

# ICT and Pragmatism: Creating sustainable Employment for Graduates in Nigeria.

Osuagwu O.E<sup>1</sup>, Agbasonu Valerian C.<sup>1</sup>, Ndigwe Chinwe<sup>2</sup>, Irene Eze<sup>3</sup>, Sulaiman Ummukulthum<sup>4</sup>

<sup>1</sup>Department of Computer Science, Imo State University, Owerri

<sup>2</sup>Department of Computer Science, Anambra State University, Uli

<sup>3</sup>Department of Computer Science, Imo State Polytechnic, Umuagwu

<sup>4</sup>Department of Computer Science, Alvan Ikoku Federal University of Education, Owerri

Corresponding Author E-mail: [drosuagwu@yahoo.com](mailto:drosuagwu@yahoo.com) [profoliverosuagwu@gmail.com](mailto:profoliverosuagwu@gmail.com), Tel :0803-710-1792

## Abstract

*This article is saying, in a nutshell, that a competently trained computer scientist and IT graduate has no business with unemployment because the Internet is a wealth creator and the engine house that makes this happen is the IT expert. The Internet is the biggest market place in the world. Online transactions in 2008 amounted to over USD \$180 Billion and is estimated to grow to USD \$263 billion in year 2012 (Credit Suisse). This paper will bring home pragmatism on how IT and Computer Science graduates can create jobs; employ others instead of waiting to be employed. The paper has lined up 23 revenue spinners, for the IT graduate. The actualization of job creation via the internet will depend to a large extent on the provision of the required ICT infrastructure and the promotion of broadband stimulus by government for extending internet access to the remote communities of Nigeria. This paper is significant because over 140,000,000 graduates of Nigeria's tertiary institutions are jobless. This is further buttressed by information from the National Population and Federal Bureau of Statistics: The National Population Commission has said that the rate of unemployment in Nigeria rose from 21.1 per cent in 2010 to 23.9 per cent in 2011. The NPC, in the latest report on its website, said the nation's economic growth had not translated into job creation. It said, "Figures from the National Bureau of Statistics clearly illustrated the deep challenges in Nigeria's labour market, where the nation's rapid economic growth has not translated into effective job creation [6]. Thus, unless there is effort to create self employment, this can galvanize unexpected revolution whose consequences will be very grave. The reading public will have to apply the advice provided in this article to create self employment.*

**Key Words:** e-commerce, online transaction, broadband stimulus, unemployment.

## 1.0 Introduction

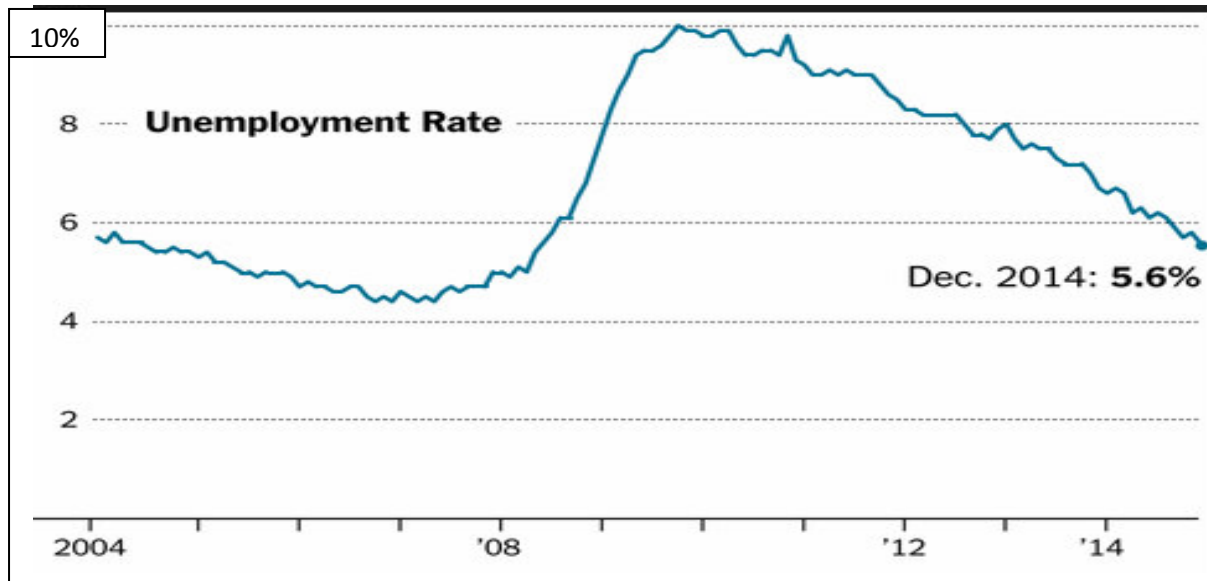
2014 World Bank statistics put the number of Nigerians living in destitution at 100 million, while its latest report released in May 2015 put Nigeria among the five poorest countries in the world! The high rate of unemployment and low per capita income in the country are just two of the indices used by the World Bank in arriving at this assessment. The

gravity of the nation's unemployment rate, especially graduate unemployment, the trampling of graduate job seekers to death during stampedes at the recent Nigeria Immigration Service (NIS) recruitment drive across the country, presents a graphic picture of the problem [7]. Table 1 presents and forecast unemployment rate in 2015 [8]

