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Nigeria cybercrime and ICT development And Internet Service Provider

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Abstract

The identification of Information and Communication Technology (ICT) as an essential tool for sustainable development has proved to be worth every investment in Nigeria. Unfortunately, ’the ’country’s ’image ’has ’also suffered as a result of the nefarious activities of some Nigerians, who has turn the internet into a cheap ’channel ’for ’the ’perpetration ’of ’criminal activities, ’ranging ’from ’range ’from ’phishing, online ’trickery ’and ’the ’“Advanced ’Fee ’Fraud (AFF)’ popularly known as ‘419 spam’. At the forefront ’these ’development ’Internet ’Service Providers ’(ISPs). ’Despite ’their ’many ’laudable contributions ’as ’facilitators ’of ’Internet ’usage, ISPs ’serving ’Nigeria ’seem ’to ’stand ’aloof ’or seemingly ’remain ’oblivious ’of ’the ’damaging implications ’resultant ’from ’the ’use ’ ’of ’their infrastructure for online criminal activities. Using questionnaires, ’we ’conducted ’a ’research ’to determine ’the ’level ’of ’awareness ’of ’ISPs ’in Nigeria about intermediary liabilities. The Analysis ’of ’our ’findings ’using ’descriptive statistics ’ ’and ’chi-square ’at ’0.05 ’level ’of significance ’revealed ’that ’the ’level ’of ’security provided against crime by ISPs are relatively low resulting in a positive relationships between the level of internet crime and the attitudes of ISPs to protecting their networks.

Keywords

Intermediary, ICT, Internet Cybercrime, Nigeria

INTRODUCTION

Within the last decade, the use of the Internet in Nigeria has grown so rapidly with the explosion of Internet Service Providers (ISPs), Internet cyber cafés and access points. This has had several positive impacts on the social, economic and educational sectors in the country [11][17][18]. Unfortunately, the country’s image has ’also ’suffered ’as ’a ’result ’of ’the ’nefarious activities ’of ’some ’Nigerians, ’who ’instead ’of utilizing ’the ’Internet ’for ’constructive ’purposes, turn it into a cheap channel for the perpetration of criminal activities, especially the ‘Advanced Fee Fraud (AFF)’ popularly known as ‘419’ [2]. Nigeria has therefore emerged as a source of fraudulent Spam mails characterized by bogus ’business ’proposals ’and ’fraudulent ’joint ventures. To date, spamming, phishing and other forms ’of ’ ’cyber ’crimes ’ ’remains ’one ’the ’most prevalent ’activities ’on ’the ’Nigerian ’Internet landscape accounting for the 18% of all online activities amongst others [19][21][12][23][24][26][27]Information released by the United States Internet Fraud ’Complaint ’Centre ’in ’2006 ’brings ’the Nigerian Spam situation to the fore as the number three among the first ten nations that serve as the source of Spam all over the world [20][22]. The Economic ’and ’Financial ’Crimes ’Commission (EFCC) is the body empowered by government to fight all forms of financial crimes including cyber crimes in Nigeria . They are working in tandem with the Cyber crime Prevention Working Group.

1.1Internet Service Provision

Internet Service providers (ISPs) are necessary at every stage of an internet transaction. Even the simplest internet transaction usually ’involves a ’user’s computer, an ’internet service ’provider’s ’access ’computer, ’a ’regional router, ’a ’governmental ’backbone ’computer, another regional router, another internet service provider’s ’computer, ’and ’a ’content ’provider’s computer. So, even in the simplest transactions, there are many more intermediaries than users or content providers [6][7].To end-users, the ISP is the entity responsible for making access to the content on the internet possible. An end-user is not ’concerned ’with ’which ’company ’actually provides the physical network that transmits data across the country ’or the protocols that ensure that the data gets routed to the right place. But recognizing the importance to appropriate regulatory design of sensitivity to context, it is important to distinguish different roles that ISPs play in common internet activities.

There are three main types of ISPs that are always ’involved ’in ’an ’internet ’transaction: Backbone Providers (National ISP), Source ISPs (Regional ISP), and Destination ISPs (Local ISP). The first group includes those that operate solely at the level of transmission (Backbone Providers), with no direct relationship to any of the actors at the ’endpoints ’of ’the ’transmission. ’Generally when ’discussing ’cybercrimes ’and ’misconducts, the ’Backbone ’providers ’are ’of ’relatively ’little interest, ’because ’their ’networks ’are ’in ’practice unable to distinguish between different types of data they are carrying. Destination ISPs (Local ISP) serve the end-user who requests content over the ’internet. ’ ’The ’Destination ’ISP ’can ’be subcategorized as Retail ISPs and Link ISPs.

The Retail ISP is the ISP that bills the end-user. The Link ISP provides applications of the internet ’such ’as ’the ’ability ’to ’connect ’to ’the World Wide Web, who thus serve as gateways for end-users to everything on the internet. As the ’owners ’of ’equipment ’that ’operates ’to ’link networks to the internet backbone, and translate application ’data ’into ’a ’format ’that ’can ’be transmitted along the ’backbone, these ISPs are well-placed ’to’ prevent ’some ’types ’of ’harm ’by blocking access to certain data available on the internet, or to prevent the transfer of certain other kinds of data such as malicious worms (Jonathan Z, 2003).

