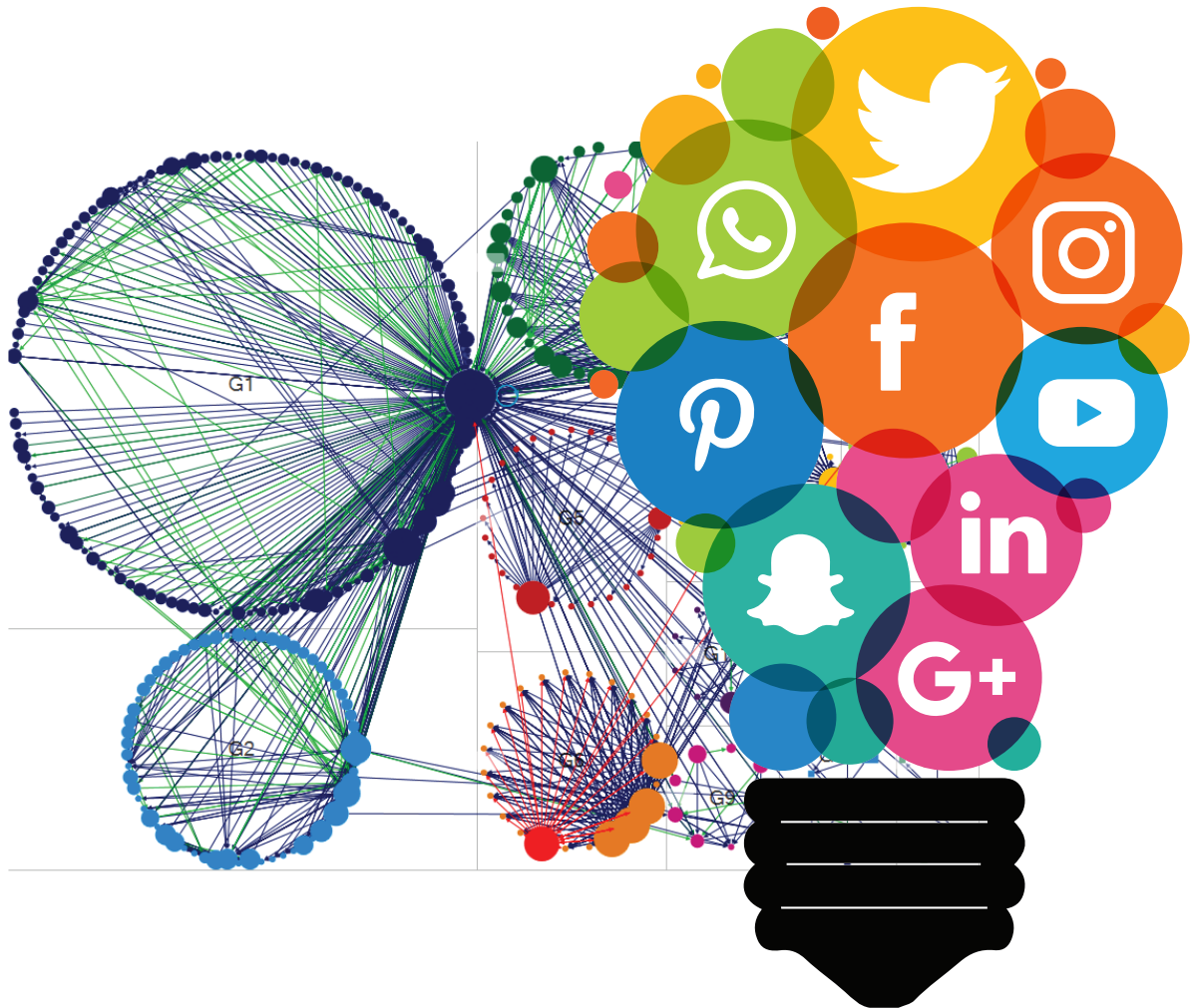


Social Media Consumption in Kenya: Trends and Practices



Social Media Consumption in Kenya: **Trends and Practices**





Kenya is referred as the “**Silicon Savannah**” and most of the Kenyans use various social media platforms to connect with one another, engage with news content, share information and entertain themselves. Are you one among the many?

Jackstone Momanyi (right), a member of the SIMElab data collection team interacts with residents of Banisa in Mandera County during data collection exercise on December 29, 2018.

Former U. S. Ambassador
to Kenya Mr. Robert F.
Godec during the official
launch of the Lab on April
5th, 2018.





US
AF

“Social media connects us, but can also make dividing us easier”

- Ambassador Robert F. Godec speaking at USIU-Africa on April 5th, 2018.



Former U. S. Ambassador to Kenya Mr. Robert F. Godec cuts the tape to officially open the SIMElab on April 5th, 2018. He is flanked by USIU-Africa Chancellor Mr. Manu Chandaria (left) and the USIU-Africa Vice Chancellor Professor Paul Zeleza (center).

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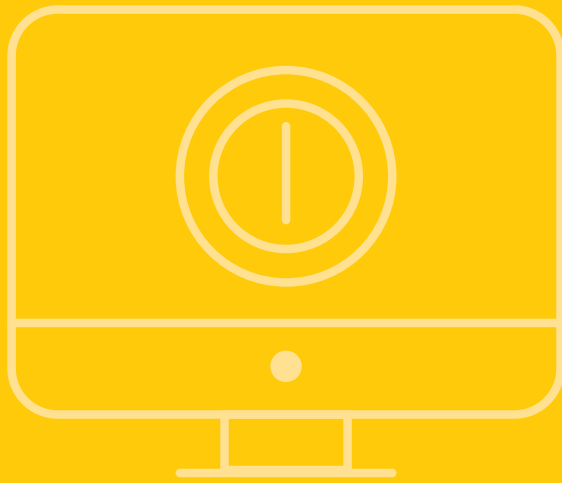
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A photo of Banisa-Mandera Road taken during data gathering on December 29th, 2018.



ICATION

ACCOUNT GROWTH!

CONTACT

TWITTER!



About SIMElab Africa

SIMElab Africa (Social Media Lab Africa) is a Social Media Consumption and Analytics Research Lab housed at USIU-Africa's Freida Brown Innovation Center. SIMElab Africa offers a research and development environment to USIU-Africa faculty and students, civil society and corporate businesses, and policymakers in Kenya and beyond. SIMElab is jointly funded by USA Embassy in Nairobi and USIU-Africa.

The Objectives of the SIMElab are:

1. To provide annual status on social media consumption in Kenya leading to an annual report
2. To conduct quarterly trainings on social media analytics to academics and private sector in Kenya
3. To develop a monthly data repository on social media consumption in Kenya
4. To disseminate quality and reputable research through journal and conference publications

TING



OWTH!



SIMELab



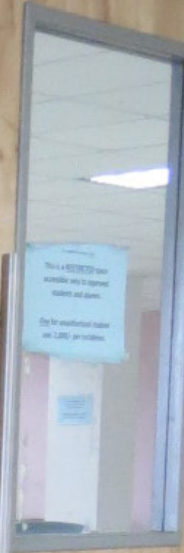
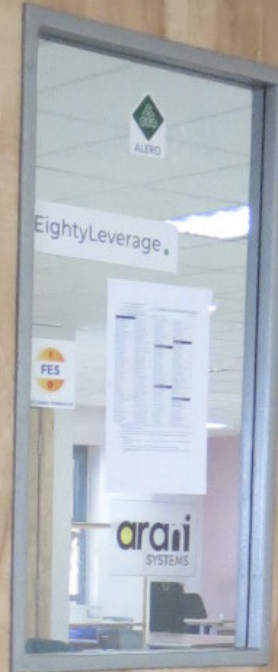
Social Media Lab

An interdisciplinary center for research in big data and social media analytics.



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Foreword



Patrick Kanyi Wamuyu
SIMElab Project Coordinator

Welcome to this year's edition of the *Social Media Consumption in Kenya Report*. Social Media include SMS-based messaging platforms (e.g. WhatsApp, FB Messenger, WeChat), blogging platforms (e.g. WordPress, Blogger), social networking sites (e.g. Facebook, LinkedIn, Xing), Microblogs (e.g. Twitter, Tumblr), community media sites (e.g. Instagram, Snapchat, Flickr, YouTube, Dailymotion), wiki-based knowledge sharing sites (e.g. Wikipedia), Social news aggregation sites and websites of news media (e.g. BuzzFeed, Huffingtonpost, Tuko News), Social Bookmarking sites (e.g. del.icio.us, Digg), social curation sites (e.g. Reddit, Pinterest) and websites by traditional

news organizations, forums, mailing lists, newsgroups, social question and answer sites(e.g. Quora,), user reviews (e.g. Yelp, Amazon.com) and location-based social networks (e.g. Foursquare).

Social Media have revolutionized how individuals, communities and organizations create, share and consume information. Social networks have also helped people to communicate, breaking down the geographical barriers which restricted instant communication thus permitting successful social media-facilitated collaboration. However, many social media users are also faced with emerging challenges associated with the dark side of social media use. These include ethical and privacy violation issues, data abuse and misuse, credibility of social media content, hate speech, fake news and bot-driven interactions. Social media has also been associated with social and economic ills including family disintegration, dented reputations and facilitation of terrorism.

Despite the increase in popularity of social networking sites and related digital media, there is limited data and studies on consumption patterns of the new media by different global communities. Guided by its mandate of using Social Media for the good of the society, SIMElab Africa set out to fill this research gap by conducting a baseline survey on Social Media consumption in Kenya. The Lab is also involved in Social Media analytics including sentiment analysis, emotion analysis, social network analysis and sarcasm detection.

Acknowledgment

In developing the Social Media Consumption in Kenya Report., SIMElab received invaluable collaboration and input from key partners as Listed below:



U.S. Embassy Nairobi



USIU-Africa

The U.S. Embassy Nairobi jointly with USIU-Africa provided the funding to setup the SIMElab Africa at USIU-Africa in 2018 and has continued to financially support the activities of the SIMElab.

We would like to single out individuals who worked tirelessly during data Collection phase of the project

- Sharon Mwavaga Odanga
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- Nasteha H. Hussein Mohamed
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- Abdigafar Ahmed Abdullahi
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- Alice Njeri
- Gabriel Okello

Design layout and production:

Tonn Kriation

We recognize the assistance provided by the County Commissioner Mandera County, Kutswa Olaka, who did facilitate data collection in Mandera Central and Banisa, Mandera County.

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9. Joshua Rumu, USIU-Africa
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12. Abraham Kiprof Mulwo, Moi University
13. Joyce Kabue, Communications and Events Specialist - East Africa Energy Program with RTI International, MCom Student, USIU-Africa

Highlights

Majority of
Kenyans use



88.5%



88.6%

Top three motivations behind
using Social Media

31%

Acquiring information (news,
knowledge, exploration)

28%

Entertainment and pleasure
(emotional experiences)

24%

Social interactions

Majority of Kenyans:



- Access Social media using mobile phones, but most of the people living in rural areas still use cyber café to access social media.
- Use their social media at night.
- Read Entertainment, Education and Business Blogs.



More than 66% of Kenyans have participated in an online debate using social media platforms.



Most Kenyans aged between 21-35 years spend more than 3 hours on social media daily



While most Kenyans use social media to stay in touch with others, the main reason most Kenyans are active on social media is for news, politics and entertainment.

Social Media Use in Kenya: Trends and Practices

Social media has become a key aspect in Kenyan public discourse, facilitating online discussions while at the same time being a key subject of scholarly, socio-cultural, economic and political debates. The ICT sector in Kenya has grown rapidly since Internet was first launched in the early 1990s. Currently, Kenya is described as the Silicon Savannah owing to its dynamic ICT sector that has seen the development of globally acclaimed applications such as M-Pesa and Ushahidi. Nigeria, Egypt, and Kenya lead the ranking of Internet access among the African countries. Data released by the Communications Authority of Kenya (CAK) indicate that by December 2018, the total Internet subscription in Kenya stood at 45.7 million (CAK, 2019). The vast majority of them accessed the Internet via mobile phones.

The proliferation of internet-enabled mobile devices has led to the rapid development of social networking sites, resulting in a continued reconfiguration of ways in which individuals or groups access and use social media platforms. Nevertheless, little is known on how different social media platforms are relevant to diverse groups of people in Kenya based on demographics such as age, gender, education level, marital status, religion affiliation and geographical location. This report addresses this research gap.

This report draws from a nationwide survey of social media consumption patterns among different demographic segments, conducted between December 2018 and March 2019. The survey sampled 3,269 respondents aged between 14 and 55 from eight counties drawn from Kenya's former eight administrative provinces – Nairobi, Coast, Central, Western, Nyanza, Eastern, Rift Valley and North Eastern. From the 3,269 sample, 3,166 questionnaires were fully answered – representing a health response rate of 96.9%. To provide a comparative analysis, the county with the highest access to Internet in each province, as per the data released by the Kenya National Bureau of Statistics

(2016) was selected. The eight counties selected were Nairobi (Nairobi Province), Mombasa (Coast), Meru (Eastern), Bungoma (Western), Mandera (North Eastern), Trans Nzoia (Rift Valley), Kisumu (Nyanza), and Nyeri (Central). Relatedly, the sample size per county were as follows: Mombasa (n=240); Bungoma (n=240); Trans Nzoia (n=398); Nyeri (n=546); Mandera (n=183); Kisumu (n=199); Meru (n=220); and Nairobi (n=1,140).

From the selected counties, one urban and one rural location with Internet penetration (as per KNBS 2016) report were selected for data collection. The locations selected for data collection except Nairobi were as follows: Central (Nyeri Town and Naro Moru); Coast (Mombasa City and Changamwe); Eastern (Meru Town and Kathera); North Eastern (Mandera Town and Banissa), Nyanza (Kisumu City and Nyando); Rift Valley (Kitale Town and Kiminini); and Western (Bungoma Town and Kanduyi). However, since there is no distinction between urban and rural areas in Nairobi, the capital city was sub-divided according to the socio-economic demographics used by the KNBS as follows: lower income, lower middle income, middle income, and high income.