**Table 1: Actual and Predicted Unemployment Rate (2015)**

Nigeria	Actual	Units	Jun 2015	Sep 2015	2020	2050
Unemployment Rate	23.9	percent	28.4	28.6	10.6	7.7

Source: <http://ieconomics.com/nigeria-unemployment-rate-forecast> [8]



**Figure 2: Unemployment rate extrapolation up to 2014**

**Table 2: Female Unemployment**

Year	Percentage of Unemployed Youth that are Female	Percentage of Unemployed Youth that are in Rural Areas
2008	58.50	54.68
2009	57.82	50.77
2010	54.52	47.59
2011	50.85	59.95
2012	55.42	53.25

Source: NISER, 2013

The figures and tables above suggest that all is not well with youth employment.

A recent study by Hamilton Consultants [<http://www.theinquirer.net>][1] has shown that Internet commerce makes up 2.1 per cent or \$300 billion of US GDP. More than 10 percent

of retail purchases are now made online and Internet-based advertising revenues have increased to more than \$20 billion. The employment figures are based on people who

work directly in building or maintaining the Internet's infrastructure, or have something to do with advertising or e-commerce and other direct uses.

In the few short years of existence, the Internet has shown that despite security concerns and slow access, it can deliver on the long sought after goal of electronic commerce and global integration. The main reasons for its stunning and rapid success are its ease of use, low cost and extensive world wide coverage [2]. No other system has ever come close to delivering on these fundamentals in our time. The world is now convinced that Internet works. **Forester Research** estimates that Internet commerce is in a period of hyper growth and will likely reach US \$328 billion by the year 2010, a geometric increase over the current level of \$8 billion. Another IT research company, IDC, estimates that Internet assisted sales could account for two percent of total world GDP by 2010 and as much as five percent for developed countries. While these percentages are impressive in themselves, it is the rapid rate of growth that is attracting most attention to this new business tool. 'The main products currently selling on the Internet are computer software and hard, office supplies, consulting and research services.

Companies world-wide have recognized the business potential of the internet and are getting connected to this network of Networks by the millions. It is estimated that more than 90% percent of banks plan to use the Internet, for information dissemination and 87 percent will have Internet based transaction by 2015. Approximately 50 percent United States Businesses provide promotional and other information about their companies on an internet website and 75 percent of UK business have an Internet connection.

From an international trade perspective, the Internet is the window to the global village. The potential for companies to reach clients world wide is enormous and the cost for this access offer huge potential benefits to companies in regions distant from the major world markets. Some of the new businesses spawned by the internet are making impressive strides. Amazon.com, one of the first virtual bookstores on the internet, now has annual sales of approximately US \$100 million, serves over

600,000 customers world-wide and holds 1.5 million titles. Fashion is another example of a virtual business. Home to 18 apparel manufactures, six fashion magazines and 14 designers, this virtual clothing company is visited 3.5 million times per day by Internet users. Cisco, a leading network router company, currently sells \$1 Billion per year on the Internet. And you do not need to be a large organization to benefit - the international Centre (ICT) in Geneva offers free hosting for handcraft products on its virtual trade Mart

Using the Internet, it is now possible to order your custom built Dell Computer, select suppliers from around the world by product or service, review detailed international trade statistics, view the current stock of houses for sale in a particular city, calculate your down payment and mortgage payments instantly online, or set up a virtual bank. The Internet is also having a significant impact on the service industries. Research had earlier estimated that on-line airline ticket would reach US \$8 billion in 2001. Other services industries directly affected are real estate, insurance and entertainment booking. What is happening here is a process of dis-intermediation where clients can now go directly to the seller (as airline bookings) and perhaps receive more information on special promotions, discount, and group or volume purchase plans. This is not to say that the middle man is obsolete. However, in some industries, service agencies will have to look at creative ways of utilizing the new technology and adding value to the new range of information available direct to customer [3]

Service industries that do not recognize this fundamental change in business practice are likely to be in difficulty soon. Companies are also using Internet to provide better service to the client and, thus, millions of' Naira enhanced efficiency, whereby clients can place and track orders, make inquiries, and give feedback, 24 hours a day, seven days a week. Interactive sites effectively allow the user to query the company information available, leave messages, request further information or place an order. Not only is this much more convenient from a client perspective, companies estimate savings in the region of 70 percent over traditional method like phone and fax.

