The nature of Internet use by teens in three parishes in Jamaica

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Introduction

The Internet is a fascinating tool that has changed the way people communicate with one another. This network of tools was born out of a desire to create a communication system that the American military could use to secure internal messaging across its bases. It began operation in the early 1960s under the name Advanced Research Projects Agency Network (ARPANET). The concept of an international network of computers continued to grow, steadily improved and evolved into what we now know as the world-wide-web or the Internet. Today, it is a vast uncontrollable, interconnected international network of computers that have moved out of its original base in military research into government operations, educational institutions, public libraries, commercial organizations, private businesses and homes across the world (Internet Society, 2012).

The Internet enables individuals to exercise the basic human right of "freedom" to communicate. It is the ultimate example of functional anarchy as there are no owners, bosses, boards of directors, censorship groups, stockholders, no cost sharing arrangements or business partners, political or social rules that must be obeyed (Internet Society, 2012). There is no charge for use of the Internet, just access or subscriber fees that are set by the managers of different connection points or nodes, as each is responsible for itself. There is only one standard that all users must observe, Transmission Control Protocol/Internet Protocol (TCPIP), the protocol that all must use to transmit data, which is strictly technical. The Internet is democratic and dynamic as all nodes have equal opportunities and rights to publish information and communicate. The Internet transcends human boundaries such as, religion, education, wealth, race, gender and class as apart from being an ungovernable network; it is everybody's tool and everybody's concern. Consequently, it is important that each society examines carefully, both the benefits and the risks the Internet embodies, and seek to adjust their policies, laws and legislations to guard against negative impacts and maximize the benefits.

Internet in the Caribbean

As the region moves towards the consolidation and implementation of a single seamless economic space by 2015, it is recognized that Information and Communications Technologies (ICTs) are major drivers of development both as a service sector itself and as an enabler to the growth of all other aspects of the economy and society (Dunn & Thomas, 2009). There is a call for the spread of the internet across Caribbean societies; however, this call for the most part has focused on the benefits that interconnectedness will provide. The premise for the spread is a based on optimism that people of the Caribbean will be able conduct business, get educated, and part take in a more progressive lifestyles, through the internet. This is already evident within Jamaica, as some types of businesses are providing their clients with the option to do business online. For example, many commercial banks are encouraging online banking, which means that a customer would, instead of physically visiting a location to conduct business, ean opt to use a computer and Internet to access the same services at any time and from any where. Practices like these have spurred people's interest in acquiring personal access to the Internet from within homes. For these and many other reasons, it is important to learn from the experiences within other societies that have undergone similar changes in order to maximize the benefits of connectivity. This is important to do as home Internet access also means opening access to school age children. Furthermore, adults in most households are likely be less tech-savvy, at least initially, and therefore will rely on children's natural inquisitiveness and the skills they have acquired from schooling to explore and teach them how to use the Internet. This dependence will breed trust, which will in turn give children unsupervised access to the Internet that opens them not only to its benefits, but also to the risks. Therefore, as the numbers of household access to the Internet grow, so should the number of studies that investigate the nature of internet use by Jamaicans.

Impacts of the Internet

It is important to understand fully, how the internet impacts people, just as we know how other technologies such as books, television, film, and video have impacted the world. It is important to garner this understanding because all the technologies which were mentioned earlier, up to recently, led a parallel, separate existence, but are today integrated under the Internet's vast umbrella (Olafssonio, 2011). Today, the Internet has moved away from its hypertext- base to form an "interconnected network of audio, video and electronic text communications" (Olafssonio, 2011, p.364). The internet is now an innovative medium that has completely changed the lives of people in the 21st century; much like television did in the 1950's and 1960's.[,] except In the case of television, it provided the world with mass communication of information that was not necessarily immediate, while the Internet provides it instantly. The Internet unlike television, makes it possible for anyone to create, disseminate, and gain instant access to large amounts of information, through multiple channels of communication, i.e. e-mail facilities, social media spaces, photo and video share locations; print publishing spaces, audio publishing areas, and social networking. This new media makes it possible for users to interact with different people from varying locations across the world (Kim, 2003).