Specifically, for lower income, the data was collected in (Mathare, Kangemi, Kawangware, Mukuru Kwa Njenga, Mukuru Kwa Reuben, Laini Saba, Korogocho, Kariobangi North, Dandora I through V, Kayole and Kiamaiko. For lower middle, the data was collected in Umoja I through III, Kariobangi South, Imara Daima, Riruta, Githurai, Kahawa West, Zimmerman, Mwiki, Kasarani, Njiru, Ruai, Komarock, Savannah, and Eastleigh. In middle income, the neighborhoods were Parklands, Highridge, Mountain View, Lang'ata, South C, Nyayo Highrise, Nairobi West, Woodley, and Westlands. Runda, Kitisuru, Kileleshwa, Muthaiga, Karen, and Kilimani represented high income neighborhoods.

Disclaimer

The views and opinions expressed in this report are those of the authors and do not necessarily reflect official position of any specific organization or government.

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Social Media Use in Kenya

Table 1 and Figure 1 below capture a snapshot in the use of nine social media platforms by Kenyans. As such, the vast majority of Kenyans almost equally use WhatsApp (88.6%) and Facebook (88.5%). The third

most used social media is YouTube (51.2%) followed by Google+ (41.3%). Both LinkedIn and Snapchat are the least popular in Kenya at 9.3% and 9.0% respectively.

Table 1: Use of Social Media in Kenya










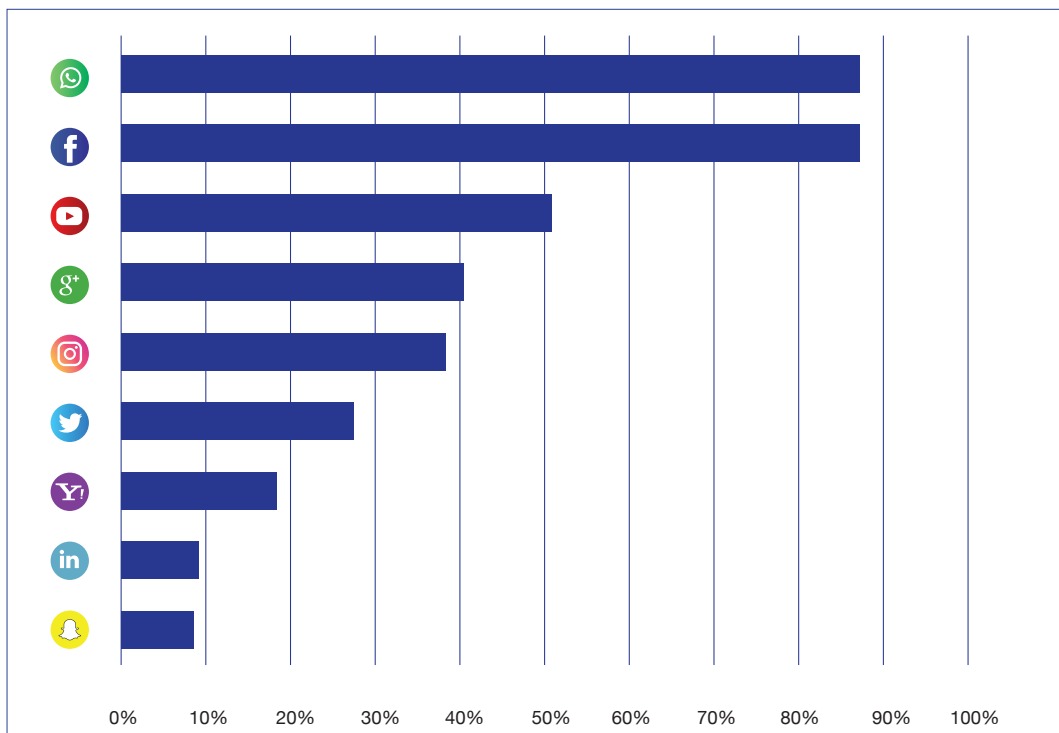
| Type of Social Media | Percentage |
|--|------------|
| Facebook  | 88.5% |
| Twitter  | 27.9% |
| WhatsApp  | 88.6% |
| Instagram  | 39.0% |
| Snapchat  | 9.0% |
| YouTube  | 51.2% |
| LinkedIn  | 9.3% |
| Google+  | 41.3% |
| Yahoo  | 18.6% |

Figure 1: Use of Social Media in Kenya



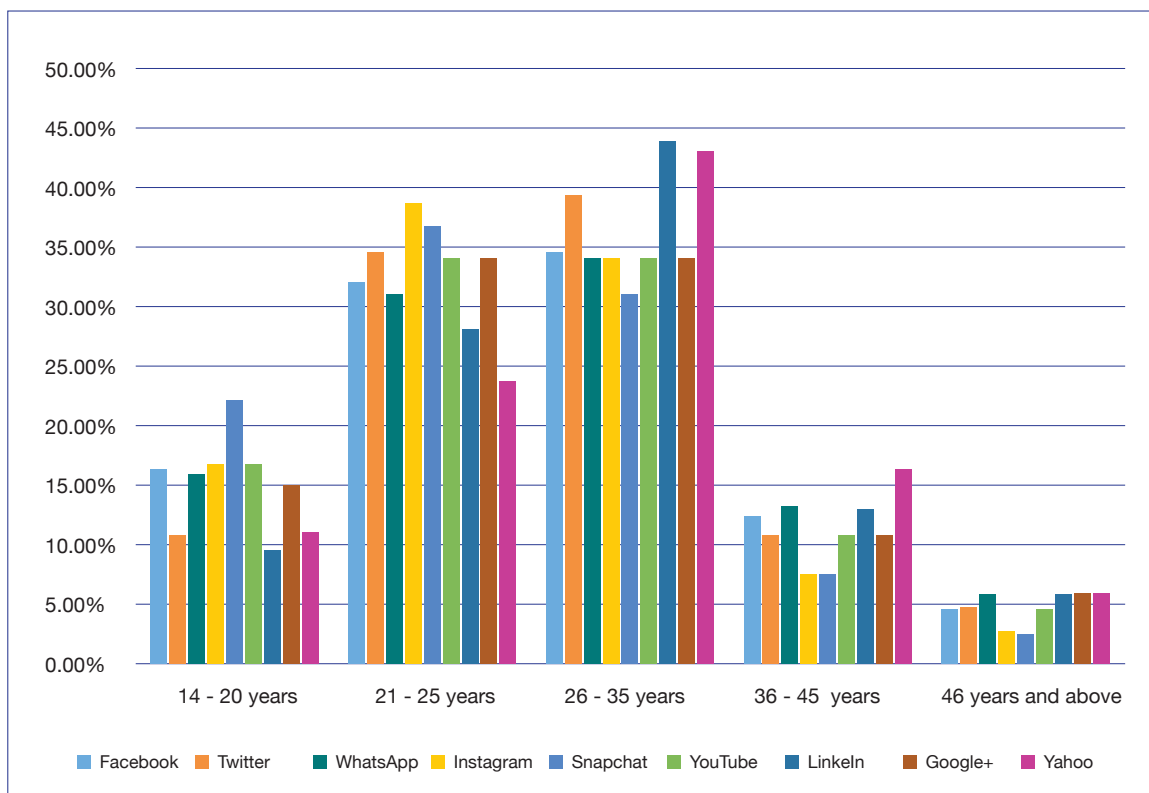
Top Social Media Use Trends

Social Media Use by Age

From Figure 2 below, the most active age group on social media is 26-35 years, while the least active are those aged above 46 years. Facebook is mostly used by 26-35 years (34.6%) and least used by 46 years and above (4.6%). Twitter is mostly used by those of 26-35 years (39.3%) and least used by 46 years and above (4.8%). When it comes to WhatsApp, it is also commonly used by Kenyans aged 26-35 years. Instagram is most used by 21-25 years at 38.7% and least used by those beyond 46 years (2.8%). Similarly, Snapchat is also mostly used by those aged 21-25 years (38.7%). YouTube is most used by 26-35 years (34.1%) and least used by 46 years and above (2.8%). LinkedIn is most used by 26-35 years (43.7%) and least used by 46 years and above (6.1%). Google+ is most used by 26-35 years (34.1%) and least used by 46 years and above (6.1%). Yahoo is most used by 26-35 years (43.0%) and least used by 46 years and above (6.1%).

is most used by 26-35 years (43.7%) and least used by 46 years and above. Email is most used by 26-35 years (35.8%). Google+ is most used by 26-35 years (34.1%). Turning to Yahoo, it is mostly used by 26-35 years (43.0%). Generally, those aged between 26 and 35 years use Facebook, WhatsApp, Instagram, YouTube and Google+ almost equally. Overall, those aged between 14 and 20 years highly prefer Snapchat, while Kenyans who are of 21-25 years mostly like Instagram. When it comes to those aged 26-35 years, LinkedIn is their most popular platform. Yahoo and WhatsApp are the most popular among those aged 36-45 years and 46 years and above respectively.

Figure 2: Use of Social Media by Age

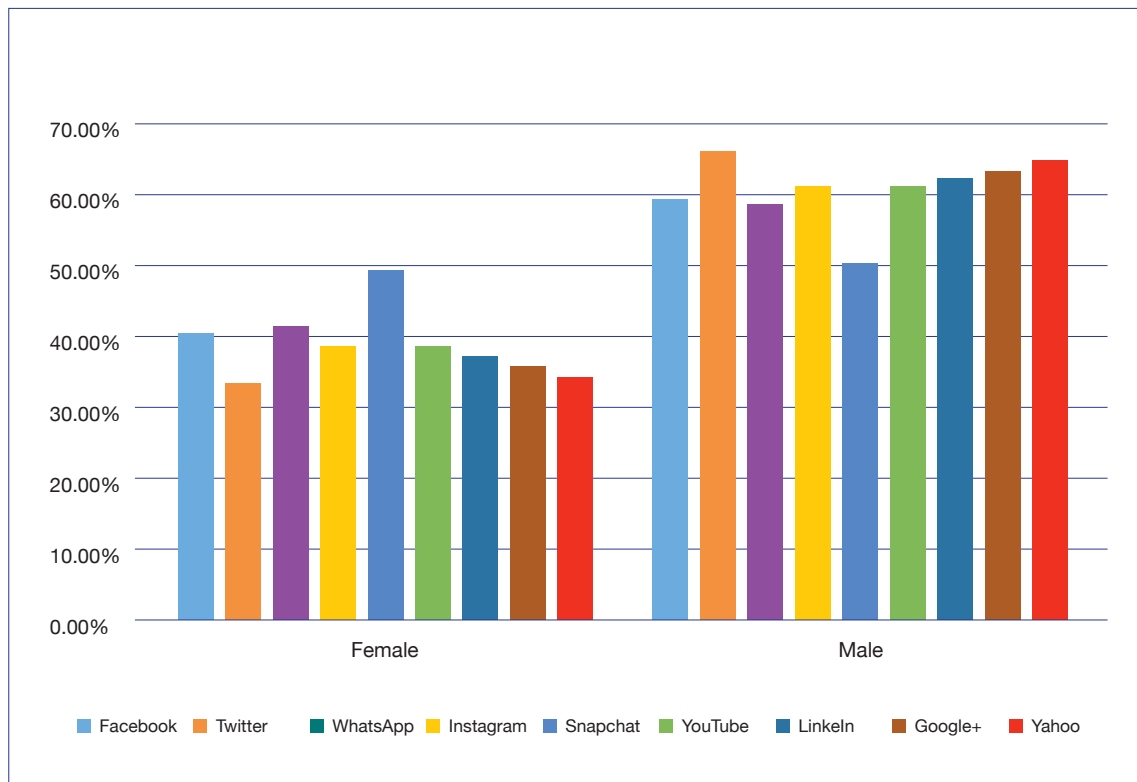


Use of Social Media by Gender

The male in Kenya are generally more active in social media platforms compared to the females (see Figure 3 below). They lead in all the social media platforms as active users. The male highly use Yahoo (61.9%) and Twitter (67.0%) more as social media platforms. They use Snapchat the least as a social media platform. The

female in Kenya are most active in Snapchat (47.5%). They are almost equalizing the male in Snapchat as a social media platform although the male (52.5%) are slightly above them. The female least use Twitter as a social media platform. It is striking that while the men use Twitter the most, the female uses it the least and the vice versa is true when it comes to the use Snapchat.

Figure 3: Use of Social Media by Age



Use of Social Media by Education Level

From Table 2 below, the use of Facebook is more common among those with high school and college levels of education. Among those of higher education level (undergraduate and graduate), the most common social media platform is LinkedIn. In the primary school category, Facebook tops (8.5%) followed by WhatsApp and Google+ each with 7.1%. Turning to high school graduates, the most prevalent platform is Facebook (34.5%) followed by YouTube (32.3%). WhatsApp is third with (31.4%). However, among those with college-level education, Yahoo is the most preferred (46.0%).

The second is Google+ (43.4%) followed by e-mail (43.1%). Other popular platforms under this category are WhatsApp (40.6%), Instagram (40.4%), and Snapchat (40.0%). For the undergraduate category, the leading in use is LinkedIn (36.8%) followed by Twitter (32.1%). Similarly, LinkedIn is the mostly used among those with MA or doctorate degrees (19.5%). Coming a second distant is e-mail (6.6%) followed by Twitter (6.4%). Overall, there is heavy use of social media platforms among those with college-level education, while the least are primary school graduates.

