PRELIMINARY INSIGHTS INTO THE CONCERNS OF ONLINE PRIVACY AND SECURITY AMONG MILLENNIALS IN A DEVELOPING ECONOMY

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ABSTRACT

Millennials, described as tech-savvies are knowledgeable and using the internet for a couple of things ranging from social media, education, e-commerce, entertainment and so on. However, there are growing concerns lately about online privacy and security with the emergence of the Web 2.0 technologies that allow a lot of multimedia online which is attractive to the millennials. Although there is a threat to what the millennials are agreeing to and the information they provide online, yet there are limited studies that have explored the online privacy issues concerning millennials. Thus, in this study, we investigated millennials and their awareness concerning online privacy threats and security, whether they are bothered about what they put online, as well as measures they have put in place to mitigate this menace from a developing economy perspective. The study employed a quantitative approach where survey data was gathered through self-administration questionnaires with a random sample of 700 undergraduate students in a public university in Ghana. The findings revealed that most of the millennials are aware and concerned about online privacy threats. They are also bothered about privacy effects concerning the information they put online. Therefore, they wish there are laws and regulations protecting consumers about their online privacy in Ghana. The originality of the paper stems from the fact that there is paucity of research about online privacy especially among the millennials in sub-Saharan African countries and our paper is the first to be done in the Ghanaian context.

Keywords - *Online privacy, Millennials, Internet, Developing economies, Ghana*

1. INTRODUCTION

Subscribing to the terms and conditions and privacy policies of online service providers is becoming a day-to-day routine for a huge chunk of the world's population today. When individuals tick the checkboxes as a statement of consent, they usually give unsolicited authorization to websites to gather, share and sell data to third parties as an exchange for other different online services. Personal data most certainly is major forefront for varying business models and in recent times is the goldmine for several online companies such as Google, Facebook, and Amazon [1]. In spite of giving formal permission, consumers are usually ignorant of what these digital exchanges comprise of [2] and also have partial knowledge about the outcomes of giving out personal data, when, how and why their information will be collected and with whom this information will be shared with

[3]. Again, the ignorance of these individuals may welcome social engineering and phishing exploits which cause losses such as opportunity costs, monetary damages and some indirect costs [4].

A delicate issue related with the usage of the internet and its associated services includes the ideas of online privacy and security among the younger generation otherwise known as the millennials [5], [6]. Persons who value online protection always have the mind to protect themselves online than others who do not [7]. According to Arab & Diaz [8], youths have no unmistakable limits between what ought to be made known to the public and what ought to be discrete when using social networks. The public and private dichotomy is one way or another extensible to the youth. Changes in Technology and generational change regularly move in unison. That is unquestionably the story of Millennials and their attraction for all things digital. The internet

and cell phones have been extensively embraced in America in the past 15 years, and Millennials have been the foremost technology enthusiasts. For them, these advancements give in excess of an endless source of information and entertainment and more than another novel network for their social lives.

In a study by Anderson and Rainie [9], a whopping 69% of respondents agreed that "By 2020, members of Generation Y (today's 'digital natives') will continue to be ambient broadcasters who disclose a great deal of personal information in order to stay connected and take advantage of social, economic, and political opportunities. Even as they mature, have families, and take on more significant responsibilities, their enthusiasm for widespread information sharing will carry forward" against 28% who think otherwise.

The Millennials, described as tech-savvies [9] are knowledgeable and using the internet for a couple of things ranging from social media, education, e-commerce, entertainment and so on. With the advent of the web 2.0 technologies which have brought interactivity amongst users, millennials are now always connected through the web 2.0 services such as blogs, Google (not only as a search engine, but also as a tool for file sharing, google docs, and to connect with others, Yahoo mail), Skype, Facebook, Vsco, Twitter, Snapchat, Tubidy, Instagram and WhatsApp [10].

Whilst there exists deficient literature [11] concerning online privacies and how to mitigate against threats associated with it, it is even worse in the case of millennials as limited studies have explored their online privacy issues concerning what they are agreeing to on the internet. In addition, in the case of developing economies, we don't know what pertains in terms of the millennials and their online privacy concerns as there is a paucity of literature [12]. This study will attempt to address these gaps in literature.