Electronic mail or e-mail, one of the most popular internet related business tools, is rapidly replacing phone and fax for basic business communications at a fraction of the cost. For example, the cost savings on e-mailing a 10 page report from Lagos to New York would be enough to cover the full internet charges (US \$50) for one month. Security is still a significant issue for Internet commerce [4]. Given the value of businesses currently being transacted over the Internet, it is likely that the security risk will be reduced to an acceptable level by the year 2013 AD. Security is in fact being addressed by some of the biggest players in the industry. Visa and Master Card are currently on Secure Electronic Transnational Standard (SET) technology to make credit and transaction safe and this is likely to become the international standard for online commerce. IBM has joined with 16 major banks in USA and Canada to develop the Gold Standard for interactive banking and bill payment. Microsoft is also spending millions on this issue. Security issues are here and companies must face them head on. However, the business potential of the internet is too strong and too pervasive to hold companies back at this stage. Indeed, it is reasonable to speculate that when security on the internet is at an acceptable level, business and public utilization will increase even more dramatically than the current trend and the internet will become the de-facto standard for business transaction and a vehicle for global integration.

It has become inevitable that for Nigeria to become relevant in the 21<sup>st</sup> century, there is urgent need for huge investment in information technology infrastructure to ensure benefits from IT products are harnessed for the development of Nigeria and Sub-Sahara Africa. Of particular interest is internet commerce and the need to develop effective web strategy for e-commerce infrastructure in Nigeria.

### 1.1 Problem statement:

To what extent can computer technology and access to the internet engender a new generation of Nigerians capable of creating self-employment?

### 2.0 Pragmatic Solutions to IT Graduate Unemployment Via The Internet

1. **Virtual Answer Banks:** Organize a group of M.Sc/MBA/Ph.D in Accounting with ACCA, ACA and ANAN, CPA, AC1S, MCIA, ACIB, MCPN, MBCS etc. Take up ten years Question papers and give it to various experts to answer. Develop a website and call it Virtual Answer Bank. Advertise and let prospective professional Students register in form of reading clubs. The registration cost will be a one time payment. This site will be visited by all professional students studying Accounting, finance, banking, Information Technology and Data Processing around the world. If registration is say N2000 and your site is visited by 200,000 members, that will amount to N400,000.000 per annum. In addition you will be collecting advert fee for the site and so many other benefits. This revenue will be enough for the professionals employed and the growth rate will be well over 200% per annum. When I was a student of ICOSA/IDPM/BCS in London, I used Answer Bank services and it helped me to pass the ACIS/AIDPM/BCS examinations. At that time, the era of the web had not arrived. It was answers to previous questions of ICOSA, ACMA, ACCA, IDPM, BCS etc. printed and posted to professional students on payment of a certain fee in pounds sterling around the world. In this era of the www, the job is made easier via hosting websites with strong database back-ends with adequate storage space.

The same idea can be replicated for Marketing, Insurance. NSL, CPN and other established professional examinations with large body of student population.

### Tertiary Virtual Knowledge-based Banks:

Professors can collaborate and open Tertiary Virtual Knowledge-based Bank websites where difficult fields in science, engineering and technology are handled. Questions for five to ten years can be collected from various universities and other tertiary institutions on topics and solved and posted in a secured website. This will include all science subjects at bachelors, masters and Ph.D. This will be so classified. A collaboration arrangement can be concluded with each countries National Universities Commission or equivalent bodies in other countries of the world such that questions

posed by each level in different subject areas are answered by seasoned professionals with PhD and professional qualifications in the field. Different sites can be organized for each specialization but linked with a Metadata. It will be advisable that the key lecturer that teaches such courses is the same person appointed to handle the subject. Such a site will yield millions of US Dollars annually as every undergraduate and graduate student around the world will likely become a member of the club. Two types of membership are proposed - monthly subscription in form of magazine subscription or life membership. Life membership attract membership fee of say N 15,000 while monthly subscription can be as little as N500 so that undergraduates can afford to pay and visit the site. Lecturers too will need the site to prepare students and to set examinations in their respect field of knowledge. Although this is a very difficult task, it will be a money spinner. You do not need to be professor or hold PhD to do this; you need only be an organizer, computer scientist, IT professional or Website Designer and Administrator. Initial capital outlay may not be tremendous as the cost of designing and hosting a website can be less than N200,000, Web Server will be less than N200,000. You will need a one-room office space or a flat. You may employ a Web Designer and Administrator; formalize a business name registration with **Corporate Affairs Commission**. You will need to comb for senior academics and professionals willing to participate in this task and I believe many of them will avail themselves of such opportunities for increased income. You will need a data base of academics in each tertiary institution in each country and the subjects they teach including their contact and email addresses and you will need to sign a memorandum of understanding on collaboration and copyright protection. A good Attorney will advise you. You may need a two or multiple factor authentication for the type of security required to secure this valuable site. A monthly journal or volumes of answers for each of the subjects can be printed for those living where there will be no access to the internet due to infrastructural hiccups

which will be discussed under “problems and prospects”.

