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Cellular Telephone Internet, and Electronic Communication in Senegal, Mali, and Gambia

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CELLULAR TELEPHONE, INTERNET, AND

ELECTRONIC COMMUNICATION IN

SENEGAL, MALI, AND GAMBIA

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ABSTRACT

New technology is part of the current world. Communication is useful because it helps to share daily life with loved ones. The world of telecommunication has become a valuable criterion in the lives of everyone in developing nations. Wherever one might be, people are prompted to surf on the Internet or engage in social networks. From the morning wake up, the first concern of most people, especially the younger generation, is cellphone or computer use.

Telecommunication has been in existence since the invention of the telephone by Alexander Graham Bell, and ever since people have seen it as something valuable and important. Africans, Asians, Europeans, and Americans all accept social media and electronic communication as part of life. Research of West Africa will show how telecommunication has become widespread in the black continent. Focus is on how the use of cellular telephones and internet have grown in the studied countries, and the standard of living changes, especially in Senegal, Gambia, and Mali. These three countries have gained tremendous economic advantages from its development. With several telephone and Internet operators, these countries are not left behind.

Based on qualitative and quantitative responses collected through Survey Monkey, it is clear that some people still have difficulties to access the Internet due to expense. The survey included a series of open-ended and multiple-choice questions, all written in a way that will help glean a clear understanding on how social media and internet are used in Senegal, Gambia, and Mali. The participants of this current study are random citizens of the respective countries met online.

The survey questions also help to distinguish the main reason for social media usage in the three identified countries. With the use of the feminist theory, a better understanding of how women in these respected areas are taking part of the new electronic commination is gained for scholarship. Social media opens dialogue even though it is not relevant or acceptable for women to have a social presence in public. The main point of this thesis is to discuss the kinds of electronic communication devices, internet access, and cellphone usage, in the respective research countries. It highlights how technology affects an individual's life in Senegal, Mali, and Gambia.

Key Words: Electronic Communication, Internet, Cellular Telephones, Social Media, Feminism Theory, Radio, Landline Telephones, Western Africa.

ACKNOWLEDGMENTS

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CHAPTER 1:

INTRODUCTION

Senegal is home territory of the three countries undertaken in this study, also called

*Pays de la Taranga [*the country of sharing], Senegal is a French colony which gained its

independence in 1960. The country is located on the west coast of Africa near to the

Atlantic Ocean, and it is also referred as ''the Paris of Africa.'' Senegal is one of the

most visited countries in western Africa. The capital is Dakar, and it is divided into

regions. The Senegalese population is large, and multicultural with various tribal

languages.

Over the past few years, the internet has enjoyed tremendous growth throughout

the world's electronic highways. Developing countries benefit only marginally from this

explosion of communication possibilities because of their low technological level. In

Senegal, electronic communications are for research (institutional or non-governmental),

and primarily for communication needs with their different centers and partners.

Recently, the country is moving forward to be a developed one, because of a large petrol

discovery. The question is, what will Senegal be like in a few years? It will probably look

very different from the current country.

In Senegal, the technological development has also been birthed. Senegalese

citizens have found a gift in all social media; namely Facebook, Snapchat, and Instagram.

Nowadays, WhatsApp is the best social network in Senegal. In addition, half of the

Senegalese are using WhatsApp because it helps them to communicate easily without

charges. With the high prices of telephone operators in Senegal, the population has

trouble having house lines because some cannot afford these bills; and for some, cellular phones are more beneficial than landline telephones. In the past, making a phone call was not offered to everyone because of the cost of living. People used to go to phone booths to call their relatives and friends, but currently the situation has dramatically changed; the social networks made life easier for people to enjoy daily conversations. Senegal compares to Mali in several aspects.

Mali is another West African country famous for its tradition and varied cultures represented by many ethnic groups. Among the ethnic groups of Mali, they can list the Malinkes, the Bambara, and many more. This country has pyramid architecture that gives it charm and beauty. It is also known because of its beautiful African fabric called *Thioup Mali.* In all Africa no one can deny how artistic the Malians are with African fabric designs. They invented this particular style, and today their clothes and materials are worn in many African countries.

This French colony obtained its independence in 1960 at the same time as Senegal, after the outbreak of the federation of Mali. Unlike the Gambia, the "Malian population extends to over 19 million inhabitants with a very large area" (Worldometers.info, 2019). Mali is the largest state in West Africa besides Niger. Much like the other countries, Mali also enjoys new technology tools that are part of the current world. Malians use cellular phones to achieve a certain objective in their daily jobs and routines. Also, the economic condition of the country does not allow all the citizens to have access to internet. What also blocks Malians from new technology advancement is lack of electricity supply.

The purpose of this study is to clarify the use of cellular phones, internet, and electronic communication in Senegal, Gambia, and Mali which are familiar places. Senegal, Gambia, and Mali have cellular phone and internet access. With the use of feminism theory, this research will show how women in these countries are dealing with these electronic tools. For ages, women from Muslim countries like these did not have full access to the public or digital tools.

These three countries are located in western Africa and present a clear view regarding how cellular phone and internet usage is growing so far in this locality. Over years, the population of these countries faced difficulties regarding telephone accessibility. They usually had one landline telephone, which served as the means of communication for the whole neighborhood. Actually, things are getting better, because cell phones are available in the one hand, and social media is gaining users on the other.

Among the users of these recent technological tools are Senegalese, Gambians, and Malians. It remains to ask; how are they dealing with these innovations, and is it expensive to have access? Is it offered to the whole population? Some of these questions will be answered in our questionnaire to better comprehend how extensive personal technology has advanced. With that being said, Gambia is the last country to examine in addition to Senegal and Mali.

The Gambia, a former British colony is also one of the West African countries located at the edge of the Atlantic Ocean near Senegal. "It covers an area of 10,689 square km land in addition to a population of 2.101 million inhabitants" (Worldpopulationreview, 2019). On the cultural level, it is a country very rich in rituals,

social practices and festivals. On the economic level, it is a developing country which is growing little by little after the exile of their outgoing president, Jahya Jammeh. This country has suffered from a dictatorial regime over years.

Current conditions in Gambia are improving after Adama Barrow, the new president took office in January 2017. He is the third president of this country, and needs to be taken in consideration because his election marked the birth of democracy in this country. I have chosen to research Gambia because it is a primary neighboring country to Senegal, and this will introduce the possibility of comparison in order to show how electronic communication, internet, and social media have grown in western Africa, especially in a former African dictatorial country. On top of that, in this research, the main goal is to raise the voice of developing countries and their citizens by giving them the chance to complete a questionnaire in order to know how fast electronic communication is growing in Africa.

In urban Gambia, like most of the world, the means of telecommunication is a large part of the everyday life of people. Men and women can no longer go through a normal day without having access to their mobile phone or checking emails. It is important to learn if the situation that one lives every day in the USA is comparable to what other people in developing countries live. The questionnaire will give us opinions of the Gambians in order to tell us more about the access to electronic communication in their country. It is necessary to let them say how they feel about it. Gambians are rebuilding their country, and researchers need to know how electronic technology is participating in their country advancement. A good way to show how internet, social

media, and cellular telephone usage have increased in developing countries, especially in our three studied, can be explained by Feminist theory.

Feminist Theory

As a modern emancipated African woman and coming from an African society where the place of the woman does not have an immense value compared to man, Feminist theory is a lens to explain research concerning communication in African countries. It is important to be aware that, "Communication theories will increase the reader's appreciation for the historical significance and systematic potential of complex, contested, and most of all living philosophy of communication" (Bergman 2016, 113). In most African societies, women's opinions are rarely considered in decision making.

Some African societies often believe that women are only made to have children and to take care of household chores. Often the responsibilities of women are minimal because women are not considered as much as men. This inequality is seen from day-to-day life. African feminists such as Mariama Ba have been engaged in a battle just to promote a place for women in any field. Before, women were not like they are today. The woman of today's Africa is the result of this great battle led by several feminists; whether it is on the educational, cultural, political or economic level. Feminists have always fought for the rights and conditions of women in real life, and in political or organizational life.

Feminist theories focus on analyzing gender inequality between men and women. This theory evokes the social roles, the experience in professional environments, the household tasks, and especially the feminist policy of the men and women in fields like

education, communication, sociology, and media studies. According to Stanback (1988), "Feminist theory is systemic; it can account for the interrelated influences of culture, class, and gender—and of racism, classism, and sexism" (188). Feminist theory argues that the identity of men and women is differentiated; but according to feminists, the greatest difference is a gender-based difference.

This theory states that men and women are equal on the psychological level. They argue that if two people form a group, it is just to complement each other. According to Simone de Beauvoir, Christine de Pizan was the first woman who took her pen in the fifteenth century to defend her gender. The Feminist theory has been divided into three waves by scholars. The first wave was born in the 19th and 20th centuries, and it consisted mainly of women getting the right to vote. The second wave was born around the 1960s, joining the women's liberation movement, where women's legal and social rights were born. The third wave is a continuation of the second. Born in the 90s, this wave refers to a reaction to perceived failures of the second wave.

The points of view differ on Feminist theory, as the theorists do not have the same idea of it. In the current days, the ideas that they emphasize the most are based on equality and justice. The Feminist theory is wary of dualistic thinking, generally oriented towards the fluidity of words. Despite many significant differences, feminist thinking is rooted in the responsibility of movements for equality, freedom and justice.

Social networks are used all over the world. They are of immense importance for people in any walk of life. Since the era of scientific and technical discoveries, both genders have not stopped searching for new ways to live a fulfilled life. In West Africa,

as elsewhere in the world, social networks are immensely useful to people, regardless of sex. When Alexander Graham Bell invented the telephone, no one imagined that it would be so important for all human beings as a social networking tool.

Currently, the use of cell phones is outgrowing the use of landline telephones. Mobile phone usage has improved the lives of people in Africa, especially those who live in rural areas. The use of the internet is becoming widespread as people get access to it. In Senegal, Gambia, and Mali during recent years, women are becoming more active in all sectors of daily life. With women's emancipation in western Africa, women have become aware of their importance in the professional world. For this cause, we consider Feminist theory to talk about the use of social media, Internet, and electronic communication in our listed countries. Many theories were voiced by feminists to demonstrate the difference in rights between men and women.

Feminist theory is the extension of feminism into a theoretical, fictional, or philosophical discourse. It focuses on and aims to understand the nature of gender inequality. Wood (2005) said that there are five concise elements in feminist standpoint theories. First: society is structured by power relations. Second: subordinate social locations are more likely than privileged social locations to generate knowledge. Third: the outsider-within is a privileged epistemological position. Fourth: standpoint infers a critical understanding of location and experience. Fifth: any individual can have multiple standpoints.

Through this analysis, Wood is showing how standpoint theories criticize the inequality between men and women. She argues, a woman can always manage without a man, so when a man and a woman unite, it is just to complement their strengths. Standpoint theory is a way to criticize the existing power relations and inequality they produce in the lives of men and women. In Muslim countries like Senegal, Gambia, and Mali, feminism is a tool for femininity and masculinity struggles; however, feminism has not been fully integrated in several Muslim countries. In many African countries, inequality between men and women has always been a topical issue. After theory choice, this research will now cover the second chapter which deals with a literature review of the three countries.

CHAPTER 2:

LITERATURE REVIEW and RESEARCH QUESTIONS

A. CELLULAR TELEPHONES, INTERNET, AND ELECTRONIC COMMUNICATION IN SENEGAL, LITERATURE REVIEW

Ramberg (2010), a Lindfield College student who visited Dakar, Senegal wrote an article encompassing the importance of Senegalese food. She also focused on her time in the country and her experiences as a study abroad student. Ramberg was not concerned about food when she was preparing her journey. In most societies, individuals cook and serve food the same way ancestors were doing it centuries ago. Each country has its own way of cooking or food taste according to traditions or customs of the citizens.

Once in Senegal, according to Ramberg (2010), the Lindfield pioneer students were invited by their host family to join them for lunch, and they all sat down around the

bowl. Their first given meal was *Yaassa*—a Senegalese recipe of white rice, slide onions, and fish. Each of them enjoyed the delicious meal that was served to them. Orientation involved their first lesson in the art of eating around a communal bowl. They learned how to comfortably sit on a mat on the floor around the circular platter, and to respectfully stay in their own piece of the pie.

Senegalese social customs are also reflected in their usage of communication tools and media. A country's culinary history is at the heart of how the citizens socialize and keep traditions alive. However, with the onset of media usage, there has been a grave evolution in African democratic and dictatorial countries. This research will first focus on how social media use is differing in politics of Senegal and Ethiopia's newspapers.

Many reproduction newspapers in African nations have added Twitter and Facebook in the past five years to join the worldwide tendency of rapidly delivering headlines via social media. An ethnographic article on tweeting democracy uses Content Analysis of Social Media Use in politics of Senegal and Ethiopian newspapers (Lemke and Chala 2016, 169). It explores how journalists are changing their traditional newsroom models to social media to inform or tell stories within their different political environments. Lemke and Chala (2016) establish a descriptive, quantitative, and comparative assessment of how ten major newspapers in these two countries are using Twitter and Facebook.

For the investigation of Senegal and Ethiopia, a comparative study was implemented because they are politically opposite. Senegal has a self-governing system and free press, while Ethiopia has a notoriously authoritarian control and limits the

country's journalists. ''Senegal ranks 71st in the world of free press, whereas Ethiopia ranks 142nd according to the 2015 World Press Freedom Index published by Reporters Without Borders" (Lemke and Chala 2016, 168).

According to Lemke and Chala (2016), "2013 data from the International Telecommunication Union, total internet users grew from 10.9 per cent in 2008 to 20.9 per cent in 2013 in Senegal. Ethiopia's rate of growth was significantly slower, growing from 0.45 per cent in 2008 to 1.9 per cent in 2013" (170). Even though most newspapers in both nations have active social media accounts, the population's access to the internet in Ethiopia, which has an authoritarian government, remains little; whereas Senegal, a democratic government, is advanced. That being said, let us elaborate on modern media usage in Senegal.

In Senegal, like elsewhere on the globe, YouTube, Twitter, and Facebook have gained an extensive following on the World Wide Web. MK 104 (2010) describes a YouTube video where a young Senegalese man performs a poem about the Senegalese former president, Abdoulaye Wade. The author's name is unknown, so it is not clear who recorded the video and where it took place. The hidden authorship denotes political caution.

The video was posted by a person in Canada nicknamed MK 104, and the video has garnered a lot of views through social networking sites and online news magazines. "This issue of *Mass Communication and Society* is devoted to articles and research by scholars exploring how our theories might be applied as information technologies boundaries between some of our concepts" (Jeffres 2015, 523).

Abdoulaye Wade frustrated most Senegalese with his administration. He ruled the country for eleven years and left it in a desperate condition.

Young people suffered from chronic unemployment. Critics have accused former President Wade of being a manipulator whose thirst for power was unmanageable. Although Senegal is a democracy with an outspoken press, openly criticizing even a former president has become increasingly dangerous. The video started with a poem written in *Wolof,* the Senegalese national language.

MK 104 (2010) brilliantly sums up Wade's tenure in one minute. He compares the president's policies to "a rat's hole" and makes fun of his physical features while emphasizing many ways in which Wade has failed the nation. Some viewers thought the performance was disrespectful of the president, and others feared for the author's safety. Social media shows how the World Wide Web gives voice to African youth.