The rate of internet penetration keeps on increasing in Ghana and other developing economies. The increase with regards to internet penetration can be associated with the use of smartphones and the affordability of internet services. Most of the universities in these developing countries also provide campus-wide internet access to all students at little or no cost at all. Thus, many students are now using mobile personal computers and handheld devices to access the internet everywhere ranging from their hostels, libraries, classrooms etc. Consequently, exploring their awareness concerning online privacy issues to ascertain if they know and understand what they are putting online, and its implications is justifiable in this paper.

The main purpose of this study is to investigate the awareness of online privacy and security threats amongst millennials from a developing economy perspective.

Specifically, the study seeks to:
1.   Explore whether Ghanaian millennials are aware of online privacy and its associated security threats
2.   Explore whether Ghanaian millennials are concerned about their online privacy
3.   Examine what measures Ghanaian millennials have taken to protect their online privacy and its associated threats.

Based on these objectives, the study addressed the following research questions:
1.   Are Ghanaian millennials aware of online privacy and its associated security threats?
2.   Are Ghanaian millennials concerned about their online privacy?
3.   What measures have Ghanaian millennials taken to protect their online privacy and its associated threats?

The rest of the paper follows this outline: Section 2 reviews relevant literature on online privacy and its security threats. Section 3 presents the research methods while Section 4 presents analyses and findings of the survey. Finally, Section 5 concludes the paper with its contribution to practice and recommendation for more research in the area of online privacy.

2. LITERATURE REVIEW

2.1 The Concept of Online Privacy

The emergence of new innovations within this era of technology has impacted both firms and individuals positively, especially with the commercialization of the internet. The way firms do business with their clients has taken a whole new dimension. This is because spatial and temporal barriers that were heavily relied on has been eliminated. Debates concerning privacy have a long history which goes back to several centuries [13]. However, only a few studies have examined online privacy, this is because it has quite a distinct concept from the general concept of privacy [11]. Online privacy includes being able to regulate the sorts of personal items made accessible on the internet and having control over who can access it [14], [15]. The idea of privacy concerns likewise alludes to people's views about

the dangers and potential negative outcomes related to sharing information [16], [17].

Baruh, Secinti, & Cemalcilar [18] asserted that the concept of privacy concerns refers to "individuals' beliefs about the risks and potential negative consequences associated with sharing information" [16], [17]. Thus, individuals are more likely to reveal private information only when they trust whom or the entity, they are given their information to. As a result, people may release personal information when they trust the e-tailer and they perceive the benefit of disclosing the information to be high, else sensitive personal information may be withheld by them if possible [19].

Individuals become more acquainted with online sites as a result of familiarity, hence, are more comfortable giving out or taking information from these sites regardless of their privacy concerns [20]. There are a number of issues relating to online privacy, ranging from using web cookies to track consumers to the sending of unsolicited emails to individuals. From these issues, individuals tend to feel unsafe using the internet and also shy away from the use of technology [21].

2.2 Related studies of Online Privacy

With the advancement of the Internet with web 2.0 technologies that has enabled easier collaboration among online users, issues about privacy concerns is on ascendency. As a result, privacy concerns are gaining popularity lately. Table 1 shows a list of selected papers that have studied online privacy and security concerns in diverse perspective and different context.

Table 1: Selected papers on Online Privacy Concerns

Study	Theory	Methodology	Context	Perspective/Focus
Mohammed & Tejay [11]	Hofstede's cultural dimensions	Survey questionnaires	Trinidad and Tobago	Impact of national culture on the relationship between information privacy and e-commerce
Child & Starcher [22]	Communication Privacy Management (CPM) theory	Online survey instrument	USA	Facebook privacy management
Jordaan & Van Heerden [23]	The uses-and-gratification theory and the third-person theory	Surveys	South Africa	Privacy concern and reported privacy behaviour to predict Facebook usage intensity
Jeong & Kim [24]	Uses and gratifications approach, Communication privacy management theory	Online survey	USA	Two types of social networking sites (SNSs), Facebook and Twitter
Gangadharan [25]	Conceptual	Mixed-methods approach	USA	Broadband adoption programs at community-based and public institutions in the United States
Chen, Beaudoin & Hong [26]	Self-control theory, routine activity theory, fear-based theories	Survey	USA	Internet scam victim and how it impacts online privacy concerns and privacy protection