Today, people are truly free to communicate with the rest of the world, pretty much, in any way that they decide. Hence, the number of people who use the internet continues to grow at rapid rates. In 2000 World Stats reported that there were 360,985,492 users of the internet across the world, 4,514,400: Asia, 114,304,000; Europe, 105, 096, 093; Middle East, 3,284, 800; North America, 108, 096,800; Latin America/Caribbean, 18, 068, 919; and Oceania/Australia, 7, 620, 480. While, in 2012 they reported that there are 2, 405, 518, 376 internet users across the world: Africa 167,335,676 (7%); Asia 1,076,681,059 (44.8%); Europe 518,512,109 (21.5%); Middle East 90,000,455 (3.7%); North America 273,785,413 (11.4%); Latin America/Caribbean 254,915,745 (10.4%); and Oceania/Australia 24,287,919 (1.0%). In the Americas, of note is the fact that the Caribbean accounted for 1, 374,623 (2.6%) of the 528,701,158 people who are users of the internet in this region (World Stats, 2012).

Literature Review

The Internet is now a prominent feature in educational practices as educators have spent years encouraging peers to use it to share information, ideas and resources with teachers, students and experts from anywhere in the world (O' Reilly & O' Neill, 2008). Internet resources have been used in classrooms, for over a decade, to provide students with opportunities to be content publishers, who share their knowledge with the world, develop writing skills and work collaboratively with others. There are many examples, in the literature from this field, of other ways that school-aged children have harnessed the benefits of the Internet during the learning process. The internet benefits children in many ways and there are several examples of this from across the world that shares stories of the positives of internet use by children.

The Benefits of the Internet

Home/net/too, a study of 140 low-income mainly African American families, examined children's Internet use in the home. Data were collected through survey questions that focused on children's computer use, academic interests, career aspirations, social engagement and internet use. The results showed that children spent an average 27 minutes per day online and visited 10 domains. They found that the main reasons that children used their computers were to play games (34%), search the web for information (33%), do schoolwork (11%), listen to music (11%), send emails (8%) and document creation (3%), (Jackson et al., 2005). It was noted that the home/net/too children in this study, rarely used email to communicate, perhaps because their friends and family were too poor to have Internet access in their homes. In addition, parents strongly discouraged them from talking with strangers' online (Jackson, et al, 2005). The study also concluded that the impersonal nature of the internet's communication tool, may have discouraged these African American children from internet use, as culturally speaking, they preferred face-to-face interactions. It was suggested then that in years to come as the Internet becomes more enriched with oral and visual cues, it will become more appealing to African Americans (Jackson, et al, 2005).

As predicted by Jackson et al (2005), the Internet is today, is a conglomerate of oral and visually tools that children are finding far more appealing than even television. Internet use has changed

cultural norms in many societies. Talk for example, is still popular among teens, but it happens far more frequently as there are more opportunities to do so through video, audio or text talk, all of which are the centre of youth culture. Today's Internet is filled with video and audio-visual resources, activities and tools that children just cannot resist, if they are to be a part of the "hip crowd." For example, it is necessary to own a smart phone and "cool" to use a writing tablet as ownership of these kinds of technological tools makes it possible to maintain perpetual web presence. Thus, in youth culture today, at the bare minimum, it is trendy to create and join social networks on Face book, and essential to follow others on Twitter as well as Instagram.

It is also important to note that Internet use is not limited to children in developed countries, in Jamaica, a small developing economy; children are using the Internet in some of the same ways that children use it elsewhere. This is evident in the results of a Planning Institute of Jamaica study of internet use by young Jamaicans aged10-29 from Kingston Metropolitan Area. According to Kelly (2007), the PIOJ researcher, "97% of the sample were aware of the Internet and were familiar with how to use it" (p. 3). The study reported no difference in knowledge of the Internet by gender, but observed that Internet awareness amongst the participants increased with age. Of note was the fact that children in this study reported accessing the internet through a variety of means: cyber Cafes (5.7%), home (29.7%), school (23.3%), work (5.0%), library (14.5%), friend/relative's home (19.2%) and other (2.6%). The results of this study support the claim that children across the world use of the Internet for research, entertainment, communication and socialisation (Kelly, 2007).