''Recently, the internet has given voice to young people in Africa, and emerging cyber-studies generally view social media as a favorable tool for social change. However, the internet also constitutes a space where art can be taken out of context and politicized to the detriment of the artist'' (Gueye 2011, 29). At this point we will talk about other authors' viewpoints on media usage especially by national tourism organizations**.**

Social media platforms are progressively becoming famous with consumers and businesses alike. The objectives of Mridula, Anil, and Umashanka (2012) were to explore the use of social media around the world. Of the 195 countries investigated, not all have an NTO (National Tourist Organization) website. Social media use by the NTOs is

becoming common across the globe. A press release showed that businesses who adopted

Twitter and Facebook have shown extraordinary development. Social media platforms

can facilitate direct communication among businesses and consumers.

Social media platforms are meant for interaction, and the inclusion of such tools

could be one way forward to address the interactivity issue. Mridula, Anil, and

Umashanka (2012) found 81 NTOs that were using at least one social media platform.

They listed it on their website either on the front page or available through their search or

sitemap features. That is 41.5% of the 195 NTOs considered in this work.

Given the limited amount of research in the area, the initial assumption was that

social media use would be much more of a niche activity. Then, 114 countries (58.5%)

had only the official NTO site or the Embassy site, and did not rely on any of the popular

platforms. The countries that use any social media platforms are listed alphabetically in

the article, and Senegal is one of them. This introduces talk about the internet access in

Senegal, and the number of users in 2018.

The fifth African Internet Summit (AIS) was held in Dakar from April 29 to

March 11, 2018. There, Abdou Karim Sall, Senegalese Director General of the

Telecommunications Regulatory Agency and Posts (*Agence de Presse Africaine* 2018)

stated that the internet usage was becoming more desirable by the population of its

country. The 2000's marked the arrival of internet in Senegal, and ever since its growth

has been remarkable. With diverse telephone and internet operators in Senegal, the cost

of the internet access has been reduced compared to the previous years.

At the early beginning, internet was used for governmental purposes, and mostly in government agencies. The distribution of the internet was too poor, and people did not gain advantage on its installment in the country. After that, came the Cyber Café, and things started changing little by little. With Cyber Cafés, people began to know how to use internet in Senegal, and they realized how internet usage was important and helpful for them. At the beginning, with 600 CFA, which is the equivalent of $1, people could use internet for one hour in Cyber Cafés. A few years afterward, the price became less, so currently the cost of internet in a Cyber Café is 200 CFA, which is the equivalent of 25 cents US.

"APA Senegal noted over 9 million people have access to the internet in Senegal, accounting for 62.9 percent of the 15,726,037 population" (*Agence de Presse Africaine* 2018). With the modernization of internet, people are no longer using internet in public places like Cyber Cafés, but they can access it by Wi-Fi or telephone data. Internet is growing so fast in the country; and what is more interesting, it has stopped people from paying expensive telephone bills. In Senegal, the use of social media allowed the residents to stay in touch, but it is rare to find landline telephones. Conversations are done over cellular phones or through social media, and to stay informed has become much easier because diffused information can be found online.

"Today, 9.6 million Senegalese use internet, of which 88.6 percent via their cell phone" (*Agence de Presse Africaine* 2018). People inside and outside the country create chat groups, so that any information can pass by easily. Like Gambia and Mali, transportation is not granted to everyone in the country. In other words, Senegal is not

like the USA where one can jump in a car to easily pursue occupations. To visit family, friends, or relatives, Senegalese are obliged to pay for public car transportation. To avoid this, they take advantage offered by free social media Apps to communicate easily. This leads to the economic impact of telecommunications in Senegal.

Telecommunication plays a big role in the economy of a country. In Senegal, telecommunication has participated in the development of the country in various ways. "Senegal is primarily a rural nation with limited natural resources. Its key export industries are commercial fishing, phosphate mining, and fertilizer production. The authors continued, "Oil exploitation projects also contribute to the gross domestic product as well as tourism, services and peanut production" (Katz and Koutroumpis 2012, 27). In the studied article, it has been said that the implantation of new telecommunication tools in the country has helped that work in the various fields listed the quote to gain profit, and to sell their product more easily.

"Mobile voice services represent a mature market that has affected the evolution of the Senegalese economy during 2004-2011 and is now used by the majority of the population" (Katz and Koutroumpis 2012, 22). The arrival of mobile phones in Senegal has positively marked the population, because in the past, people went to phone booths to be able to make their phone calls, and it was very expensive. Imagine a sales person who has to call his/her customers every day to advertise products, or to inform customers about the arrival of his/her products.

The latter will not be able to gain profit on the business if all the calls sent to customers have to be made in telephone booths. This situation has plagued the country's

economy for a long time. Even if the sellers had their products, how to inform the customers to come buy was a concern for the traders. "The fishery market of Senegal experienced incredible changes after the introduction of mobile telephony. Prices decreased substantially, waste was eliminated, and the fishing sector became a lot more informed and demand driven" (Katz and Koutroumpis 2012, 23).

Cellular telephones helped sellers to gain a larger market. Companies were able to build connection chains nationally. Selling and buying became more enjoyable, and the country economy started to grow. "ICT's have been found to affect economic prosperity, employment creation and substitution, as well as social welfare" (Katz and Koutroumpis 2012, 22). The demand is becoming stronger, international buyers are cooperating, jobs are born, and the country is gaining profit. In Senegal, telecommunication has helped develop the country, and actually, Senegalese are selling even overseas with the help of new telecommunication tools, to import and export in various destinations in the world.

"Mobile phones affect all economies as they provide a platform with communication mobility attributes that either enhance and support innovation driven economies or substitute the lack of traditional fixed-line channels in the developing world" (Katz and Koutroumpis 2012, 23). Selling and buying online was not applicable in the country before; but currently, youthful generations are creating commercial websites to sell their product without barriers. Formally, they used to do it with a system called "*Louma Market*" (Katz and Koutroumpis 2012, 25).

These are weekly walk-in markets where traders used to go to sell their merchandise; this method was not easy for anyone, because traders usually go from place

to place with their burden to find buyers. Things have changed radically. There is no longer this need to move from place to place. Sellers can simply issue phone calls to be able to sell their goods or they can simply present their products online to find buyers. "The Senegalese market appears to be in a transitional phase in terms of ICT adoption with mobile phones already having a significant impact on the economy" (Katz and Koutroumpis 2012, 39**).** To close this literary review section about Senegal, the influence of the mobile phone on young adults will be further discussed.

We do not need to look far to understand the influence of modern technology on young people. "The mobile phone is a major tool that influences young people from all over the world" (Cooper 2016, 12). Nowadays, young people do not get tired of using smartphones because they assume that it is a way that keeps them company and makes their lives much easier. In Africa, for example, research shows that many young people value communications via mobile phones because, according to young adults, it is the best way to stay connected with their peers.

Today's mobile phone is a portable device representing many digital technologies, far surpassing the first mobile phones. For this reason, young people have made them their everyday companions. The questionnaires presented in Cooper (2016), showed that young people cannot imagine their life without a mobile phone, a machine that is now the most important thing for them. The mobile phone has been domesticated into daily life. "The word domesticated refers to a tradition of research that looks at how people give significant meaning to mobile phones in their daily life" (Cooper 2016, 15).

According to Cooper (2016), "Domestication framework provides a way to examine how young adults learn to make decisions about the ways they will use mobile phones, and how they fit into relationships and established routines" (13). Texting and Snapchat are examples of the routines mentioned here. Many young adults today have never known life without a mobile phone, and some have never known life without an internet-capable mobile phone or smartphone. The mobile phone has become increasingly common for all activities. With that being said, how do cellular phones, social media and electronic communication in Mali differ from those in Senegal?

B. CELLULAR TELEPHONES, INTERNET, AND ELECTRONIC COMMUNICATION IN MALI, LITERATURE REVIEW

Timbuktu Telecentre Mali is the first article reviewed to open the second section of this literary review. Mali is a country rich in history and culture, but its entry into the 21st century was not great. This country is one of the poorest in the world, with a low percentage of schooled graduates that is dissimilar to those of developed countries. "In 1995, the adult literacy rate for men was 39%; whereas, that for women was 29%. In the same vein, the net primary enrollment ratio for girls was 33% and for boys 47%." The authors added, "Women as a group are particularly disadvantaged" (Etta and Parvyn-Wamahiu 2003, 37). This situation is observable in Mali due to poverty, and pervasive low mentality about girls' education.

The article that is the subject of our study deals largely with the evolution of telecommunication in Mali. This is an evolution that was more or less difficult to explain because the internet access was very slow and the telephone company SOTELMA was no

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longer a feed to the entire population of Mali. This hampers the development of

telecommunication and explains the limited access of internet distribution in the country.

"In February 2001, there were 31,000 telephone lines serving the entire population of the

country, and the number of internet subscribers was estimated to be 1,000" (Etta and

Parvyn-Wamahiu 2003, 37). Mali's population is around 15 million inhabitants, so if

only 1000 have internet, this means the internet development is very slow, and not readily

available to the entire population.

The adoption of the local phone gave birth to the project Timbuktu sponsored

by UNESCO, ITU, and IDRC. *Telecentre* was born when people really started to enjoy

network advancement in Mali. The *Telecentre* project allowed people to communicate

with families and friends more easily. "*Telecentre* records of registered users show that

youth constituted 48.5%, adults 51.8%, and the elderly less than 2%. The majority of

users (over 84%) went to the telecentre in the morning. The exit poll indicated that few

women (10-29%) visited the telecentre during the period of observation" (Etta and

Parvyn-Wamahiu 2003, 37). These percentages explain well that the population of

Timbuktu largely enjoys this new telecommunication tool implemented in the region. It

allows them to fulfill daily conversation needs.

If the idea behind such a project was widespread in each region of the country,

it could have been more beneficial for the population, and the network advancement.

Thanks to its sponsorship, Timbuktu's residents are enjoying greater access, and

networking with their friends and relatives at a low cost. This project helps them move

into electronic advancement, but the disadvantage is "the telecentre did not have enough

room to create a waiting room or reception area to accommodate waiting customers. The number of waiting customers often exceeded the number of users, and there was no privacy for telephone users" (Etta and Parvyn-Wamahiu 2003, 37). The second article leading this literary review about Mali reveals how Malian farmers use radio and phones to sell non-timber products.

Many countries around the world recognize the importance of agriculture. In the old days, people only lived from their seeds. In African societies, it is customary to hear a family father hoping to fulfill his wishes once he has had the chance to put his harvest on the market. The article raised an important issue, "If there is not enough rain, people will not be able to grow enough food to last until next growing season. This is the reason why farmers are always looking for different sources of income" (Hill 2011, 41).

In Mali, the rain falls only three months in the year. These three months are months of hard work because father, mother and children are all in the fields constantly in order to ensure their survival during the next nine months of the year. "Although some farmers earn extra money by selling firewood cut from the forest, non-timber forest products, such as seeds, nuts, fruit and even honey, are easier to harvest and manage in a long-term" (Hill 2011, 41). Waiting on a limited rain season was not a great idea, which is why some people thought about a project which could help them sell what they have in and out of season.

From this view point was born the project of Tominian. The latter is a Malian village located in the east of the country. The goal of the project aimed in helping famers to sell their products easily, and at any cost that was equitable. "By facilitating the links

between buyers and sellers, we expect that the farmers will increase the number of potential buyers. Eventually, they will develop long-term partnerships with many other businesses, and contact them directly when they have something to sell" (Hill 2011, 42). The Malian farmers then understood how important the use of radio and phones is to sell non-timber products. Any form of electronic communication was beneficial and helpful for them.

Far from the capital city Bamako, "The project team compiles any information and passes it on to local radio stations and newspapers. Listeners and readers then call the producers directly on their cell phone to negotiate a sale" (Hill 2011, 44). This constitutes the only way they can sell their merchandise with the help of radio advertisement. Buyers then contact them by phone and discuss the price. Thanks to the use of cellular phones and radio, farmers are increasing sales. They were able to perceive how important using new electronic devices were for their lives.

Even though the project seemed very beneficial and helpful for Tominians, they faced some barriers. "The lack of a reliable electricity source limits the type of communication technology they can use to contact potential buyers further afield. The main reason is, there is no electricity in the area around Tominian. The residents recharge their cell phones with power from solar panels, and use generators to drive processing equipment" (Hill 2011, 41). If a buyer is in an emergency need of a product, after several unreachable phone calls, they might move to someone else.

The government should help villages like Tominian to access reliable electricity, so that they will be able to make it on their own. If the electric resources of the

country are not enough to supply electricity properly, then the main idea is to get each family enough solar electricity panels to help them fulfill their needs, and gain benefits in their businesses. Doing so would also help develop the country move into electronic technology advancement. Differing from lack of electricity access, this next article revealed how internet access for all could change Mali.

Internet for all citizens was the main debate of the mayor of Mali's capital Bamako whose name is Ibrahima Ndiaye. He asserted, "In most African countries, the Internet is used only by an elite living mostly in big cities. To make it more widespread, we need support from the wealthy countries" (Sopova 2000, 46). The help and the support from the developed countries could allow developing countries to gain the democracy they are seeking. As a developing country, Internet access or cellphone usage was not given to all Malians. Only a few portions of the population had access to a computer, due to poverty.

Internet access for all citizens is a strong tool that can prevent dictatorial regimes. "New technology helps to spread information, which is a tremendous asset in promoting the growth of democracy" (Sopova 2000, 46). Some countries are still under authoritarian rulers, because new technology access is not offered to everyone in some parts of the globe. Preventing such situations in Mali is what made Ibrahima Ndiaye stand for his country by demanding help and support from rich countries to promote Internet for all. No matter the citizen's social rank, or "how poor they are, they need to get informed" (Sopova 2000, 47). However, there are a few obstacles that hinder all Malians in benefitting from new technology development.

"The first major stumbling block is illiteracy, which concerns about half of Mali's population" (Sopova 2000, 48). Not everyone gets the chance to go to school, and in some areas of the country, schools are not yet implemented, that is the reason why half of the Malian population is illiterate. The questions that you might ask could be, "What is the point of giving all citizens Internet access if they can neither read nor write?" (Sopova 2000, 48). The viewpoint of Sopova (2000) towards this issue was, "Voice-activated computers and Braille give blind people access to the Internet. It is easy to imagine similar devices for illiterate people" (49). This wise idea can allow half of the Malian population to be able to read through bilingual Apps in Soninke and French, for example. Doing so will allow the Internet to be a means of helping to achieve communication and literacy for all.

The second major stumbling block is "The energy situation is just as bad. Fewer than 10 per cent of Malians have access to electricity or telephones" (Sopova 2000, 50). This might be unbelievable, but that is the reality. According to Sopova (2000), what can be done to help Malians to settle down with electricity problem is giving them "equipment that runs on batteries, for example" (50). This is what explains why radio constitutes the daily companion of Malians. "Transistor radios are small, cheap and battery-powered. What the transistor radio is today, the mobile phone will be tomorrow. Soon the Internet will be accessible by mobile phone, and I am sure that will help us take a big leap forward" (Sopova 2000, 50).

Thinking about Internet access on mobile phones in the 2000's was wise from Sopova, and her idea was not wrong. Nowadays, smartphones are the best tools in terms

of technology devices. There is no doubt that they replaced the radio at some point in Mali, as in all Africa. Like Sopova thought earlier, actual cellular phones are devices that run on batteries, and have multiple functions.