				behaviors
Martin, Gupta, Windgreen & Mills [27]	Westin's theory of Personal Information Privacy (PIP) and Concourse theory	A Q-sort instrument/ survey	New Zealand	Personal information privacy
Metzger [19]	CPM theory	Survey	USA	Information disclosure and privacy within e-commerce relationships
Fortes & Rita [28]	The theory of planned behaviour, the theories of trust and risk, and the Technology Acceptance Model (TAM)	Online survey	Portugal	Analysis of how privacy concerns about the Internet can impact on the consumer's intention to make online purchases.
Fodor & Brem [29]	Concern for Information Privacy (CFIP) and Internet Users' Information Privacy Concerns (IUIPC)	Online survey	Germany	Location-Based Services (LBS) adoption
Bergström [30]	Conceptual	Mail survey	Sweden	Digital use and manipulation of personal information
Krishen, Raschke, Close & Kachroo [31]	Theory on the power-responsibility equilibrium	Mixed method	USA	Location-based services (LBS) and consumers' concerns about privacy and fairness that pertain to these services

In reference to Table 1, the literature revealed that most of the research concerning privacy issues have focused on diverse areas including e-commerce, social networking sites (SSNs), location-based services (LBSs), personal information privacy, Internet scam, security among others. However, there is not much focus in terms of the millennials and their online privacy concerns although they are mostly online lately. In addition, most of these studies were done in the developed world leaving developing countries especially SSA economies with paucity of research. This study thus fills these identified gaps in literature with the focus on the millennials and their online presence and what they do, whether they are aware of privacy issues and what measures they've put in place to curtail it. In addition, the study is also done from a developing economy context, Ghana which will also help to enrich the IS literature from a developing economy context.

3. RESEARCH METHODOLOGY

A quantitative survey and descriptive statistics were adopted for this study. Data was collected through self-administration with a random sampling technique. The total number of respondents from which the data was obtained were 700 undergraduate students from a public university in Ghana. These students were individuals with access to the internet and possessed some IT skills. They also owned devices that could access the internet immediately.

Questionnaires were used to collect data from the students. The questionnaire was developed in English and administered on the university campus. The questions in the survey instrument were questions adapted from existing studies [32]–[38] and modified to suit the context of this study. The questionnaire consists of 2 parts. In the first part, questions about demographics were asked which includes questions demanding "Yes/No" responses whilst online security awareness and concerns, information privacy and internet usage made up the second part of the questionnaire. The second part of the questionnaire demands answers from respondents measured as "Yes, No, Not Sure, Does not apply". Others include "Very concerned, Somewhat concerned, Not very concerned, Not concerned at all, Not sure" as well as "Very Important, Somewhat Important, Not too important, Not at all, Does not Apply, Don't Know".

4. ANALYSIS, FINDINGS, AND DISCUSSIONS

SPSS v22 was used to analyze the data. The statistical test performed was Descriptive Statistics. Out of the 700 primary data collected, 7 were rejected because of the incompleteness of the questions. Thus, a total of 693 samples were used for the final analysis.

4.1 Descriptive profiles of the respondents

Table 2: Gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	348	50.2	50.2	50.2
	Female	345	49.8	49.8	100.0
	Total	693	100.0	100.0	

Concerning the Gender of respondents (Table 2), the descriptive statistics indicate that 348 (50.2%) were males and 345(49.8%) were females. Thus, both sexes were highly represented with the males marginally ahead of the females.

Table 3: Age of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 20	254	36.7	36.7	36.7
	21-25	429	61.9	61.9	98.6
	26-30	10	1.4	1.4	100.0
	Total	693	100.0	100.0	

In terms of Age (Table 3), 254 (36.7%) were below 20, 429 (61.9%) were between 21-25 years category whilst a small number of 10 (1.4%) were between the ages of 26-30. This indicates that a higher percentage of the target respondents were highly represented in this study based on the PEW Research who defined the millennials with age range from "18-29" [39].