Research shows that children who are able to use the Internet for communication and for learning, have been found to demonstrate better language and meta-cognition than children who do not have this kind of access (Johnson, 2008). Some researchers opine that Internet use promotes cognitive development in children, specifically in the area of visual intelligence. They also found that Internet interactions caused some children to improve their ability to monitor multiple visual stimuli at once, read diagrams, recognize icons, and establish spatial relationships (DeBell and Chapman, 2006). The internet, in essence, is "both a source of promise for our children and a source of concern" (Thornburgh and Lin, 2004, p. 43). Its promise lies in the all of the benefits which were discussed earlier that come together to provide the rich experiences that it offers through its enormous range of educational materials, while the concerns lie in the potential dangers that its use make accessible to users.

Internet Use Concerns

Internet use concerns lie in its potential to expose children to sexually explicit materials, adult predators and sellers of hate. These concerns became prevalent in developed countries during the early years of its existence and particularly during its spread into households and schools. During those years, there were many "media reports involving children and the internet [included] various horror stories about abduction and/or sexual abuse by online predators; children accessing websites for hate groups and pornographic companies; and adolescents building guns and bombs from information that they have obtained on the internet" (Andrade, 2003, p. 2). The growing prevalence

of media reports of incidence of exposure of children to these kinds of materials, while on the internet, led web developers to create various kinds of internet filters for parents to use to control the types of information that their children were able to access online. These incidents also led educators to encourage parents to actively supervise and set rules for their children's use of the internet (Andrade, 2003). It must be noted that during those years, internet access was available mainly from fixed point access from internet cafes, library, homes or schools as wireless technology was not as prevalent. Hence, internet filters and parental regulations were very helpful strategies to employ. These tools and ongoing research went a far way in lowering the incidence of youngster's exposure to inappropriate content, e.g. pornographic, self-harm and violent content, racist/hate material, unwelcomed contact, e.g. grooming, sexual harassment, bullying, abuse of personal information and privacy, and inappropriate conduct by children themselves i.e. abuse of privacy, (Olafssonio, 2011).

More recent studies have revealed that as much as we all want to celebrate children's natural techsavvy disposition, and the fact that most can, without previous knowledge, figure out any technological device, the reverse also holds true, we must also worry about the risks of internet use. Hence, there are many studies of internet generated risks from across the world. These include, "UK Children Go Online (Livingstone & Bober, 2004), Eurobarometer (2006), the Safety, Awareness, Facts and Tools (SAFT) 2003 and 2006 surveys (Staksrud, 2005; Staksrud, 2008b), the Youth Internet Safety Survey of 2000 and 2006 (Finkelhor, Mitchell, & Wolak, 2000; Wolak, Mitchell, & Finkelhor, 2006) and the Young Canadians in a WiredWorld survey, conducted in 2001 and 2005 (ERIN Research Inc., 2005; Media Awareness Network, 2001) (see also Australian Broadcasting Authority & NetAlert Ltd, 2005; Lenhart, 2007; Liau, Khoo, & Ang, 2005; Smith, 2007)"over the years. One such study is EU Kids Online, a research project that sought to understand online experiences of teenagers by comparing the findings from representative surveys that were administered to children in three relatively 'high risk' countries, Norway, Ireland and the United Kingdom (Staksrud & Livingstone, 2009). The study examined the frequency with which teens gave out personal information, saw pornography, saw violent or hateful content, were bullied, received unwanted sexual comments and met an online friend offline. The findings revealed that the greatest exposure that teenager Internet users faced in the three countries was associated with their disclosure of personal information followed by exposure to "unwelcomed or inappropriate sexual or aggressive content. Contact risks were lower in occurrence, and where such incidents occurred they varied with bullying being more prominent than sexual harassment. However, the least common risky practice that occurred among these European teens was meeting online contacts (strangers) offline (Staksrud & Livingstone, 2009). Most of the children in this study that reported exposure to content risks, mitigated these circumstances by adopting a "positive (e.g. seek help from friends) or, more commonly, neutral (e.g. ignoring the experience) strategies to cope, although a minority exacerbated the risks (e.g. passing risky content on to friends)" (Staksrud & Livingstone, 2009, p.1).