4. **Same vacancy exists for WAEC, JAMB and University Post UME examinations.**

5. **Doctors** can do same for Nursing/Midwifery Examination Boards, Examinations of the West African College of Surgeons/Medical Examinations Board, Medical Examination Council etc.

#### 6. **Virtual Institutions:**

Rapid Results College, Exam Success and Wolsey Hall made some of us forty years ago. Then the Internet was not known as a veritable tool for educational diffusion. You can run your own Rapid Result by organizing e-learning institutions. The Federal government is yet to finalize policy on how to verify knowledge acquired by e-learning and how such knowledge could be accredited and credited. However e-learning is supplementing brick and wall traditional institutions around the world. In most good institutions around the world, assignments and course delivery is based on this method and many good universities have established degree programs up to doctorate via e-learning methods. We were told while on business trip to the US last year that something was being done to encourage education diffusion via c-learning. Late 2009 the National Universities Commission (NUC) published conditions for the establishment of cross-border institutions. It was this objective that informed the reinforcement of the National Open University. NOUN is yet to be fully driven by IT though. The study modules are printed and handed over to the students in the same style as Rapid Results some 40 years ago! However, qualifications obtained through their present method are recognized by government. Government also recognizes qualifications obtained from foreign institutions established in Nigeria with NUC permission. A virtual institution, well organized can be linked to institutions like NOUN, British Open University, US Open University for acceptance of credits for the award of their own degrees. These institutions may need to accredit your virtual institution via rigorous assessment and some level of control over examinations.

Almost every course no matter how technical, including aerospace engineering can be taught in the web. Virtual Reality model and Video conferencing technologies can be deployed. This will however depend on your financial strength for initial capital outlay. You may need to register the institution with Corporate Affairs as a Trustee and may need approval from the Federal Ministry of Education.

#### **7. E-publishing:**

Taking scholarly articles, books for e-publishing in the web. Prospective customers who try to download them are asked to pay special sum of money. This is another money spinner. There are so many e-journals now in the Internet. These e-journals can also be printed on paper and mailed to subscribers. Some universities do not accept e-journals for promotion to senior academic positions. For this reason you may need to print the hard copy of the e-version.

#### **8. Small Scale Internet Café:**

Although Internet Café's are not very viable these days because of the cost of maintenance, bandwidth cost, cost of supporting generating sets due to absence of power from the national grid, and cheating by call staff and the ascendance of broadband internet connectivity which makes it possible for individuals to link to the internet with their laptops and modems. However a café can still succeed where there is a good patronage, say in a university campus or densely populated areas without internet service. You may create membership club which pays you one down payment on monthly bases at a fixed cost. This may help you to stabilize your income forecast every month. For patronage to be sustained you need adequate bandwidth with good processors with speeds of not less than 2GHz clock speed and RAM of at least 1G. You may need to register with NCC.

#### **9. Learn Computer Maintenance:**

After graduating HND, B.Sc, B.Tech, B.Ed in Computer Science/Computer Engineering/IT, arrange to spend six months learning computer maintenance and get experience from those who know how to do it well. This hands-on training is advisable because the university provides you

with only basic training. To develop professional ability in computer maintenance, you need this type of training. Repairing laptops is now lucrative though highly technical. If you confident, you will be able to do it, establish your Computer Maintenance Company. You will succeed. Try to see if you can hook up to big companies to maintain their systems on contract. That may do the miracle you have been expecting!

#### **Networking/wireless networking And internetworking:**

The networking courses you learnt in the university is intended to lay basic understanding of the technology. You need to do some apprenticeship in strong networking firms to get experience on wired or wireless LAN, MAN, WAN. INTRANET, EXTRANETS and inter-networking technologies. Try Cisco certification for wired and wireless technology when you have acquired the training and experience. Confident? Go ahead and establish an IT firm anchored on Network line of business. In addition learn about structured cabling and fiber optics cabling technology. All these training must be industry-based. Do not expect this level of training in your degree programs, even if your degree curriculum contains outlines of these programs. Every organization in the world is desirous of networking their systems for seamless communication. Wireless networking is becoming popular for interoperability, quick deployment and enterprise integration. So there will always be jobs for you. What is most important is that you must be able to deliver!

#### **Fibre optics cabling:**

The preponderance of wireless/satellite technology for internet diffusion in Nigeria notwithstanding, the future holds plenty of hope for professionals who know how to deploy fibre optics cabling. As soon as ICT infrastructure is in place in Nigeria, the next line of expectation is that most organizations will link to a fibre optics ring. This means there will be need to migrate from the present twisted pair LANs to fibre optics cabled networks.