Since ’ ’Link ’ISPs ’and ’Retail ’ISPs ’always work ’in ’together ’to ’provide ’the ’end-user ’with internet ’access, ’it ’is ’analytically ’necessary ’to think ’of ’their ’functions ’as ’either ’integrated ’or disintegrated ’depending ’on ’the ’situation. ’ ’For instance, if a regulation is directed at preventing certain individuals from gaining internet access, then a focus on Retail ISPs, who deal ’directly with the individuals, is appropriate. By contrast, a ’focus ’on ’Link ’ISPs ’would ’be ’inappropriate because those actors would find it more costly to identify ’individuals. ’ ’If, ’on ’the ’other ’hand, ’a regulation required IP filtering, it would have to be directed to Link ISPs, who handle the internet traffic, ’rather ’than ’Retail ’ISPs, ’who ’have ’no technological capability to filter internet traffic. But in other contexts, it is more helpful to view a co-operating Retail ISP and Link ISP as a single entity, the Destination ISP.

The Source ISP, in contrast, may be involved in ’a ’range ’of ’ways ’that ’are ’relevant ’both ’in assessing how “fair” it is to “blame” the Source ISP for the misconduct (the predominant question in existing judicial doctrine) and also in assessing how effectively the Source ISP could serve as a gatekeeper to stop the misconduct (the predominant ’question ’for ’us). ’ ’For ’example, ’a Source ISP that is providing not only access, but also ’a ’server ’on ’which ’the ’unlawful ’material resides, may be much better placed to monitor and control the ’ activity ’than ’one ’that ’provides only access.

Second, ’more ’importantly, ’the ’Destination ISP ’that ’wishes ’to ’serve ’ordinary ’end-users cannot readily remove itself from the jurisdiction of the government in whose territory the users are located. ’ ’By ’contrast, ’the ’Source ’ISP ’that ’is willing ’to ’facilitate ’unlawful ’behavior ’can remove ’itself ’to ’a ’jurisdiction ’that ’does ’not prohibit ’the ’ behavior ’in ’question. ’ ’Thus, ’for example, ’the ’Source ’ISP ’that ’is ’willing ’to facilitate internet casinos can make its services available ’anywhere ’that ’local ’laws ’allow ’such activities, putting these entities outside the reach of ’most ’law ’enforcement ’agencies. ’ ’But ’the Destination ISP that provides the connection for customers ’in ’Ohio ’for ’example, ’to ’visit ’the internet ’casino ’in ’Antigua ’must ’be ’present ’in Ohio, if not only in the form of a local server, cable, or router [23].

1.2 Existing Liability Schemes

As a general matter, it is likely that the person who ’can ’efficiently ’prevent ’most ’forms ’of internet-related misconduct is the primary perpetrator. When an internet worm is released onto the internet, for example, the person who can most easily prevent the harm is the person that wrote the worm (the content) and released it onto the internet. For internet ’gambling to be successful, there must be both a gambler and a gambling website. If either of these individuals is lacking, the gambling will not take place. Thus, if either of these actors can be controlled directly, then the social harm caused by internet gambling can be ’prevented. ’ ’This ’direct approach is ’the path that the law traditionally has pursued.

But regulation that seeks to prevent misconduct through controlling primary perpetrators is not always effective. These laws are ’ineffective ’when ’individuals ’are ’judgment proof or when prosecution is not efficient either because ’of ’the ’high ’volume ’of ’transactions ’or because ’of ’the ’low ’value ’of ’each ’transaction. Thus, ’to ’use ’the ’obvious ’and ’well-known example, ’direct ’regulation ’of ’individuals ’that share ’copyrighted ’material ’on ’the ’internet ’has not, ’to ’date, ’been ’effective ’to ’significantly decrease that type of conduct.

When ’targeting ’primary ’perpetrators ’is ineffective, policy makers must choose between allowing ’proscribed-conduct ’harms ’to ’continue unchecked and identifying alternative regulatory strategies. Generalizing broadly, existing policy responses have proceeded along two paths, both of ’which ’have ’resulted ’for ’the ’most ’part ’in ’a relatively ’broad ’ freedom ’from ’liability ’for intermediaries. ’ ’First, ’in ’a ’variety ’of ’contexts, courts ’have

’applied ’traditional ’fault-based ’tort 3 principles to evaluate the conduct of intermediaries. Although there are instances in which relatively egregious conduct has resulted in liability, many if not most of the cases have absolved intermediaries from responsibility. Second, ’in contexts ’in ’which ’courts ’have ’held open the prospect that intermediaries might have substantial ’responsibility ’for ’the ’conduct ’of primary perpetrators, Congress has stepped in to overrule ’the ’cases ’by ’granting ’intermediaries broad exemptions from liability. The paths share not only the reflexive and unreflective fear that recognition of liability for intermediaries might be catastrophic to internet commerce; they also share a myopic focus on the idea that the inherent passivity ’of ’internet ’intermediaries ’makes ’it normatively inappropriate to impose responsibility ’on ’them ’for ’conduct ’of ’primary perpetrators.’ ’That ’idea ’is ’flawed ’both ’in ’its generalization about the passivity of intermediaries and in its failure to consider the possibility ’that ’the intermediaries ’might ’be ’the most effective sources of regulatory enforcement, without regard to their blameworthiness.

2.0 Internet Crimes

Internet misconducts or crimes refer to the wrongful ’use ’of ’the ’internet. ’It ’involves ’ using contents ’or ’services ’which ’are ’prohibited ’or generally taken as crime. Cyber crime is defined as crimes committed on the internet. It is very difficult to classify crimes in general into distinct groups as many crimes evolve on a daily basis. Even in the real world, crimes like rape, murder or ’theft ’need ’not ’necessarily ’be ’separate. However, all cyber crimes involve two parties; there is the sender and also there is the receiver. Many ’have ’blamed ’the ’receiver ’of ’criminal contents ’simply ’because ’they ’made ’reply ’and give adequate attention ’to the contents without considering ’the ’risks ’involved ’in ’the ’contents. Internet ’misconduct ’may ’take ’different ’shape depending on the level of understanding of the perpetrator and the nature of the ‘business’ to be transacted in the process.