Today, internet risks concerns are amplified by the growth in access that came with the expansion

of the internet to mobile telephony. According to Pew (2013), Internet access via smart phones is pervasive among American teens 12-17 years. The most recent Internet survey revealed that three in four (75%) teens reported that they access the Internet via their cellular phones and tablets, while one in every four teen classified themselves as "cell mostly" internet users. The report also revealed that 78% of American teens have a cell phone, and almost half of those phones are smart phones. Additionally, one in four teens (23%) have a tablet computer, nine in ten (93%) have access to a computer at home; seven in ten (71%) teens with home computer access say they use the same laptop or desktop computers that other family members use. The trend revealed that 55% of teen girls who own smart phones prefer to use them to access the Internet. While (34%) of teen girls age 14-17 say they mostly go online using a phone, compared to (24%) of the boys of the same age. However, according to this study mobile access to the Internet is popular among teens, especially cellular phones (Pew, 2013). According to this study, "teens are just as likely to have a cell phone as they are to have a desktop or laptop computer. And increasingly these phones are affording teens always-on, mobile access to the internet- in some cases, serving as their primary point of access" (Pew, 2013, p.3). On the surface, these findings are, contrast starkly to reports on the status of internet access by Jamaicans. According to Reynolds (2012),

Statistics from the 2011 Population and Housing Census have shown that a majority of Jamaican households are still without computers and internet access. The data in the 2011 Population and Housing Census highlight that of 881,078 households, 612,706 have no computers. This means only 246,042 households had a computer. Meanwhile, only 163,314 of the more than 800,000 households in the country have internet access. The figures show that 21,488 households have dial-up connections, while 138, 328 homes have access through broadband and another 3,498 though some other medium (p.1).

These figures represent a 5% increase in internet access in Jamaican households, up from the 15% of households that Barrett (2011) reported as having access a year ago. The percentage of households with internet access in Jamaica is in striking contrast to the "96.3 per cent of US households [that] have access to wired broadband" (Jamaica Observer, 2013, p.1). These statistical figures could lead us to think that the risks of exposure to inappropriate content and contact via Internet are not as tenable in Jamaica as they are in the U.S.A. because our access is low. However, further perusal of the literature on Jamaica's internet penetration and access via mobile and broadband sheds new light on the situation. The statistics for this category of access show that there are 3.5 million internet subscribers and a mobile internet penetration rate of 128% in Jamaica (BuddeCom, 2013). This is interesting statistics to note, since Jamaica has a population 2, 697, 983, and this figure suggest an excess in subscription of 532,017. This data suggest that even children may have pervasive always-on mobile access to the internet as 36% (977, 493) of the total population are under age 19. One thing is for sure, there is no shortage of access to the internet in Jamaica, just a preference for always-on mobile access via smart phones and tablets.

These findings support the need to understand, if Jamaican children are using their access in the same ways that other children in the literature have used theirs, and if so, what are the dangers they

are encountering. The main purpose of this article is to share the findings from a study that examined how Jamaican children from Kingston, St. Andrew and St. Catherine, say they used the Internet and the practices that they describe that are potentially risky.

Procedure

In this article, the nature of Jamaican children's internet use is explored through the findings of a survey which asked children to explain the frequency of their internet interaction, and to indicate, which of the predetermined risky practices they engage in while on the internet. This survey was administered to children who lived in Kingston, St. Andrew and St. Catherine (KSS) and who use the Internet. Inherent in this study's design was the assumption that there was a high probability that children, from KSS who accessed the Internet are doing so without supervision. The study was important to conduct because much is known about Internet use by children both anecdotally and from the literature that exist from experiences with the phenomena in other countries. These lessons provided the lens to examine the phenomena in the Jamaican context.

The study utilized quantitative methods through a survey that was administered to fifty-nine children over a period of six months and across three urban parishes of Jamaica. The sample population comprised of a convenient sample of school age Jamaicans (12-20) who reside in the parishes of Kingston, St. Andrew. The size of the sample was kept small because the aim of the study was not to generalize about the extent of Jamaican children's Internet use, but to describe how children are using it. The intention was to use limited inferential and descriptive statistics to explore how some children were using the Internet, and to describe what they do the most when they are on it.