#### **Do practical software engineering and development:**

Learn how to develop software architecture. This will enable you to design any software no matter how sophisticated. However, you need skills in writing programs in C, C++, Java, Cold fusion, VB.Net, PHP etc. It takes time and sacrifice to really know how to program. Knowing how to program is a different ball game from designing a software archetype. You need both skills and you will be on your way to becoming Nigeria's Bill Gates. For a successful software company, you will need skills in Reverse Engineering, Component-based software Engineering, computer securities, information assurance and computer forensics to secure your investment. Additional skills in Firmware programming and burning including embedded systems will be an advantage. Take IEEE and CPN Software Engineering Certification, SUN JAVA certification or Microsoft Certified Software Engineer Certification if you are strong enough to prove your mettle. This will give your prospective clients confidence that you can deliver.

#### **10. Become a Specialist in Web Engineering, Hosting and Administration:**

A collection of the independent websites makes the World Wide Web. Every organization that intends to show internet presence must have a website including individuals. So you can see how big the market is. Website continues to undergo refinement and re-engineering due to new trends and competitions. A firm can gain a niche in Website Engineering and administration. You need skills in HTML, DHTML, Dream Weaver, Flash, ColdFusion, PHP for rapid web development and deployment. You can learn and gain experience from individuals who do it or from specialized institutions that possess tremendous experience in Web Engineering. Once a niche is created and there are proofs that you can deliver, your miracle may well be on the way. One thing peculiar to IT training is that you must not be clever by half. You must know what you are doing and must deliver as expected and on schedule. Half baked training is not acceptable!

### **3.0 Job Opportunities In The Web**

#### **1. Affiliate Marketing/Google Adwords**

**Affiliate marketing** is unarguably the world's easiest, cheapest and fastest business to start. It is so cheap that you can start it with less than \$25. You can earn more than \$1 million dollars from it annually, and so fast that you can begin earning money from it in less than an hour! And the earning potential keeps increasing daily. You do not need to own a product, service or website of your own and about two hours of browsing a week would be enough for you if you are ready. Affiliate Programs: More than 350 million times daily, people from all over the world use Google.com to search for products and services they want to purchase online. More than 90% of these people have credit cards or other means for online payment (e.g. PayPal). At 350 million searches daily, you will agree with me that Google.com gets lots of visitors.

**Affiliate programs involve your partnering with different websites on the Internet which have items for sale.** These items could be phones, books, furniture, electronics, cars, jewelries, web hosting, bags, boats or virtual goods like software, ebooks etc. Forming such partnerships is very simple - just fill out a form. Now, since lots of people are already searching for lots of different products and services to purchase, you simply partner with any website/company whose products are on demand and **then place adverts on Google.com for them.** For each sale you help any website/company you partner with, they pay you a commission (a percentage). These adverts you place on Google are called Google AdWords. They appear on the right of your search results.

The commissions you receive per sale may range from \$25, \$40, \$50, \$75, \$100, even \$150 depending on the product. For instance if you are generating only 1 sale a day at a mere \$50 commission payout, you will be making \$50 per day. This will yield approximately \$1500 a month! This is equivalent to \$1500 x N150 = N225,000. No fresh graduate earns this much in the Civil service in a month in Nigeria!

#### **Google AdWords:**

It is a very efficient advertising system developed by Google. It costs you only \$5 dollars to register and you are charged only when someone clicks on your advert. The minimum cost per click is about \$0.05 (5 cents),

yet you gain a commission of \$50.-\$0.05 = \$49.05 per click.

**How does Google know the sale was made through your advert?** Whenever you choose an affiliate product to promote from an Affiliate Website such as ClickBank.com, Clck2sell and CJ.com, you are given a special unique tracking code (Link) which is used to know whenever someone buys through your advert. And whenever someone does, the sale is unfailingly credited to you. In most cases a “cookie” (small computer program) is placed on the persons computer so that you are still credited with the sale if the person comes back to buy, say within the next 6 months! For inexplicable reasons C/ickBank.com no longer accepts registrations from Nigeria. However, a US address can be used to collect your cheques if you operate from Nigeria. Digital downloadable products such as ebooks, software etc are preferred in place of tangibles like Cell Phones, Plasma TVs, Toys, Cars etc because digital products sell like hot cakes! Their prices are mostly not expensive and people are mostly on the Internet for information, hence they buy them more. Furthermore, you could earn as much as 75% commissions on each sale from your adverts which is not possible with physical goods like cars and TVs. Clickbank.com sends out commission cheques on the 15th of every month. To sign up for Google Ad Words costs only \$5 and ClickBank.com is free to join. 4.

