2000	30,000	18,881,600	0.2 %	ITU
2006	401,300	21,801,662	1.8 %	ITU
2008	880,000	23,382,848	3.8 %	ITU
2009	997,000	23,887,812	4.2 %	ITU

Table 3 Ghana Internet Usage and Population Growth:

Source: www.internetworldstats.com.

There is no reliable census data on the number of cyber cafes Ghana. In 1994 two internet cafes opened in the business district of Accra since then Opoku-Dapaah (2009) estimates the number has grown into the thousands. They are normally located in city centres and well-to-do residential areas. The popularity of these cyber cafes is partly due to shortages in IT equipment and expertise which has crippled the extension of the infrastructure across the country and also the high costs of acquiring Residential internet services thus limiting it to only those in the middle and upper classes and expatriates who can afford them (Opoku-Dapaah, 2009, pp9-10). Cyber cafes have widened access to the internet given the limited residential access to the internet.

Beyond these the only other possibilities for browsing the internet are in schools and offices. It is relatively cheaper to access the internet at a cyber café for most people. Average browsing times at cyber cafes are between 45 minutes and 1 hour at costs of between \$0.40 to \$0.70 cents depending on the location. Tertiary students get internet access at their campus libraries, ICT centres or computer labs and are charged as part of their school fees. Browsing in offices is virtually free provided management does

not know about it, particularly in organisations where this can be a distraction to work. In contrast residential users pay on average between \$100 to \$150 for land line connection plus monthly charges. Most people now go for WiFi options by buying wireless modems which averages between \$70-\$120 depending on the service provider plus monthly rates of between \$30-\$60 depending on volume of use. These prices are beyond the reach of many students in Universities and is significant because one reason for e-Learning is to provide education to students wherever they may be in the country and therefore for it to work the students should get easy, cheap and regular access to the internet. The current internet architecture though will favour urban or semi urban and affluent students to the disadvantage of those in the rural areas.

EDUCATION

Education, according to Kellner ".. involves developing proficiencies that enable individuals to successfully develop within their concrete environments, to learn from practice, and to be able to interact, work, and create in their own societies and cultures" (Kellner, 2009.p12)

Developing those proficiencies means an educational arrangement that equips students with the skills of modern technology to master their environment . The demand for journalism courses in Ghana grow year by year, (see Tables 1&2) but the infrastructure to accommodate these annual increases either lags behind this growth or in some cases does not materialize at all. Inspite of these challenges, e-Learning has not been seriously considered as an alternative either, even within the context of limited ICT infrastructure. Rather expansion in higher education generally is seen in terms of building more lecture theatres and classrooms for teaching as well as hostels to accommodate the students.

The novelty in the idea of gaining an education wholly online is perhaps part of the reason for the lack of consideration of e-Learning as an alternative. Most people will not feel "educated" without some kind of classroom based teacher-student interaction, and the regular presence of the teacher. Indeed in my survey of student attitudes to traditional modes of education and e-Learning, (see Table 4) an overwhelming majority chose classroom based learning over online based learning. They cited opportunities to interact with the teacher as well as explanations given as reasons for their preference. This point is also echoed in the findings of a UK study into the use of the internet in higher education which concludes that the face to face element in traditional teaching methods matters to students (http://clex.org.uk/CLEX Report v1final.pdf). What this points to, is the necessity to include some element of classroom contact in any e-Learning endeavour. This however might be opposed by purists on the grounds that it defeats the purpose of online education but it cannot be denied that in the developing world, or Ghana at least, the attachment to the old methods of teaching are still very strong. How and whether this will change in the future with the profusion and steady growth and use of ICT in Ghana is an open question. But there is no question about the imprint the internet will leave on education particularly journalism education and thus we will need to find ways to accommodate classroom based pedagogies with the new ways available for teaching and learning. Kellner has argued further that "..critical pedagogies of the future must also confront the problem of on-line education, of how the new cultural terrain of cyberspace produces new sites of information, education, and culture, as well as novel on-line forms of

interaction between students and teacher. In addition, possibilities of students developing their own spaces, cultural forms, and modes of interaction and communication should be promoted. The challenge will also arise of how to balance classroom instruction with on-line instruction, as well as sorting out the strengths and limitations of print versus on-line multimedia material . Indeed, the new technologies and cultural spaces require us to rethink education in its entirety, ranging from the role of the teacher, teacher- student relations, classroom instruction, grading and testing, the value and limitations of books, multimedia, and other teaching material, and the goals of education itself." (Kellner, 2009, p11)

The current broadcast journalism course outline for GIJ and Jayee are similar and have practical skills training components such as how to interview, how to write for radio and television, how to research and how to present news on both radio and television. These skills based topics combine with more theoretical aspects such as communications theory and research methods. Generally the course gives a lot of scope for students to get some hands-on exercises. Internships are also a big part of the course. At Jayee University college the lack of broadcast equipment such as digital recorders, cameras and microphones means the only opportunity for students to experience practical broadcasting is when they go on internships. GIJ students experience some practical broadcasting but the very limited microphones, cameras and digital recorders available and the number of students taking broadcast journalism constrains the learning experience for the students. Teaching is mainly classroom based because there are no radio studios although GIJ has an audio visual unit where students are taught to produce and present television programmes.