Research Questions

Specifically, the findings from three research questions are explored in this article: i.) How frequently do KSS children use the Internet, ii.) What do KSS children do when they are online? And iii.) Which Internet resources do KSS children use more frequently? These questions were guided by the following hypotheses:

- H₁: There is a difference in the amount of time that teen boys and girls spend on the Internet.
 H₀There is no difference in the amount of time that teen boys and girls spend on the Internet.
- H₁: The grade levels of teens determine how often and how long they use the Internet.
 H₀: The grade level of teens does not determine how often and how long they use the Internet.
- 3. **H**_{1:} The age of teens determine how often and how long they use the Internet **H**_{0:} The age of teens does not determine how often and how long they use the Internet.

Instrument

The survey that was administered contained sixty questions, which were at times recursive, for example questions of Internet use were asked both directly and indirectly. For example, question 8, which read: Do you have an email address? And question 10, which of the following are on your

website? Listed among the choices is E-mail address. There were a number of instances where questions served to verify previous responses that were given, hence the recursion. This questioning technique was used to triangulate the responses that participants gave. The overall aim of the survey was to gather data on the participants' access to the Internet, understand the length of time that each respondent spent using it during a typical day, to count how many participants had personal and or a secret email addresses, and to identify the activities that each engaged in when logged on.

Data Collection and Analysis

Data were collected by asking the participants to complete a questionnaire, either during two Youth Crime watch workshops, two school visits to during which a talk on cyber safety ensued, random distribution to school age children with whom the research came in contact and children who volunteered to complete the survey during a Sunday school class. The questionnaires were returned by 59 respondents; between ages 12 and 20. The mean age of the sample was 14.95 and the median was 15 years. The majority of responses were derived from children between ages 14-16. The sample comprised of; fifteen 14year olds, twenty-five 15 year olds and seven sixteen year olds. The computer application Statistical Package for Social Scientists (SPSS) was used to analyse the data. Through this application standard tests were conducted, i.e. Analysis of Variance (ANOVA), was used to check the homogeneity of variance across independent and dependent variables in order to reject the null hypothesis. In order to examine what the participants used the Internet for and the structure of the components that their email addresses are comprised of, a multiple correspondence analysis was applied to the responses that were derived. This focus was mainly on using the descriptive multidimensional statistical methods to explore relationships between two or more variables, hence only its optimal scaling qualities were utilized in the presentation of findings. The significance of tests were determined against a predetermined score of a= .05.

Results

In an effort to establish homogeneity of variance the Analysis of Variance Test was used to examine the data to see if there were significant difference in the frequency of Internet use within gender, age and grade levels of the sample. The results established that there was no statistically significant difference between participants grade level as determined by one-way ANOVA (F(3,48) = .415, p = .743). Neither was there statistically significant differences between the male and female, once more the one-way ANOVA (F(3,48) = .094, p = .784). Nor was there statistically significant differences between the participants age as the one-way ANOVA returned the results of (F(3,48) = .960, p = .728).

		Sum of Squares	df	Mean Square	F	Sig.
(Grade vs. Internet Use) Q2 * Q7	Between Groups (Combined)	3.289	3	1.096	.415	.743
	Within Groups	126.941	48	2.645		
	Total	130.231	51			
(Age vs. Internet Use) Q4 * Q7	Between Groups (Combined)	2.879	3	.960	.357	.784
	Within Groups	129.044	48	2.688		
	Total	131.923	51			
(Gender & Internet Use) Q1 * Q7	Between Groups (Combined)	.283	3	.094	.436	.728
	Within Groups	10.390	48	.216		
	Total	10.673	51	1		

ANOVA Table 1: Significance of grade level, gender and age on internet use

Differences in Teens Gender and Internet Activity

In order to examine the hypothesis that boys and girls spent the same amount of time using the internet an Analysis of Variance (ANOVA) test was done. On examining the results presented in Table 1, below, displays the p-value is 0.722 and the alpha is set at the 5% (.05) level. Hence, the criteria for rejection of the null hypothesis "there is no difference in the amount of time that boys and girls spend on the internet at home" is p-value< α . In this case the p-value α , is greater our p-value is 0.722 and our alpha is at the 5% (0.05) level. The criteria for rejection of the null hypothesis are p-value< α , hence there is insufficient evidence to reject this hypothesis. It must be noted also that the sample population contained almost twice the number of males, as there were 37 and 15 males, with 8 failing to indicate their gender.