## 2. **Google AdSense:**

If you have your own page on the Internet or a free blog, you can get paid every time a person visits it and clicks on a link. All you do is submit your application to sign up to Google’s Free AdSense, take the simple code they give you, “copy and paste” it onto your page or free blog, and money will start flowing in. No matter what your topic is, google will automatically place little advertisements related to the exact topic of your Page, so people will not be seeing random ads but ads of things they are probably interested in learning more about! Each time someone clicks on one of these little “adverts”,5. you get paid as much as \$0.50, \$2.00, \$5.00,6. even as much as \$10.00 per click. Thus, if you get say 100 clicks in one at \$0/50 a click you will earn \$50 per day. You will be sent a cheque

once your earnings is up to \$100. AdSense is the revenue source behind most blogs, websites and forums on the internet.

## 1. **Paid Online Surveys.**

Just give your opinion and get paid for it! By participating in a survey you are giving companies your opinion on different products and services, it is much more cost effective for the company than doing it through the mail or on the telephone. By filling out an online survey you help the companies to serve the needs of the consumer better. Doing surveys for pay requires nothing more than an internet connection and your opinion. If you can sign your name and click a mouse, you can make extra cash right away. All you have to do is to register your name and password with a website that offers this kind of job, they will immediately send them to your email just open your inbox and click on a survey link. It takes just a few minutes to answer basic questions about your shopping preferences, and then, with a click of the mouse, there’s money in your account. Anywhere from £1- £100 for just 15-20 minutes of your time, while you lounge in your comfortable clothes and listen to music, or even watch TV. For instance, if you do only four (4) surveys a day, at \$20 per survey, you can make \$480 per week, \$2120 a month, or \$23,440 a year!

## 4. **Email Marketing and Newsletter Publishing:**

Learn how you can start an online publication plus how to build a HUGE database of people who you can regularly sell your products and services to. You can set up all the content you want to send to your readers for full year in a single day - and then forget about it! Whenever the dates you have chosen arrive, your newsletter or c-zinc auto-responder will automatically send your publication to all your subscribers. Publishing a newsletter costs you almost nothing because you only pay for the auto-responder service.

## 5. **Online shop/Store:**

Open a small shop/store and put it on the web. By putting it on the web you are keeping your doors open for 24/7 and make sales round



the clock. The shop will experience a quantum growth in a short time.

#### 6. **Invest Online:**

**One of them** is euro wide, a great H.Y.I.P company. They used to pay 27% for every investment you make for four days but recently they reduced it to 10% because everyday more and more people are discovering them. For every investment that you make you will get 10% returns in four days time. This means if you put in \$50 in four days time your money will be \$55. That is a \$5 added. The minimum amount you can invest is \$5. If you put in \$500, in 4 days time, you will get \$50 profit. Invest the whole money back and in a month's time you will get more than \$350 as profit. It is better to have N11 million where it will be multiplied than just putting it in a bank with little returns.

#### 7. **Online Currency Trading/ePayments and Account Funding.**

This has to do with making money online buying and selling money. You can earn good income by funding c-gold, Credit Cards and PayPal accounts for people.

#### 8. **Take Your Present Offline Business Online And Make It 100 Times More Profitable.**

You can dramatically increase the profitability of your present business by taking your transactions online. Begin selling your products and services online, increase your customer base and boost your profits. The following list of items can be sold via the net:

- Used mobile phones - working condition.
- Used mobile phone — not in working condition (will require good marketing)
- Used iPhone - working condition.
- iPhone not in working condition (selling skills needed)
- Used MP3 player
- Unused MP3 player
- College Textbooks
- College lecture notes
- High schools assignments
- College assignments
- Sun-glasses
- Swim suits

- Used pair of jeans
- Vintage Shoes
- Trophies and tiaras
- Used tuxedos
- Unused tuxedos (bought, but not the right size)
- Promo dresses
- Wedding dresses (time of need can make a woman sell anything)
- Chess boards (I don't know why, but people do)
- Used Digital cameras - working condition
- Used Digital cameras - not in working condition
- Novels (because the local library won't give a good price for it)
- Autographed memorabilia (again, time of need can make a man sell anything)
- Vehicles (cars, bikes, skateboards etc)
- Girl friends (yes, this is the silliest that I have come across, but one website has a girlfriend for sale)
  - Husbands (looks like the wives are now taking control, and selling their husbands online?)
  - Pet supplies (unused)
  - Gift Certificates (unused)
  - Letterman jackets
  - Real Estate
  - Guitars
  - Pianos
  - Violins
  - Microphones
  - Antique furniture
  - Antique jewelry
  - Accessories
  - Laptops and computers (used and unused)
  - Paintings
  - Artifacts
  - Movie DVDs
  - Music
  - Old coins and other collectors items
  - Software
  - ebooks

#### 9. **Quick Website Design:**

Web designing is absolutely ten times easier than you think and besides you do not even need to know how to write HTML, CSS or JavaScript codes to be able to design a website. You can easily use website templates or What You See IS What You Get (WYSIWYG) editors like Microsoft FrontPage or Macromedia Dreamweaver to easily design websites. Using

templates or WYSIWYG editors makes the design as simple as typing up a document in Microsoft Word!