Within the context of e-learning in broadcast journalism, the way to get round the problem of students missing explanations of difficult points could be packaging lectures on video or audio, and creating wikis in addition to the regular reading materials and links to more information on the internet. Packaging these on an online platform will give the students the opportunity to create their own productions after reading, watching or listening to the course materials. They could do this by using mobile phones or digital recorders for radio and television productions. But that could be a challenge for some because third generation mobile phones with multimedia capabilities are very expensive and beyond the reach of many. Besides the practical sessions have a element of team work which might be missing in situations where students live miles apart and can then rob them of the "feel" of practical or live broadcast production.

All of this also requires computer literacy and skills. Computer literacy and skills involves technical abilities concerning developing basic typing skills, mastering computer applications, accessing information on the internet and using other ICT gadgets.

An online broadcast journalism course would require a level of proficiency in computing skills and learning independence which most students entering universities have not been adequately prepared for. Statistical information in relation to education generally in Ghana provides grim reading. Close to 40% of the population above the age of 6 years have no form of educational attainment. The country also has a high primary school drop-out rate and very low secondary school enrolment rate with close to 50% of junior secondary school leavers failing to progress to senior secondary school, and a high proportion of senior secondary school leavers failing to continue their education. Only about 3% of the population get access to tertiary level education

(Awidi ,2008, p3). Regarding ICT training, there is a government policy on ICT in education (ICT in Education, Ministry of Education, 2008). Among other objectives of this policy, it is the aim of government to

"to engineer an ICT-led socio-economic development process with the potential to transform Ghana into a middle income, information-rich, knowledge-based and technology driven economy and society..... and also to promote an improved educational system within which ICTs are widely deployed to facilitate the delivery of educational services at all levels of the educational system" (Republic of Ghana,

2008, ICT in Education Policy, Ministry of Education *p8*)

The reality is quiet different. Many schools at primary and secondary levels lack the requisite numbers of computers and other ICT infrastructure for teaching and learning. Those that do are normally located in cities and other urban areas. There is also the problem of hiring and retaining qualified teachers in computer science to teach in these schools. Most qualified graduates end up in the private sector where relatively better financial rewards and conditions of service are too tempting to ignore. As a result of this, ICT training which will give the students skills based computer training is only an exercise in schools with the ICT infrastructure, and not an examinable subject at WASSE and BECE¹² levels. The government is planning to change this by the 2011 academic¹³.

Thus the pool of students from which Universities like GIJ will hope to draw from for a possible online course in the future come with a handicap. 65% of students entering universities lack computing skills (Awidi, 2008 p 2) and therefore struggle

¹² This is the examinations taken at Senior Secondary levels for university and tertiary admissions and Junior High School before admission to Senior High School respectively

¹³ Interview with the Ghana Education Service PRO

in their early semesters. It is only when they get to universities that most students begin to learn to use computers properly simply because of the need to research for information, complete assignments, make new friends on the internet and so on. As most universities have their ICT centres plus the fact that in some instances these count toward their grade, there is a higher motivation to learn computing skills. ICT training is therefore increasingly becoming part of the offerings at universities to help fill an educational void created at primary and secondary school levels. It cannot be taken for granted then that in an e-Learning context, applicants would have proficient skills in ICT or computer use.

In addition, the fact that the ICT infrastructure is inadequate makes the promise of internet based education problematic. GIJ currently has about thirty web enabled computers available to a student population just under seven hundred, in addition to a WiFi campus environment for mobile browsing. Jayee University college has thirty five computers serving nearly seven hundred students. In the case of GIJ a limited bandwidth of 256 kb/s constrains access and can be frustrating for students trying to download or unload material. Since most people browse at cyber cafes because of the relatively low costs involved it is possible to envisage a situation where online students close to GIJ troop to the campus for easy and cheap access to the internet. But it also makes it compelling because a way needs to be found to close the yawning gap that exists between the educated and uneducated.