"Radios were very expensive when they first appeared. It might seem illusory to picture the spread of mobile phones in Africa, but technology is developing very quickly, which brings prices down just as fast" (Sopova 2000, 48). Internet accessibility allows Malians to be part of the actual world. It allows them to know how their neighboring countries are operating. It also encourages citizens to be democratic and to know which ruling system is the best for them. Even though Malians want internet, Paoletta (2016) affirmed Facebook and Twitter may have just been blocked in Mali.

On Facebook and Twitter, a video quickly went around the web. The video was showing police firing on men during a political protest; and unfortunately, some of these protesters have succumbed. Following this incident, a Malian journalist who had filmed the scene broadcasted the video, which garnered much response, and quickly aroused tension all over the country. Young Malians of all regions were frustrated and unhappy about what had happened. "The Malian government allegedly shut down Twitter and Facebook, following protests that resulted in three casualties and several injuries" (Paoletta 2016).

The access to social networks was suddenly interrupted as the video was rapidly decimated around the country in minutes. A video that images the country is bad because it shows the brutality of some Malian police, who did not hesitate to fire on innocent bystanders. This did not please the leaders nor the citizens of the country, but the horror

was irrepressible. Deaths and several wounded had been recorded. The young Malians were early mobilized to take their guard against the sudden attack.

"Restricting access to social media is not foreign to African countries, but it usually occurs during presidential elections. Governments in Ethiopia, Congo, Chad, Uganda, and elsewhere have found elections are a particularly popular time to crack down on social media" (Paoletta 2016). This kind of situation is well known in many African countries, but what is odd as Paoletta relates is, shutting down the internet or the access to social media just for a protest can destroy the country. This does not make sense.

The broadcaster of the video, a young journalist nicknamed Ras Bath, was warned by the police. The diffusion of the video certainly pushed the Malian government who did not hesitate to call for his arrest. His arrest aroused tensions on both sides. Youthful Malians mobilized for a fight after the event, and this seems to be "the first major protest in Bamako since the military coup in 2012 … in reaction to the 'unwarranted' arrest of radio personality, Mohamed Youssouf Bathily, popularly known as Ras Bath" (Paoletta, 2016). This was not beneficial for the country as there was extensive destruction and non-justified injuries.

"The episode in Mali differs from its predecessors, however, as it is not in lieu of elections. As the protest also reflected public discontent over corruption, unemployment, cost of living and insecurity, a block on media access can be viewed as a move to muzzle frustrated voices within the polity" (Paoletta, 2016). The access to social media has, in a way, changed African countries.

The Mali example would have been unknown if the journalist had not published the video. Such scenes might have happened in the past without being noticed. Thanks to social media, the population can be aware of what is going on around their country. This is helpful for openness of security, voiced citizen needs, and personal desires toward political leaders. Social media has given everyone the chance to be part of world events, but Mali journalists still denounce attacks on press freedom.

Freedom of expression is one of the most relevant proofs that a country is entirely democratic. In Mali, as in many African democratic countries, journalists are not allowed to report information that is not positively perceived by the government in office. African journalists usually deal with a selection criterion when it comes to inviting any candidate of the opposition on TV or radio. The main reason is to retain their jobs and not get into trouble.

The decision on the next person to invite is not left in their hands. In other words, they must consult with the staff director of productions or editor on questions related to who the next person they should or should not invite for a TV or radio program. According to States News Service (2012), "A private television company, Africable, began airing spots on Monday about an interview with a leader of the Tuareg separatist group National Movement for the Liberation of Azawad, or MNLA. The program was to run on Tuesday evening, but hours before the planned broadcast, armed soldiers arrived at Africable's Bamako office and told managers not to show the interview."

The Malian soldiers took advantage in this attack threatening Africable, but according to the soldiers, the Malian television Africable broadcasts programs containing

insulting elements for the Malian army. If the army is dependent on the state and not the citizens, it will never be easy for citizens to raise their voices democratically. In such cases, there is no place for freedom of the press, in my point of view. In Gambia for example, before they elected their new president, the GRTS, the Gambians' national TV station, would only talk about the president Yahya Jammeh every single day. Such cases ruin a country, kill citizen viewpoints, and promote corruption.

Ibrahim Coulibaly, a Bamako-based journalist and vice president of an editors' association, said soldiers must not be allowed to block journalists from doing their jobs. He continued, "Tuesday's incident shows that real power is in the hands of the military" (States News Service 2012). The situation is more than delicate for the journalists because if doing their work is worth putting their lives at risk, they will be forced to remain silent on many issues which attract the attention of the army.

Africable stations are among the biggest TV stations in Western Africa, and as a private company, they should not be endangered in giving reports. If private television stations are attacked by the army, this is proof that the Malian National Television does not even think of broadcasting programs that are against the regime in office. According to States News Service (2012), "The government wants to add that it did not authorize anyone to block any broadcast on Africable or any other television station." Such justification seems odd because the army would not have the audacity to cross these private property lines if they had not received an order of execution.

"For Malian journalist Coulibaly, broadcasting an interview with MNLA would allow Malians and the international community to hear what MNLA's true motivations

were." The authors added, "The view of other Malians is that the military probably worried that the MNLA member would give information putting the army in a bad light" (States News Service 2012). This situation constitutes the main reason why philosophers usually say if a state is weak, it is viewed negatively, and if it is strong it crushes citizens. With that being said, this research will now focus on alternating views in television serials, Malian cinema and democratic experience.

Television is one of the fastest ways to get peoples' attention. Daily TV news moves from house to house, since everyone might be watching TV while taking a cup of tea or chatting with other relatives. At home, they will always find a time for TV shows. In Mali, cinematographs soon understood that they can help better understand how their country is being ruled and rulers by creating comic shows in which they imitate politicians. The idea behind this is to easily show messages which might leave a doubt, or that can be considered as a warning flag. "It is your choice; vote for the one who will make you laugh, or those who will make you cry" (Sow 2009, 51). This quote is an example of a message which was aired at a TV cinema. It certainly made people laugh, but also lead them to critically think about any candidate who was to be elected in a presidential campaign.

Cinema has also helped Malians gain democratic voices toward their leaders. "I attempt to show that directorial responses to recent political and cultural changes have taken two distinctive, yet complementary approaches which suggests a rather productive new relationship between cinema and television" (Sow 2009, 52). By combining electronic usage, it is easy to connect the modern world to each generation. Even though

older people in Mali were rarely educated, they can still get an idea about how their country is being ruled. Cinematographers found a way to connect daily news with comic shows translated in *Bambara,* Malians' local language. This helps them get in touch with current affairs. This is one step that connects each generation with new technology.

Sow (2009) elaborates, "Television's role in the collective assessment of political change, combined with the media liberalization made possible by the fall of the military regime, opened a new chapter in Malian broadcasting and singled out its position relative to position in other African countries" (56). Not only have Malians gained a sense of freedom thanks to television and cinema production, but they also became open to other countries. In their need of help from recent terrorist attacks, rescue came easily from their closest neighboring country. Their TV stations are now international which better connects everyday people with the world. Today, being part of the CEDAO allows them to defend, and to be defended.

The idea behind television production targets the democratic experience. This "elicits constructive participation by focusing on the tensions created when actual democratic practices and situations contrast with the expected performances" (Sow 2009, 52-53). In legislative or presidential elections, tensions are often on the rise. Democratization of the television in Mali gives each political party freedom to face the nation explaining their dreams or wishes for the country while giving freedom to opponents. These are acquired, practiced and respected; thanks to modernization and democratization of TV in Mali. To close this literary review section about Mali,

revitalizing the oral tradition is accomplished in stories broadcast by radio Parana (*san* Mali).

Before television, social networks or internet invention, radio has always been considered as the most dominant modern means of communication in the entire African continent. In Mali, as elsewhere in Africa, it is customary to see people who are always accompanied with a small radio everywhere they can go: in the field, at work, or in public places. For the Malians, radio is a companion that serves as a means of information and distraction. Across the entire continent of Africa, death announcements often pass through most local radio stations. This allows anyone close to the deceased to know that such person is no longer part of this world.

In the past in Mali, access to radio was not favorable to everyone. People were confronted with installation problems, and it took years before the receivers were made available for the local population. Formerly, in Mali as elsewhere in Africa, "Radio remained a source of information that was addressed principally to Europeans living on the continent" (Leguy 2007, 136). In the 60's and 70's, the arrival on the market of transmitting radio made by the Japanese changed that situation. Malians have gradually begun to adapt to this communication tool which allowed them to showcase their culture and tradition.

Oral tradition is of major importance for Malians. The *griots* are the layers of the population who have the expertise to trace the history of the country orally. The main reason why it is called oral tradition is because it is passed from father to son or grandfather to grandson. In order to propagate the Malian oral tradition, Malians felt it

necessary to move to the creation of their own local radio stations in order to broadcast programs about the culture and tradition of the country in various languages. In top of that, "Various factors favored the development of what might be called a veritable explosion, especially in Mali, of privately owned radios. Among those factors should be mentioned technical progress and, of course, the fall of dictatorial power that contributed to the freedom of popular speech" (Leguy 2007, 136).

Who says Mali, thinks of a country of tradition, culture, song, story, myth and legend. Most Malians are people who are really fond of the history of their country. Not only did the radio give Malians the chance to express themselves openly, but it also allowed them to give a taste to their life through the distraction, and traditional knowledge. According to Leguy (2007), "Radio agents go from village to village recording the best musicians and the best storytellers, and covering special events. In the studio, they also invite an elder who is knowledgeable in traditional customs and who can converse for about a half-hour on a given topic" (137).

The idea that lays behind these radio programs is mainly to allow illiterate children and adults to be able to know the history of the country. Radio agents intentionally record elders who know about the history to narrate any past event that might be beneficial for people to learn a moral lesson, or to be on track with what happened in a previous era ruled by Malian kings. "People do like the stories, and not just among the intellectual circles. Still, the stories are in some ways more focused on the past than on the future" (Leguy 2007, 144). A last consideration is cellular phones, social media and electronic communication in Gambia.

C. CELLULAR TELEPHONES, INTERNET, AND ELECTRONIC COMMUNICATION IN GAMBIA, LITERATURE REVIEW

To open up the last section of this literary review section, the first article about Gambia mentioned internet adoption at the user level**.** The internet is one of the biggest innovations that radically changed the field of telecommunication. In the Gambia, communication has become easy, thanks to the barrier-free access of this technological tool. Gambia is not left behind when it comes to digital technology, "This country held the headquarters of the African coast to Europe submarine cable which is one of the most ambitious telecommunication projects in the sub-region" (Touray, Salminen, and Mursu 2015, 284).

Gambia is a very small country compared to rest of the rest of Africa, but the country is trying to fit with the need of the modern world when comes to Internet access. "Gambia currently has a total of 10 Internet access technologies that have been deployed … namely 3G, General Packet Radio Service (GPRS), Digital Subscriber Line (DSL), Integrated Services Digital Network (ISDN), fiber, Virtual Private Network (VPN), dial-up, Code Division Multiple Access (CDMA), air-span and Wideband Code Division Multiple Access (WCDMA)" (Touray, Salminen, and Mursu 2015, 284). The importance that Internet has in the Gambian's everyday life is without doubt.

The country has suffered from dictatorial regimes for years, but this issue has low impact on the adaptation to the Internet. For decades, the country just had one national TV station until 2017. Internet access gave the population the chance to have the minimum freedom they needed. "Government has no significant role in the way

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individuals tend to use the Internet" (Touray, Salminen, and Mursu 2015, 286). Thanks to social networks, Gambians are able to communicate with the rest of the world at a very low cost. Gambia has three main telephone operators that also provide Internet access for the population, and they are known as AFRICELL, GAMCEL, and QCELL.

The distribution of the Internet is also limited due to some barriers such as lack of funds and means, in some areas like "Basse located in the Lower River, Internet access is very poor, but for the one living in Banjul City Council, Kanifing Municipal Council, and Brikama West Coast Region, it is much easier for them to stay connected" (Touray, Salminen, and Mursu 2015, 284). The Internet transmitters are not able to supply the entire country even though they have various telephone operators. This situation is not only affecting the Gambia, but it is also frequent in several developing countries.

This research gathered a collection of responses from a questionnaire distributed in the University of the Gambia. "We administered a total of 200 questionnaires with a return rate of about 91%" (Touray, Salminen, and Mursu 2015, 284). From this collection of responses, it was found that the Gambian's younger generation, especially the university students, are the ones that are among the most enthusiastic and well-informed users of the Internet. This is quite normal in Africa, because the young African generation is more educated, and more familiar with new digital tools compared to their parents and elders.

Another finding is "Gender plays an important role in the way an individual perceives the use of the Internet" (Touray, Salminen, and Mursu 2015, 286). Even though girls' education is growing in the Gambia, there is still a gender gap difference in various

domains of life. Men are more likely to use Internet than women, because women are more attached to household chores and the family. This gives them less time to fulfill their daily social media interaction. The following article presents the cell phone as appropriate information technology in Gambia.

Modern communication technologies have had a great impact in peoples' daily life all over the world. Socially, culturally, and economically, in the Gambia, the telephone is a communication tool that has made life much easier for people. Currently, many modern technologies have seen the world, thanks to the fascinating discoveries that the world faces. Despite these varied discoveries, one cannot deny that the telephone is number one.

The reports on its influence in people's lives have always remained positive because for a long time, it has had a vital part in making communication accessible to everyone. "The cell phone now has to be taken seriously as a truly influential technology which is enabling society to achieve a host of benefits, some small and some large, that were previously unachievable" (Harvey and Sturges 2010, 148).

In a country like the Gambia, to exchange news with relatives living miles away, people did not have a choice unless riding horses for hours, or paying car transportation which was not affordable for all. As a developing country, these situations occur in daily life, but things dramatically changed when cellphones appeared for the first time. Gambians loved them, and made a serious, sacrificial effort to have even one cellphone per family.

This is principally due to its "wireless and portable status, which makes the cellphone truly mobile and able to deliver what users need, when and where they need it" (Harvey and Sturges 2010, 149). Even for those who could not buy a cellphone, it was possible for them to take one of the neighbors' phone numbers, and give it to other family members in case they needed to contact or to inform them if an emergency occurred. On top of that, Gambians found a cellphone very beneficial for them because "it has one key basic feature, Short Message Service (SMS), which serves as an adequate, fast and cheap way of communication" (Harvey and Sturges 2010, 149). Sending messages became cheaper compared to sending letters via a post office. Harvey and Sturges (2010), stated, "The importance of the mobile phone lies in empowering people to engage in communication which is at the same time free from the constraints of physical proximity and spatial immobility'' (149).

The Gambians never did get the chance to know how practical and valuable modern technologies were until the arrival of cellular phone. The reason for this situation was "the Gambian national television had never become as important as the radio, broadcasting for only a few hours per day, in the evenings. The land line telephone is even less of a success story than radio and television in Gambia" (Harvey and Sturges, 150). Land line telephones did not have a great influence in Gambian life due to the limited distribution of electricity in the country. "In Gambia, the cellular technology has effectively replaced its traditional counterpart, the fixed-line telephone, as a more effective and reliable communication instrument" (Harvey and Sturges 2010, 152).