Similarly, grade level was examined to see if this independent variable affected internet use. The results of the ANOVA test revealed a p-value of 0.121 and an alpha of 0.05. Consequently, like gender, there was insufficient evidence to reject the null hypothesis which stated that "the grade of the child is at affects how often and how long he/she uses the Internet. The null hypothesis could not be rejected when it came to age either, as that test revealed a p-value of 0.252 and an alpha of 0.05. It is therefore likely that the age of a child does not determine how often and how long he or she uses the internet.

The Frequency of Internet Use by Jamaican Teens

When asked the question: During a typical day, how much time do you spend on the Internet?: 11.9% of the respondents did not provide a response, which meant responses were given by 88.1%. The results shows that Jamaican teens age 12-19 use the Internet as follows: 11.9% spends less than thirty minutes per day on the internet, 11.9% spends between thirty minutes to an hour per day, 15.3% spends one to two hours per day, while 49.2 % spends more than 2 hours per day on the Internet.

Jamaican Teen's Main Internet Activity

Teens were asked to indicate if they own a personal and a secret email address. Forty-five (76.3%) participants indicted that they have personal email addresses, while 14 (23.7%) indicated that they do not have one. Furthermore, 18 (30.5%) of teens indicated that they also have secret email addresses, while 33 (55.9%), and 8 (13.6%) failed to provide a response. Included on the survey were questions that sought to understand how teens composed their email addresses. The results showed that 42 (87.5%) said that they included their first and last names in their email address, 6 (12.5%) included elements of their home address, 4 (8.3%) included elements of their phone number, 16 (33.3%) included their date of birth, 10 (20.8%) age, 12 (25%) gender, 6 (12.5) school name, 9 (18.8%) included name of favourite sport or activity, and 5 (10.4%) have email addresses that include the name of their favourite celebrity.

In an effort to understand what other activities did teens engaged in online, they were asked to indicate how often they sent e-mails, used an instant message, chat room or MySpace. The data revealed that 15 (27%), participants never sent emails while online, 2 (3.6%) almost never sent an email while online, 5 (9.1%) sent emails once or twice per month, 10 (18.2%) sends once or twice per week, and 23 (41.8%) sent daily. See Table 2.

When questioned about their use of an instant messaging service, 22 (33.3%) of teens indicated that they have never used an instant message facility, 11 (18.6%) almost never,

Table 2: Frequency of email use

Q19: I send and receive email messages

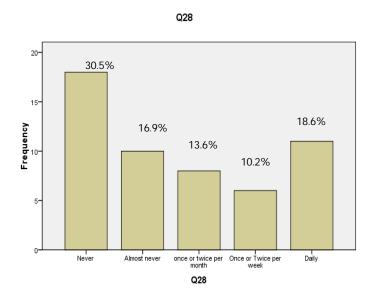
Responses		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	15	25.4	27.3	27.3
	Almost never	2	3.4	3.6	30.9
	Once or twice per month	5	8.5	9.1	40.0
	Once or Twice per week	10	16.9	18.2	58.2
	Daily	23	39.0	41.8	100.0
	Total	55	93.2	100.0	
Missing	System	4	6.8		
Total		59	100.0		

8 (13.6%) used one once of twice per month, 9 (15.3%) used one once or twice per month and 5 (8.5%) used an instant messaging facility daily. Some Jamaican teens were asked about chat room use the majority 43 (79.9%) indicated that they never visit one when online, while 8 (13.6%) say they almost never, 3 (5.1%) visits once or twice per month 1 (1.7%) visits once or twice per week and 1 (1.7%), visits a chat room daily. When asked if they use MySpace for social networking activities when they are online 46 (78%) participants say they have never used this site, 4 (6.8%) indicated almost never, 1 (1.7%) indicted once or twice per month 1 (1.7%), visits once or twice per week and 3 (5.1%) visits MySpace daily.