The current educational arrangements, let alone ICT education inspite of numerous governmental arrangements still privileges the town and city dwellers over the rural folks. Rural based students, who should in a sense be the primary beneficiaries of any online education will be worse of because of the general lack of social amenities like

water, electricity and telecommunication services in their areas of abode. Even if they have access to the internet unreliable power supply can extinguish any initial enthusiasm for online education.

Having the skills to use the computer or adequate infrastructure to browse the internet may not be enough to persuade students to opt for an online education. The key challenge it seems is one of mindset. Ghana's pre and post independence educational systems bears the structure of an all knowing teacher imparting knowledge to the students for and assessment. This is very deeply ingrained and thus the idea of an education without the constant presence of the teacher is alien to us and only beginning to sink in. Certificates issues under an e-Pedagogy programme might therefore be viewed with suspicion.

EXPERIENCE

Over the past fifteen months some lecturers and students of the Institute have been involved in three different projects requiring online learning. I have been involved in all three and the experience and impressions gained from these projects points to some of the challenges an online programme at the Institute might encounter The **first** project was in collaboration with MKFC of Stockholm , Sweden. Ten lecturers underwent training in delivering education on an e-learning platform. This was intended as a pilot for a possible future collaboration between the two institutions to offer courses online. The lecturers were drawn from different departments and taken through four units of topics over a five month period. There was a heavy reliance on online discussions and all assignments and assessments were online based with clearly stated deadlines for completion of each unit. The challenges were mainly finding time to read, discuss and complete assignments. This was because of the

already heavy load of teaching, research and supervision the lecturers carried. Surprisingly though it also became apparent that some lecturers were not very proficient in the use of computers and this combined with their busy schedules to hamper their progress.

Three out of the initial ten dropped out for these reasons. Five of the remaining 7 were fairly at ease with computer use and completed all assignments according to the schedule. The remaining two had navigational problems but completed at a later date. The **second** project¹⁴ was a collaboration between students from Ghana Institute of Journalism at all levels and programmes and Sociology students from Kwantlen Polytecnic University in Vancouver Canada. The idea behind the project was to use the internet as a virtual classroom between students of the two institutions and have combined lectures online. This would then be followed by online discussions between the students who would form groups and complete assignments online. Eighty students initially signed up from GIJ. The major problem encountered was the inadequacy of the internet infrastructure on campus. Live streaming of lectures either from GIJ or Kwantlen was impossible due to the limited bandwidth available. To address this the systems administrator had to shut off internet access to every one on campus except the seminar room where the online lectures were be viewed. This policy was not sustainable because many people on campus needed to use the internet at the time the streaming was going on. This became a major disincentive for some students to continue because a major reason that attracted them to the project was the chance to see their Kwantlen counterparts live. The second major problem was access to computers and the skills to navigate the internet. Only about twelve students had their own laptops, the rest either relied on the institute's computers or browsed at

¹⁴ This project is on suspension because of ICT inadequacies

cyber cafes. Thus the early enthusiasm from the students quickly faded as they began to face problems with access and also realised that they did not have the skills to use the internet properly.

The **third** project¹⁵ is a collaboration between GIJ students and an international cast of students studying journalism or communications in Finland. It is about journalism for social change and combines elements from the previous two. It is hosted on a NING platform and the initial idea was to do everything online without any classroom meetings. A number of modules with reading materials, links, assignments and deadlines are available on the platform. Over a ten week period students will have to read these materials and links, contribute to discussions in groups and complete assignments and group projects online. For this project only 20 students could take part from GIJ and another 20 from the international group in Finland so participants had to be selected by the two supervising tutors from Ghana. The rough criteria for selection was commitment, and ICT skills.

It became quickly apparent that we would encounter some of the problems the earlier projects had revealed. Access to the internet became a problem because only about seven out of the initial twenty had laptops. Also generally their computing skills were not as proficient as we had initially thought and thus it was a struggle for most of them. The computing and internet skills among the participating students range from the very adept which is just a couple of students to the vast majority who's skills are just about average. So up loading or down loading material, navigating the project site to locate learning materials, or even finding the discussion platform to contribute has

¹⁵ This project is ongoing and is scheduled to end on the 24th of May 2010

been a problem for some. Three out of the initial twenty selected dropped out because of their lack of skills. So what was meant to be a wholly online based project had to incorporate some level of classroom interactions. We therefore decided to meet the students every Friday to discuss their problems and offer solutions.

These Friday meetings explain the technical navigational issues regarding the internet but increasingly also serve as a quasi classroom for the substance of the topics under discussion. It seems the teacher-student interaction in the classroom cannot be discarded and can be a real motivating factor for students to continue with the project.