In every crime committed on the internet, the computer is either a target or used as a tool. For ’example, ’cyber ’stalking ’and ’hacking ’both involve ’attacking ’the ’computer, ’but ’the ’main target ’of a ’cyber stalker is ’the ’victim, ’not ’the computer. ’It ’is ’important ’to ’take ’note ’that overlapping ’occurs ’in ’many ’cases ’and ’it ’is impossible to have a perfect classification system. When ’the ’individual ’is ’the ’main ’target ’of ’the crime, the computer can be considered the tool rather ’than ’the ’target. ’These ’crimes ’generally involve ’less ’technical ’expertise ’as ’the ’damage done manifests itself in the real world. Human rather than mechanical weaknesses are generally exploited. The damage dealt is largely psychological and intangible, making legal action against the perpetrators all the more difficult. The essential ’concepts ’and ’motives ’have ’remained largely unchanged. The same criminal has simply been given a tool which increases his potential pool of victims and makes him all the harder to trace and apprehend [3][4][5]. Summarily, the following ’forms ’of ’internet ’crimes ’can ’be identified ’among ’others ’– ’software ’piracy, pornography, spamming (including cyber stalking, phishing, ’network ’intrusion, ’malware, ’viruses etc)

2.1 Cyber Crime & Criminality in Nigeria

Crime ’tries ’to ’remains ’elusive ’and ’ever strives ’to ’ ’ ’ ’ ’hide ’itself ’in ’the ’face ’of development. ’Different ’nations ’have ’adopted different ’strategies ’to ’contend ’with ’crimes depending on their nature and extent. Certainly, a nation with high incidence of crime cannot grow or develop. That is so because crime is the direct opposite ’of ’development. ’It ’leaves ’a ’negative social ’and ’economic ’consequence ’[25]. ’For Nigeria, in the battle against cyber crimes, efforts are ’now ’being ’directed ’at ’the ’sources ’and channels through which Cyber-crimes are being perpetuated ’– ’the ’ ’most ’popular ’one ’being Internet access points aided by insensitive ISPs . Majority ’of ’the ’Cyber-crimes ’perpetrated ’in Nigeria generally are targeted at individuals and not ’necessarily ’computer ’systems, ’hence ’they require ’less ’technical ’expertise ’on ’the ’part ’of these criminals. The damage done manifests itself in the real world as human weaknesses such as greed and gullibility are generally exploited. The damage ’dealt ’is ’largely ’psychological ’and financial. These crimes are similar to theft, and the likes that have existed for centuries offline even ’before ’the ’development ’of ’ ’high-tech equipment. ’Through ’ ’the ’Internet, ’the ’same criminals or persons with criminal intents have simply been given a tool which increases their potential pool of victims and makes them all the harder to trace and apprehend [1][20].

The ’Cyber ’criminals ’apart ’from ’his ’own mentality ’and ’the ’strength ’of ’his’ motivations, needs to see the path of crime ahead of him clear of obstacles. If every single individual were to put ’up ’obstacles ’of ’their ’own, ’no ’matter ’how small, the ’crime ’path ’will seem ’to ’be far ’less lucrative in the eyes of even the most desperate criminal [2]. Progress in the fight against Internet pornography is not really meaningful in Nigeria except in few cyber cafes where content filters are downloaded and installed to filter unwanted Internet content [4][5][12]

On the other hand, even in Cybercafés with notices warning against pornographic and spamming ’activities, ’bulk ’tickets ’are ’sold, obviously meant for the purpose of sending Spam mails ’and ’browsing ’sex ’sites. ’Apart ’from ’the availability ’and ’usage ’of ’ Internet ’facilities ’in cyber cafes for pornography and other cybercrimes, ’the ’evolution ’of ’fixed ’wireless facilities in the Nigerian network landscape has added ’another ’dimension ’to ’the ’cybercrimes problem. ISPs are benefitting seriously from this in formation-seeking explosion. Interested customers ’who ’can ’afford ’to ’pay ’for ’Internet connection ’via ’fixed ’wireless ’lines ’can ’now perpetrate their evil acts within the comfort ’of their homes.

The ’challenge ’in ’fighting ’Cyber-crimes today relates to the fact not only the criminals are benefitting ’from ’cyber-crime, ’service ’providers are equally benefitting. This is simply analogous to ’the ’issue ’of ’health ’risks ’associated ’with information technology tools. Since manufacturers ’are ’benefitting ’from ’massive purchases of GSM handsets and IPods, they stifle research that unveils the possible health implications of unguided usage of these equipments. ’Also ’Cyber-crimes ’have ’been ’in existence ’for ’only ’as ’long ’as ’the ’cyber ’space exists. ’This ’explains ’the ’unpreparedness ’of society ’and ’the ’world ’in ’general ’towards combating them. Numerous crimes of this nature are ’committed ’daily ’on ’the ’Internet ’with Nigerians at the forefront of sending fraudulent and bogus financial proposals all over the world. Nigeria has therefore carved a niche for herself as the source of what is now generally referred to as ‘419’ ’mails ’named ’after ’Section ’419 ’of ’the Nigerian Criminal Code (Capp 777 of 1990) that prohibits advance fee fraud.