Table 4: Internet usage of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	676	97.5	97.5	97.5
	No	17	2.5	2.5	100.0
	Total	693	100.0	100.0	

We also seek to know the level of Internet usage among the millennials (Table 4). The findings indicated that 676 (97.5%) of the respondents are using the Internet with a small figure 17 (2.5%) not using the internet. The findings thus confirm that of the PEW Research where 75% of the millennials confirmed they own social media account and also 90% confirming they used the Internet and also send and receive email occasionally [39].

Table 5: Smart Phones for respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	687	99.1	99.1	99.1
	No	6	.9	.9	100.0
	Total	693	100.0	100.0	

Concerning the devices they used to access the internet (Table 5), 687 (99.1%) said they have smartphones with 6 (.9%) not having it. Thus, this confirms that of the PEW Research which shows 83% of the millennials even sleep with the cell phones and 88% who said they have been using their cell phones for texting.

In addition, 596 (86%) said they own laptops with 97(14%) not having it as shown in Table 6.

Table 6: Laptops for respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	596	86.0	86.0	86.0
	No	97	14.0	14.0	100.0
	Total	693	100.0	100.0	

Table 7: Mostly used device of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Computer/Laptop	41	5.9	5.9	5.9
	Smartphone	415	59.9	59.9	65.8
	Both	237	34.2	34.2	100.0
	Total	693	100.0	100.0	

In terms of the device they used to access the internet mostly (Table 7), a whopping figure 415 (59.9%) said they used their smartphones, 237 (34.2%) said they used both their Laptop/Smartphone whilst 41 (5.9%) said they used their Laptop. This is an indication of the high penetration of smart phones usage in accessing Internet in Ghanaian universities due to the widespread of campus Wi-Fi implementation.

4.2 Ghanaian millennials awareness of online privacy

To explore the awareness level of the millennials in terms of privacy, we asked them a basic question: "Are you familiar with the term privacy?" with response option as "Yes, No, and Not sure".

Table 8: Privacy familiarity among the millennials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	653	94.2	94.2	94.2
	No	18	2.6	2.6	96.8
	Not sure	22	3.2	3.2	100.0
	Total	693	100.0	100.0	

As indicated in Table 8, 653 respondents representing 94.2% responded "Yes" with 18 (2.6%) responding "No" and 22 (3.2%) responding "Not sure". This is a clear indication that the majority of the millennials sampled are aware of online privacy. This findings is in support of [12] who declared that Millennials are just as aware of the risks of online connectivity as any other generation, yet as

many "Millennials have built their lives around social media, they treat the technology seriously" and it is this seriousness which motivates them to take control of their online information [12].

4.3 Preliminary insights into Ghanaian millennials concern about their online privacy

To find the preliminary insights into the millennials concern about their online privacy, two different questions were used. First, the respondents were asked about

"How concerned are you about the availability of your private information on the Internet?" which was measured as "Very concerned, Somewhat concerned, Not very concerned, Not concerned at all, and Not sure". Secondly, they were also asked to scale their private information online with the question "Are you concerned about this personal information being on the internet?". The personal information was "Your cell phone number, Your credit/debit card information or bank details, Your home address, Your date of birth". These were also measured as: "Very concerned, Somewhat concerned, Not very concerned, Not concerned, and Not sure". Tables 9 outlined the information about the millennials online concern about their privacy.

Table 9: Respondents concern about their privacy information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very concerned	535	77.2	77.2	77.2
	Somewhat concerned	112	16.2	16.2	93.4
	Not very concerned	40	5.8	5.8	99.1
	Not concerned at all	3	.4	.4	99.6
	Not sure	3	.4	.4	100.0
	Total	693	100.0	100.0	

From Table 9, there is a high degree of privacy concern among the millennials as 535 (77.2%) of the respondents said they are "Very concerned" about their information online. This is followed by 112 (16.2%) who expressed "Somewhat concerned" with the rest forming a smaller chunk of less than 7%.