Table 2: Use of Social Media by Education











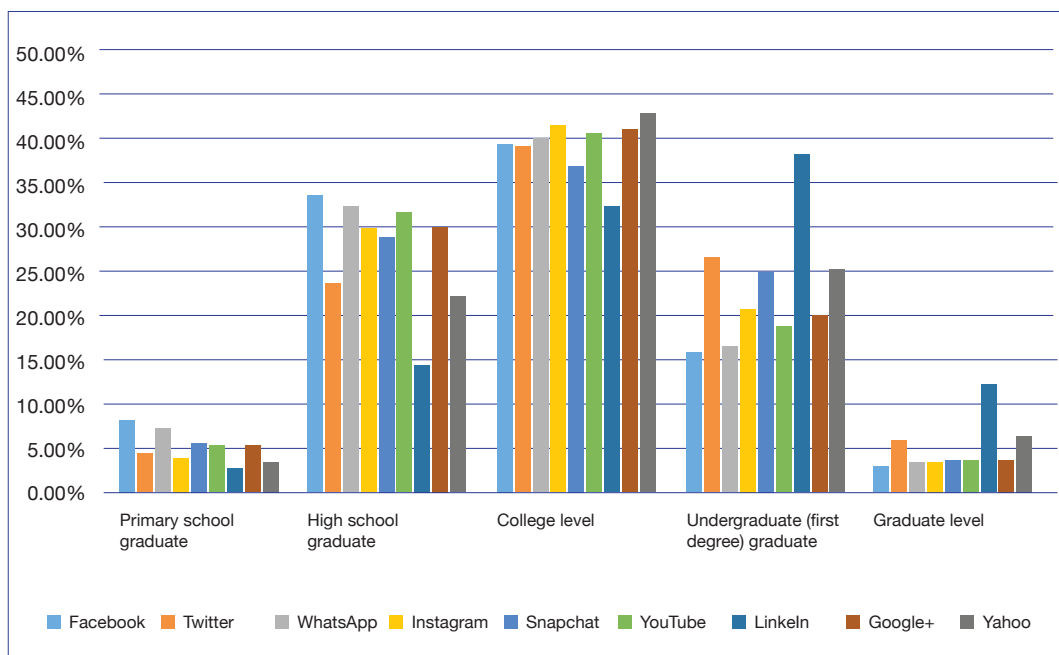
| Social Media Type | Primary School Graduate | High School Graduate | College Level | Undergraduate (first degree graduate) | Graduate (MA & Ph.D.) level |
|---|-------------------------|----------------------|---------------|---------------------------------------|-----------------------------|
|  | 8.5% | 34.5% | 39.4% | 14.7% | 3.0% |
|  | 4.7% | 18.2% | 38.5% | 32.1% | 6.4% |
|  | 7.1% | 31.4% | 40.6% | 17.5% | 3.5% |
|  | 4.4% | 26.8% | 40.4% | 25.0% | 3.5% |
|  | 6.3% | 26.3% | 40.0% | 22.5% | 5.0% |
|  | 6.7% | 32.3% | 39.1% | 18.8% | 3.2% |
|  | 3.4% | 6.9% | 33.3% | 36.8% | 19.5% |
|  | 2.8% | 19.5% | 43.1% | 28.0% | 6.6% |
|  | 7.1% | 26.6% | 43.4% | 19.0% | 3.8% |
|  | 2.3% | 18.2% | 46.0% | 27.3% | 6.3% |

Figure 4: Use of Social Media by Education



Use of Social Media by Religion Affiliation

Generally, Protestants are the heaviest consumers of social media in Kenya (see Table 3 and Figure 5 below). They are followed by those who profess Roman Catholic faith. As Table 5 and Figure 5 show, Hindu rarely use social media platforms. Among the Protestants, the most popular platform is LinkedIn (52.4%) followed closely by Facebook (48.7%) and Yahoo (48.5%). Snapchat is the least common among the Protestants. Kenyans of Roman Catholic faith mostly use LinkedIn

(34.1%) followed in second place by Twitter (31.7%). Coming third is Instagram (30.2%) and Google+ is fourth with 30.0%. While Hindus aren't frequent users of social media, interestingly they mostly use Snapchat (5.3%) followed by Yahoo (2.4%). Similarly, Snapchat is the most common among Muslims (23.7%), followed by Twitter (18.0%) and YouTube (16.8%). Those without religion or denomination, they mostly used Snapchat (11.8%), Instagram (7.9%), and Google+ (7.7%).

Table 3: Use of Social Media by Religion











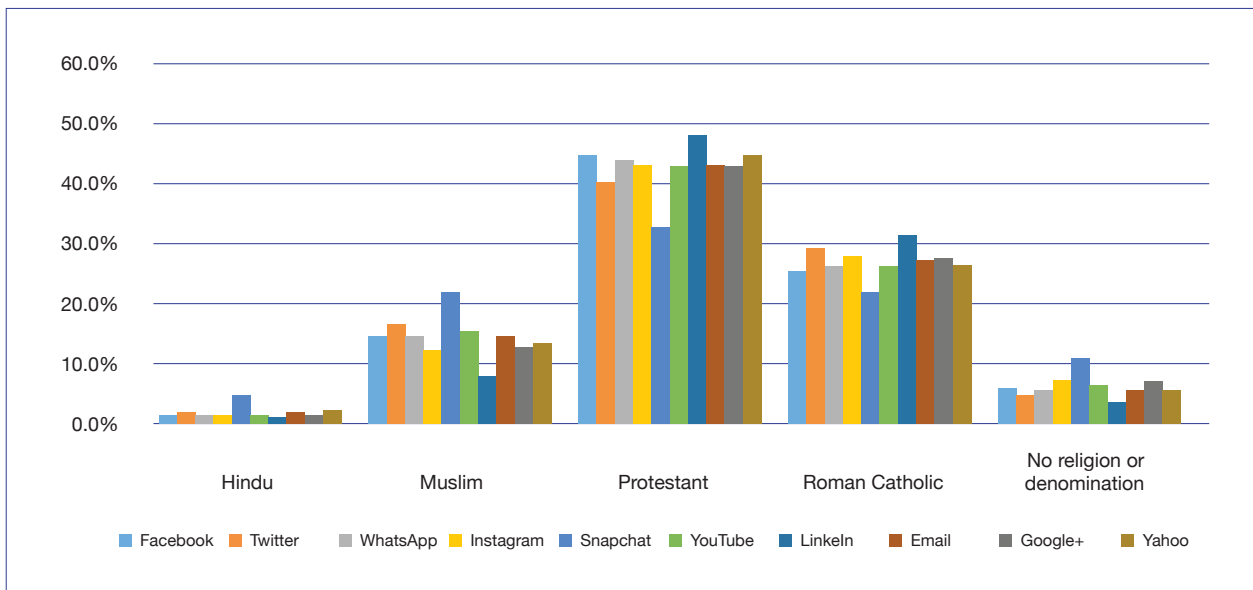
| Social Media Type | Hindu | Muslim | Protestant | Roman Catholic | No Religion or Denomination |
|---|-------|--------|------------|----------------|-----------------------------|
|  | 1.4% | 15.6% | 48.7% | 27.7% | 6.6% |
|  | 1.8% | 18.0% | 43.5% | 31.7% | 5.0% |
|  | 1.6% | 16.0% | 47.8% | 28.6% | 6.1% |
|  | 1.7% | 13.5% | 46.7% | 30.2% | 7.9% |
|  | 5.3% | 23.7% | 35.5% | 23.7% | 11.8% |
|  | 1.3% | 16.8% | 46.5% | 28.4% | 7.0% |
|  | 1.2% | 8.5% | 52.4% | 34.1% | 3.7% |
|  | 1.9% | 15.8% | 46.8% | 29.5% | 6.0% |
|  | 1.8% | 13.8% | 46.7% | 30.0% | 7.7% |
|  | 2.4% | 14.5% | 48.5% | 28.5% | 6.1% |

Figure 5: Use of Social Media by Religion

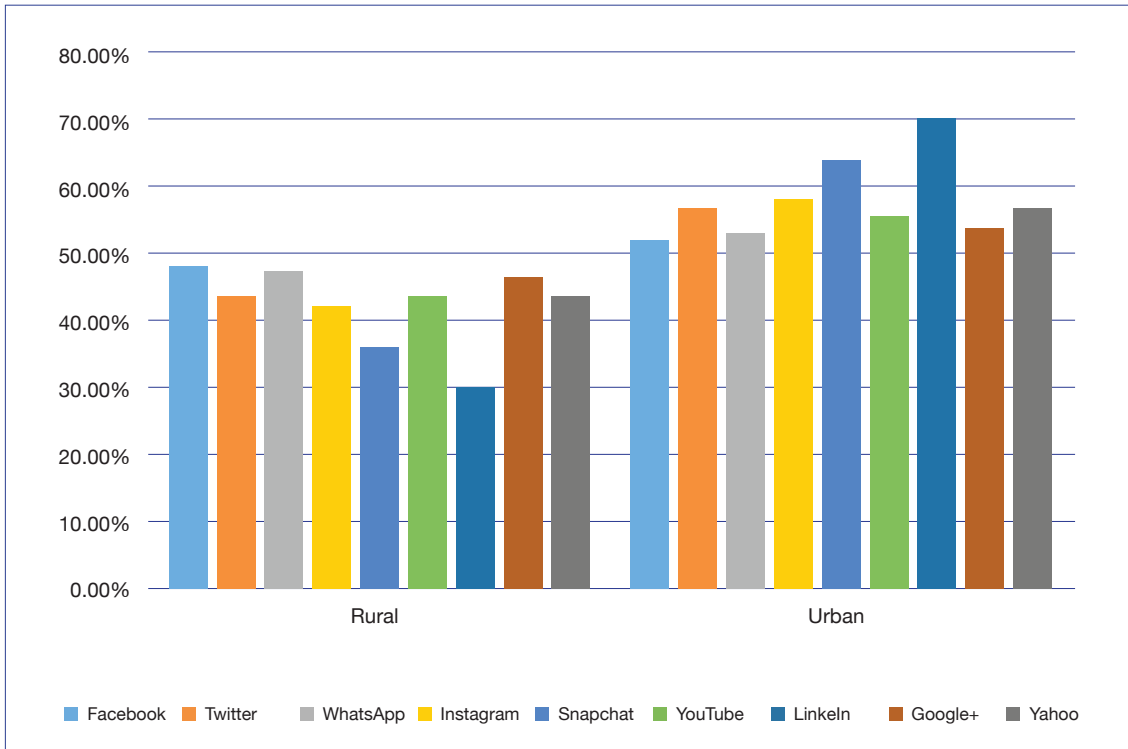


Use of Social Media platforms by Geo-Location

There is a diverse difference in social media preference among the rural and urban population in Kenya. Majority of the Kenyans in the rural areas use Facebook, WhatsApp and Google platforms as compared to a majority of urban residents who use LinkedIn, Snapchat, Instagram and Twitter as shown in Figure 6 below.

There are a number of infrastructure less developed technological infrastructures in the rural areas which prevent use of high resource demanding social media platforms such as the Snapchat and Instagram. The use of Facebook, WhatsApp and YouTube in the rural areas could be attributed to free complementary services offered by the telecommunications service providers.

Figure 6: Social Media Use by Geo-Location

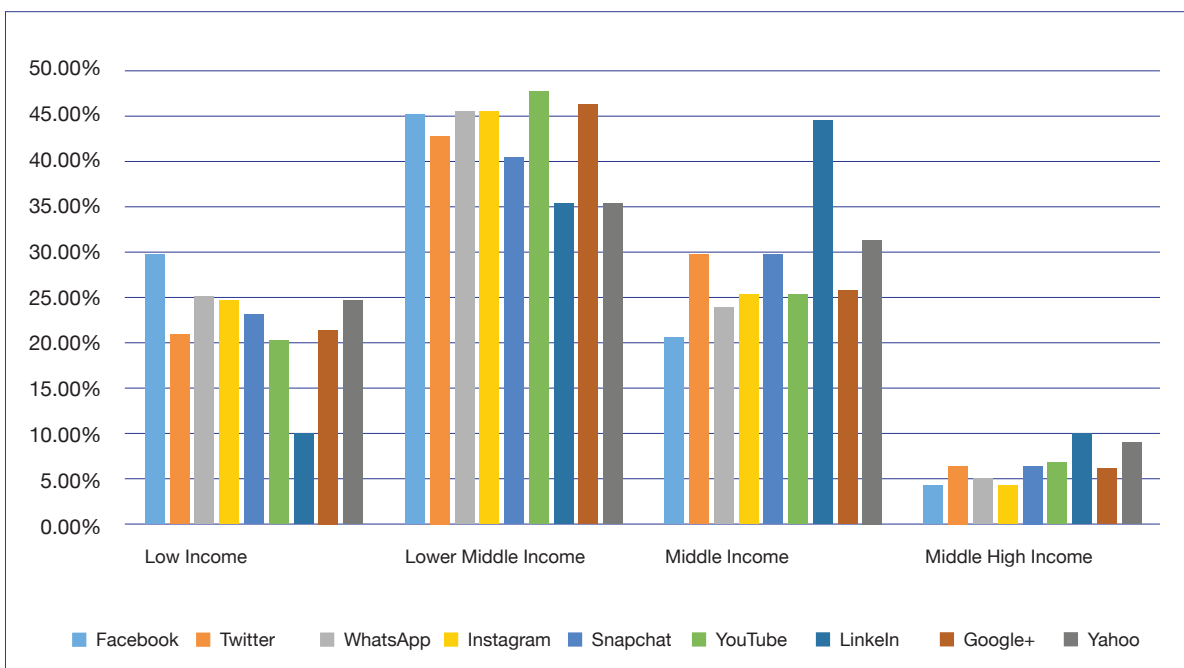


Use of Social Media platforms by Income levels in Nairobi

In Nairobi, the majority of Kenyans live in urban slums. Thus, those who live in informal settlements of low income use Facebook and WhatsApp as their social media platforms of choice as indicated in Figure 7

below. The middle income residents of Nairobi mostly use LinkedIn, Twitter, Yahoo and Snapchat. However, the lower-middle income population in Nairobi use YouTube, Instagram and WhatsApp. High income Nairobians mostly use Snapchat.