Land line telephony is a communication tool that has to be connected to electricity in order to work continuously; contrarily, a cellphone, even without enough electricity in the country, can operate with generators or car batteries. These devices allowed the entire neighborhood to recharge their phones, and even if their cellphones are dead, they can still divert their calls to someone else's phone. "Information and communication technologies can have a positive influence, but it has to be the right technology for the right place and the right people" (Harvey and Sturges 2010, 152). At this point, research turns to one major scarcity for mobile phones in Gambia: charging spaces.

The limited distribution of electricity in Africa constitutes a major blockage in the use of mobile phones. In a country like the Gambia, electrical devices are not able to grant electricity to the entire population. Power cuts are frequent in Gambia, as each day people are confronted with constant and frequent electricity cuts. To find a solution to this problem, the Gambian electric company NAWEC distributes the electricity in a partial way for the different localities. One area will have electricity for a few hours, later they shut it down to serve another area. "The Gambia clearly shows that the notion of absolute electricity scarcity which is promulgated by the International Energy Agency (IEA) statistics only offers a limited picture of energy poverty, especially at the local level" (Munro and Schiffer 2019, 175).

Even if all Gambians want to use current electronic devices such as the mobile phone, getting it charged on a daily basis is the main problem that most of the population is facing. In big cities like Banjul, Serekunda, and Brikama, citizens have electricity at

least eight hours in the day, in contrast to those living in rural areas like Katong or Berending which have no access to electricity. "Electricity access should be understood as a more qualitative process that is shaped by a range of political, social, economic and infrastructural dimensions" (Munro and Schiffer 2019, 175).

Nowadays, cellphones are part of peoples' life in Africa. "The current estimates are that around 43% of Africans own a mobile phone" (Munro and Schiffer 2019, 176), but it is a problem to figure out ways to charge their mobile phones" (Munro and Schiffer 2019, 176). This is a major scourge for the Gambia, and it is also an unfavorable situation for Africa. This factor is a major blockage that prevents people from using cellphones as desired. According to Munro and Schiffer (2019), what lies behind the partial distribution of electricity in Africa is a political interest issue.

They took the example of Gambia and Sierra Leone, two countries that can probably exploit energy from the water that surrounds their countries; but unfortunately, they do not have the means to extract it. "Rather than grander questions of governance and conflict that have pervaded much of the political ecology literature, we are interested in the day-to-day geographies of electricity flows" (Munro and Schiffer 2019, 176).

Before mobile phones arrived, Gambians usually made calls using public landline telephones through Gamtel; a telephone company located in the country that charged minutes. "Frankly, the landline usage dropped significantly because of the introduction of the mobile phone. Since you have your mobile in your hand you do not need to use the landline. As mobile companies started coming, the Gamtel line started collapsing because you don't need it anymore" (Munro and Schiffer 2019, 176). Gambia

is a small country with a large number of phone operators. One of the mobile phone operators (Africell) had the idea to place diesel generators in some rural areas in order to help people charge their mobile phones. "Those residing nearby could charge their mobile phones for D5 (€0.09, US$0.11)" (Munro and Schiffer 2019, 177). This is a way that is set up to foster cellular phone usage, and this will help operators to have more subscribers. An even greater problem is how press freedom is under attack in Gambia and USA.

Over decades, the Gambian press was a press under government control. Many Gambian journalists have taken refuge in various countries around the world including the United States. The reasons for them leaving their country are mainly the fear to lose their lives or to undergo torture without end. This is the case of a journalist named Alagi Yorro Jallow. "On February 2nd, 2003, the police of Banjul in the Gambia arrested Alagi and interrogated him about a lead story he had published in his newspaper, *The Independent*" (Jallow 2008, 74).

From that arrest, the journalist was sent to jail for nearly 48 hours, and the worst is the fact that he was tortured. "I was stripped naked and kept in a dank cell until my release" (Jallow 2008, 74). This situation was not something odd for Mr. Jallow since he was arrested more than a dozen times in eight years. He was not the only Gambian journalist who has gone through such atrocities. "Several journalists who published newspapers that are not owned and controlled by the government, have faced violence as well" (Jallow 2008, 76).

Jallow thinks, "The harassment and imprisonment of journalists in America send a bad message to countries such as the Gambia, where press freedom has been under attack for a long time" (Jallow 2008, 76). If a democratic country like the United States is considered as a country where no one can doubt the opinion of a journalist, and where it is necessary to respond to the questions of journalists, the arrest of an American journalist would be a way to give more strength to presidents like Jammeh. From Jallow's viewpoint, journalists are the voice of the voiceless, and this slogan should be universal.

The situation of Gambian journalists was unbelievable. No journalist had the right to raise his voice to say anything about the president or his government, and whoever had the courage to challenge the president was severely punished. For Jallow, his press house experienced two successive attacks in October 2003, "The office was burned, and the newspaper's security guard was beaten unconscious, but the printing equipment was left intact." He continues, "The second attack was in April 2004 by the Gambian military, who destroyed the printing press, and sent several death threats" (Jallow 2008, 77).

The nation's opinion was of minimum importance for President Jammeh. Gambian people never got the strength to give their point of view regarding any matter. Even in private, people were always afraid to pronounce the president's name for fear of being punished. Whoever tried had a bad ending. That is the case of Deyda Hydara among others. "On December 16th, 2004, Deyda Hydara, a respected publisher of another independent newspaper in the Gambia, was shot dead at close range as he drove home

from work. So far, no one has been indicted for his death, but many members of the media suspect government forces were behind Hydara's murder" (Jallow 2008, 78).

After Hydara's murder, Jallow was forced to flee the country in the wake of assassination threats. His newspaper has suspended publication. These situations are what has hindered freedom of the press in the Gambia. Even though the United States had tried to give a hand to the Gambians by sponsoring some independent journalists, "for many years, the American government assisted private newspapers in the Gambia with funds and equipment as part of its efforts to promote democracy worldwide. All independent newspapers in the Gambia benefited from such support" (Jallow 2008, 78).

Unfortunately, it did not work out. The examples listed in this paper have made the Gambia a country with no reliable source of information, and this has killed freedom of press. These verified facts lead to the Universal Declaration of Human Rights. According to article nine of the Universal Declaration of Human Rights (1948), "Everyone has the right to freedom of opinion and expression; this right includes the freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media, regardless of frontiers."

Even though the written article gives individuals the rights and freedom to communicate, to inform and to be informed, and to seek and receive information, we all know that governments and governors are the ones who handle and monopolize most of the information which may or may not be beneficial for a given country. Governments handle their own decisions and make compromises privately, meaning that the citizens

are not allowed to participate in government private meetings, debates or decision making. These decisions and compromises are referred to as state secrets.

People often talk about the right to communicate, but it is just common sense since there is no privacy in one's daily conversations. Our cellphones, e-mails and social media are all controlled, also our buildings, malls, and offices are all equipped with surveillance cameras to monitor who is talking to whom. In order to control the content and flow of people's communications, governments and companies seek to know what has been said or discussed by a group of students or workers in their dorms, lobbies or work places. The freedom of expression is theoretically based on communicating individuals, each with an equal right to conceive, impart and receive ideas from others; and thereby, to rationally arrive at decisions of shared interest. To close this literary review section about the Gambia, internet freedom in West Africa is introduced.

Access to the internet is not a major concern in developed countries; by contrast in developing countries, internet access is limited, and not granted for all. African youth make up a large part of the world's population. "UNICEF estimates that by the end of the century, 40% of the world's population will be African, where Africa in May 2016 had 16% internet penetration" (Brooks and Others 2018, 72). In West Africa for example; rural areas are more concerned with the limited distribution of the internet. Means are still not available to make internet access universal. West African kids usually get the chance to manipulate a computer in college or in high school, and this is one of the major concerns why internet distribution should be granted for everyone in Africa.

The internet development in Africa is relatively slow. The U.S. State Department's Bureau of Democracy, Human Rights, and Labor thinks that the limitation of internet access in the continent constitutes a major barrier in the promotion of online freedom of expression by West African activists. "…By 2025 the penetration rate will be approximately 50% and 600 million Africans will be using the internet, producing approximately $75 billion in annual e-commerce activity and contributing $300 billion to African GDP" (Brooks and Others 2018, 73).

Having internet for all in Africa will enable young Africans to think about the creation of online jobs to reduce poverty in the continent; on top of that, Africans will have the opportunity to have their own freedom to move forward, since internet usage is mandatory in the actual world. The birth of internet was fabulous in West Africa, but what makes it more enjoyable is social media. "In countries where the population does not trust traditional media, social media has emerged as an alternative" (Brooks and Others 2018, 74). West African populations feel more at ease using social media apps to express opinions toward their governments and rulers.

They understand that the social media apps were not owned by their governments, yet it was difficult for them to discard traditional mentality. Apps and social media started to kill the fear and oppression that governments produced, but West African government structures were not ready for true democracy. "Governments hire cheap, unskilled laborers to flood websites with either pro-government 50-cent army, or abusive troll comments. If all else fails, a government can simply shut off the internet and other telecommunications technologies during politically sensitive times" (Brooks and

Others 2018, 76). These stations are common in Africa. The Gambia, for example, celebrated freedom of the press the first time in 2017; at the same time, they became democratic.

Internet for all and freedom on the internet is a common necessity in West Africa, since populations early understood how much influence this new technological device had. It could change their lives forever. To support internet access in West Africa, "Internet users allowed their connection to be shared" (Brooks and Others 2018, 78). This is a way to make free use of the internet in order to be in touch with the needs of the modern world, but "the internet in Africa is qualitatively different from the internet in Europe and the US. Wired connections are rare and power disruptions are common. Most connections use 4G wireless in urban areas" (Brooks and Others 2018, 79). This argument proves that even if Africans want to enjoy the internet, it is unfortunate that the necessary devices are not on hand to expand its supply. The following five research questions aided in forming an overall view of current use of social media, Internet, and electronic communication in the research countries.

RQ 1: What age, gender, and socio-economic demographics use internet in Senegal, Mali and Gambia?

RQ 2: For how long have respondents used internet?

RQ 3: What levels of education are completed by respondents?

RQ 4: What is the longest respondents stayed on the internet?

RQ 5: How many times do respondents check their emails?

RQ6: How long have respondents used a cellular telephone?

See Appendix D for qualitative comments.

CHAPTER 3:

METHODOLOGY

Examination of the research questions was conducted using a stratified random approach of a minimum of 30 respondents per country.

A. Participants

For the interest and benefit of the research, surveys were sent to various public, government, and educational locations electronically. Volunteers were asked to participate in a survey related to cellular and internet use. Each region was campaigned by purposive sampling to include all geographical areas. Government and private workplaces; government, international, and private schools; and urban and rural locales were offered surveys. One hundred surveys were distributed to respondents in Senegal, Mali, and Gambia. Systemic efforts to strategically include certain age categories, genders, abilities (i.e., literacy) and employment status were employed to gain data. Ages 18-65 were contacted for possible participation, and no remuneration was given for participation.

B. Instrumentation and Procedures

Quantitative and qualitative questions were used in the research instrument. Both types of data collection allow for discussion of the evolution of social media and electronic communication, and internet in Senegal, Gambia, and Mali. This survey was conducted electronically by collecting data using a forty-question survey or questionnaire. It contained 8 open-ended questions and 32 Likert scale questions which

varied from 4-5-6-7 possible answers. The survey focused on internet, phone and e-mail usage by each country's citizens or sojourners of at least three months. The questionnaire was originally published and distributed in English, but has also been translated in French, so that the Senegalese and Malian respondents could have a better understanding of what they were filling out in order to avoid any language misunderstandings.

The questionnaire did not contain any question that would make the respondents uncomfortable, and was done voluntarily with consent. Answers disclosed how people use cellphones and internet in their daily lives, and why they choose and prefer to communicate with others by using different electronic devices. Beside the online survey on Survey Monkey, surveys were also distributed by email attachment to reach the goal of optimal survey collection.

Having an online version of the survey allowed the researcher to include respondents within the three identified countries from all over the world. After collection of surveys, data was recorded and analyzed through SPSS software. The data was used to compare/contrast the three country response without revealing identities. The results section contains collection data in tables and figures for Senegal, Mali and Gambia.

CHAPTER 4:

RESULTS

Senegalese provided a robust data pool of valid responses. Total response was 50 fully completed questionnaires collected in one month and a half. Research questions were answered and collaborated by multiple inquiry methods. The Survey Monkey links were sent to people in and outside the country. The following RQ questions lead us to the

figures and charts drawn by Survey Monkey which is followed by their highlighted descriptions.

RQ 1: What gender, age, and socio-economic demographics use internet in Senegal?
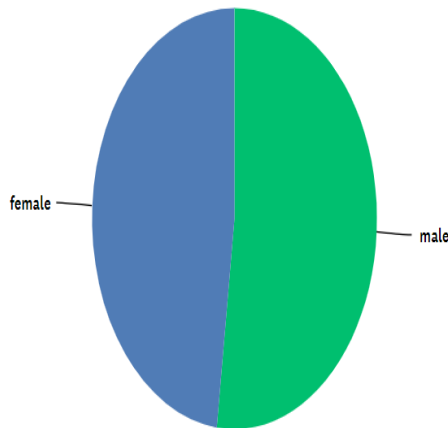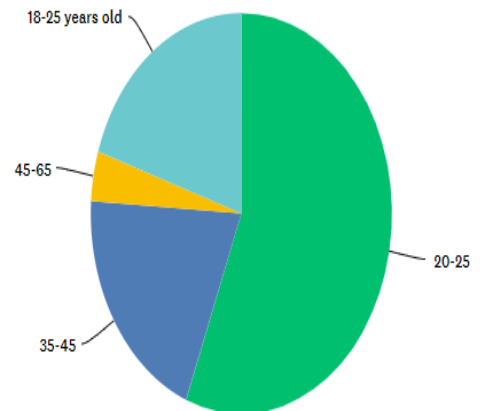

Fig 1A: Gender Internet Usage
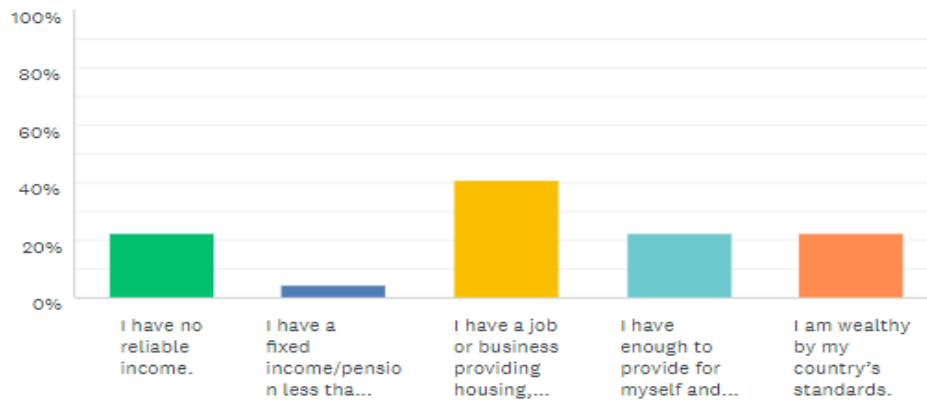

Fig 1B: Age of Internet Usage

Fig 1C: Socio-Economic Demographics

Figure 1 A, B, C: Reported Gender, Age, Socio-Economic Demographics Use of Internet in Senegal (n=50)

Senegalese males (52%) used internet 4% more often than females (48%), which

indicates that men in Senegal are slightly more likely to use internet. As noted in the

theory section, women have less access to use internet in certain areas of the country. See

figure 1A. The ages 20-25 are the major group of internet users in Senegal since they

constitute the new generation, they are mostly college and university students, they

represent (66.68%) for the entire population. The minor group of internet users in

Senegal are adults age 45 to 65, which were 9.67% since some of them did not grow up

with electronic technologies, and using them will not be easy. See figure 1B. The socio-

economic status is relatively moderate in Senegal (40%) for the respondents that have a

job or business providing housing, food, clothing and life necessities, compared to 5%

who responded, "I have no reliable income." Senegalese are living in a moderate country

where the majority of the population have work that can allow them to handle their daily

needs, see figure 1C.