To further probe the millennials about their information online and how concerned they are about them, information about their "Phone Numbers, Bank Details, Home Address and Date of Birth" were also asked. Tables 10, 11, 12, and 13 illustrates their response.

Table 10: Respondents concern about their privacy information (Phone Number online)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very concerned	437	63.1	63.1	63.1
	Somewhat concerned	140	20.2	20.2	83.3
	Not very concerned	87	12.6	12.6	95.8
	Not concerned at all	28	4.0	4.0	99.9
	Not sure	1	.1	.1	100.0
	Total	693	100.0	100.0	

From Table 10, 437 (63.1%) said they are "Very concerned" with 140 (20.2%) responding "Somewhat concerned". This is

an indication that the majority of the millennials in this study take their privacy seriously.

Table 11: Respondents concern about their privacy information (Bank details online)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very concerned	617	89.0	89.0	89.0
	Somewhat concerned	29	4.2	4.2	93.2

	Frequency	Percent	Valid Percent	Cumulative Percent
Not very concerned	14	2.0	2.0	95.2
Not concerned at all	18	2.6	2.6	97.8
Not sure	15	2.2	2.2	100.0
Total	693	100.0	100.0	

From Table 11, 437 (89%) said they are "Very concerned" with 29 (4.2%) responding "Somewhat concerned" when asked about their Bank Details online. This is an indication that the majority of the millennials in this study does not joke with sensitive information such as their Bank details.

Table 12: Respondents concern about their privacy information (Home Address online)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very concerned	483	69.7	69.7	69.7
	Somewhat concerned	117	16.9	16.9	86.6
	Not very concerned	56	8.1	8.1	94.7
	Not concerned at all	22	3.2	3.2	97.8
	Not sure	15	2.2	2.2	100.0
	Total	693	100.0	100.0	

In terms of their Home Address online, from Table 12, 483 (69.7%) said they are "Very concerned" with 117 (16.9%) responding "Somewhat concerned". This is also another indication that shows that most millennials in this study take their privacy seriously.

Table 13: Respondents concern about their privacy information (Date of Birth online)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very concerned	306	44.2	44.2	44.2
	Somewhat concerned	177	25.5	25.5	69.7
	Not very concerned	161	23.2	23.2	92.9
	Not concerned at all	46	6.6	6.6	99.6
	Not sure	3	.4	.4	100.0
	Total	693	100.0	100.0	

Lastly, in terms of the Date of Birth online, from Table 13, 306 (44.2%) said they are "Very concerned" with 177 (25.5%) responding "Somewhat concerned". Surprisingly, 161 (23.2%) responded "Not very concerned". Thus, although the millennials seem to be bothered about their online privacy information, yet in the case of their date of birth, they seem not to be too bothered.

4.4 Measures Ghanaian millennials have taken to protect their online privacy

To find out the measures the millennials have taken to protect their online privacy, we asked them specific questions concerning their online activities and how concerned they are that only them and those they give permission to should have access to the following kinds of information: "The people with whom you exchange email, The content of your online chats, The websites you browse, The applications or programs you use, The content and files that you download, The place where you are physically located when you use the Internet, The times of the day you are online, The contents of your email and The searches you perform". These were measured as "Very important to you, Somewhat important, Not too important, Not at all, Does not apply and Don't Know".

Table 14: Respondents care about who they exchange email with

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	493	71.1	71.1	71.1
	Somewhat Important	144	20.8	20.8	91.9
	Not too Important	42	6.1	6.1	98.0
	Not at all	10	1.4	1.4	99.4
	Does not Apply	2	.3	.3	99.7
	Don't Know	2	.3	.3	100.0
	Total	693	100.0	100.0	

In the case of "The people with whom you exchange email", from Table 14, 493 (71.1%) responded "Very important" with 144 (20.8%) responding "Somewhat important". Thus, a greater percentage of the millennials attach very high importance with the people they exchange emails with.

Table 15: Respondents care about the contents of their online chats

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	526	75.9	75.9	75.9
	Somewhat Important	109	15.7	15.7	91.6
	Not too Important	40	5.8	5.8	97.4
	Not at all	12	1.7	1.7	99.1
	Does not Apply	3	.4	.4	99.6
	Don't Know	3	.4	.4	100.0
	Total	693	100.0	100.0	

In the case of "The content of your online chats", from Table 15, 526 (75.9%) responded "Very important" with 109 (15.7%) responding "Somewhat important". Thus, a greater percentage of the millennials attach very high importance concerning their online chats.