Figure 7: Social Media Use by Income in Nairobi

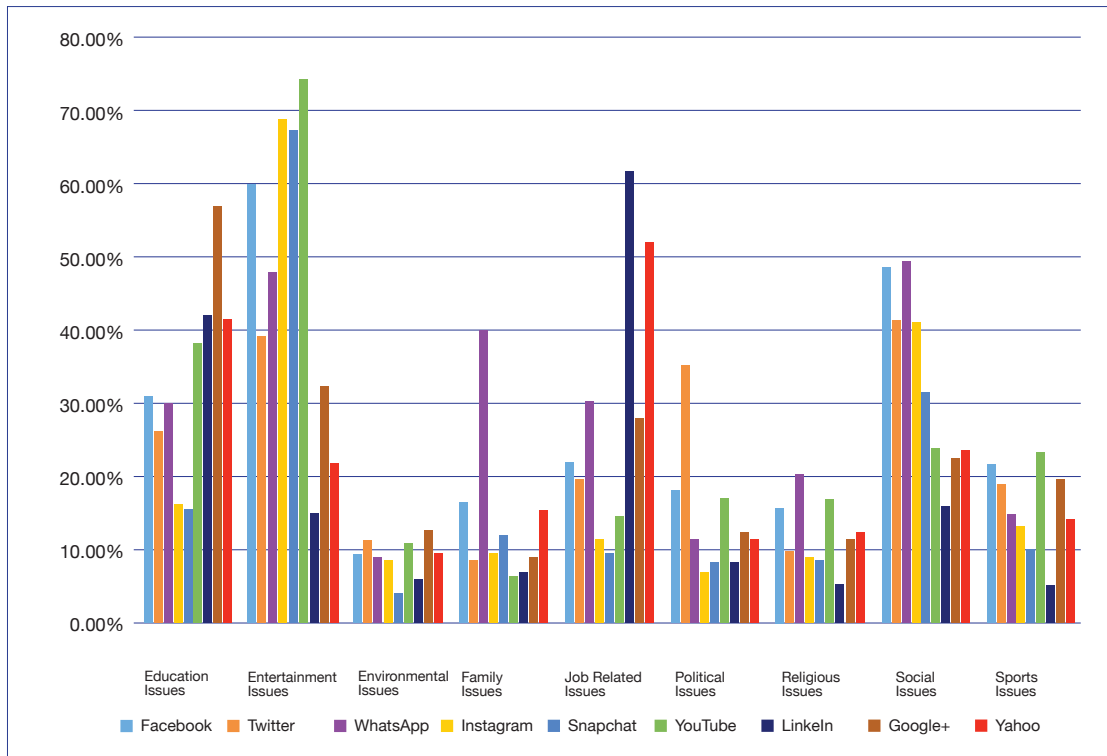


Issues of Focus in the Use of Social Media

Most Kenyans are using social media platforms for entertainment, education, job related and social issues as shown in Figure 8. Google+ (57.1%) is the mostly used social media platform for educational issues, while

YouTube (74.4%) is commonly used for entertainment. WhatsApp is mostly used for family (40.0%) and social issues (49.3%). LinkedIn is mostly used for job related issues (61.9%) and education matters (42.1%)

Figure 8: Issues of Focus in Using Social Media

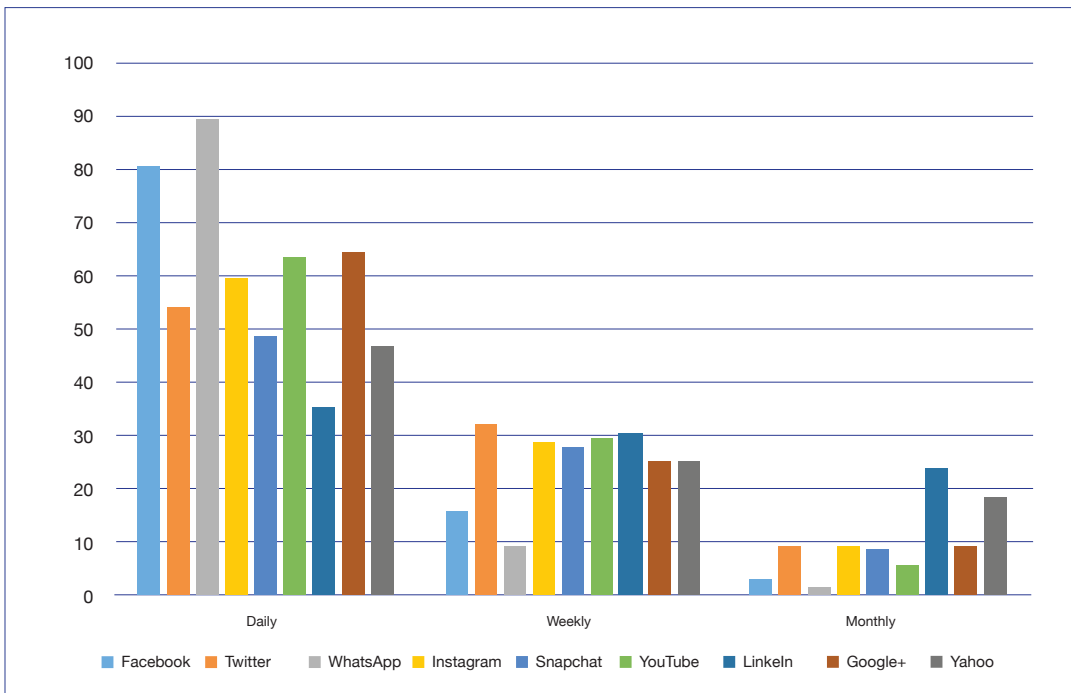


Frequency of Accessing Social Media

Most Kenyans access all the social media platforms daily as indicated in Figure 9. The highest social media platforms accessed daily are WhatsApp and Facebook.

The social media platform highly accessed weekly is Twitter followed by LinkedIn. By monthly, it is LinkedIn followed by Yahoo.

Figure 9: Frequency of Accessing Social Media

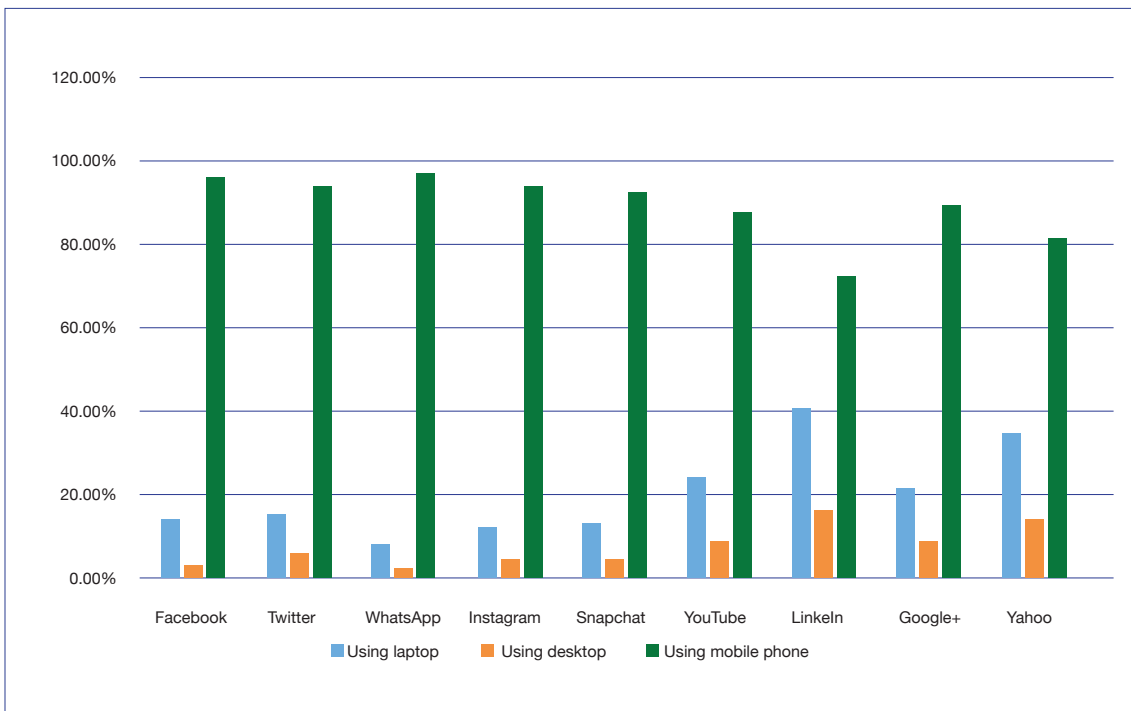


Devices Used to Access Social Media

Mobile phone is the mostly used device to access all the social media platforms. LinkedIn and Yahoo are mostly accessed from the laptop and desktop. Facebook

and WhatsApp was the mostly accessed social media platform by the mobile phones as shown in Figure 10 below.

Figure 10: Devices used in Accessing Social Media



Location in Accessing Social Media

From Figures 11 and 12 below, most Kenyans have transitioned from the cyber café into the mobile age, hence most people browse their internet at home. However, a majority of Kenyan in the rural areas and those living in low income urban areas still value and use the services of a cyber café. Most urban population

also access their social media from the offices and the public WiFi. This could be attributed to the fact that most of the people living in urban areas are working in offices and the availability of open public WiFi hotspots in eating places, malls and learning institutions. Cyber Café are predominantly used to access the government services (e-citizen, e-government services).

Figure 11: Physical Location of Accessing Social Media

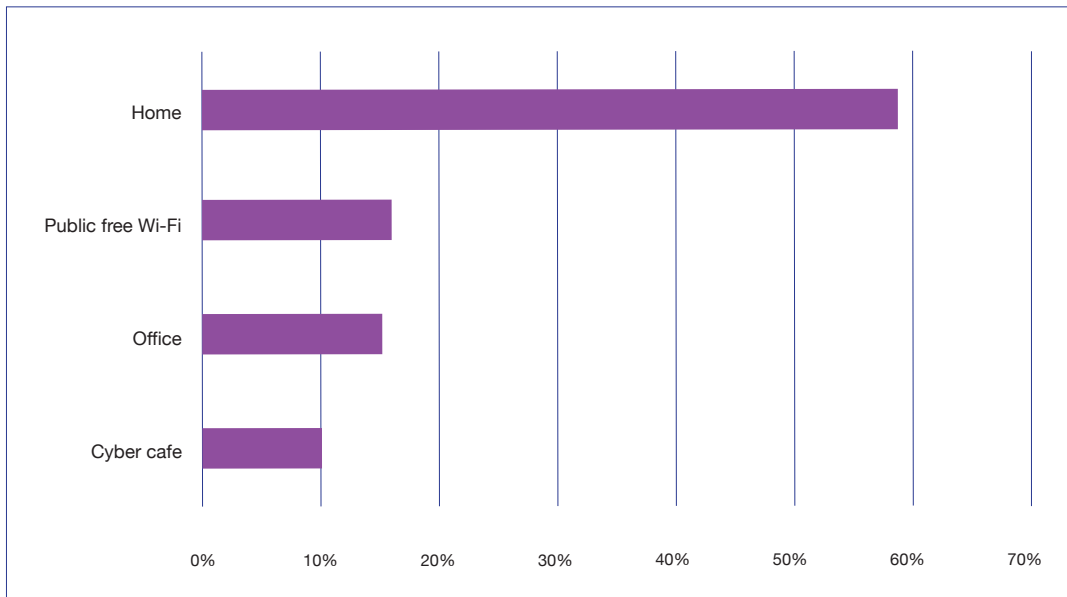
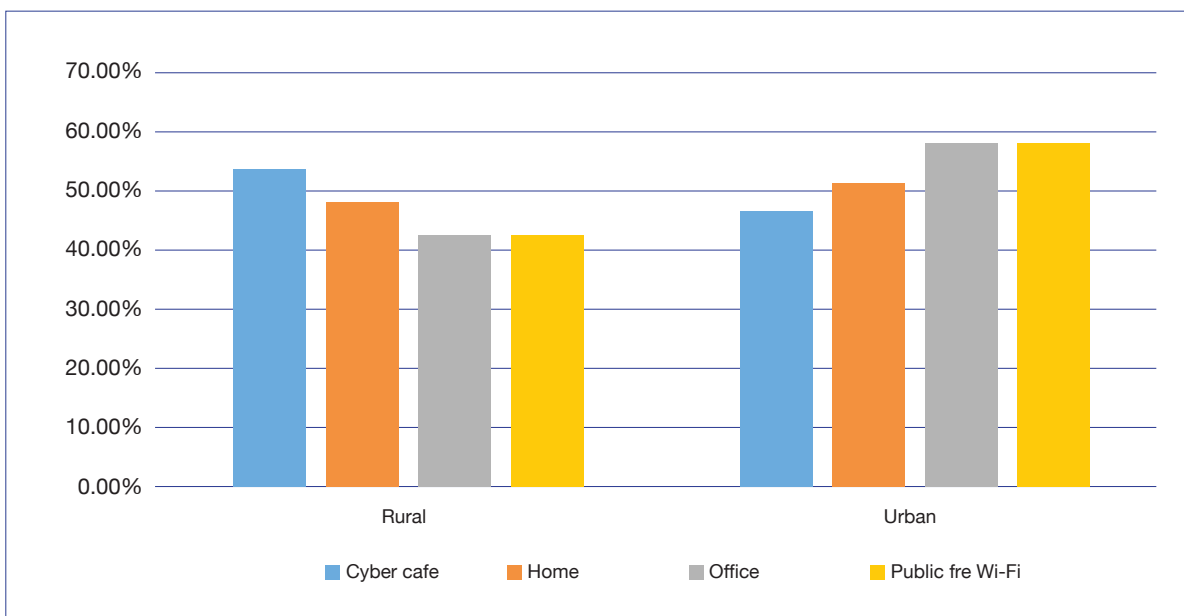


Figure 12: Geo-Location in Accessing Social Media

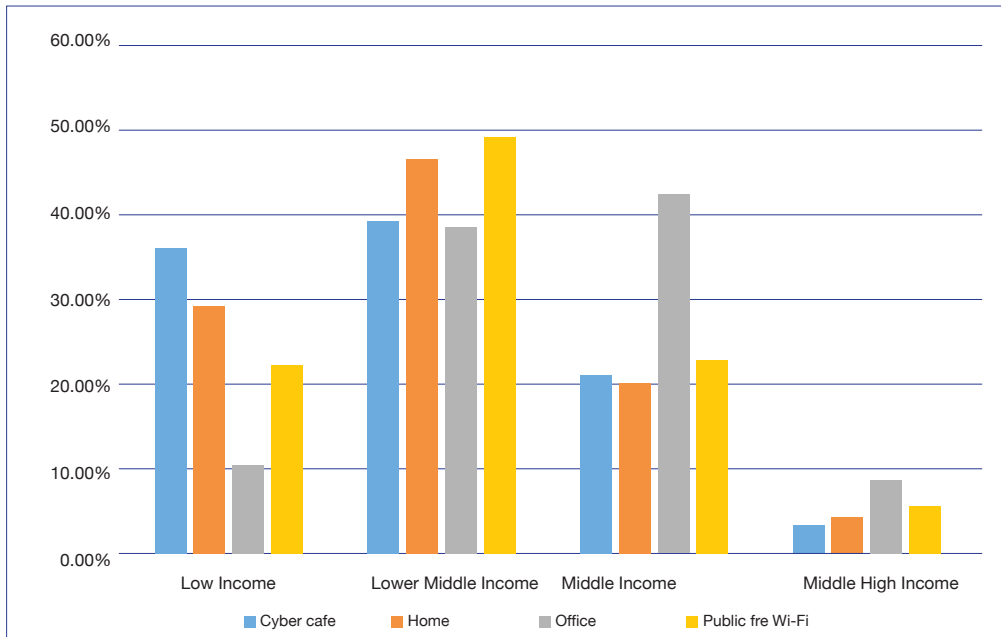


Location of Social Media Access by Income in Nairobi

Even though Internet access charges are comparatively low compared to many African Countries, Internet access is still expensive in Kenya. A majority of the middle income Kenyan population use the office internet to access social media platforms, while the lower-

middle income take advantage of readily available public WiFi provided in the malls, training institutions and the entertainment spots to access their preferred social media platforms. Therefore, people living in low income urban areas still value and use the services of a cyber café as shown in Figure 13.