SURVEY

To explore preferences for e-Learning and computer skills i surveyed 30 students from GIJ¹⁶. The aim was not to arrive at a representative view of the students but to gauge roughly what their thinking might be on the subject. Students were randomly selected to fill the questionnaire but with a bit of bias. Students who had participated in any of the three projects mentioned, or used lap tops regularly on campus were likely to be approached. The key questions were concentrated on access to the internet, regularity of use, skills, costs and online education. Table 4 below presents some of the findings.

¹⁶ Jayee gave access too late to hand in the questionaires

Ownership	90%	10% None				
	Laptop or					
	PC					
Browsing	50% Over	35%	10%	5%		
Frequency	4 hours per	Between	Under 1	Occasionally		
	day	1&2 hours	hour a day			
		a day				
Browsing	36%	33%	13%	3.3% work	6.6%	
Location	cybercafe	school	Home		other	
Internet	85%	85%	85%	85% info	50%	
Skills	upload/	download	email	search	bookmark	
Uses in	1 st 90%	2 nd 95%	3 rd 80%			
ranking	Information	socializing	Research			
order			&			
			Learning			
Cost	36.6% Cost	43.3%	10%			
	is not a	Cost is a	indifferent			
	factor in	factor in				
	browsing	browsing				
Online vrs	75%	25%				
Classroom	Classroom	online				
Preference	teaching	learning				

Table 4. GIJ Students Responses to Survey about e-Learning

The combined experience from the three projects mentioned and the survey points to the likely challenges to be overcome if GIJ is to consider e-learning as an alternative to physical infrastructural problems.

The first will be to address the ICT and internet inadequacies. The systems administrator recommends a server based infrastructure if this shift to an internet based pedagogy is to work. The minimum requirement would be a dedicated bandwidth of 2 mb/s upload/ download with shielded UTP/fibre optic. The cost for this upgrade will be \$ 4000 for the server, and setup costs of \$3000, a Cisco router costing \$1300 and monthly recurrent costs of \$5000.¹⁷

This should improve internet connectivity rates on campus and make it easier for students and lecturers to get on the internet. Administration and bandwidth management would be much easier and this will also improve the system's security. The ICT infrastructure at AUCC is not known and that of Jayee enables limited access to the internet so GIJ seems to be in a relatively better position. The other challenge to overcome is the lack of ICT skills and use among faculty. After all they would have to frequently monitor and assess students online. The experience from GIJ though suggests that this may be hard to achieve given the fact that most lecturers have not been to the classroom for years and may have closed their minds to acquiring new skills. Very few lecturers use or are willing to learn to use over head or slide projectors for example but are more accustomed to dictating notes

¹⁷ Interview with Systems Administrator

in class for students to copy. To be fair the supply of these instructional technologies In the institutions considered is deficient. For example GIJ has only two overhead projectors and this possibly contributes to the situation where few lecturers use them. A corollary to equipping faculty with ICT skills is to also increase their number. Increasing demand for journalism courses has resulted in very large classes. But these are not matched by staff recruitment. This is a problem for traditional methods of teaching and learning and could be exported to e-pedagogy if staffing levels remain the same. To give an example with broadcast journalism at GIJ, only three lecturers are responsible for teaching and assessing over three hundred students in the subject, this could become unmanageable with e-learning.

The third is to address the problem of access and skills of students who would be pursuing their courses online. The survey conducted for this paper (Table 4) showed a majority of students doing their internet browsing at cyber cafes, but the distribution of cyber cafes favours those living only in the cities. Even though a close percentage also browsed in school it needs to be noted that were these students on an online programme living far from campus the most likely location to access the internet would be cyber cafes. This calls for innovative admission requirements for e-learning to bring asynchronous and synchronous learning opportunities to all where ever they may be.

Also admission requirements will need to consider the poor computer skills of students entering universities. A majority of students answered that the could upload or download material, book mark, and do searches on the internet. This should not be read as representing the skills of GIJ students but rather at least those surveyed. A more likely reality is that most students cannot do many or any of these on the

internet, skills they would need for a broadcast journalism course online. Also it has to be noted that most of the students surveyed have been through a number of online projects and may by now have picked up these skills.

CONCLUSION

In the light of the possibilities and challenges facing journalism Universities like GIJ regarding e-pedagogy, it is paramount for educational authorities to seize the initiative to harness the benefits which the internet presents as an alternative. e-Learning will work for GIJ and other journalism training schools, but there needs to be a recognition also that the telecommunications infrastructure is inadequate and that the costs of acquiring computers and accessing the web is very high for some. This means that any implementation of e-Learning should be conditioned by the peculiarities of the developing world to achieve a blend of new technology and old teaching and learning methods. The higher education sector in Ghana needs to over come not only the technological challenges but also a mindset that sees education as only happening in a physical space. This should provide a solution to meet the growing demand for journalism training in Ghana.

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