#### 10. **Pay Per Lead Programs:**

These pay per lead programs are easy to join and start making money in less than 30 minutes because all that you are required to do is to refer (lead/derive/direct) others to sign up or download a free software through your special link that will be given to you, they do not even need to buy anything and you will get paid for directing them, this is because the website needs you to introduce it to more people. This will translate to their success.

### **3.0 Government Stimulus For Broadband Diffusion As Solution For Web Job Creation**

To eliminate the current gap chasm emanating from the absence of a cheap ICT infrastructure to drive Internet diffusion in Nigeria, the Dr. Goodluck Jonathan led administration should borrow a leaf from the current US President who plans to invest \$7.2 billion to Fund grants aimed at improving access to broadband in the US, especially in areas that have little access to fast Web connections [<http://www.businessweek.com>] Last year, as part of the \$787 billion budgeted for the project. For the American Recovery & Reinvestment Act, Congress approved \$4.7 billion in funding through the National Telecommunications & Information Administration (NTIA), with the remaining \$2.5 billion going to the Agriculture Department of Rural Utilities Service (RUS). The first batch of funding, about \$183 million, was awarded to 18 different organizations in December, and another \$7.5 billion was awarded in a grant to the city of Los Angeles on January 13, 2010.

William Lehr [5] a research scientist and economist at the Massachusetts Institute of Technology (MIT) who has researched the economics of broadband access has confirmed accelerated growth in employment due to expansion of broadband access to the Internet. Broadband would enable us to move to the places we really wanted to live, as opposed to the cities that we live in. However, people who live in areas where high-speed internet access is not available or too expensive are left at a social any economic disadvantage. He posited that in

an era when employers typically demand a familiarity with the Internet for even entry-level jobs, and when elected officials communicate with the public via e-mail and twitter, there is a case to be made that people without access to affordable broadband miss out on significant aspects of modern life. Thus, the research further confirmed that increased availability of broadband tends to result in more jobs for companies with high concentrations of professional, administrative, and scientific needs, and fewer for manufacturing firms. The effect is also stronger in places with lower populations as local businesses find ways to reach new markets farther a field. Increased availability of broadband also results in higher tax returns for municipal and county governments as property values increase and the number of people paying taxes rises. The research has concluded therefore that there is a strong correlation between economic growth and broadband internet access.

### **Broadband is anchored on the new 4G wireless technology called Worldwide interoperability for Microwave Access (WiMax).**

Wimax is a cutting edge technology geared towards providing wireless data over long distances in variety of ways ranging from point to point links to a full cellular type. It is the next generation of wireless technology designed to enable pervasive, high-speed mobile internet access to the widest array of devices including notebook PCs, handsets, smart-phones and consumer electronics such as gaming devices, cameras, camcorders and music players. In Nigeria Mobile! WiMax 4-G network will offer broadband services at access speeds ranging from one to 10Mbps per subscriber giving the user uninterrupted internet access irrespective of location. Also Galaxy Wireless Communications Ltd has launched Nigeria's first portable plug-and-play broadband wireless service, G-MAX™ based on the emerging mobile WiMax 802.16e standard in Abuja and Port-Harcourt. The G-MAX™ brand provides fixed and mobile wireless broadband Internet and data services at highly affordable costs designed to massively increase Internet penetration in Nigeria. It is the first plug-and-play nomadic broadband solution in Nigeria

based on a hybrid of the Smart Antenna™, Multi-Carrier Wireless Information Local Loop™ and emerging Wh\IAX technologies.

### **3.1 Government has to urgently address the power sector problem.**

3.2 Government needs to sustain PPP to create a national fibre optics backbone to reduce the preponderance of satellite as the key tool for internet diffusion in Nigeria.

3.3 Broadband technology however remains the most practical approach to make Nigeria to join the rest of the world in the new global information society.

3.4 EFCC should fortify her personnel with computer forensics tools to arrest and successfully prosecute internet fraudsters. This will act as a deterrent and reduce the incidence of internet criminality.

3.5 Most payments in the internet are via VISA and Master Cards. Authentic and reliable electronic payment platform need be established and all banks, not just few, should join the race.

3.6 Government must re-launch a new communications satellite to bring down the cost of monthly bandwidth paid by ISPs in Nigeria which is transferred to consumers.

### **4.0 Bottlenecks**

Although the Internet and e-commerce have created several avenues for self-employment, there are many problems on the way to realizing this goal in Nigeria:

a) Lack of functional curriculum to help produce functionally educated graduates with applicable, adaptive skills in the IT industry. Tertiary institutions curriculum may need retooling. It may involve refocusing technical programs to achieve best fit between educational institutions and the industry. The new Federal Government's National Innovation Institutions may well be the answer!