Figure 13: Access of Social Media in Nairobi by Income

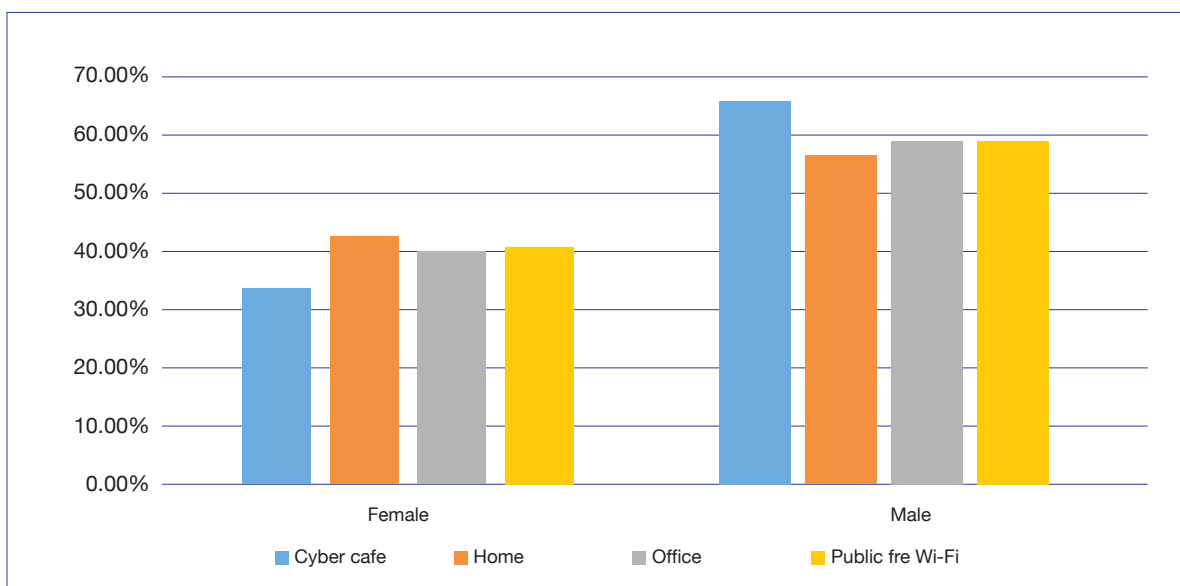


Physical Location of Social Media Access by Gender

From Figure 14, the physical location of social media access varies among gender with most female

accessing social media at home or on public WiFi while the male population prefers to access from the offices and cyber café

Figure 14: Physical location of Social Media Access by Gender

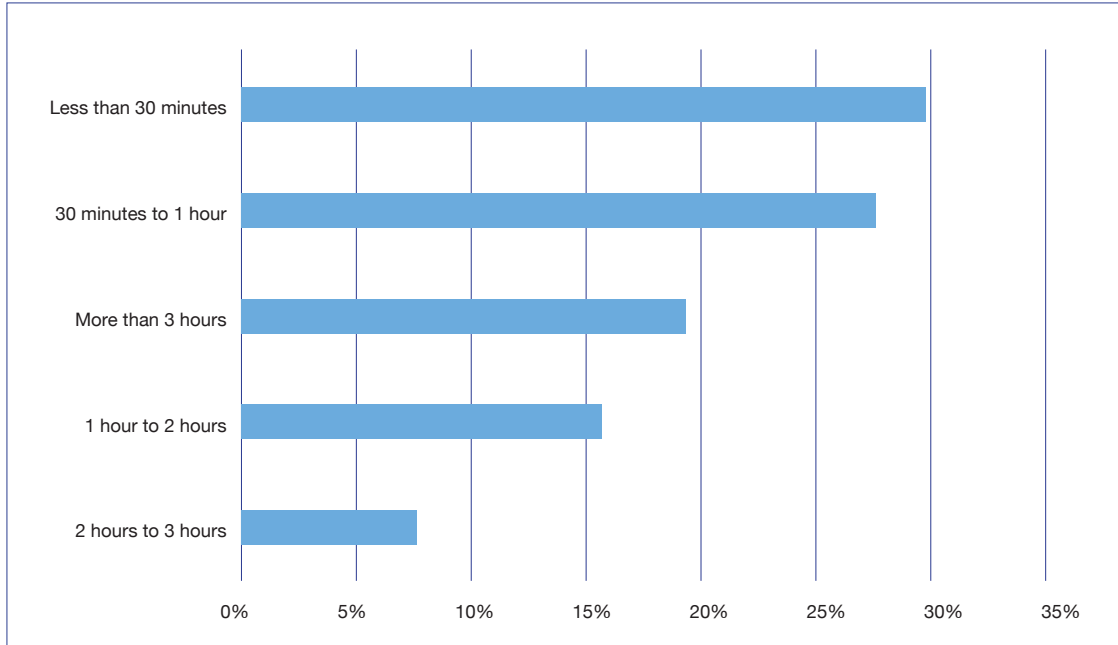


Time Spent on Social Media in a Typical Day

The vast majority of Kenyans spend more time of less than 30 minutes in a typical day using social media platforms of their liking (see Figure 15). This is followed

by the time span of between 30 minutes and one hour. They spend less time of between two and three hours using various social media available to them.

Figure 15: Duration Spent on Social Media in Typical Day

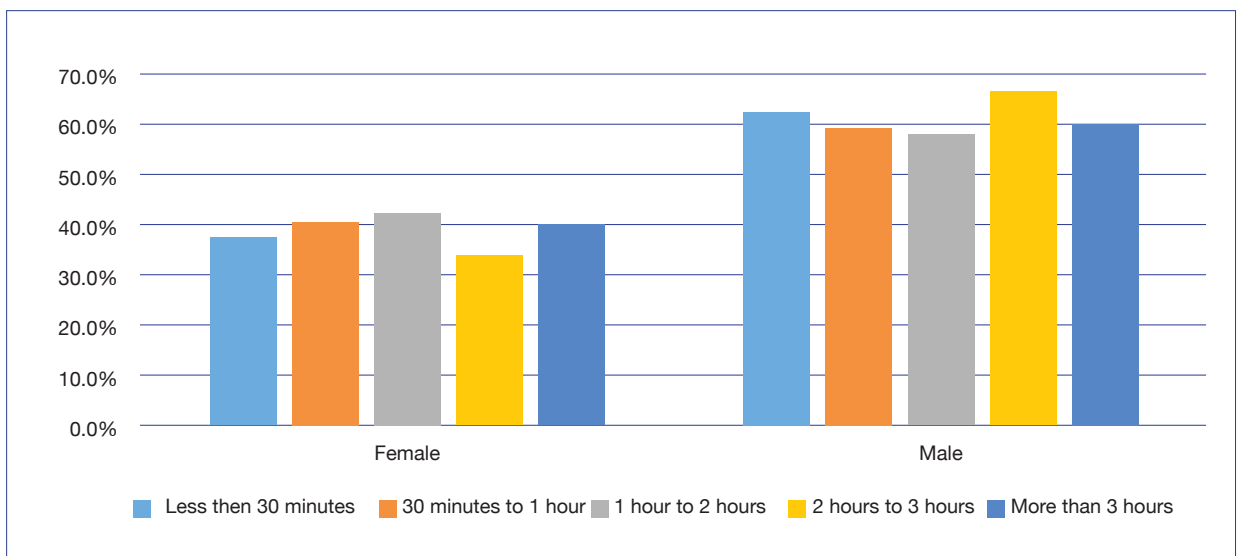


Duration Spent on Social Media by Gender

Overall, Figure 16 indicates that male Kenyans spend more time on various social media platforms available to them than women. For example, in a typical day most of men (66%) spend between two and three hours using social media. They also spend more time of less than

thirty minutes and more than three hours. On the other hand, though low, females spend more time of between one and two hours using social media. They also spend more time of between 30 minutes and one and more than 30 minutes using their preferred social media platforms.

Figure 16: Duration Spent on Social Media by Gender in Typical Day

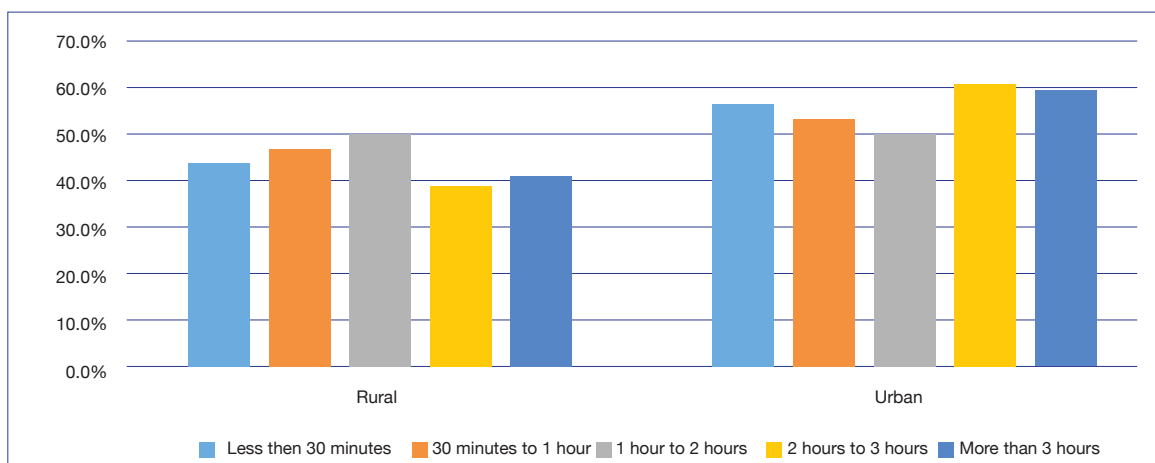


Duration Spent on Social Media by Geolocation

As showed in Figure 17, Kenyans residing in urban areas spend more time using social media than their counterparts in rural Kenya. Those in urban places spend more time of between two and three hours

followed closely by more than three hours and less than 30 minutes. In rural Kenya, the time spent most on social media is between one hour and two hours followed by thirty minutes and one hours.

Figure 17: Duration Spent on Social Media by Geolocation

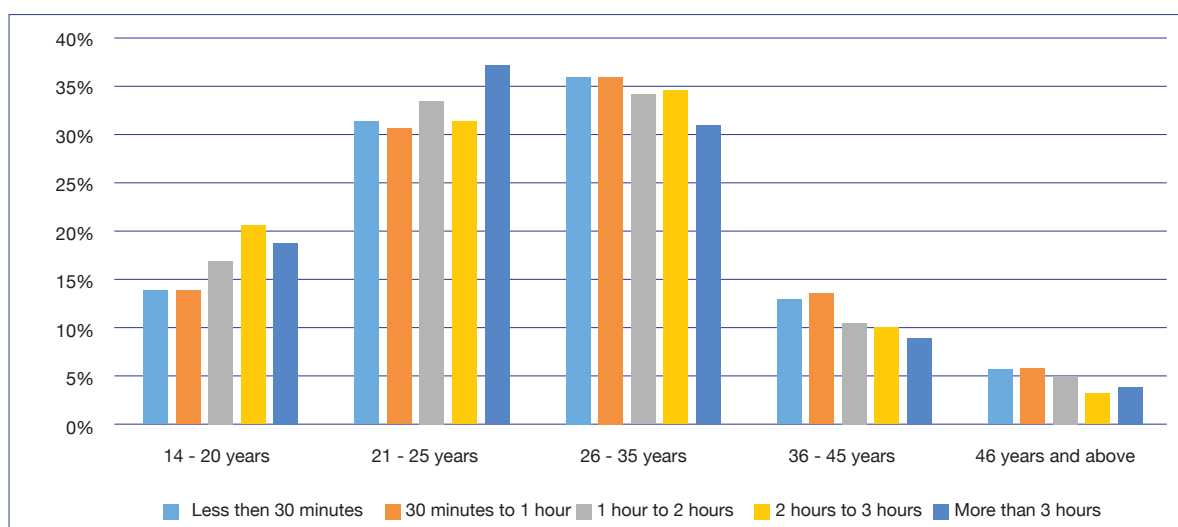


Duration Spent on Social Media by Age

Figure 18 below shows that Kenyans of the age between 21 and 35 (age brackets of 21-25 years and 26-35 years) are the most active users of social media available in the country. Those above 46 years spend the least time using social media. For the 21-25 years, most of the time spent on social media is of more than

3 hours in a typical day. This time span is followed by that of between one and two hours. In category of 26-35 years, the time spent most is that of less than 30 minutes and between 30 minutes and one hour. The youngest Kenyans (14-21 years) the duration they spend most on using social media is between two and three hours.