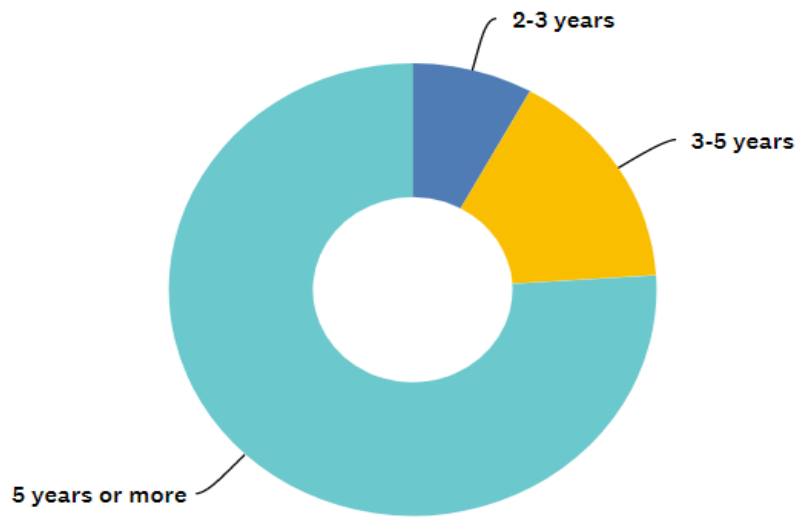RQ 2: How long have respondents used the internet in Senegal?

Figure 2: Length Respondents Used Internet in Senegal

The highest proportion of Senegalese have used internet for five years or more at 76%. The second highest proportion reported three to five years at 16%. Senegalese surveyed who had used internet for two to three years were 8%, and none of the surveyed have used the internet for one year or less. It is noteworthy how Senegalese are taking advantage of digital advancement, which gave them the chance to be part of the developed world no matter whether they are home or abroad. Senegalese have been TIC (Technology Adept) since the first years that it was invented and available to the general public. See Figure 2.

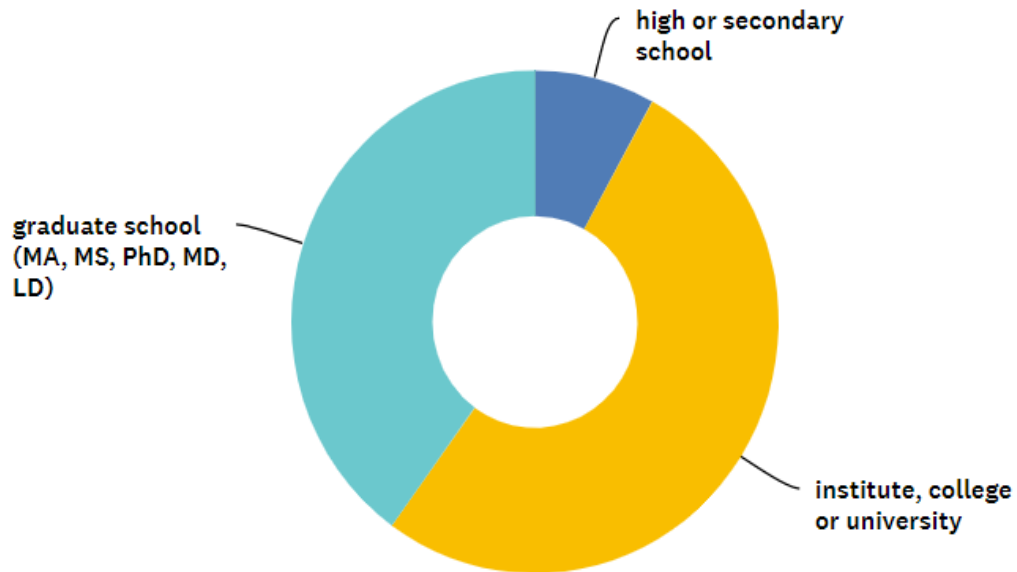RQ 3: What levels of education are completed by respondents in Senegal?

Figure 3: Reported Senegalese Levels of Education

In accordance with the collected responses, no respondents were primary school level (0%) for the entire sample. There are four respondents who are high school level which make up 8% of the entire respondent sample. However, the number of respondents who have completed institute, college or university is 26 which make up over half (52%) of all respondents. The number of people who have finished graduate school (MA, MS, PhD, MD, LD) is 20 and make up the next largest segment (40%) of the sample. As we can see, the vast majority (92%) of respondents who have participated in the survey have been through institute, college or university. In Senegal, not everyone is educated to the point of being able to manipulate a computer which minimized and thus skewed the results for the largest segment of the population. The surveys were primarily accessed online or through social media. English or French versions also explain why university

and college graduates constituted a large number of our respondents, as local languages were not available to respondents. See Figure 3.

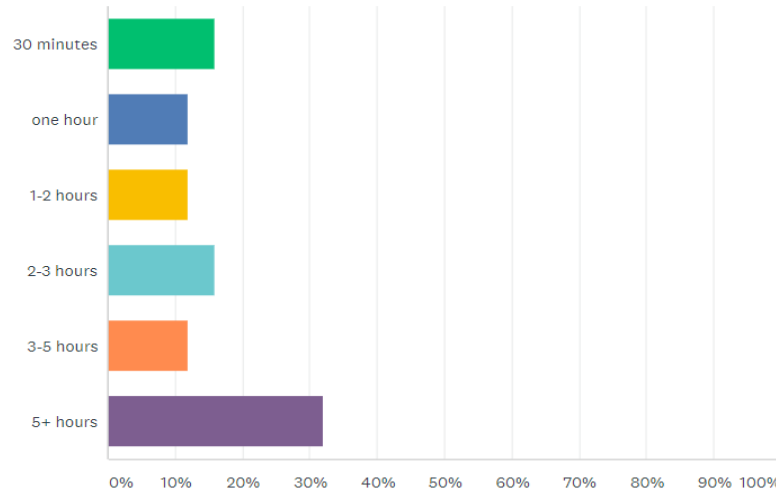RQ 4: What is the longest respondents stayed on the internet in Senegal?

Figure 4: The Longest Respondents Stayed on the Internet in Senegal (n=50)

According to the 50 surveys which were collected, about 16 respondents (32%) stayed on the internet for 5 or more hours at a time; 6 respondents (12%) stayed on the internet for 3-5 hours; 8 respondents (16%) stayed on the internet for 2-3 hours at most; 6 respondents (12%) stayed on the internet for 1-2 hours; 6 respondents (12%) stayed on the internet for one hour at a time; and 8 respondents (16%) stayed on the internet for 30 minutes. The majority of those surveyed stayed on the internet for 5+ hours in Senegal. This reflects an evolution of internet or social media usage for professionals and higher education students. Based on the data, a large percentage of the educated population fluent in French or English uses the internet over five hours daily. It is part of people's

daily activities, and they always find time for it, no matter how busy they are. See figure 4 for work, study or pleasure internet usage in hours daily.

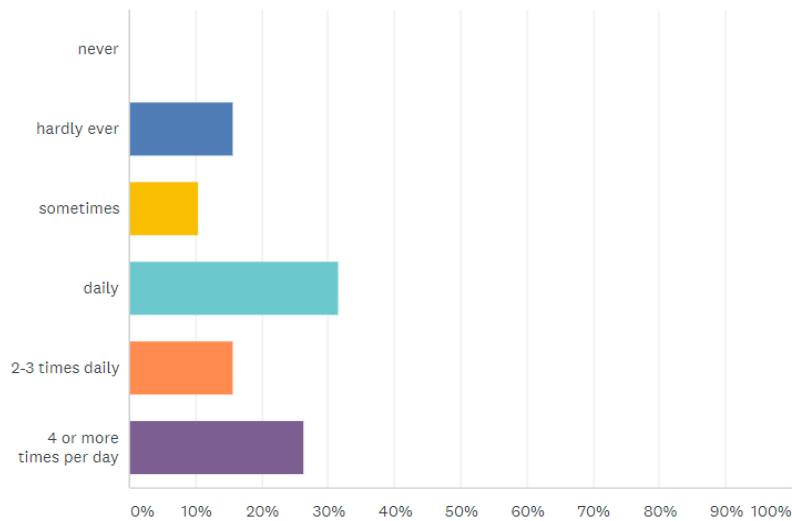RQ 5: How many times do respondents check their emails in Senegal?

Figure 5: Times Respondents Check Email in Senegal (n=50)

For the total of the responses, 14 respondents (28%) checked their emails 4 or more times per day, 8 respondents (16%) checked their emails 2-3 times per day, 15 respondents (30%) checked their emails once daily, 5 respondents (10%) checked their emails sometimes, and 8 respondents (16%) checked their emails hardly ever; however, none of the respondents had never missed checking emails at all. So basically, the majority of those surveyed check emails at least once daily which is quite normal. Not only in Senegal, but everywhere else people are most likely to check their emails upon returning home from work. If the workplace facilitates e-mail checking, then taking a little time to clear them daily is a normal thing to do. See Figure 5. These research questions give an overview of electronic usage patterns for the educated in Senegal.

RQ6: How long have respondents used a cellphone in Senegal?
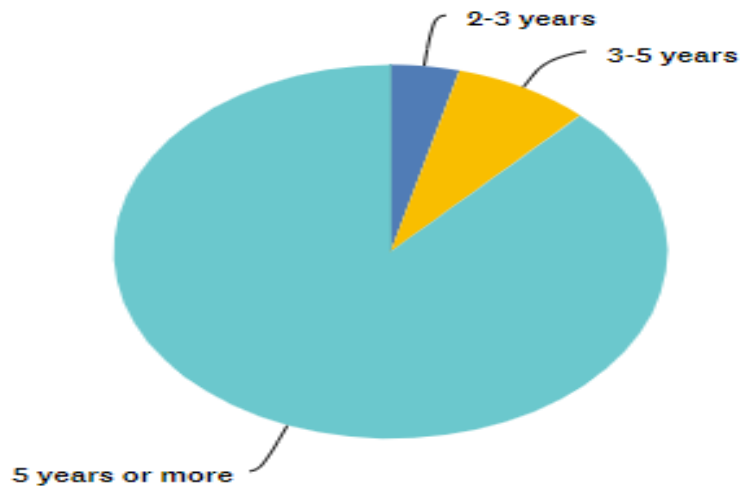
Figure 6: Length Respondents Used a Cellphone in Senegal

Among all the collected responses, in Senegal the respondents have used cellphones in the previous years. In the data, the majority 88% have used cellular telephones for 5 years or more compared to 8% who have used it for 3 to 5 years, and 4% who have used it for 2 to 3 years. Cellphones are very important in Senegal since people live far from each other and means of transportation are not offered to all. The majority of the Senegalese use cellphones to contact their friends, family and relatives, and on top of that as said in the literary review it allows them to keep their business alive. Cellphones are means of earning a living in Senegal. See figure 6.

The research will now show the collected results for Mali.

RQ 1: What age, gender, and socio-economic demographics use internet in Mali?

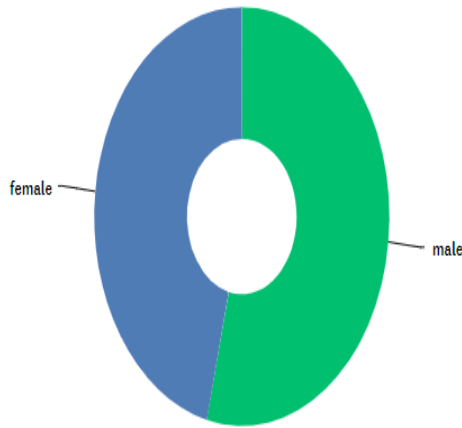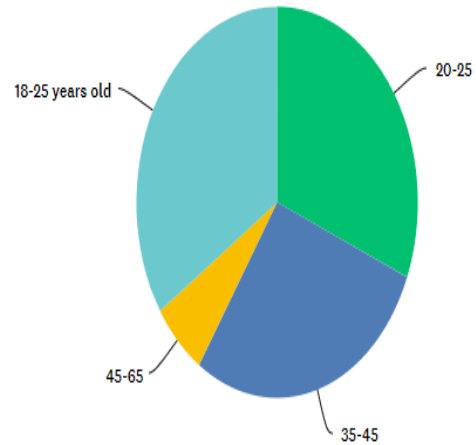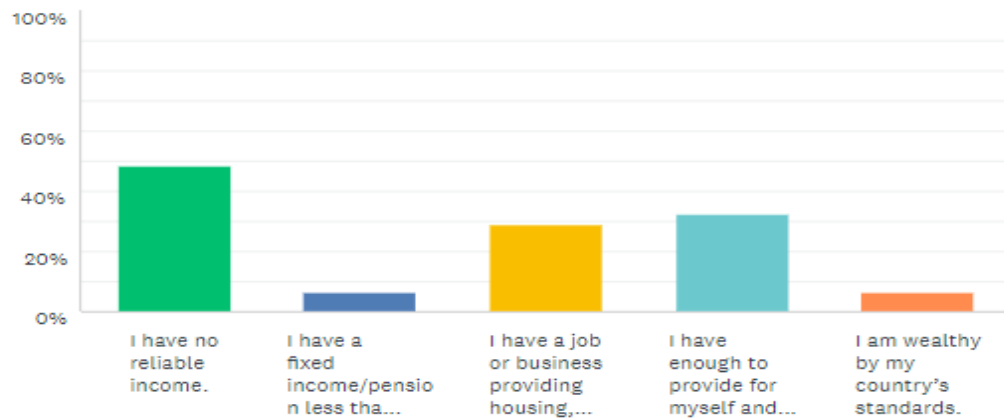Fig 7A: Gender Internet Usage   Fig 7B: Age of Internet Usage

Fig 7C: Socio-Economic Demographics

Figure 7 A, B, C: Reported Gender, Age, And Socio-Economic Demographics Use of

Internet in Mali (n=32)

In the data collection, six respondents neglected to indicate their gender. In Mali

the data reflected that 14 males (53.85%) use internet slightly more often than females.

The number of female internet users were 12 or (46.55%). See figure 7A. The ages 18-20 and 20-25 are the major group of internet users in Mali; together they represent 34.38% and 31.25% for the entire population. The result is relatively understandable since they constitute the new generation who live under the control of internet and social media. See figure 7B. The result also indicates that respondents who participated live under different economic constraints in Mali. As shown in the data, 48.39% responded that they have no reliable income, 6.45% responded that they have a fixed income/pension less than 1,000 USD per month, and the rest have jobs or businesses providing housing, food, clothing and life necessities; or have enough to provide for themselves and others' needs on a regular basis. Currently, it is difficult for Malians to live a normal life since they are living with periodic terrorism attacks that tend to disorient the country infrastructure. See figure 7C.