It was important to understand also what kind of content publishing activities Jamaican teens engage in and to this end they were asked to say if they have posted pictures of themselves or others online. It was found that 42 % have posted pictures of themselves and their friends to websites and blogs; 18.6% do so daily, 10.2% do so once per week, 13.6% do so once per month, and 30.5% have never done so. See Figure 1, for the remaining details.

Participants were also asked to indicate if they practiced erasing web browser history of sites that they visit. The results revealed that the majority of the participants did not erase the web history from computers, but 6.8% indicated that they erased the history once per month, 8.5 did so once or twice per week, and 5.1% do so daily. It was important to find out if participants used the Internet without parental permission, and if so, how often.

Figure 1: Frequency with which teens post pictures of themselves and others online



The results indicated that 64% of the teens have used the Internet without parental permission; 39% of the participants do so daily, while 16.9% did so once or twice per week and 8.5% do so once or twice per week. When asked if they sent pictures of themselves to people whom they have met online 57.2% say they do so, with 18.6% admitting to doing so daily. When asked if they-disclosed the name of the school they attend to online friends (strangers) 45.5% of say they have never done so, but 50.9% have.

Discussion

The study verifies the findings of Kelly (2007) that Jamaican teens are Internet aware and that they like American and European teens have been using the Internet to socialise and communicate with other people. The statistical tests revealed that in the case of all three hypothesis, i.) There is no difference in the amount of time that teens spent on the Internet, ii.) The grade levels and age of teens does not determine how often they stay online, the results of the above ANOVA tests revealed

insufficient data to reject these null hypotheses. This is note-worthy since there were more boys than girls in the sample and girls seemed to have spent more time on the internet than boys.

The statistical frequency tests revealed that the majority of the teen participants owned email addresses and that some even owned secret email addresses. These teens are engaging in Internet use practices that are similar to what other teens in other countries utilise, i.e. they say that they post pictures of themselves and others online, use instant messaging services to chat with people they know and do not know. They disclosed personal information intentionally as well as unintentionally, they maintain membership on social networking sites, and go there regularly to interact and share information. The majority of these teens admit to logging on to the Internet without parental permission and to admit to erasing the web browser's history of sites that they visit. The fact that Jamaica has low internet subscription in households should not lead us to think that teen access to the internet is non-existent. The statistics presented in the literature suggest that the spread of internet to Jamaica is driven by mobile internet service. Hence, children in this country have greater access to pervasive always-online connection to the internet than fixed point access.

When it comes to the question of what teens are using to access the internet, a weakness in this study was not including among the list of social networking facilities; Face Book, Twitter and Instagram or a space for children to name the sites on which they have membership. Therefore, teen's low report of MySpace use should not be interpreted as a lack of interest or non-involvement in social networking. Further surveys should include a list of the top three tools in a category of internet use to ensure that the most current practices are described. When these findings are compared to those of other researchers who have investigated the phenomena of teen Internet use in other societies, it is clear that country of origin have little to do with teen behaviour online.

Conclusions

Regardless of how the internet is accessed by children, I have concluded that once they can go online there are associated risks. Therefore, countries like Jamaica that have documented low internet reach in terms of levels of access in households are not exempt from the issues that youth face when they are left to aimlessly roam the internet. Statistical assertions for low internet subscription in households must be supported by similar low figures where mobile internet access is concerned. Furthermore, once there is some access to the internet by children, researchers should seek to examine levels of use by vulnerable populations in the society. This was the approach that this study of internet use by Jamaican children adopted, and the findings of this study, verified that Jamaican teens have been active users of the internet; and have been using it in ways that are similar and even identical to teens in other countries, who have been harmed in different ways as a result of use. The findings suggest that Jamaican teens are also engaging in some behaviour that may expose them to inappropriate content, sexual harassment or bullying. For example, like American and European teens they are placing pictures of themselves and others online, befriending and maintaining friendships with strangers, and are using real personal information in websites and

email addresses. Future research should examine, if and how, these practices place them at risks, and recommend strategies that parents and adults can employ in their efforts to mitigate the impacts.