2.2 The Nature of Cyber-crimes in Nigeria

The following categories of crime are the most common ones in the Nigerian cyber space.

(a) Hucksters: The ’hucksters ’are characterized by a slow turnaround from harvest to first ’message ’(typically ’at ’least ’1 month), ’a ’large ’number ’of ’messages being sent to each harvested spam trapped addresses, and typical product based Spam (i.e. Spam selling an ’actual ’product ’to ’be ’shipped ’or downloaded even if the product itself is fraudulent).

(b) Fraudsters: The ’fraudsters ’are characterized ’by ’an ’almost ’immediate turnaround from harvest to first message (typically ’less ’than ’12 ’hours), ’only ’a small ’ number ’of ’messages ’are ’sent ’to each harvested addresses (e.g. phishing, “advanced ’fee ’fraud”-419 ’from ’the Nigerian ’perspective). ’Fraudsters ’often harvest ’addresses ’and ’send ’only ’a message to them all at a particular time. The major tool for getting addresses is the mailing address extractor [13][14]

(c) Piracy : Piracy involves the illegal reproduction and distribution of software applications, ’games, ’movies ’and ’audio CDs. [9][10][18][16]. This can be done in a number of ways. Usually pirates buy or ’copy ’from ’the ’Internet ’an ’original version ’of ’a ’software, ’movie ’or ’game and illegally make copies of the software available online for others to download and use without the notification of the original owner of the software. This is known ’as ’Internet ’piracy ’or ’Warez. Modern day piracy may be less dramatic or exciting but is far subtler and more extensive ’in ’terms ’of ’the ’monetary losses the victim faces. This particular form of Cyber crime may be the hardest of all to curb as the common man also seems to be benefiting from it[6][7].

(d) Hacking: Young Nigerians can be observed ’on ’daily ’basis ’engaging ’in brainstorming ’sessions ’at ’Cyber ’Cafés trying ’to ’crack ’security ’codes ’for ’e-commerce, ATM cards and e-marketing product sites. The surprising thing is that even with their low level of education or understanding ’of ’the ’intricacies ’of computing techniques, they get results! Phishing ’is ’also ’becoming ’popular ’as criminals ’simulate ’product ’websites ’to deceive ’innocent ’Internet ’users ’into ordering products that are actually non-existent.

2.3 Mediums For Perpetrating Cyber- crimes In Nigeria

The ’Cyber ’criminals ’apart ’from ’his ’own mentality ’and ’the ’strength ’of ’his’ motivations, needs to see the path of crime ahead of him clear of obstacles. If every single individual were to put ’up ’obstacles ’of ’their ’own, ’no ’matter ’how small, the ’crime ’path ’will seem ’to ’be far ’less lucrative even in the eyes of the most desperate criminal [1]. Progress is observable in the fight against Internet pornography (except in few cyber Cafés). This is achievable by downloading and installing ’content ’filters ’to ’filter ’unwanted Internet content [8][9][12]. On the other hand, in 5 Cyber ’Cafés ’with ’notices ’warning ’against spamming ’activities, ’bulk ’tickets ’are ’sold, obviously meant for the purpose of sending Spam mails.

Apart ’from ’the ’availability ’and ’usage ’of Internet facilities in cyber cafes for scam mails and ’other ’cyber ’crimes, ’the ’evolution ’of ’fixed wireless facilities in Nigeria has added another dimension to the Cyber crime problem. Fraudsters ’who ’can ’afford ’to ’pay ’for ’Internet connection ’via ’fixed ’wireless ’lines ’can ’now perpetrate their evil acts within the comfort ’of their homes. In some Cyber Cafés, a number of systems ’are ’dedicated ’to ’fraudsters ’(popularly referred to as “yahoo boys”) for the sole purpose of hacking and sending fraudulent mails. Other Cyber ’Cafes ’share ’their ’bandwidth ’(popularly referred to as home use) to some categories of customers who acquire systems for home use in order ’to ’perpetuate ’Cyber-crimes ’ ’from ’their homes.

Efforts at preventing financial Cyber crime in Nigeria are both at entrepreneurial, private and public ’pedestal. ’For ’café ’owners, ’notices ’are pasted ’on ’walls ’warning ’of ’possible ’arrests ’of scammers who send fraudulent mails. Individuals can only take precautions within the limit of the knowledge of the dynamics of the Internet and the e-mail system. Generally, users are learning not to respond to scam mails or mails presenting financial ’ bogus ’proposals. ’For the ’government, the Economic and Financial Crimes Commission (EFCC) ’has ’been ’given ’powers ’to ’arrest ’and prosecute individuals and organizations suspected to be involved in the facilitation of Cyber crimes. The bill on Cyber crime has been passed by the National Assembly, it is therefore not unusual to see ’billboards ’donning ’ Nigerian ’roads ’warning Cyber criminals that the “hands of the law will soon get to them”. An angle yet to be explored is the ISPs end.

2.4 Primary Perpetrators

Primary ’perpetrator ’offer ’or ’receive content or products over the internet that violates laws related to subjects such as copyright, child pornography, ’gambling, ’and ’trademarks. ’ ’The proprietor of a gambling website, for example, offers ’content ’over ’the ’internet ’that ’ allows visitors to violate gambling laws. On the other side ’of ’the ’transaction, ’visitors ’to ’a ’gambling website ’receive ’content ’and ’interact ’with ’the content ’in ’ways ’that ’ violate ’gambling ’laws. Likewise, a person who introduces a malicious internet ’worm ’onto ’a ’network ’operates ’at ’the content layer by putting content onto the web that threatens all computers with internet access. General misconceptions about Nigerian cybercriminals.