Figure 18: Duration Spent on Social Media by Age

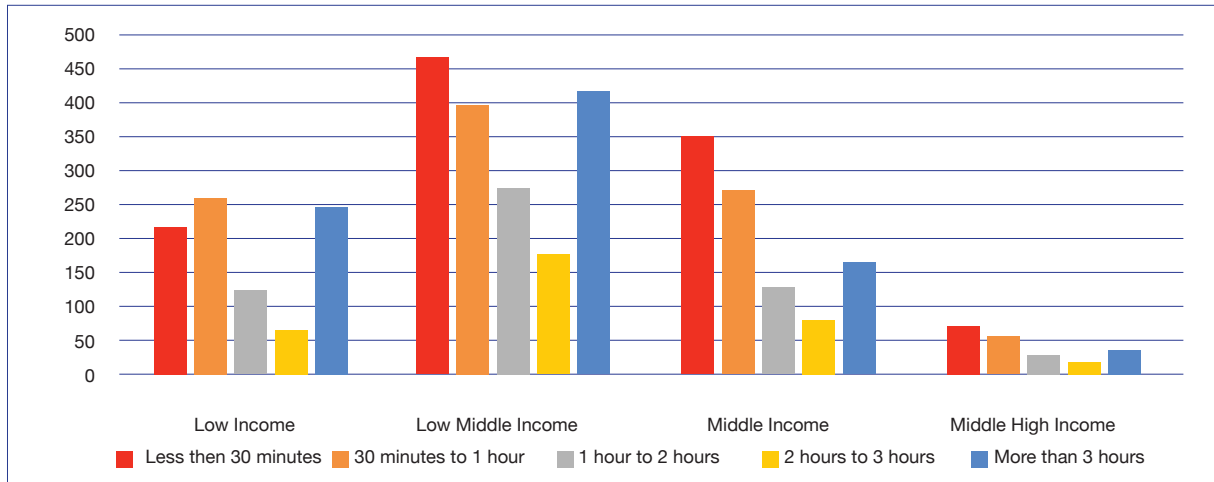


Duration Spent on Social Media by Income

In Nairobi County, low middle income Kenyans are the ones who spend most of their time on social media (see Figure 19 below). They are followed by the middle income category. The low middle income mostly uses

social media in time durations of less than 30 minutes, 30 minutes and one hour and more than three hours in a typical day. Similarly, the second active groups (middle income) also spend most of time in period of less than 30 minutes and between 30 minutes and one hour.

Figure 19: Duration Spent on Social Media by income



Duration Spent on Social Media by Education and Religion

Table 4 below shows that Kenyans of college-level education are the ones who spend a lot of time on social media platforms. Forty-four percent of them spend between two and three hours using social media sites, while those who spend between one and two hours constitute 42.0%. Most of those with primary school education spend between two and three hours (7.0%). The most time spend on social media by high school graduates is between 30 minutes and one hour and more than 32 hours tied at 32%.

As Table 4 indicates, most of undergraduates spend less than 30 minutes on social media platforms (23%). Kenyans of graduate level education spend equal split time on social media at 4%. By religion, Protestants still dominate in spending more time on social media sites (see Table 5). The much time they spend is 48% - between 30 minutes and one hour and one hour to two hours. The most time spent by member of Roman Catholic is 30.0% -- less than 30 minutes on social media platforms. Muslims mostly spend two to three hours (19.0%).

Table 4: Duration of Using Social Media by Education

| Duration | Primary school | High school | College | Undergraduate | Graduate |
|----------------------|----------------|-------------|---------|---------------|----------|
| Less than 30 Minutes | 6% | 28% | 38% | 23% | 4% |
| 30 minutes - 1 Hour | 6% | 32% | 40% | 18% | 4% |
| 1 Hour - 2 Hours | 6% | 30% | 42% | 18% | 4% |
| 2 Hours - 3 Hours | 7% | 30% | 44% | 16% | 4% |
| More than 3 Hours | 5% | 32% | 41% | 19% | 4% |

Table 5: Duration of Using Social Media by Religion Affiliation

| Duration | Hindu | Muslim | Protestant | Roman Catholic | No Religion |
|----------------------|-------|--------|------------|----------------|-------------|
| Less than 30 Minutes | 2.0% | 15.0% | 47.0% | 30.0% | 6.0% |
| 30 minutes - 1 Hour | 1.0% | 17.0% | 48.0% | 29.0% | 5.0% |
| 1 Hour - 2 Hours | 1.0% | 15.0% | 48.0% | 29.0% | 7.0% |
| 2 Hours - 3 Hours | 2.0% | 19.0% | 46.0% | 25.0% | 8.0% |
| More than 3 Hours | 2.0% | 18.0% | 45.0% | 26.0% | 9.0% |

Time of Day Spent on Social Media

Night is the time when the vast majority spend most of their time on various social media platforms (see Figure 20). This is followed by evening hours. Both night and evening hours are the times of when most of Kenyans are at home of their day's work. They also spend a considerable amount of time in morning hours – which should be the period before they get busy with their day's work routines. When analyzed by gender,

male Kenyans spend more time on social media than their female colleagues (See Figure 21). Except for the morning hours which is slightly higher, Kenyan men almost spend their time equally using various social media platforms in different times of the day – afternoon, evening and night. This is also a picture reflected among women, though they slightly spend less time in morning hours compared to afternoon, evenings and night which are almost identical (See Figure 21).

Figure 20: Time of the Day Spent on Social Media

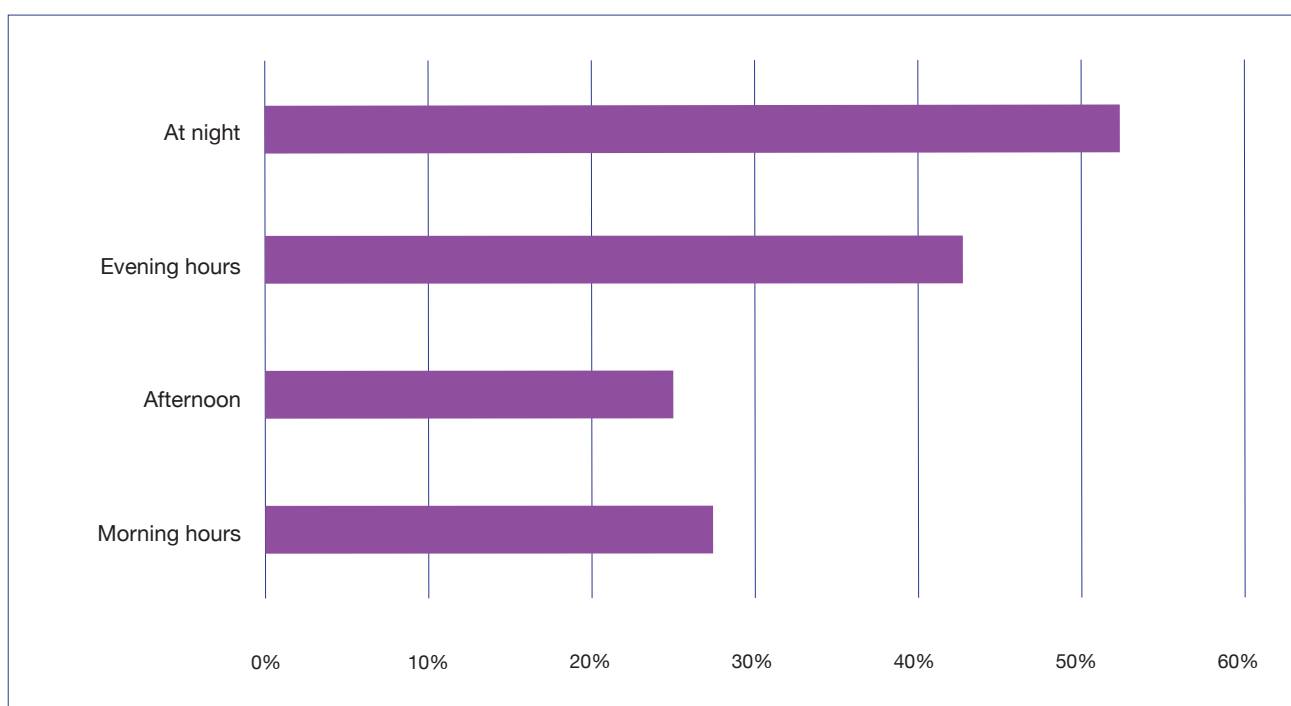
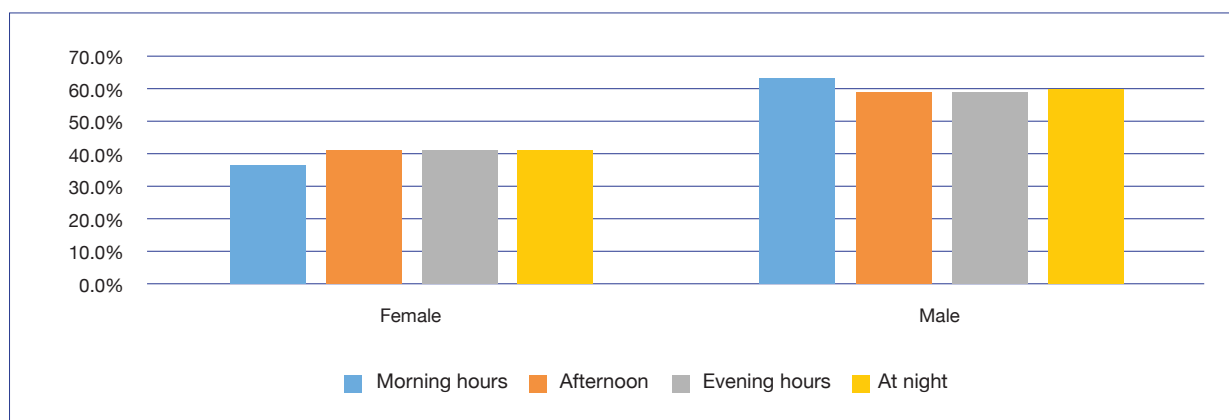


Figure 21: Time of the day spent on social media by Gender

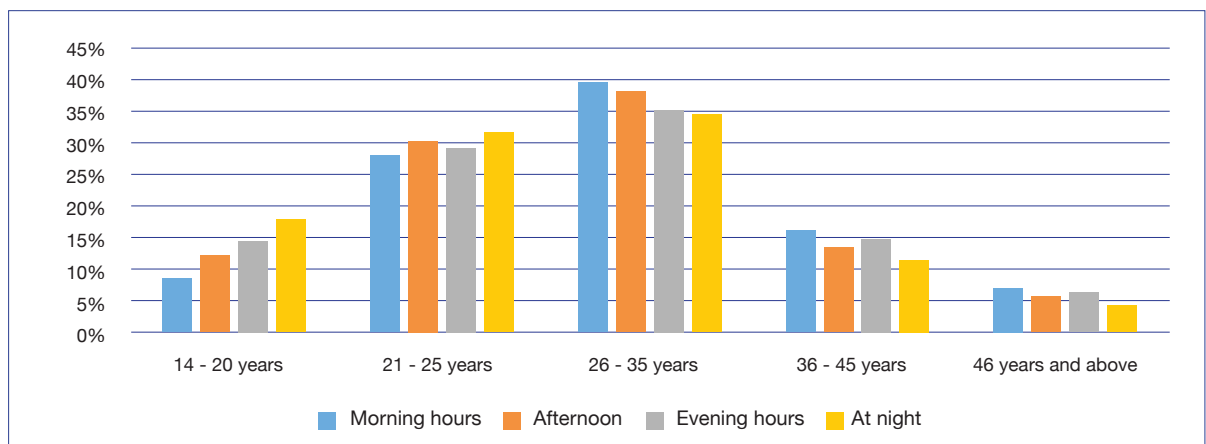


Time of Day Spent on Social Media by Age

From Figure 22, a majority of age groups of 21-25 and 26-35 years are the ones who spend a lot of time on various social media platforms. Specifically, those aged between 26 and 35 years spend most of their time on social media during morning hours followed by afternoons. They also spend substantial amount of time on social media during evening and night hours. For those aged between 21 and 25 years, the time of the day they spend most of time on social media

platforms is at night followed by afternoons. They are almost identical in how they spend time on social media in the mornings and evenings (see Figure 22). While Kenyans aged between 14 and 20 years use social media mostly at night, those of age 36-45 do so heavily in the morning period. Those of age between 36 and 45 years spend least time on social media at night hours. Kenyans above 46 years mostly use social media in the morning hours and least at night.

Figure 22: Time of Day Spent on Social Media by Age



Time of Day Spent on Social Media by Geo-Location

Figure 23 indicates that Kenyans residing in rural areas mostly spend their time on social media at night and in the morning hours. On the other hand, Kenyans in

urban areas spend most time on social media during afternoon hours followed closely by evening and morning times.

Figure 23: Time of Day Spent on Social Media by Geo Location



Motivation for Using Social Media

As indicated in Figure 24 below, the vast majority of Kenyans's motivations for using social media are acquiring information, entertainment and social interactions. To be specific across the five motivations sought (information acquisition, entertainment, social interactions, personal identity, and escaping some

social realities), Facebook and WhatsApp are the most used (see Figure 25). For instance, Facebook tops in information acquisition, entertainment and escaping some societal realities. On the other hand, WhatsApp is most employed in creating personal identity and social interactions that involved families, relatives and friends, among others.