RQ 2: How long have respondents used the internet in Mali?
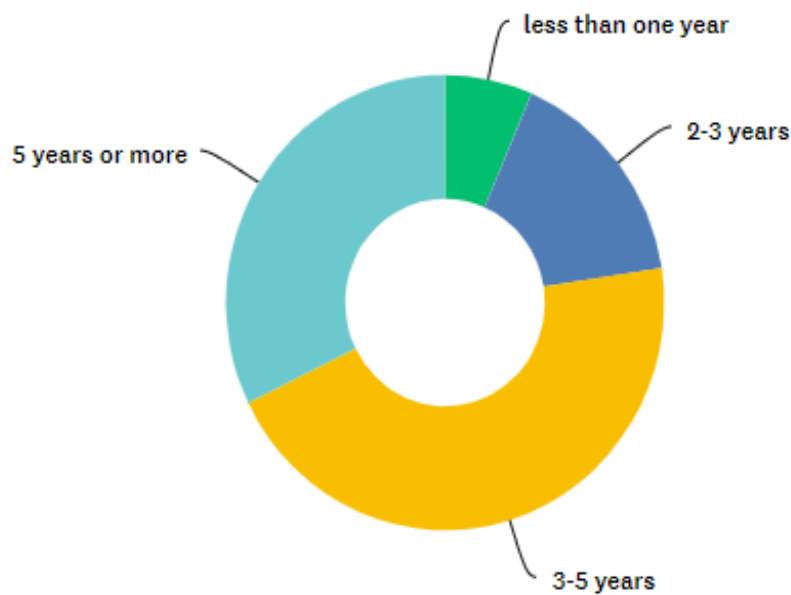
Figure 8: Length Respondents Used Internet in Mali

From the data collected, one response was skipped. However, 14 respondents which is nearly half (45.16%) started to use internet three to five years ago, representing the highest proportion of Malians who have used internet. The second highest proportion reported five years or more of use (32.26%) which was equal to 10 respondents. Even though nearly all of the surveyed had used internet for more than one year, some did not. Two respondents (6.45%) did use internet for less than one year, and 5 (16.13%) used it for two to three years. Apparently, in these recent years internet in Mali has been gaining users compared to the previous years. People are becoming more familiar with it, and are having deeper needs for its usage in Mali. See figure 8.

RQ 3: What levels of education are completed by respondents in Mali?
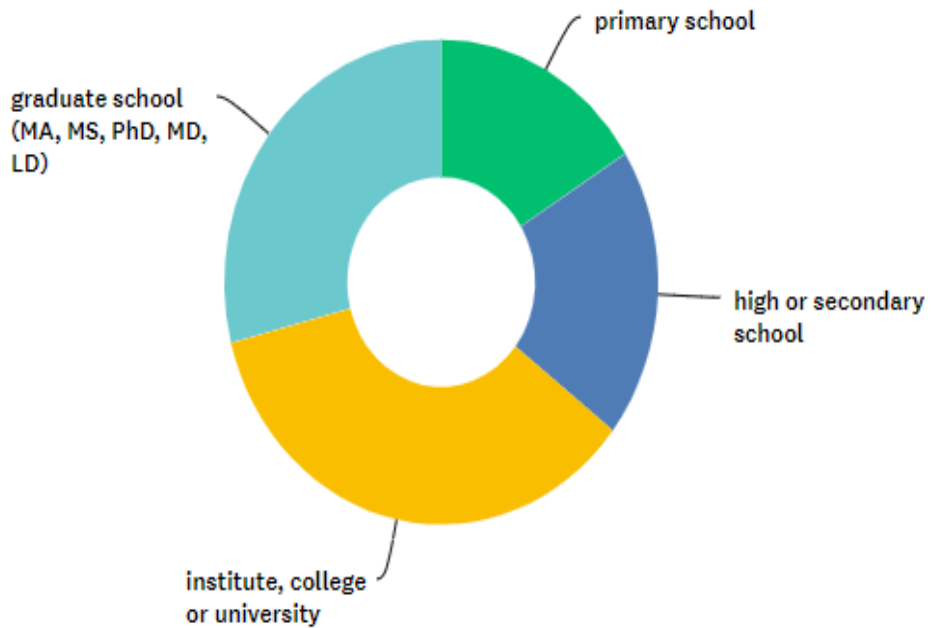
Figure 9: Reported Malian Levels of Education (n=32)

From the represented population, five respondents were primary school level, which is the equivalent of 16.13%. On one hand, six respondents were high or secondary school level, representing 19.35% of the entire sample; one can notice that there is no big difference between the two groups of respondents. On the other hand, nine respondents (29.03%) were graduate school level (MA, MS, PHD, MD, LD). As shown in the figure, the highest level of education completed by Malian respondents was college or university level. This group represented the greatest cohort for education competed by Malians. A total of eleven people or 34.48% of the sample had completed institute, college or university studies; however, one response was not recorded. See figure 9.

RQ 4: What is the longest respondents stayed on the internet in Mali?
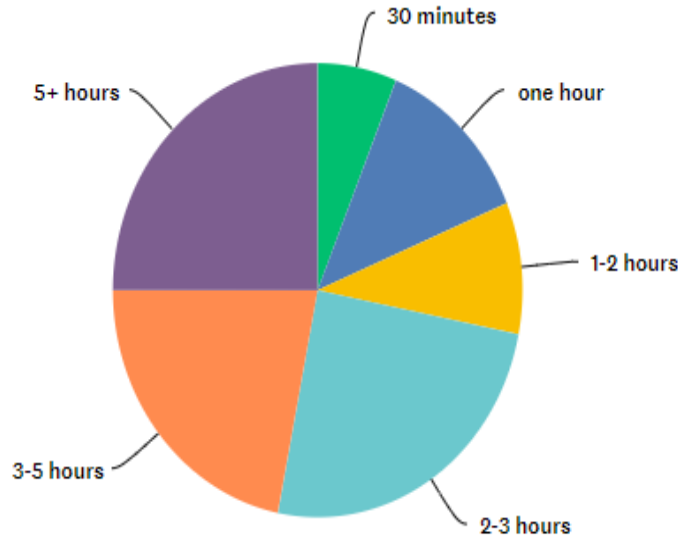
Figure 10: The Longest Respondents Stayed on the Internet in Mali (n=32)

From the 32 collected responses, about 8 respondents (25%) stayed on the internet for 5 or more hours at a time; 7 respondents (21.88%) stayed on the internet for

3-5 hours; 8 respondents (25%) stayed on the internet for 2-3 hours at most; 3

respondents (09.38%) stayed on the internet for 1-2 hours; 4 respondents (12.50%) stayed

on the internet for one hour at a time; and only 2 respondents (6.25%) stayed on the

internet for 30 minutes. The majority of the surveyed stayed on the internet for 5+ hours

in Mali. With the advancement of education in Mali as represented in figure 9, Malians

too, have computer-based needs to complete their daily social networking activities.

Since people are living in the 21st century, internet has now become a necessity in life no

matter where one might be in Mali. Fulfilling education needs requires internet access

which is why the majority of the surveyed reported that they used internet for a minimum

of three to five hours daily. See figure 10.

RQ 5: How many times do respondents check their emails in Mali?
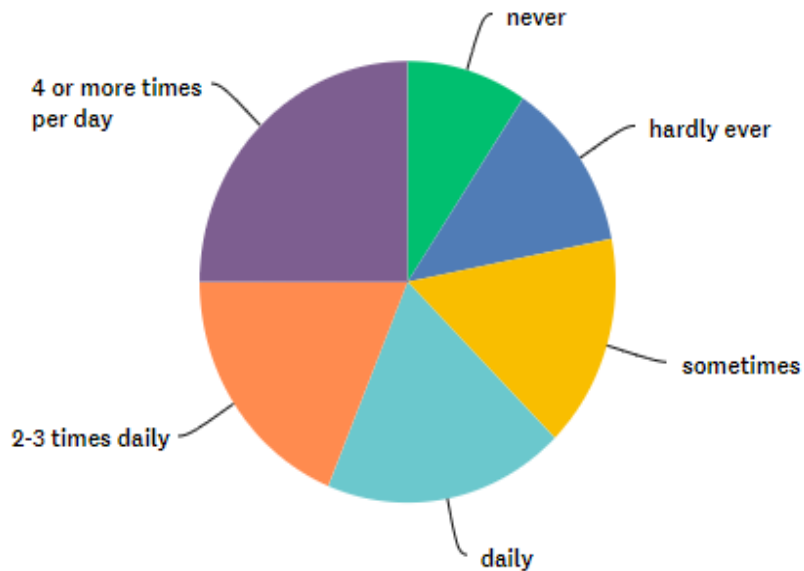
Figure 11: Times Respondents Check Email in Mali

For the total of responses, 8 respondents (25.00%) checked their emails 4 or more times per day, 6 respondents (18.75%) checked their emails 2-3 times per day, also 6 respondents (18.75%) checked their emails once daily, 5 respondents (15.63%) checked their emails sometimes, and 4 respondents (12.50%) checked their emails hardly ever. The majority of the respondents are checking their emails regularly various times daily. In Mali, however, 3 respondents (09.38%) had not checked emails at all. These respondents affirmed that they never did check their emails, as some Malians still have a problem using a computer or having access to a computer. See Figure 11.

RQ6: How long have respondents used a cellular telephone in Mali?
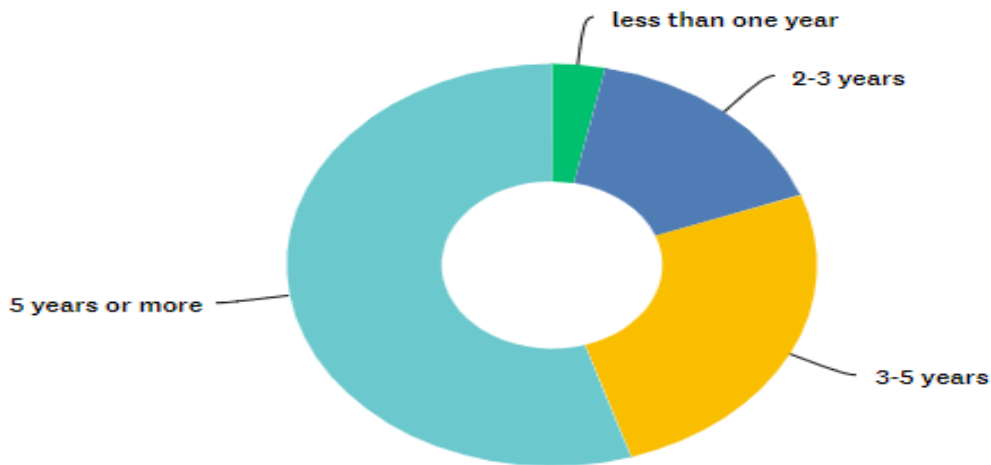
Figure 12: Length Respondents Used a Cellphone in Mali

In Mali, 3.23% have used a cellphone for less than a year. The majority 54.84% have used cellular telephones for 5 years or more compared to 24.81% who have used it for 3 to 5 years, and 16.13% who have used it for 2 to 3 years. All respondents in Mali have had a cellphone in the previous years until now. The cost of a cellphone is not given to everyone in Mali, since some people do not have a reliable income that can allow them

to afford a cellphone, but nonetheless two to three people can have a cellphone in a family of 10 so that the rest of the family members can rely in those cellphones to communicate if needed. See figure 12.

Gambian statistics for answering these RQs follow.

RQ 1: What age, gender, and socio-economic demographics use internet in Gambia?
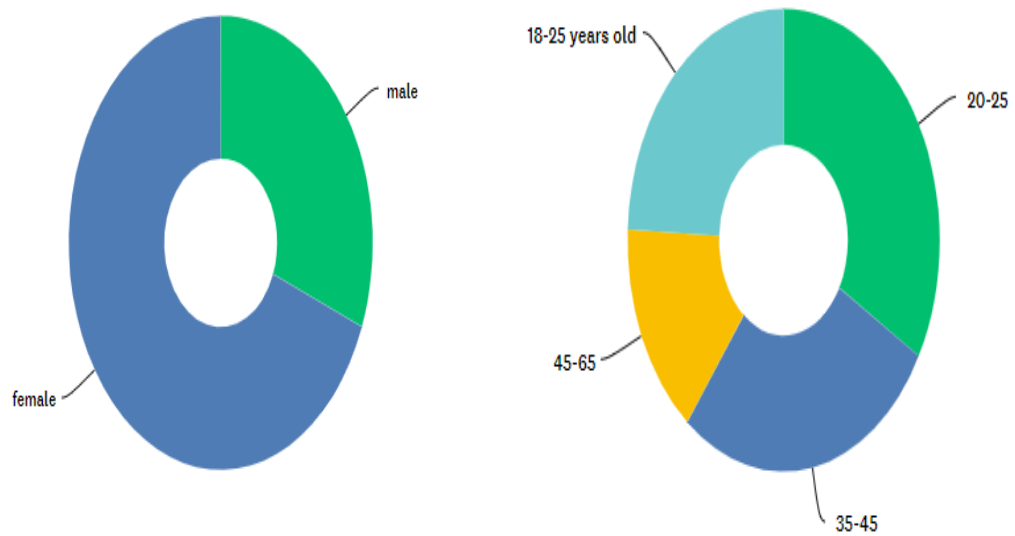
Fig 13A: Gender Internet Usage   Fig 13B: Age of Internet Usage
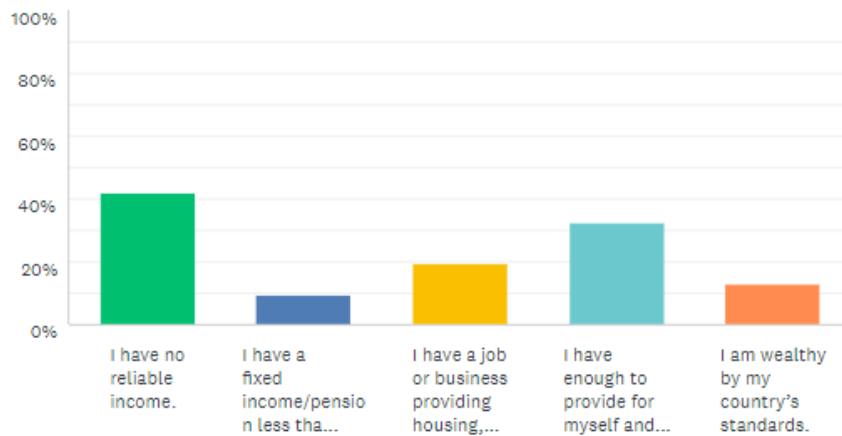
Fig 13C: Socio-Economic Demographics

Figure 13 A, B, C: Reported Gender, Age and Socio-Economic Demographics Use of

Internet in Gambia (n=33)

From the collected responses, females are the dominant group of internet users in

Gambia. As shown in figure 11, they represented 68.97% which were 20 respondents. On

the other hand, nine males responded, and they constituted 31.03%, which is 37.94% less

than females. However, the data shows that four respondents did not mention their

gender. This result indicates that women surveyed in Gambia are more likely to use

internet. As noted in the theory section, women have had difficulties accessing various

social areas of life previously, but according to current surveys collected in Gambia,

things have changed. Even being in a Muslim country, Gambian females are getting the

chance to use new technological tools to fulfill their daily needs. See figure 13A. The

ages 18-20 and 20-25 are the major group of internet users in Gambia, constituting the

new generation or millennials, and represent 24.24% and 33.33%, see figure 13B. The

demographics also indicate that the majority of the respondents 41.94% have no reliable

income, compared to 32.26% who have enough to provide for themselves and others'

needs on a regular basis, and 19.35% who have a job or business providing housing,

food, clothing and life necessities. Only 9.38% of the respondents have a fixed

income/pension of at least 1,000 USD per month, and 12.90% answered that they are

wealthy by their country's standards. As a small developing country, most Gambians

cannot have a reliable income unless they travel overseas to get a well-paid job. See

figure 13C.