Over ’the ’years, ’the ’movie ’industry ’has ’often over-simplified and romanticized the portrayal of the ’cybercriminal. ’Movies ’undoubtedly ’reveal hackers to be misunderstood geniuses attempting to save the very society which ostracized them, only ’to ’be ’impeded ’by ’the ’unforgiving ’harsh government. ’Conversely, ’the ’media ’depicts ’the cyber-criminal ’to ’be an ’individual who do ’not believe in the term “free society” hence they are out ’to ’put ’tears ’in ’the ’society ’generally. Logically, the truth lies somewhere in between both images. Most misconceptions people have are unjustifiable. Only an iota of truth exists in them. Cybercriminals do indeed need to be very tech-smart and intelligent to commit crimes and escape scot-free. As with crimes in general, males do form the greater proportion of criminals than women. ’The ’difficulty ’actually ’lies ’in ’dealing with criminals who do not exactly fit the typical profile, easily escaping legal action.

Misconception 1: All cybercriminals are smart but social misfits This might have been the case during the time of the standalone computer ’when ’the programmer was usually an a graduate in computing glued in front ’of ’his ’monitor ’and ’punching ’on ’his keyboard. He needed to be very tech-wise and possessed ’little ’time ’to ’socialize ’with ’others. Today, ’however, ’both ’the ’net ’and ’the ’user-friendliness ’of ’personal ’computers ’have ’made committing cybercrimes easy for anyone willing to learn to do so. An effective cybercriminal in the modern-day era needs to have excellent social skills and charisma in order to undertake social engineering ’and ’exploit ’the ’human ’aspect ’of encryption systems.

Misconception 2: Teenagers with computers are all cybercriminals The media ought to shoulder most of the blame for ’this ’stereotype. ’Countless ’movies ’have portrayed ’ individual ’teenage ’boys ’hacking ’into government ’databases ’and ’doing ’what ’trained terrorists failed to do. The image of a boy staying up in the night down at his basement working on his ’computer ’and ’wreaking ’havoc ’many ’miles away ’is ’prevalent. ’Just ’because ’hacking ’has become ’much ’easier ’than ’before ’does ’not translate to teenage boys selling military secrets to rival states. Certainly, there may be a one in a million case of such an incident. However, this is an exception which proves the rule. The furthest a typical teenager will go to is illegally downloading warez software and music from the Internet and copying these onto a CD (piracy).

Misconception 3: Cybercriminals Care Cnot “real” criminals Strangely, ’many’ cybercriminals ’believe ’these themselves. This actually gives them the justification to continue committing cybercrimes because ’these ’are ’not ’“real” ’crimes. ’The popularity of online chatting under pretence has reinforced ’the ’belief ’that ’the ’cyber world ’is separate ’from ’the ’real ’one. ’This ’encourages criminals to dismiss ethics and morals. Cyber stalking, child pornography, online threats and ’blackmail ’are ’now ’pressing ’issues. ’The crimes themselves are not manifested in the real world, but the damage done is. Many also use the Net ’to ’find ’victims ’in ’the ’real ’world ’to ’rape, assault ’or even murder. An ’even ’more terrible counter example for this issue is the rapid spread of cyber terrorism in which computers are being used ’to ’disrupt ’all ’telecommunication ’and security systems in a country.

Misconception 4: All Cybercriminals have the same characteristics Although, ’some ’ cybercriminals ’have ’similar characteristics, ’it ’is ’impossible ’to ’treat ’all cybercriminals as if they were alike because they are not. Each criminal subculture has its very own type ’of ’personality ’and ’areas ’of ’specialty. ’For instance, a scam artist cannot be put in the same category as a serial killer in a getaway truck even if the damage done appears to be the same. Only when ’people ’realize ’that ’there ’is ’no ’“typical” cybercriminal ’will they start taking appropriate action against each specific type, in the process closing ’all ’loopholes ’for ’cyber ’criminals ’to operate or escape through.

2.5. The Victims

Ravi K. in 2004, defined victimology as a very important branch of criminal psychology. It is as important, if not more, to know whom the criminal is likely to target. Preemptive action can only be taken by the law if they know who is likely to commit crime as well as who is likely to be targeted. All criminals at least the intelligent ones will only attack those who exhibit certain vulnerabilities. Cybercriminals are careful about the personalities of those they choose to prey on. We ’identified ’four ’levels ’of ’cybercrime victims. These are;

(1)The Naïve/gullible
(2)The Desperados
(3)The Inexperienced and
(4)Unlucky people

1. The Gullible

There ’is ’no ’doubt ’that ’cybercriminals ’are most fond of people who are easy to deceive. On a more obvious level, phishers are able to fool such ’people ’into ’buying ’their ’scams

’or ’being drawn into legal traps. Usually older people are prone to being scammed as they are more trusting and helpful towards others. On a more dangerous level, however, especially children, believe that the people they meet on the net are as friendly and worthy of trust as real people are. Almost all victims of cyber stalkers or online pedophiles are prone ’to ’ trusting ’people ’and ’making ’friends easily. An even more dangerous aspect of this is the ’dissemination ’of ’information ’regarding propaganda ’or ’weapon-construction. ’Gullible teenagers ’or ’young ’adults ’in ’countries ’with unstable political climates can be swayed by such information, ’leading ’to ’heightening ’of ’national tension.