Table 16: Respondents care about the websites they browse

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	288	41.6	41.6	41.6
	Somewhat Important	238	34.3	34.3	75.9
	Not too Important	137	19.8	19.8	95.7
	Not at all	24	3.5	3.5	99.1
	Does not Apply	2	.3	.3	99.4
	Don't Know	4	.6	.6	100.0
	Total	693	100.0	100.0	

In the case of "The websites you browse", from Table 16, 288 (41.6%) responded "Very important" with 238 (34.3%) responding "Somewhat important", and 137 (19.8%) responding "Not too important".

Thus, although a greater percentage of the millennials attach importance concerning the websites they browse, yet it seems not to be too much important to some of them.

Table 17: Respondents care about the applications or programs they use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	244	35.2	35.2	35.2
	Somewhat Important	247	35.6	35.6	70.9
	Not too Important	165	23.8	23.8	94.7
	Not at all	30	4.3	4.3	99.0
	Does not Apply	3	.4	.4	99.4
	Don't Know	4	.6	.6	100.0
	Total	693	100.0	100.0	

Likewise, in the case of "The applications or programs you use", from Table 17, 244 (35.2%) responded "Very important" with 247 (35.6%) responding "Somewhat important", and 165 (23.8%) responding "Not too important". Thus, although a greater percentage of the millennials attach importance concerning the applications or programs use online, yet it seems not to be too much important to some of them.

Table 18: Respondents care about the contents and files they download

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	380	54.8	54.8	54.8
	Somewhat Important	194	28.0	28.0	82.8
	Not too Important	90	13.0	13.0	95.8
	Not at all	25	3.6	3.6	99.4
	Does not Apply	2	.3	.3	99.7
	Don't Know	2	.3	.3	100.0
	Total	693	100.0	100.0	

In the case of "The content and files that you download", from Table 18, 380 (54.8%) responded "Very important" with 194 (28.0%) responding "Somewhat important". Thus, a greater percentage of the millennials attach high importance concerning what they download.

Table 19: Respondents care about the physical location they connect to the internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	351	50.6	50.6	50.6
	Somewhat Important	179	25.8	25.8	76.5
	Not too Important	115	16.6	16.6	93.1
	Not at all	39	5.6	5.6	98.7
	Does not Apply	5	.7	.7	99.4
	Don't Know	4	.6	.6	100.0
	Total	693	100.0	100.0	

In the case of "The place where you are physically located when you use the Internet", from Table 19, 351 (50.6%) responded "Very important" with 179 (25.8%) responding "Somewhat important" and 115 (16.6%) responding "Not too important". Thus, a greater percentage of the millennials attach high importance concerning the location where they physically access the internet.
This is in confirmation of [29] who found location-based services (LBS) to have an influence on the millennials.

Table 20: Respondents care about the times of the day they are online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	191	27.6	27.6	27.6
	Somewhat Important	213	30.7	30.7	58.3
	Not too Important	204	29.4	29.4	87.7
	Not at all	77	11.1	11.1	98.8
	Does not Apply	4	.6	.6	99.4
	Don't Know	4	.6	.6	100.0
	Total	693	100.0	100.0	

Likewise, in the case of "The times of the day you are online", from Table 20, 191 (27.6%) responded "Very important" with 213 (30.7%) responding "Somewhat important", 204 (29.4%) responding "Not too important" and 77 (11.1%) responding "Not at all". Thus, although a greater percentage of the millennials attach importance concerning the times of the day they are online, yet it seems not to be too much important to some of them.

Table 21: Respondents care about the contents of their email

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	478	69.0	69.0	69.0
	Somewhat Important	128	18.5	18.5	87.4
	Not too Important	56	8.1	8.1	95.5
	Not at all	19	2.7	2.7	98.3
	Does not Apply	7	1.0	1.0	99.3
	Don't Know	5	.7	.7	100.0
	Total	693	100.0	100.0	

In the case of "The contents of your email", from Table 21, 478 (69.0%) responded "Very important" with 128 (18.5%) responding "Somewhat important". Thus, a greater percentage of the millennials attach high importance concerning their email contents.