RQ 2: How long have respondents used the internet Gambia?
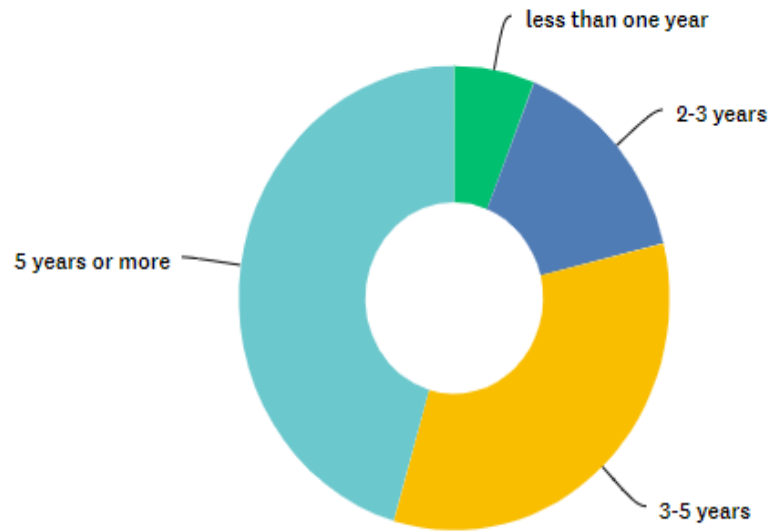
Figure 14: Length Respondents Used Internet in Gambia

The highest proportion of Gambians who have used internet for five years or more are 15 respondents at 45.45%. The second highest proportion reported three to five years (11 respondents) at 33.33%. Gambians surveyed who had used internet for two to three years were at 15.15%, which was 5 respondents; however, 2 of the surveyed have used the internet for one year or less. From the collected responses, it was possible to conclude that Gambians had started using internet five years or more ago. As listed in the literary review, Gambians did not get total access of internet since they suffered from a dictatorial regime, so basically internet was the only way they could be in touch with the modern world. See Figure 14.

RQ 3: What levels of education are completed by respondents in Gambia?
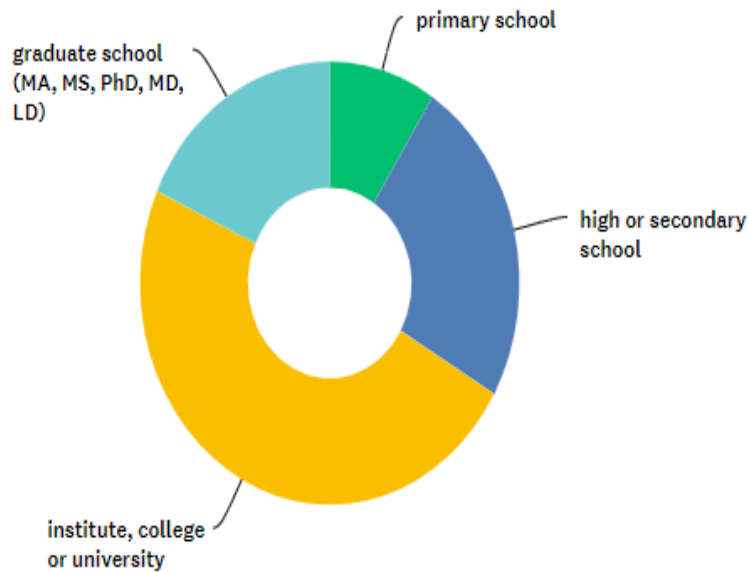
Figure 15: Reported Gambian Levels of Education

In accordance with the collected responses, the smallest segment of the sample was primary school level, representing 9.09%. There were 8 respondents who were high school level which make up 24.24% of the entire respondent sample. However, the number of respondents who have completed institute, college or university was 16 which make up nearly half 48.48% of all respondents. The number of people who have finished graduate school (MA, MS, PhD, MD, LD) was 6, which make up the second smallest segment (18.18%) of the sample. The vast majority of respondents who have participated in the survey have been through institute, college or university in Gambia. Ph.D. programs are partially offered in the Gambia except if they decide to travel outside the country for study, this is because the country lacks funds to promote education for all. As a developing country, Gambians are more educated when compared to previous years. See Figure 15.

RQ 4: What is the longest respondents stayed on the internet in Gambia?
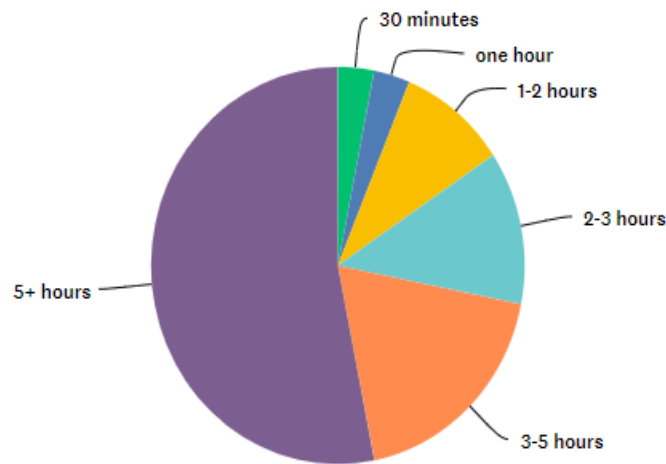
Figure 16: The Longest Respondents Stayed on the Internet in Gambia (n=33)

According to the 33 surveys which were collected, 17 respondents (53.13%)
stayed on the internet for 5 or more hours at a time; 6 respondents (18.75%) stayed on the
internet for 3-5 hours; 4 respondents (12.50%) stayed on the internet for 2-3 hours at
most; 3 respondents (9.38%) stayed on the internet for 1-2 hours; 1 respondent (3.13%)
stayed on the internet for one hour at a time; 1 skipped answering, and 1 (3.13 %) stayed
on the internet for 30 minutes. The majority of the surveyed stayed on the internet for 5+
hours in Gambia. Internet constitutes a means for earning a living in Gambia. Most of the
Gambians affirmed that internet has helped them to improve their life since they are
living in a little country which does not offer various work or educational opportunities.
Being in touch with the rest of the world helps young and adult Gambians feel connected,
in order to accomplish their social media interaction with their loved ones and friends

throughout the world. See figure 16 for work, study or pleasure internet usage in hours daily.

RQ 5: How many times do respondents check email in Gambia?
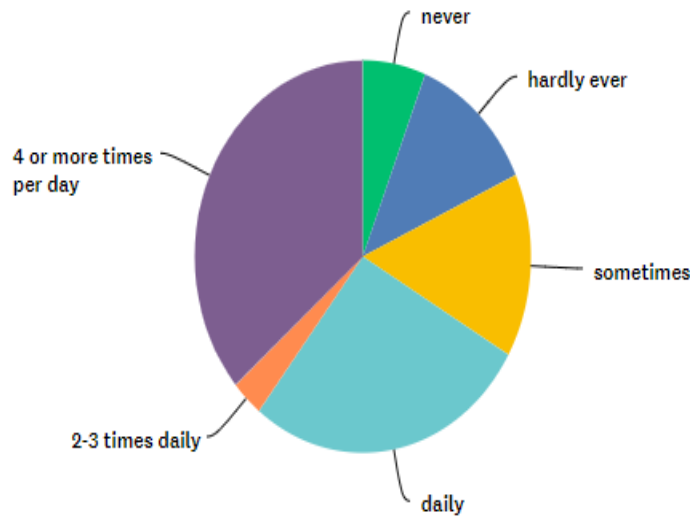
Figure 17: Times Respondents Check Email in Gambia

For the total of the responses, 12 (36.36%) checked their emails 4 or more times per day, 1 respondent (3.03%) checked his/her emails 2-3 times per day, 9 respondents (27.27%) checked their emails once daily, 5 respondents (15.15%) checked their emails sometimes, and 4 respondents (12.12%) checked their emails hardly ever; however, 2 respondents (6.06%) had never checked their emails at all. So basically, the majority of those surveyed in Gambia check their emails four or more times a day. Gambians are used to using to new informatics and digital tools to operate their businesses, or for educational needs. See Figure 17.

RQ6: How long have respondents used a cellular telephone in Gambia?
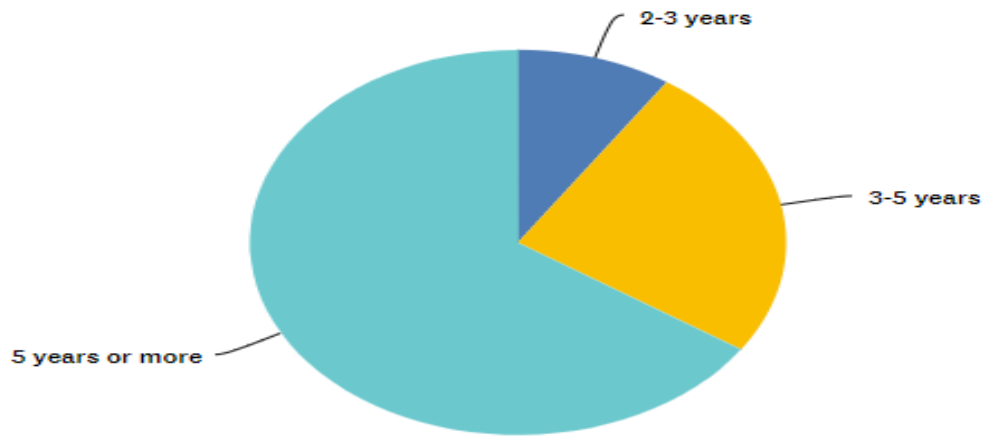
Figure 18: Length Respondents Used a Cellphone in Gambia

In Gambia no respondent has used a cellphone for less than a year. The majority of 56.63% have used cellular telephones for 5 years or more compared to 25% who have used it for 3 to 5 years, and 9.38% who have used it for 2 to 3 years. Like internet usage, cellular telephones have a place in Gambia. Most people have a cellphone because it constitutes a necessity for communication in the country. Gambian telecommunication operators tend to keep prices as low as possible so that all the population can benefit from it. As discussed in the literary review, electricity access is difficult in some areas of the country, but telephone companies like Africell help with big generators to supply phone charging to the population. See figure 18.

CHAPTER 5:

DISCUSSION

A. Summary

This research was focused on the development of internet, cellular telephones, and social media in Senegal, Mali and Gambia. People are using internet to communicate for convenience and with no limitation of the time and space. In Senegal, the highest proportion of respondents who have used internet for five years or more was 76%. In Mali, the highest proportion, of respondents who have used internet for five years or more was 45.16%. In Gambia, the highest proportion was 45.45%. The Senegalese sample was 50 respondents compared to 32 and 33 respondents in Mali and Gambia.

Internet accessibly varies in African dictatorial and democratic countries, Senegal is more democratic than Mali and Gambia, that could be why Senegalese had first internet access compared Mali and Gambia; and responded so well to survey research. Mali has known terrorism in previous years which could instill fears the population has to interact with the rest of the world via internet. On the other hand, Gambia has been under dictatorial regimes for years, which could be one of the reasons why people did not have access to internet. Something else that the research has shown, was in the studied countries, gender use of internet is quite different between males and females.

In Senegal for example, the gender use of internet is 52% male compared to 48% female internet users. These percentages were similar to what was collected in Mali. Males in Mali were 53.83% internet users compared to 46.55% female users, more of a disparity. However, the data collected in Gambia were radically different from the first

two countries which gave more strength to feminism theory. The results in Gambia were unexpected, as Gambian females represented the greatest cohort with 68.97% compared to 31.94% male users.

Internet usage reported is more for females than males in Gambia. The results of gender use of internet in Gambia is an important indication that Gambian females are more present in the educational or technological workforce compared to Senegal and Mali where males represent the highest position in society. The research was able to show that at least one western African country compared to its two neighboring countries was modernizing in the sense of increased women's involvement in social interactions. Previously women were not allowed to have cellphones, or to be on social media, but the present research has shown that modern Africans are demystifying the thoughts and beliefs inherent in the previous generation, culture and religion.

Currently some western Africans are enabling female access to the recent technological tools that lead to fulfillment in the actual world. People enjoy using cellphones or social media to interact in the researched countries. The findings have also shown the digital technology usage in African democratic and dictatorial countries seems quite different. The support of government plays an important role in the diffusion of the electronic communication, too.

Technology is very important especially in the world that we are living in today; but unfortunately, in some parts of the researched countries, it is something for which many people do not have access. The main issue people encounter in Senegal, Mali and Gambia while using internet social media or cellular telephones is electricity problems.

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Electricity access is easier in larger cities, not in the villages. If electricity was distributed equally in the studied countries, people could show more interest in cellular telephony, internet and social media. Nonetheless, electronic communication in all forms, social media, and cellular telephones have helped the chosen countries to join the worldwide tendency of rapidly delivering information via new digital tools.

When asked the longest they stayed on the internet, in Senegal 32% stayed on the internet for 5 hours or more at a time. In Mali, it was 25%; and by contrast, in Gambia 53.13% stayed on the internet for 5 hours or more at a time. The data was relatively different in the three countries, but it had been an unrealistic presupposition that Gambians would be less, not more frequent internet users than the two larger, less suppressed countries.

When asked how many times they check their emails daily, in Gambia 36.36% check their emails 4 or more times a day. In Senegal, 28% check their emails 4 or more times a day, and finally in Mali, 25% check their emails 4 or more times a day. For so long, Gambia was not open to the world. It was a small country that did not interfere with the rest of the world too much, and the survey has helped to draw a conclusion that Gambians are changing their perception of the world, and becoming more open. They are getting involved in social media, and creating international links that will allow them to build connections via internet.

Mali was the only country where 9.38% respondents affirmed that they never had checked their emails. This may indicate that some people in Mali still lack interest in social media or the internet; because by contrast to Senegal, none of the respondents had

missed checking emails. This also might be due to illiteracy because no respondents for the entire sample were primary school level in Senegal compared to 16.13% in Mali who were. Education could be one obstacle that stopped some Malians from modernizing in terms of electronic communication, internet or social media usage.

In all the three countries, Senegal was represented with 40% of respondents who have finished graduate school (MA, MS, PhD, MD, LD) compared to 29.03% in Mali, and 18.18% in Gambia. The Gambian educational system is not developed like the two other researched countries. Gambians are less likely to pursue college or university education due to their economic status. The country has only one university for its citizens. Education is more advanced in Senegal and Mali than it is in the Gambia, but that does not stop Gambians from seeking the available online degrees world-wide.

All the surveyed people were contacted through social media, because time did not allow the researcher to get into these three listed countries. Electronic surveys were distributed via survey monkey to make this research possible. It is undeniable that those surveyed are in touch with the rest of the world the same way they participated in this research originating in a different place. Social media have allowed the respondents, and the researcher to cross cultural, economic, educational, religious, gender and age borders without barriers, in other words it has made communication easier and faster for people.