2. Desperados (For money or “items”)

Many internet users are desperate for easy ways to make cash. Hence, they easily fall for emails that say things like “Get rich fast!” and follow the instructions in the emails which most others are likely to treat as junk. They are almost definitely ’being ’led ’to ’legal ’and ’financial entanglements out of which only the perpetrator will ’make ’profits. ’There ’are ’others ’who ’are attracted to advertisements related to improving one’s physical image. Ridiculous products such as ’“cheap, ’effective ’breast ’enlargements” ’etc. claim to boost their self-esteem at minimum cost. This ’explains ’why ’there ’are ’so ’many ’of ’such emails in ’circulation ’these ’days. ’These ’adverts are almost certainly nothing more than means to extract credit card numbers and render the reader bankrupt. Cyber stalker victims are almost always children ’and ’especially ’teenagers ’who ’are desperate for friendship. They try very hard, often too hard, to make online friends with whom to boost their ego. The result is that they are much more likely to become prey to those who wish to satisfy their sexual appetites and manipulate their victims to this end.

3. Inexperienced

There ’are ’a ’lot ’of ’people ’in ’the ’world ’today whose knowledge of the Net is just enough to chat with their friends and maybe get information from here and there. They are totally incapable of protecting their computers from malicious programmes, ’hackers ’and ’maybe ’even ’spam. Worse, ’they ’may ’not ’even ’be ’aware ’of ’the existence of such crimes, hence become victims in the hands of the professional criminal. They are usually satisfied with their knowledge and see no need to upgrade.

4. Unlucky people

There are also people who fulfill none of these categories but are just unlucky enough to be at ’the ’wrong ’place ’at ’the ’wrong ’time, ’in cyberspace that is. A full-scale of attack or a self-replicating and highly advanced virus can cause great ’damage ’to ’networks ’or ’PCs ’and ’the individual ’may ’not ’in ’anyway ’be ’blame. ’An element of surprise does exist in cyberspace. But it certainly does help to be prepared [24][27]

3.0 Research Design

This study seeks to investigate the level ’of awareness ’of ’liabilities ’accruable ’to ’internet service ’providers ’(ISPs) ’in ’Nigeria ’when ’their facilities are used for ’internet misconduct. The study ’was ’conducted ’ex ’post ’facto ’using ’the descriptive survey research design. A descriptive survey seeks to find out certain facts concerning an existing phenomenon. The survey method of investigation focuses on people and their beliefs, opinions, perceptions and motivation and makes it easier for the situation to be described exactly as they exist.

3.1 Research Questions

From ’the ’foregoing, ’the ’following ’research questions emerge:

1) What are the level of awareness of ’internet ’intermediary ’liabilities ’in Nigeria
2) What ’are ’the ’effects ’of ’government policies and regulations on intermediary activities?
3) What strategies if any are employed by ISPs for controlling misconduct on their network in Nigeria?

3.2 Research Hypotheses

The following null hypotheses were formulated based on the research questions:
H0: There is no significant relationship between the awareness of internet intermediary liabilities and ’level ’of ’misconducts ’over ’the ’internet ’ ’in Nigeria

3.3 Study Population

A ’total ’of ’sixty ’(60) ’questionnaires ’were distributed both by e-mail and personal administration to intermediaries in Nigeria. This intermediaries ’consisted ’of ’identified ’ISPs, (offering ’backbones ’Connections ’for ’internet usage only), Network companies offering broadband ’access ’for ’voice, ’video ’and ’data communication ’and ’Wireless ’ telephone ’access companies offering phone communication services only. Out of the distributed questionnaires, ’45 ’were ’successfully ’completed and returned.

3.4 Instruments Validation/Reliability

A self-constructed questionnaire titled Awareness of Intermediary Liabilities is the main instrument used to collect data for this study. The questionnaire used contain items grouped into 2 sections. Section A request ’for the background information ’of ’the ’company ’(Age, ’Location, Service ’Type ’etc) ’Section ’B ’contained ’items which sought to examine the level of awareness of ’their ’liabilities ’as ’intermediaries, ’effect ’of government ’regulations ’on ’their ’activities ’and strategies used by ISPs for controlling the level of misconducts on their network. ’The ’face-validity ’and ’content-validity ’of ’the ’instrument were ’verified ’by ’experts ’in ’the ’University ’of Ibadan. The various suggestions made were used to modify the instrument. The reliability coefficient of the instrument used was (a = 0.82) based on the Cronbach alpha method.

3.5 Method of Data Collection/ analysis

Undergraduate students under the supervision ’of ’the ’researchers ’administered ’the instrument both by hand and through e-mail to the respondents within southwest Nigeria. Descriptive ’and ’inferential ’statistics ’were ’used using ’simple ’descriptive ’statistics ’such ’as frequency and percentages and chi-square to test for differences between groups. All the hypotheses were tested at 0.05 level of significance.

4.0 Data Presentation and Analysis

The level of awareness of internet misconducts among users

Question 1:’Do ’you ’know ’all ’your ‘customers (clients)?

	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	21	15	25

Question 2: Have ’you ’ever ’taken ’time ’to study some of the activities ’of ’your customers while they are using your facilities?

	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	12	24	09

Question 3: What is your level of knowledge on internet misconduct?

	OPTIONS		
	Highly Informed	Informed	Not Interested
NO. OF RESPONSES	24	3	18

Question 4:Can ’you ’name ’some ’of ’the internet crimes and misconduct you know about as an expert in the internet business?