Figure 24: Motivation for Using Social Media

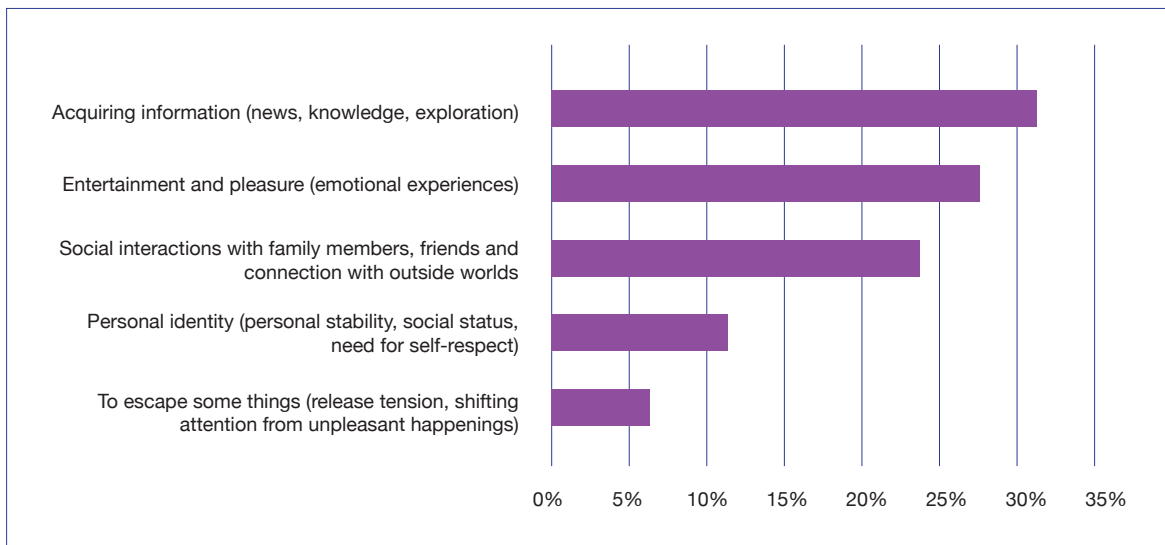
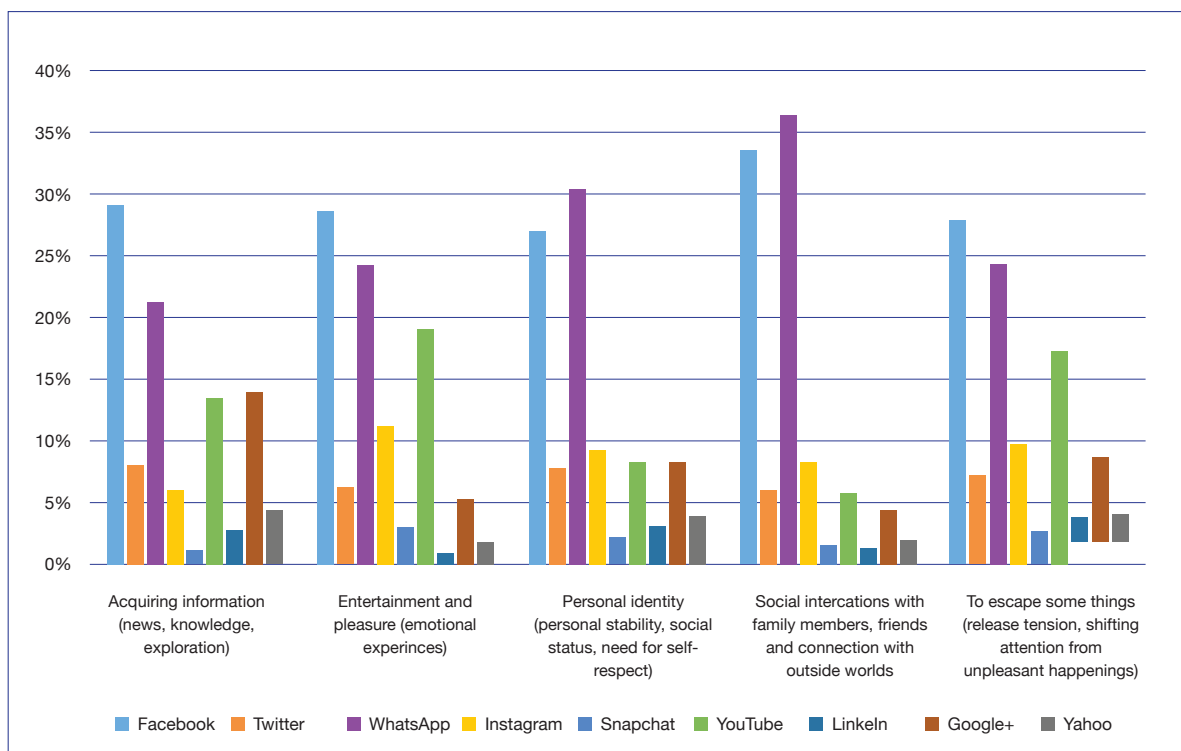


Figure 25: Motivation for Using Specific Social Media

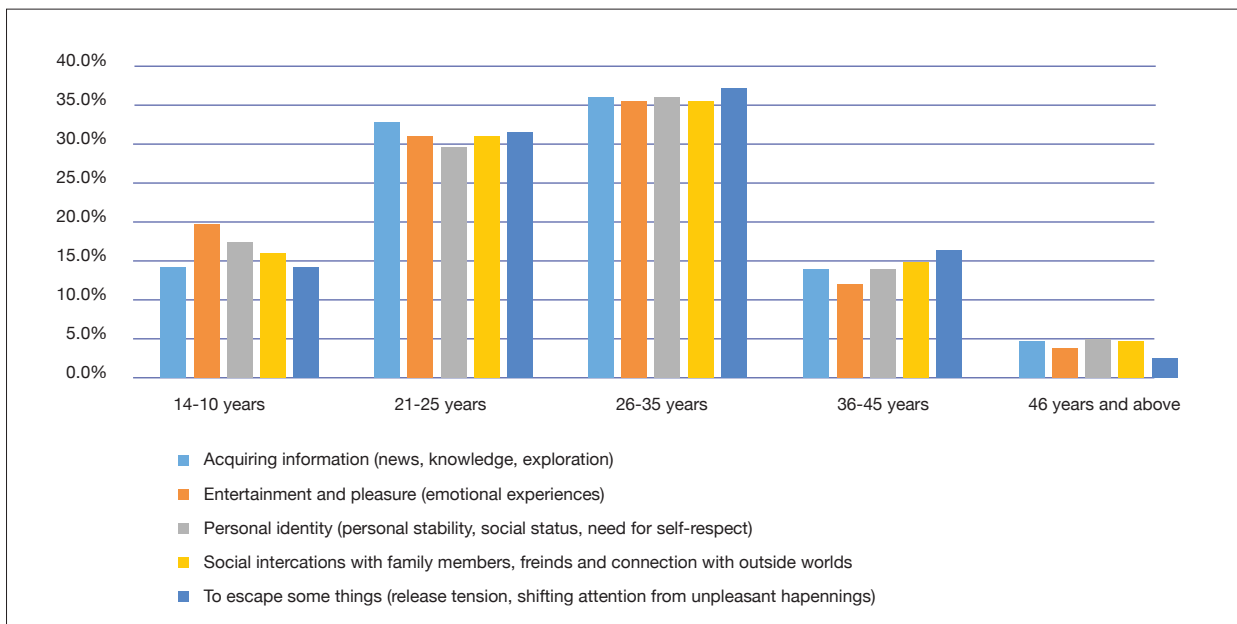


Motivation for Using Specific Social media by Age

As reported above, the most popular social media platforms among Kenyans are Facebook, WhatsApp, YouTube and Twitter. And the most active age groups are those of 21-25 and 26-35. Therefore, from Figure 26 below, the motivation for using Facebook among Kenyans of 26-35 years is almost equally split – in

terms of information acquisition, escaping some social realities, entertainment, personal identity and social interactions. However, using Facebook for escaping social realities has a slight edge over other motivations. This trend is also repeated among those aged between 21 and 25 years. It is the same story when it come to the use of WhatsApp among the various age groups.

Figure 26: Motivation for Using Facebook by Age



Motivation for Using Specific Social Media by Gender

Most males use Facebook (62.1%), Twitter (70%) and WhatsApp (61.9%), and Instagram (62.4%) for Personal identity (personal stability, social status, need for self-respect) while Kenyan females use the same platforms Facebook (44.7%), Twitter (39.8%), WhatsApp (46.6%), and Instagram (52.3%) to escape some things in society (release tension, shifting attention from unpleasnt hapennings).

Motivation for Using Specific Social Media by Education

Primary school graduates mostly use Facebook for social interaction (8.5%), acquiring information (8.4%) and escape some things (8.4%). On the other hand, those with high school education mostly use the platform for entertainment purposes, while college level graduates mainly focus on acquiring information. Kenyans with undergraduate degree mostly use

Facebook to escape some things (26.7%). Those with advanced degrees of MA and doctorate mainly use the platform for four reasons – entertainment (3.3%), personal identity (3.2%), social interaction (3.2%) and information acquisition (3.1%). Turning to Twitter, primary school graduates use it mainly for entertainment and escaping some things at an identical of 4.8%. High school graduates commonly use Twitter for entertainment. College level graduates mostly use it for creating personal identity. While those with first degree mostly use it for escaping some societal realities, Kenyans with graduate level education mainly focus on social interaction.

In using WhatsApp, primary school graduate mainly focuses on information acquisition and social interaction at 7.4% and 7.2% respectively. High school graduates use it mainly for entertainment (33.1%) and college level education holder focus on personal identity (41.7%). Both first degree and those with graduate

level education use WhatsApp to escape some things at 31.4% and 5.4 respectively. For Instagram, holders of primary school education use it for social interaction and escaping some things both tied at 4.5%. High

school graduates mainly use it for entertainment (30.1%) and college level Kenyans and undergraduate degree holders focus on personal identity at 41.8% and 4.1% respectively.

Table 6: Motivation for Using WhatsApp by Education Level

| Motivation | Education Level | | | | |
|-----------------------|-----------------|-------------|---------|---------------|----------|
| | Primary School | High School | College | Undergraduate | Graduate |
| Acquiring Information | 7.4% | 28.3% | 40.3% | 19.7% | 4.2% |
| Entertainment | 6.0% | 33.1% | 38.9% | 18.8% | 3.2% |
| Personal Identity | 6.6% | 27.7% | 41.7% | 20.7% | 3.4% |
| Social Interaction | 7.2% | 31.5% | 38.3% | 18.9% | 3.9% |
| Escaping Realities | 4.3% | 24.2% | 34.7% | 31.4% | 5.4% |

Snapchat is mainly used by primary school graduates for entertainment (6.0%), and high school certificate holders to escape some social realities. Those of college and undergraduate levels of education use it for social interactions at 37.9% and 33.3%. Graduate level education holders use Snapchat mainly for acquiring information (4.8%) and entertainment (4.7%). Primary school education holders mainly use YouTube for social interaction (7.9%), while high school graduates focus on entertainment (33.3%). College level graduates commonly use the platform for information acquisition. Those with first degree and graduate level education mainly use it for escaping social realities at 29.9% and 5.1% respectively.

When it comes to LinkedIn, it is mainly used by primary school education holders for social interactions (5.2%). Those of high school education level and first degree holders commonly use it for escaping social realities at 28.6% and 42.9% respectively. Kenyans of college and graduate education levels mainly focus on building personal identity - 36.2% and 10.3% respectively. E-mail use mainly used by primary school graduates as a platform for escaping social realities. High school graduates mostly use it for entertainment. The other three categories use e-mails for acquiring information – college level (43.9%), undergraduates (26.4%) and graduates (5.7%).

Primary school graduates mainly use Google+ for three reasons – personal identity (7.9%), social interactions (7.9%) and escaping some things (7.7%). Kenyans possessing high school education commonly use the platform for entertainment purposes. College graduates focus on social interactions (44.5%) and first degree holders mainly use it for acquiring information (22.6%). Graduate level education Kenyans mostly use Google+ for personal identity. In using Yahoo, primary school education holders mainly focus on entertainment (4.5%) and social interactions (4.4%). High school graduates mostly prefer it for entertainment (27.3%). Personal identify (56.3%) is the main reason why college level education holders use Yahoo. Both first and advanced degree holders use it for information acquisition at 27.7% and 7.1% respectively.

Motivation for Using Social Media by Religion Affiliation

The vast majority of Kenyans by denominations who use Facebook are Protestants. They mainly use the platform for escaping societal realities (50.8%) and social interactions (50.5%). Roman Catholic members mostly use Facebook for entertainment (27.2%) and information acquisition (27.0%). Muslims commonly use it for personal identity (19.3%). Those without denomination mostly focus on escaping social realities, while Hindus mostly use it for acquiring information (1.6%). Protestants mostly use Twitter to escape some

things (51.8%), while Roman Catholics for personal identity (33.8%). Members of the Muslim faith mostly use it for two motivations – social interactions and entertainment at 17.7% and 17.4% respectively. Hindus commonly use it for entertainment.

WhatsApp is mostly used by Protestants for escaping some things (50.8%), while their Catholic counterparts use it for acquiring information (27.9%). Muslims mostly use it for entertainment (17.9%) and personal identity (17.7%). Escaping society realities is the main motivation by those without denomination. Hindus mostly focus on personal identity. Instagram is highly used by Protestants for escaping some societal realities (47.6%). Entertainment and information acquisition are the main motivations for using Instagram by members of Catholic faith. Muslims mostly use it for social interactions, while Hindus for personal identity.

Turning to Snapchat, most of Protestants use it for personal identity (48.8%). Both Catholics and those without denomination use for escaping some things at 29.0% and 19.4% respectively. In the same vein, Muslims and Hindus mostly use it for information seeking – 29.5% and 4.9% respectively. YouTube is mostly used by Protestants for escaping societal realities (50.8%). Members of Roman Catholic mostly focus on entertainment (29.2%). Both Muslims and those belonging to no faith group mostly use it for personal identity at 21.8% and 10.8% respectively. Hindus commonly use it to escape some things (1.6%). Both Catholics and Muslims mostly use LinkedIn for entertainment at 34.9% and 14.0%. Protestants mostly use it to escape societal realities (70.0%). No denomination Kenyans focus on personal identity

(7.1%) and entertainment (7.0%). At an identical of 2.3% Hindus mostly use LinkedIn for information and entertainment. E-mail is highly used by Protestants for escaping some realities (54.0%), while Catholic mostly prefer it for entertainment (34.6%). While Muslims mostly use it for personal identity (16.5%), those without denomination frequently focus on escaping societal things (12.0%). Hindus mostly use it for entertainment (1.7%).

Protestants mostly use Google+ for social interactions (51.6%). Both Catholics and those without denomination mostly use it for escaping some things at 33.3% and 16.0%. also, both Hindus and Muslims seeking personal identity in using Google+ - 2.1% and 19.9% respectively. The vast majority of Protestants use Yahoo for escaping societal realities, while Catholics prefer it for entertainment. Hindus, Muslims and not affiliated with any denomination use Yahoo for personal identity at 1.5%, 20.6% and 10.3% respectively.

Use of Social Media in Online Debates

Social media is an important part of most of the Kenyans’ everyday lives. As such, people use various social media channels for a variety of reasons. One of the emerging area is robust online debates surrounding contemporary issues in Kenya society. Nevertheless, and though Kenyans are known to be active participants in online debates, the vast majority of them don’t really engage in such activities. However, those who do engage in online discussions, most of they have done so between one and three times (see Figure 27 and 28 below). They are followed by those who have participated more than nine time and between four and six times.