Currently, developing countries are building connections throughout the world to find out how they can gain from those interactions. They are trying to have connection with the world, because they need to be heard, and one of the best ways to be heard is via

the three main phrases that constitutes the title of the research: cellular telephones, social media or any other electronic communication means available for them to use.

The study is beneficial for the field of communication since all humans and countries need interaction, either by phone or through social media links. People will always enjoy easier, low-cost, faster communication. Communication compared to when we rode horses to deliver messages, is a phenomenon. Nowadays, message delivering is via emails, images, text messages or audible voices, and all are important for the accomplishment of an enjoyable exchange with people no matter where one might be. On earth these are essential. A phone represents one's connection to the world, to ask real questions about any topic. What would life without cell phones, computers, and newspapers be like? No one needs to live in an information-less vacuum.

B. Limitations

The intended number of recipients for this study was at least 60 for each country. Due to limitations including lack of internet access in the researched countries, most of the surveyed population did not get the chance to answer the survey questions. It took time for the IRB (Internal Review Board) to approve the study, and data collection could begin. This delay limited the amount of time available for collecting data. Also, the first questionnaires were in English, and had to be translated into French because two countries were French speaking. Another minor limitation was that the sample sizes of Senegal, Mali, and Gambia were not equal. There were 50 respondents for Senegal, 32 respondents for Mali, and 33 respondents for Gambia.

The study may have the limitation of not collecting from people that live in rural areas of the researched countries. Most respondents came from urban areas of Senegal, Mali, and Gambia since people in the rural areas did not have full internet access to fill out the questionnaire. Researching three countries in just three/four months constitutes a major limitation on data collection. Additional months were needed to fly to the researched countries to get more details about cellular telephones, social media, and internet usage by paper and pencil surveys or interviews.

C. Strengths

This research has explained topics that include freedom of the press, gender usage of internet social media, and electronic communication in the research countries. The study did not stop there; it has also revealed the problems faced while using these digital tools in Senegal, Mali, and Gambia, and how new electronic networking has improved lives. It has also shown why Malians and Gambians have had issues trying to enter the new world of technology compared to their neighboring country, Senegal.

All people who filled out the survey were from these listed countries of study. This research has given them the chance to be a contributing research partner for their country. The research has also surveyed people from the three countries that lived and studied outside their country for a time in their life. Collecting responses from those people were beneficial for the research, because they had experience on how these technological tools were used in a country different from theirs.

The research has also shown how economic status varies among these three countries, and how people in the research counties get their daily needs accomplished,

and why women in previous western African societies were not allowed to use cellular telephones, internet or social media because of religious perceptions. Both men and women are now enjoying the accessibility of new digital tools in the listed areas.

The study has shown in detail the needs of cellular telephone usage in each of the research countries. It also has mentioned the advantages it has in people's daily life, and activities in Senegal, Gambia, Mali, and the main obstacles people face while trying to use these technological tools to communicate in urban areas compared to rural areas.

D. Recommendation for Future Research

In the future, respondents should be more diverse. Suggested advantages and inconveniences of using internet or cellphones were minimal. It is desirable not to split the survey into four different parts, but to conduct a continuous questionnaire. That may decrease the probability that participants might skip questionnaire sections because they lose interest or get tired of completing questions.

In the question about communication media, adding telephone, Facebook, WhatsApp, WeChat and Skype as options to compare cellphone usage as communication devices would be beneficial. Although the current research had sufficient participants, in the future, researchers can expand the number of respondents in order to have results that are more conclusive. A larger sample size might contribute to a normal distribution in terms of age, gender, and economic status.

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A. Survey Questions

Q U E S T I O N N A I R E   Country:
Electronic Communication Usage

Thank you for taking time to complete this questionnaire intended to collect information on the effect of electronic communication media (cellphones, chatrooms, radio, television, film, e-commerce, banking kiosks, Internet listservs, bulletin boards, email) on interpersonal relationships.

Please choose an answer which most closely describes your experience.

1. I am a. 18-25 years old   b. 25-35   c. 35-45   d. 45-55   e. 55-65

If you are under 18 or over 65 years of age, thank you for participating. Internal Review Board regulations do not allow protected populations to participate in this survey without additional written approvals and supervision.

2. I am a. male b. female

3. I have *used* (indicate all that apply) the following communication media *at least once*:

cellphone, handy, mobile phone   .a
Chatroom   .b
Radio   .c
Television   .d
VCR   .e
Satellite dish   .f
Digital camera   .g
E-commerce website   .h
Banking kiosk or money card   .i
Internet listserv   .j
Internet bulletin board   .k
Email account   .l
Voicemail   .m
Proxima (or other presentation device)   .n

4. The highest level of education I have completed is   a. primary school   b. prepratory or secondary school   c. institute, college or university   d. postgraduate school (MA, MS, PhD, MD, LD)

5. I have lived or studied outside my country for _____.   a.   3 months
                                                                            b.   6 months

one year   .c
2-3 years   .d
3-5 years   .e
5-8 years   .f
over 8 years   .g

6. I have studied in _____. A.   Great Britain

Canada   .b
Australia   .c

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the United States   .d

_____   .e

7. I have used the Internet for
a. less than one year   b. 2-3 years   c. 3-5 years   d. 5 years or more

7a. What are your main reasons for using the Internet? Please explain briefly.
8. I have a cellphone.   a. yes   b. no
If <u>yes</u>, please answer   8a. I have used a cellphone for _____.
a. less than one year   b. 2-3 years   c. 3-5 years   d. 5 years or more

9. I find it easier to interact with people electronically as opposed to face-to-face.
a. never b. hardly ever   c. sometimes   d. no difference e. quite often   f. always

9a. What is the main reason for your answer? Please explain briefly.

10. I neglect friends and family due to Internet use.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

11. I spend more time on the Internet or telephone as opposed to talking face-to-face to friends and
relatives.   a. never   b. hardly ever   c. sometimes   d. quite often   e. always

12. I form new relationships online.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

13. I meet new electronic friends face-to-face.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

14. I have online friends I have not yet met in person.   a. no   b. yes
If <u>yes</u>,   14a. How many?   a. 2-3   b. 4-5   c. 6-8   d. 9 or more
If <u>yes</u>,   14b. What nationalities?

15. I use the Internet.   a. yes   b. no
If <u>yes</u>,   15a. I spend _____ hour(s) using the Internet per week.   a. less than one
b. 1-5   c. 5-10   d. 10-20   e. 20-40   f. 40 or more

16. I *make* about _____ call(s) per day using my GSM (cell phone).   a. I do not use a GSM.
b. one   c. 2-3   d. 4-5   e. 6-9   f. 10 or more

17. I *receive* about _____ call(s) per day on my GSM (cell phone).   a. I do not use a GSM.
b. one   c. 2-3   d. 4-5   e. 6-9   f. 10 or more

18. I have forgotten / cancelled an obligation to spend time on the Internet.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

19. I prefer to communicate   a. online   b. in person   c. by phone   d. by email

20. Why do you communicate electronically?

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21. Electronic communication has _____ improved my life.
a. not   b. hardly ever   c. sometimes   d. not made a difference   e. tremendously
    21a. Why?

Answer any of questions 22-25 which may apply to your experience.

22. I **do not like** to use a cell phone because ….
Its disadvantages are ….

23. I **like** to use a cell phone because ….
Its advantages are ….

24. I **do not like** to use the Internet because ….
Its disadvantages are ….

25. I **like** to use the Internet because ….
Its advantages are ….

26. I often stay on the Internet (chatrooms) longer than I intend to.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

27. I often stay on a cellphone longer than I intend to.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

28. _____ is the longest I have stayed on the Internet (chatrooms).
a. 30 minutes   b. one hour   c. 1-2 hours   d. 2-3 hours   e. 3-5 hours   f. 5+ hours

29. _____ is the longest I have stayed on a cellphone.
a. 30 minutes   b. one hour   c. 1-2 hours   d. 2-3 hours   e. 3-5 hours   f. 5+ hours

30. People *have commented on* the time I spend in electronic communication.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

31. People *complain* to me about the time I spend in electronic communication.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

32. I check email _____.
a. never   b. hardly ever   c. sometimes   d. daily   e. 2-3 times daily f. 4 or more times per day

33. I tell myself "just a few more minutes" when I am online.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

34. I lose sleep because of late-night electronic usage.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

35. I have tried to cut down on electronic usage, but failed in the attempt.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

36. I neglect my work / study to spend more time communicating electronically.
a. never   b. hardly ever   c. sometimes   d. quite often   e. always

37. I have more interesting relationships because of electronic communication usage.

a. never   b. hardly ever   c. sometimes   d. no difference e. quite often   f. always

38. I have more freedom in relationship development because of electronic communication usage.

a. never   b. hardly ever   c. sometimes   d. no difference e. quite often   f. always

39. I live more than 6 months of the year in   a. urban areas   b. rural areas.

40. My economic status can be described as   a. I have no reliable income.
b. I have a fixed income/pension less than 1,000 USD per month.   c. I have a job or business
providing housing, food, clothing and life necessities.   d. I have enough to provide for myself and
others' needs on a regular basis. e. I am wealthy by my country's standards.

Thank you. Please return this questionnaire to Dr. C. S. Eigenmann at Fort Hays State University, Department of Communication
Studies, Malloy Hall 104. Contact email: cseigenmann@fhsu.edu, telephone (785) 628-5425.

B. CITI

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details.
See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** OUMOUL CAMARA (ID: 6535029)
- **Institution Affiliation:** Fort Hays State University (ID: 2368)
- **Institution Email:** okcamara@mail.fhsu.edu
- **Institution Unit:** COMMUNICATION
- **Phone:** 8324368541

- **Curriculum Group:** Social and Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 24333872
- **Completion Date:** 27-Aug-2017
- **Expiration Date:** 26-Aug-2020
- **Minimum Passing:** 75
- **Reported Score*:** 83

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
History and Ethical Principles - SBE (ID: 490)	27-Aug-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	27-Aug-2017	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	27-Aug-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	27-Aug-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	27-Aug-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	27-Aug-2017	5/5 (100%)
Fort Hays State University (ID: 14900)	27-Aug-2017	No Quiz
Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)	27-Aug-2017	3/5 (60%)
Research with Prisoners - SBE (ID: 506)	27-Aug-2017	0/5 (0%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?kf3198084-a692-48bc-a91b-b1dc8190e85f-24333287

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COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2
COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** OUMOUL CAMARA (ID: 6535029)
- **Institution Affiliation:** Fort Hays State University (ID: 2368)
- **Institution Email:** okcamara@mail.fhsu.edu
- **Institution Unit:** COMMUNICATION
- **Phone:** 8324368541

- **Curriculum Group:** Social and Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Record ID:** 24333872
- **Report Date:** 27-Aug-2017
- **Current Score**:** 98

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Fort Hays State University (ID: 14900)	27-Aug-2017	No Quiz
History and Ethical Principles - SBE (ID: 490)	27-Aug-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	27-Aug-2017	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	27-Aug-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	27-Aug-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	27-Aug-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	27-Aug-2017	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	27-Aug-2017	5/5 (100%)
Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)	27-Aug-2017	4/5 (80%)

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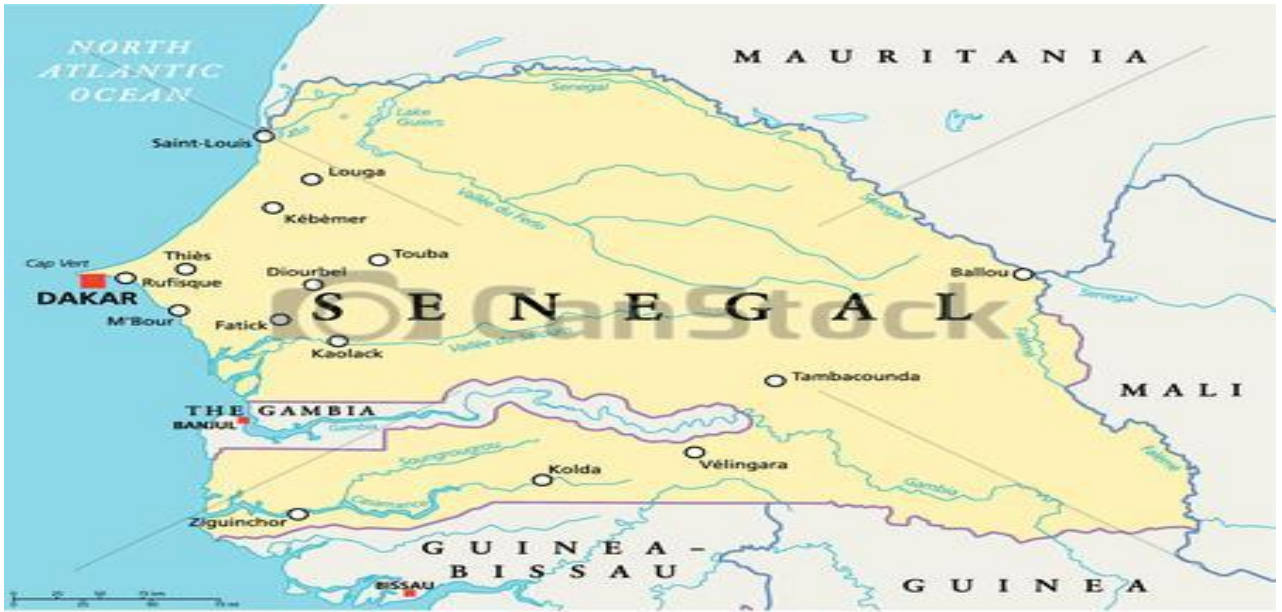**Collaborative Institutional Training Initiative (CITI Program)**
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C. Country Maps

Senegal (retrieved from Word Map/Senegal)

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Mali (retrieved from world Map/Mali)

Gambia (Retrieved from world Map/Gambia)

D. Qualitative Answers from Survey Questions

SQ: I like to use a cellphone because …its advantages are…

"It saves me time"

"I can stay connected even I do not have a laptop or a computer"

"It helps with my business"

"I can communicate with family and friends overseas"

"I like it"

"It's the easiest way to communicate, with 500CFA, I can make various phone calls"

SQ: I like to use internet because …its advantages are…

"I can explore the world, and be in touch with friends easily"

"I can meet new online friends"

"It helps me with my studies"

"This is how I got married"

"I can be in various family group chats even though I am not in Mali actually"

SQ: I do not like to use a cellphone because …its disadvantages are…

"It cost me a lot of money"

"It takes me more time"

"I am addicted to my phone, and I tend to neglect my family"

"I receive several calls in a days, I wish it was less"

"I don't know how to use a phone, accept I receive help from my daughter"

SQ: I do not like to use internet because …its disadvantages are…

"It provides various fake news"

"It is very expensive"

"I have been scammed various times"

"The internet access is poor"

"My parents said that it is bad for our education"

SQ: Why do you communicate electronically?

"With WhatsApp and messenger I can talk for free"

"Being far from my family that's the only way we stay in touch with them"

"It is convenient, simple, and fun"

"I love electronic communication because I don't like to interact with people too much"

"I have the option to make a video call"

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Thesis: Cellular Telephone, Internet, and Electronic Communication in Senegal, Mali, and Gambia

Author: Oumoul Khairy Camara

Signature: *[signature]*

Date: 5/16/2019