Table 22: Respondents care about the searches they perform online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	355	51.2	51.2	51.2
	Somewhat Important	208	30.0	30.0	81.2
	Not too Important	99	14.3	14.3	95.5
	Not at all	26	3.8	3.8	99.3
	Does not Apply	2	.3	.3	99.6
	Don't Know	3	.4	.4	100.0
	Total	693	100.0	100.0	

Likewise, in the case of the "The searches you perform", from Table 22, 355 (51.2%) responded "Very important" with 208 (30.0%) responding "Somewhat important". Thus, a greater percentage of the millennials attach high importance concerning their online searches.

The findings outlined above in terms of the millennials concern about privacy is clearly in support of the findings of [12] which stated that "older generations seek privacy by avoiding the internet, while Millennials seek privacy by controlling it."

4.5 Current laws and their protections of people's privacy about their online activities

To ascertain whether the millennials are aware of laws and regulations protecting consumers concerning their online activities in Ghana, two questions were asked.

First, we asked them: "Thinking about current laws in your country, does your country have laws that provide reasonable protections of people's privacy about their online activities?" measured with three responses as "Yes, No, and Don't know".

Secondly, we asked: "Do you think that it is important for your country to have laws that provide reasonable protections of people's privacy about their online activities?" This was also measured with three responses as "Yes, No, and Don't know".

Table 23: Laws in the country for protecting online consumers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	186	26.8	26.8	26.8
	No	231	33.3	33.3	60.2
	Don't Know	276	39.8	39.8	100.0
	Total	693	100.0	100.0	

Concerning the current laws for protection (Table 23), 186 (26.8%) responded "Yes", 231 (33.3%) responded "No" whilst 276 (39.8%) responded "Don't Know". Thus, a greater percentage of the respondents are not aware of any existing laws protecting consumers in terms of their online activities.

Table 24: Importance of Laws in the country protecting online consumers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	642	92.6	92.6	92.6
	No	31	4.5	4.5	97.1
	Don't Know	20	2.9	2.9	100.0
	Total	693	100.0	100.0	

In addition, concerning the importance of the country having laws protecting consumers (Table 24), 642 (92.6%) of the respondents answered "Yes" with 31 (4.5%) responding "No" and 20 (2.9%) responding "Don't Know". Thus, although majority of the respondents are not aware of existing laws protecting consumers, they want such laws to be enacted to protect consumers about their online activities.

5. CONCLUSION

This study preliminarily seeks to explore the awareness concerning online privacy threats and security of Ghanaian millennials, whether they are bothered about what they put online, as well as measures they have put in place to mitigate this menace. The findings have established that indeed the millennials are aware of online privacy and are also concerned about what they put online. Nevertheless, most of them are not aware of the laws protecting consumers online behavior and wish policy makers and

regulators will enact laws that will be widely accessible to all online users to allay the negative effects of online consumer behavior.

With online privacy issues becoming pervasive lately, the findings from this preliminary study has given us optimism that the millennials are not just online and sending anything but are more focused and concerned about what they put and access online.

5.1 Implications

Thus, in terms of implications for practice, government should enact laws not only for the brick-and-mortar business such as the Consumer Protection Law which was passed recently (Ghana.gov.gh, 2019), but should include legislations and regulations that will protect consumers online behavior as well.

5.2 Limitations and suggestions for future studies

This study like all others, has some limitations. First, we used only one public university and collected data from only business students. Thus, the findings cannot be generalized for all Ghanaian millennials. Future studies can do a survey to cover different universities and other

schools as most of the millennials are still in school. Also, this study adopted a quantitative approach in terms of data collection and analysis. Future studies can do a qualitative or mixed method study to validate the findings of this study.

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In addition, the authors will like to do a comprehensive study about the online privacy issues involving Ghanaian workers across various sectors with a strong theoretical support which is lacking in this preliminary paper.

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