	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	6	36	3

Question 6: Do ’you ’have ’list ’of ’addicted internet users in your network?

	OPTIONS		
	Yes	No	Not Sure
NO. OF RESPONSES	27	6	12

Question 9:Is ’your ’services ’24 ’hours services?

	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	36	09	-

Question 10:If (9) is 'Yes', how many staff do you normally have for the night shift?

	OPTIONS			
	1-5	6-10	11-15	16-50
NO. OF RESPONSES	39	6	3	-

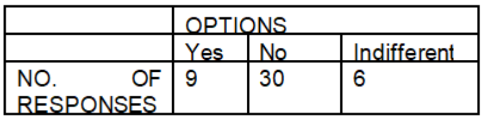
Question 11: There is the ’believe that ISPs pay ’huge ’amount ’of ’money ’for ’monthly bandwidth, is this true?

	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	27	6	12

From ’the ’tables ’above, ’46.7% ’of ’the respondents know the nature of customers they have on their network. 53.3% of the respondents do not know the kind of activities their customers do on their network, meaning they do not monitor the ’networks. ’53.3% ’of ’the ’respondents ’are highly informed about internet misconducts. 80% of the respondents were not willing to give details about ’the ’misconducts ’committed ’on ’their networks. ’ ’60% ’of ’the ’total ’respondents ’who answered ’the ’questions ’say ’they ’have ’list ’of addicted

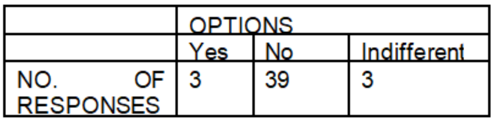
internet users on their network but do not ’know ’what ’they ’do ’online ’each ’time ’they visit. ’80% ’of ’the ’respondents ’offer ’24hours services daily for their clients but over 86% of the respondents under-staff their night shifts. 60% of the respondents agreed to the fact that Internet Service ’Providers ’pay ’very ’high ’bandwidth ’to keep their network running.
Effects of Government Policies and Regulations on Internet Intermediaries’ activities

Question 13: Do you know of any law(s) or acts ’that ’are ’enacted ’by ’the ’government ’to regulate the services of ISPs?



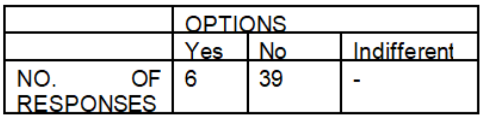
	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	9	30	6

Question 14: If ’answer ’to ’(12) ’is ''Yes', ’do you think the law has been able to meet up with the target of sanitizing the internet?



	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	3	39	3

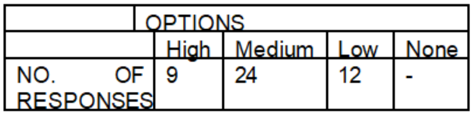
Question 15: Do you agree to the statement that ’ISP ’should ’be ’liable ’for ’all ’ misconducts perpetrated by internet users?



	OPTIONS		
	Yes	No	Indifferent
NO. OF RESPONSES	6	39	-

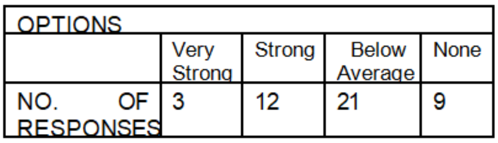
Over 66% of the respondents say they do not know of any laws or act in the areas of cyber crimes ’or ’cyber ’misconduct. ’Over ’86% ’of ’the total respondents disagree to the fact that existing laws have been able to sanitize the cyberspace. Over 86% of the respondents disagree to the fact that Internet Intermediaries should be held liable for crimes committed on their networks.
Strategies Used By ISPS for Controlling the Level of Misconducts on Their Network

Question 16: Rate ’your protective ’measures against internet misconduct



	OPTIONS			
	High	Medium	Low	None
NO. OF RESPONSES	9	24	12	-

Question 17: What is the level of security on your network?

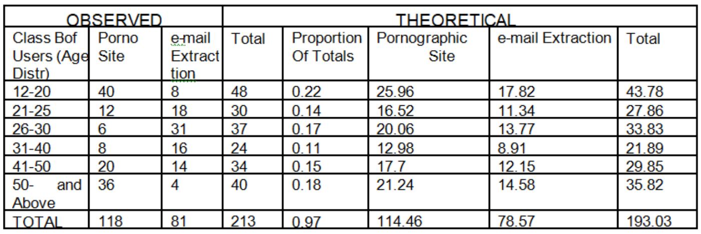


OPTIONS				
	Very Strong	Strong	Below Average	None
NO. OF RESPONSES	3	12	21	9

46% ’of ’the ’respondents ’rated ’their ’protective strategies against internet misconducts as ‘below average. ’26% ’of ’the ’respondents ’rated ’their network security as strong.

4.1 Hypothesis Formulation

H0: There is no significant relationship between the ’internet ’service ’providers ’and ’the ’level ’of misconducts over the internet. If there is significant difference between the observed and the theoretical distributions, the chi square test will have to be applied before we can take a final decision on the issue at stake.