References

- Andrade, J. (2003). The effect of Internet use on children's perceived social support. Proquest Dissertation and Theses.
- Barrett, L (2013). 85% households still without internet. Jamaica Gleaner. Download from http://jamaica-gleaner.com/latest/article.php?id=28023 on May 19, 2013.
- BuddeCom (2003). Jamaica-Telecoms, I P networking, Digital Coleman, J., & Hagell, A. (2007). *Adolescence, risk and resilience: Against the odds.* Chichester, West Sussex: John Wiley & Sons.
- Columbus Communication. (2013). Technology almost a decade later. Jamaica Observer Online. Download from: http://www.jamaicaobserver.com/news/Technology-almost-a-decade-later_14284692#ixzz2TmiZ4fK9 on May 19, 2013.
- DeBell, M., & Chapman, C. (2006). *Computer and Internet use by students in 2003*. National Center for Educational Statistics. U.S. Department of Education, Washington, DC. Retrieved February 22, 2009, from http://nces.ed.gov/pubs2006/2006065.pdf.
- Dunn, H. & Thomas, M. (2009). Towards the strategic plan on Telecommunication services in CARICOM Single Market (CSME): A concept paper. CARICOM Secretariat.
- Internet Society. (2012). Retrieved April 2013 from: http://www.internetsociety.org/internet/what-internet/brief-history-internet#Origins.
- Jackson, L., von Eye, A., Frank, B., Barbatsis, G., Zhao, Y., & H. Fitzgerald (2005) Journal of Interactive Learning Research; 2005; 16, 3, pp. 259-272.
- Johnson, G., (2010) Internet use and child development: Techno-Microsystems. Australian Journal of Educational & Developmental Psychology. Vol 10, 2010, pp32 43.
- Johnson, G. M. (2010). Internet Use and Child Development: Validation of the Ecological Techno-Subsystem. *Educational Technology & Society*, *13* (1), 176–185.
- Kelly, R. (2007). Internet Use among Young People in the Kingston Metropolitan Area. The Planning Institute of Jamaica.
- Kim, Y. (2003) the Impact of the Internet on children's daily lives: Physical, Social and Psychological Well-being. A Dissertation. University of Georgia, Athens.
- Staksrud, Elisabeth and Livingstone, Sonia (2009) Children and online risk: powerless victims or resourceful participants? *Information, Communication and Society*, 12 (3). pp. 364-387.
- Thornburgh, D. & Lin, H. (2004). Youth, pornography and the internet. Issues in Science and

- Technology; Winter 2004, 20, 2.
- Livingstone, S., & Bober, M. (2005). *UK children go online: Emerging opportunities and dangers*. London, UK: London School of Economics. Retrieved February 22, 2009, from http://www.lse.ac.uk/collections/children-go-online/UKCGO_Final_report.pdf.
- Livingstone, S., & Helpsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, *9*, 671-696.
- NUA (nd), URL (consulted April 2013): http://www.nua.com/surveys/how_many_online/europe.html
- Olafssonio, K. (2011). Is more research really needed? Lessons from the study of children's internet in Europe. International Journal of Media and Cultural Politics. Volume 7 Number 3.
- O' Reilly & O' Neill, (2008). An analysis of Irish Primary school children's Internet usage and the associated safety implications. Int'l J. of Information and Communication Technology Education, 4(3), 40-48, July-September 2008.
- Pew Research Center. (2013). *Teen and Technology 2013*. Madden, M., Lenhart, A., Duggan, M. Cortes, S., & Gasser, U. The Berkman Center for Internet & Society at Harvard University.
- Reynolds, J. (2012) Census Majority of homes still without Internet Access. Jamaica gleaner, October 18, 2012. Accessed from: http://jamaica-gleaner.com/latest/article.php?id=40594 April 2013.
- World Stats (2012) Internet users in the World Distributed by World Regions. June 30, 2012. Downloaded from: www.internetworldstats.com/stats2.htm.
- World Stats (2012) Internet users in the Americas by Geographic Regions. June 30, 2012. Downloaded from: www.internetworldstats.com/stats2.htm.