(b) The near absence of electricity is a major bottleneck towards the realization of economic impact of IT and e-commerce. Without power, only limited achievements can be made in this direction. The cost of powering generators can discourage prospective investors. Nigeria is yet to explore alternative energy to power

computers and the internet. Most times there is no power to run the computers!

(c) Internet scam & Security bottleneck: A large percentage of job advertisements in the net are fraud. There is however techniques to identify fraudulent sites:

**Dodgy websites** come in many shapes and sizes, including:

- Phishing sites that try to steal your identity.
- Fraudulent online shops.
- Bogus charity websites
- Tempting sites that contain viruses or spy ware.
- Sites that (unexpectedly) contain illegal or pirated content,
- Sites that promote worthless investments or get-rich-quick schemes.

It is very easy to clone a real website and criminals can use virus-infected computers to host a dodgy website so it costs them nothing to put it up. It does not take a skilled developer long to produce a very professional-looking site.

### **Phishing:**

Phishing is a scam where criminals send emails to thousands of people. These emails pretend to come from banks, credit card companies, online shops and auction sites as well as other trusted organizations. They usually contain a compelling bait bogus reason to go to the site, for example to update your password before your account is suspended. Victims click on an embedded link in the email itself which takes them to a website that looks exactly like the real thing but is, in fact, a fake designed to trick victims into entering personal information such as a password or credit card number.

### **Risks**

- Identity theft.
- Fraud.
- Theft from your bank account or credit card.
- Virus infections

### **How to spot a 'phishing' email**

Criminals can make an email look as if it comes from someone else.

Fake emails often (but not always) display some of the following

characteristics:

- The sender's email address does not tally with the trusted organization's website address.
  - The email is sent from a completely different address or a free web mail address.
  - The email does not use your proper name, but uses a non-specific greeting like "dear customer."
  - A sense of urgency; for example the threat that unless you act immediately your account may be closed.
  - A prominent website link. These can be forged or seem very similar to the proper address, but even a single character's difference means a different website.
  - A request for personal information such as user name, password or bank details.
  - You weren't expecting to get an email from the company that appears to have sent it.
  - The entire text of the email is contained within an image rather than the usual text format. The image contains an embedded hyperlink to a bogus site.

### How to spot a fake website

We recommend that you install the latest version of your web browser. Internet Explorer 7 and Firefox 2 both have sophisticated fillers that can detect most fake websites.

Below are some other clues that might give away a fake site:

- Use your instincts and commonsense. If it smells bad, it is probably rotten.
- Look for evidence of a real-world presence: an address, a phone number, an email contact. If in doubt, send an email, make a phone call or write a letter to establish whether they really exist.
- Consider using a spam email filler that will detect and block many fraudulent emails. Be

wary of **hoax emails and advance fee fraud emails.**

- This kind of fraud also takes place over the telephone and in person. Be wary of **social engineering** in any form.
- Do not give out personal information unless you initiated the contact and you are sure you know who you are dealing with.
- If in doubt contact the bank or website owner direct by telephone or email before proceeding.

### 1.0 Summary, Conclusions and Recommendation

Internet technology today is a pre-requisite for national economic growth. Nigeria may fail to fully utilize the benefits of this technology however if the attendant bottlenecks such as pool- electricity supply, lack of effective e-payment system, restructuring/retooling of IT curriculum in our tertiary institutions towards the direction of the new National Innovation Institutions formula, reinforcement of EFCC capacity to fight internet criminality and acquisition of extended capacity in Computer Forensics. Government would need to do more investment in Information Technology infrastructure and promote Stimulus For Broadband Diffusion As Solution For Web Job Creation as is currently being done by the US President, Barack Obama. It is only through 4G communications technology which the remote communities of Nigeria can access the Internet because there is total absence of IT infrastructure in these remote villages and it is unlikely such infrastructure would be made available in the next 10-20 years. The only way to leapfrog this gap chasm is the 4G broadband revolution!

---

## References

- [1] Broadband Stimulus Expectations: [http://www.businessweek.com/technology/content/jan2010/tc20100114\\_196987.htm](http://www.businessweek.com/technology/content/jan2010/tc20100114_196987.htm)
- [2] <http://www.theinquirer.net>
- [3] <http://www.esuccessdirect.com>
- [4] Osuagwu O.E. (2009) Insight into 1/1c New Frontiers of Computer Forensics, Cyber—Criminality and Internet Security, OIPH, Owerri, Nigeria. Pp20-23
- [5] Osuagwu O. E. (2008) Global Internet Terrorism & Fraud Pandemic: e-commerce

Bottlenecks and the Challenge of Computer Forensics, MS/PhD Dissertation, American Heritage University of Southern California, San Bernardino, USA.

- [6] <http://www.punchng.com/business/business-economy/nigerias-unemployment-rate-rises-to-23-9-npc/>
- [7] <http://sunnewsonline.com/new/?p=59179>
- [8] <http://ieconomics.com/nigeria-unemployment-rate-forecast>