OBSERVED			THEORETICAL				
Class Bof Users (Age Distr)	Porno Site	e-mail Extraction	Total	Proportion Of Totals	Pornographic Site	e-mail Extraction	Total
12-20	40	8	48	0.22	25.96	17.82	43.78
21-25	12	18	30	0.14	16.52	11.34	27.86
26-30	6	31	37	0.17	20.06	13.77	33.83
31-40	8	16	24	0.11	12.98	8.91	21.89
41-50	20	14	34	0.15	17.7	12.15	29.85
50- and Above	36	4	40	0.18	21.24	14.58	35.82
TOTAL	118	81	213	0.97	114.46	78.57	193.03

Table 4.1: Internet Misconduct

From the table 4.1, the following holds:

The totals are obtained by adding values across a row and a column respectively i.e 40+8=48. The proportion of totals is obtained by dividing each value by the total in a column i.e 48/118=0.22. To ’obtain ’the ’theoretical ’values, ’the ’total ’of observed ’values ’are ’ multiplied ’by ’each ’of ’the proportion ’of ’totals ’i.e ’0.22*118=25.96 ’for pornographic ’site. ’Since ’there ’is ’difference between ’the ’totals ’of ’the ’observed ’and ’the computed values, the chi-square test is now to be applied using the formula below.

$$X^2 = \sum \left[\frac{(f - f')^2}{f'} \right]$$

Resulting in =3.36+5.41+1.23+6.6+9.8+21.55+1.9+5.6+0.29+0.28+10.25+7.6 = 73.68

From degree of freedom df = (c-1)(r-1) where c = total number of columns and r = total number of rows, C =2, r = 6, therefore df = (2-1)(6-1)= (1)(5) = 5

5.0 Results and Discussion

The ’data ’presented ’in ’this ’table ’were gathered ’from ’a ’internet ’access ’points ’using participant observation method of data collection on ’two ’major ’internet ’misconducts ’ relative ’to protective ’mechanisms ’installed ’in ’the ’various access points based on the level of awareness of the ’intermediary ’liability ’by ’the ’owners. ’The researchers ’ monitored ’the ’activities ’of ’users ’at some ’public ’internet ’access ’points ’in ’south western Nigeria over a period of 6 months. The information presented below was observed as the major activities in the cyber café.

Using chi-square distribution table, the chi-square value for the 0.01 level with 5 degree of freedom is 15.086 and for the .05 level, it is 11.071. The computed ’chi-square ’value ’from ’the ’results obtained ’is ’greater ’than ’any ’of ’the ’two ’table values. Hence the Null hypothesis is rejected and the alternate hypothesis is accepted. We therefore accept that:

H1: There is significant relationship between the awareness of internet intermediary liabilities and level of misconducts over the internet in Nigeria

6.0 Concluding Remarks

The internet is coming of age. Though at the advent of the internet it may have been necessary to develop laws and policies that protected the fertile ’ground ’in ’which ’the ’businesses ’and technologies ’of the ’internet ’have ’grown, ’today the ’internet ’has ’taken ’hold ’and ’permeates ’our daily lives. Companies that provide access to the internet as well as companies that provide content on the internet are becoming entrenched in their positions of dominance. Non-internet companies have ’also ’incorporated ’the ’internet ’into ’their business ’models ’to ’increase ’efficiency ’and customer service. At the same time, however, harm perpetrated over the internet continues to grow each year. The pirates have arrived on the high ’seas ’of ’the ’online ’world ’and ’the ’lack ’of regulation ’makes ’ collecting ’their ’booty ’all ’too easy. For ’Nigeria ’to ’reap ’the ’gains ’of ’development accruable ’from ’ICT ’and ’especially ’the ’global highway, ’the ’time ’has ’come ’for ’ lawmakers ’to implement sensible policies designed to reign in the pirates while minimizing the impact on law-abiding users of the internet.

Fighting cybercrime must be a collaborative effort, which will benefit from using tools and standards that aid in exchanging information and performing ’coordination. ’To ’this ’end, ’standard methods ’of ’reporting ’spamming ’events, ’of characterizing ’particular ’spam, ’and ’of ’sending spam control data can be helpful. Some work in that ’direction ’should ’be ’encouraged. ’Fighting spam also requires global operations collaboration; this will be aided by services to facilitate interactions between network administrators ’speaking ’different ’languages ’as well as law enforcement agencies across nations. It is also likely that there should be standards for the ’syntax ’and ’semantics ’of ’whitelists ’and blacklists in inbound mail filtering systems.

It is obvious that there are lots to be done in the areas of finding adequate legislation on internet misconducts ’and ’liability ’of ’intermediaries ’in Nigeria. The fact that internet service providers are ’making ’undue ’gains ’from ’exploiting ’these dirty tracks remains a battle that will take more than wits to win. Deliberate legislative activities, backed up by aggressive law enforcement will be a ’potent ’method ’to ’win ’the ’battle ’against misconduct on the internet in Nigeria. Nigerian organizations ’today ’must ’first ’and ’ foremost defend their own systems and information from attack, be it from outsiders or from within. They may rely only secondarily on the deterrence that effective ’law ’enforcement ’can ’provide. ’To provide this self-protection, organizations should focus ’on ’implementing ’cyber ’security ’plans addressing ’people, ’process, ’and ’technology issues. ’Organizations ’need ’to ’commit ’the resources ’to ’educate ’employees ’on ’security practices, develop thorough plans for the handling of sensitive data, records and transactions, ’and ’incorporate ’robust ’security technology such as firewalls, anti-virus software, intrusion ’detection ’tools, ’and ’authentication services ’throughout ’the ’organizations ’computer systems. The Internet community must engage in a ’collective ’effort ’to ’curb ’the ’Internet ’of ’the demeaning crimes it is helping to fuel. Of course, the damaged and dented image of the Nigerian Internet users remains an issue of concern as a result of the fraudulent mails emanating from our nation.

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