Figure 27: Use of Social Media in Online Debates

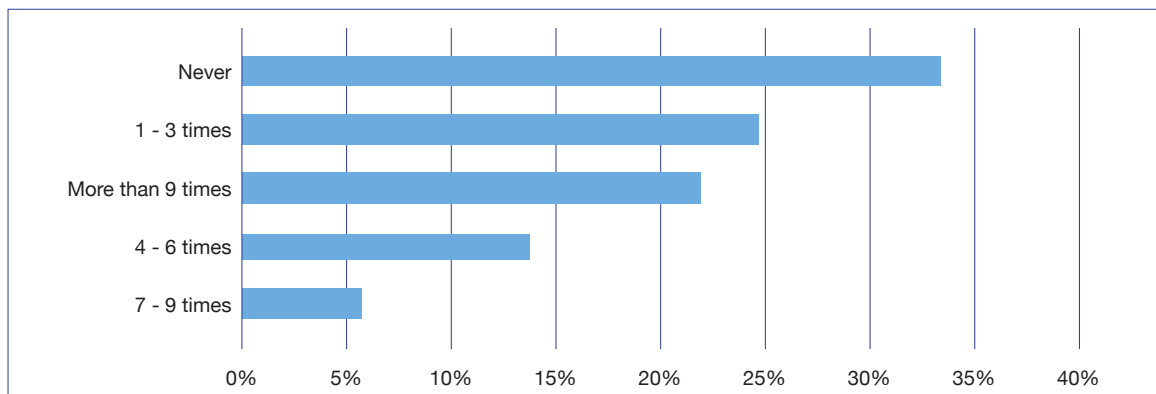
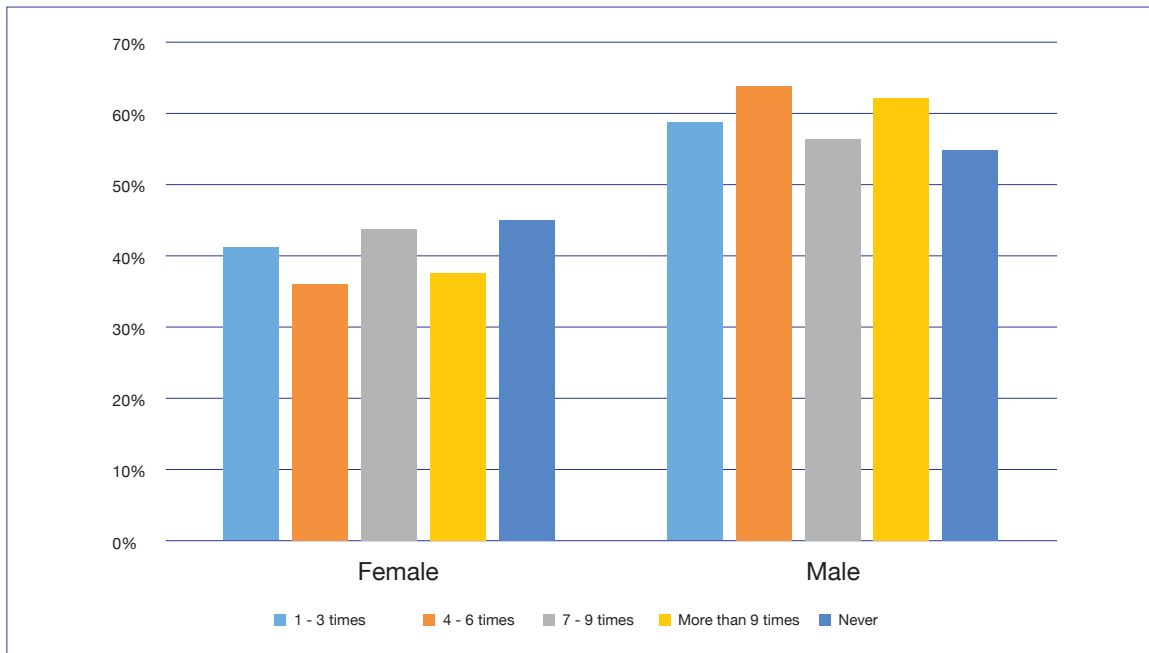


Figure 28: Use of Social media in online debate by Gender

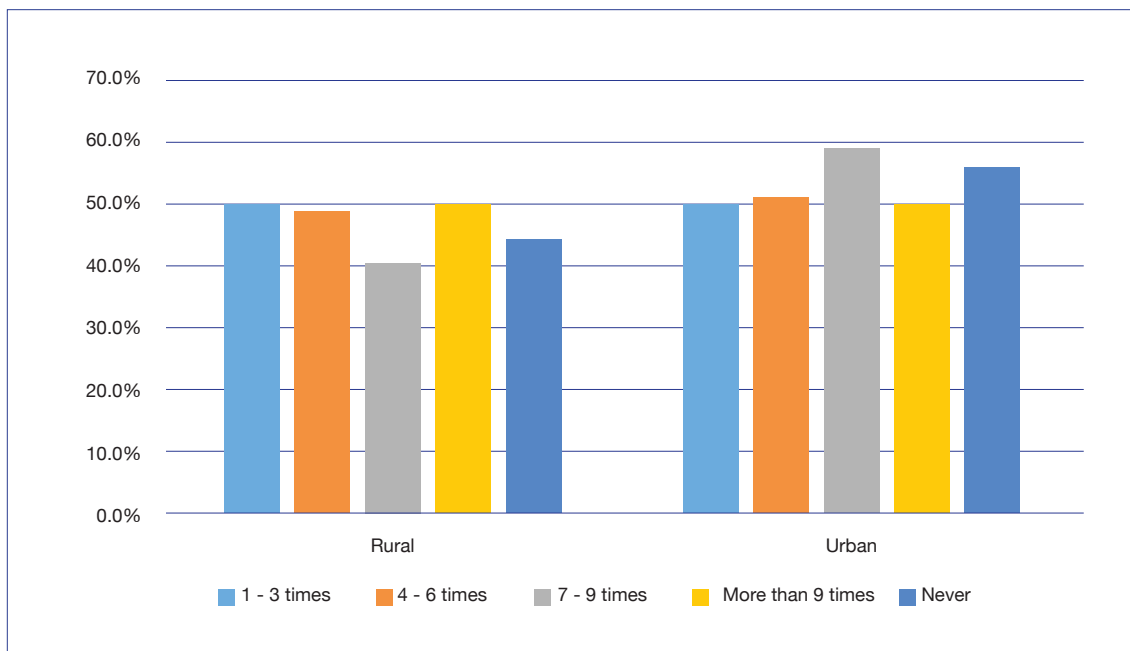


Use of Social media in online debate by Geo-Location

From figure 29, there are more people from the rural areas participating in at least three online debates

as compared to those from rural areas. However, there were more people participating in online debates in urban areas than those in the rural areas.

Figure 29: Use of Social media in online debate by Geo-Location

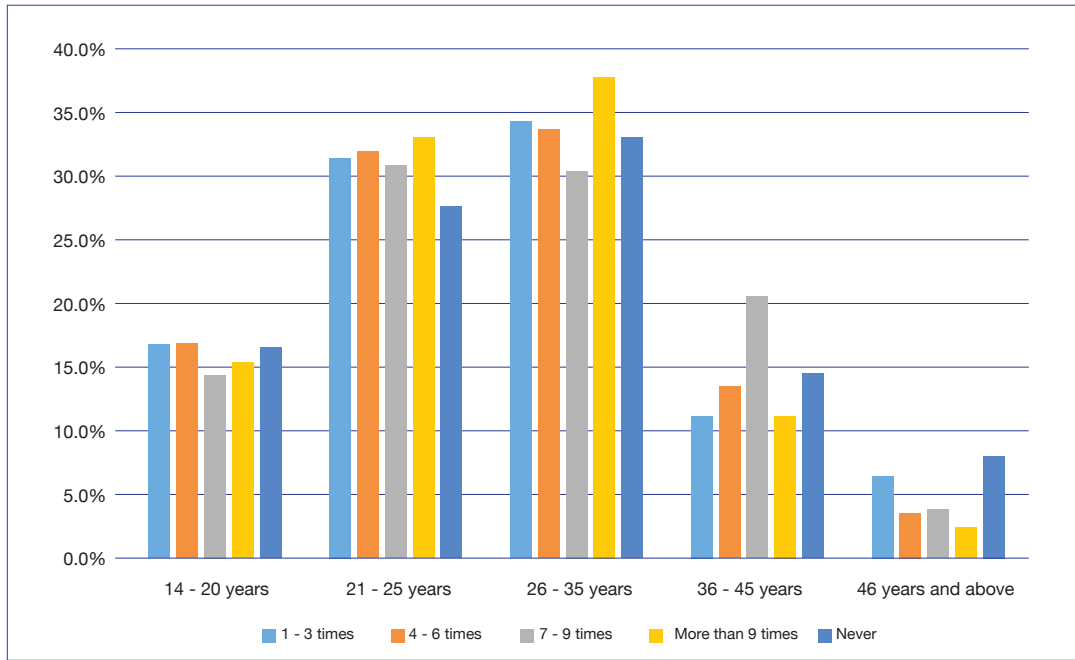


Participation in online debate through social media accounts by age

Age 26-35 years are the most active age group in online debates. This is followed by age group 21-25 years. Age 14-20 years comes third followed by age group 36-45 years. From figure 30, the least active age group

on online debates is 46 years and above. Majority of the people in all the age groups never spend time on social media. Majority of the people in all the age groups spend 1-3 times in social media while a few spend 7-9 times.

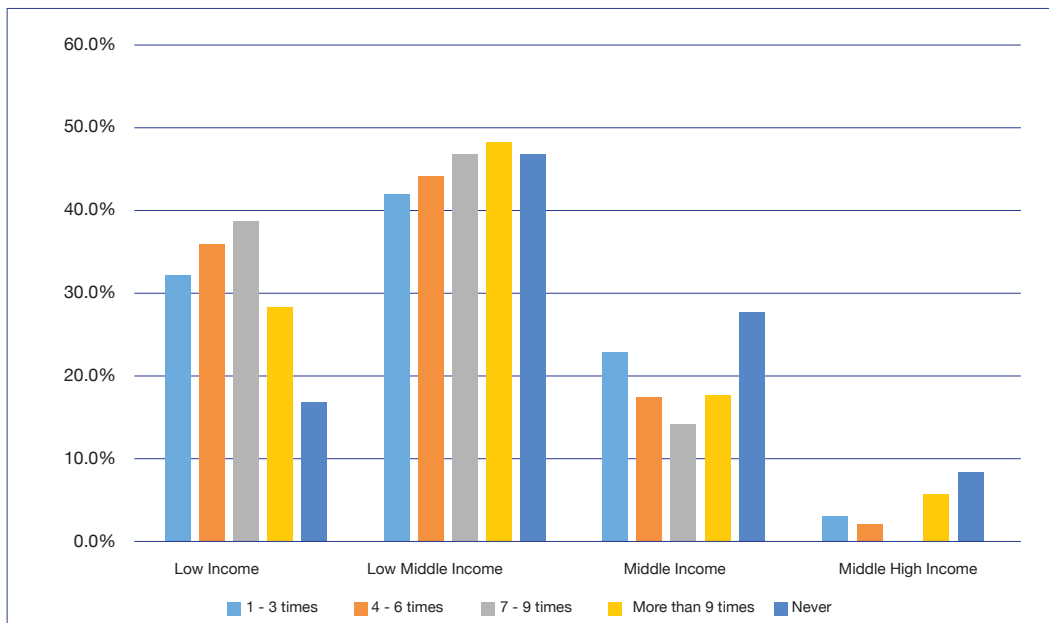
Figure 30: Participation in online debate through social media accounts by age



Use of Social media for online debate in Nairobi by different Income Levels

From figure 31, Majority of low income neighborhoods have participated in online debates using social media.

Figure 31: Use of Social media for online debate in Nairobi by different Income Levels



Reading Online Blogs

Figure 32 shows that a vast majority of Kenyans (nearly three-quarters) do read online blogs. This is compared to almost a quarter who don't have interest in reading

online blogs. In the same vein, the most popular blogs are those centering on entertainment followed by education (see Figure 33).

Figure 32: Kenyans Who Read Online Blogs

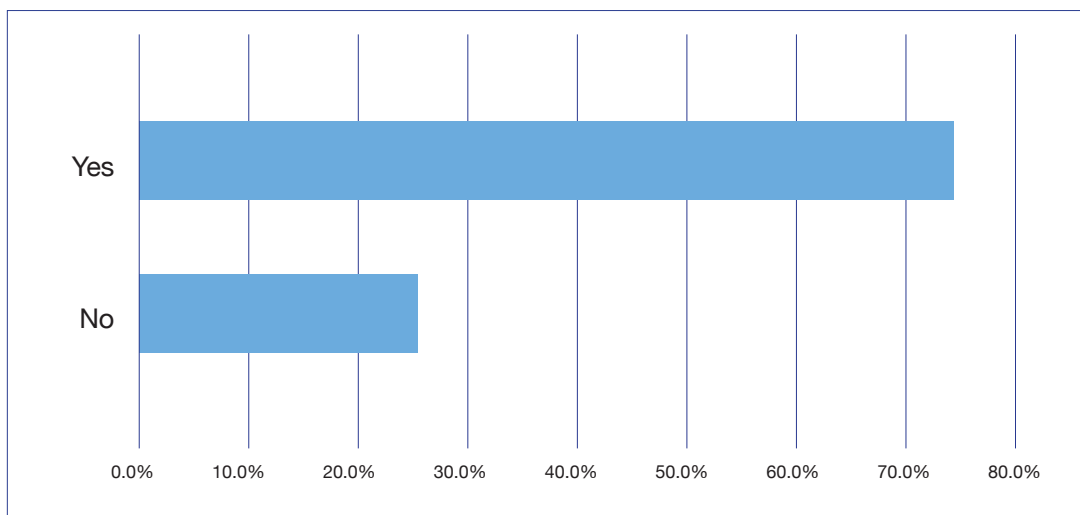
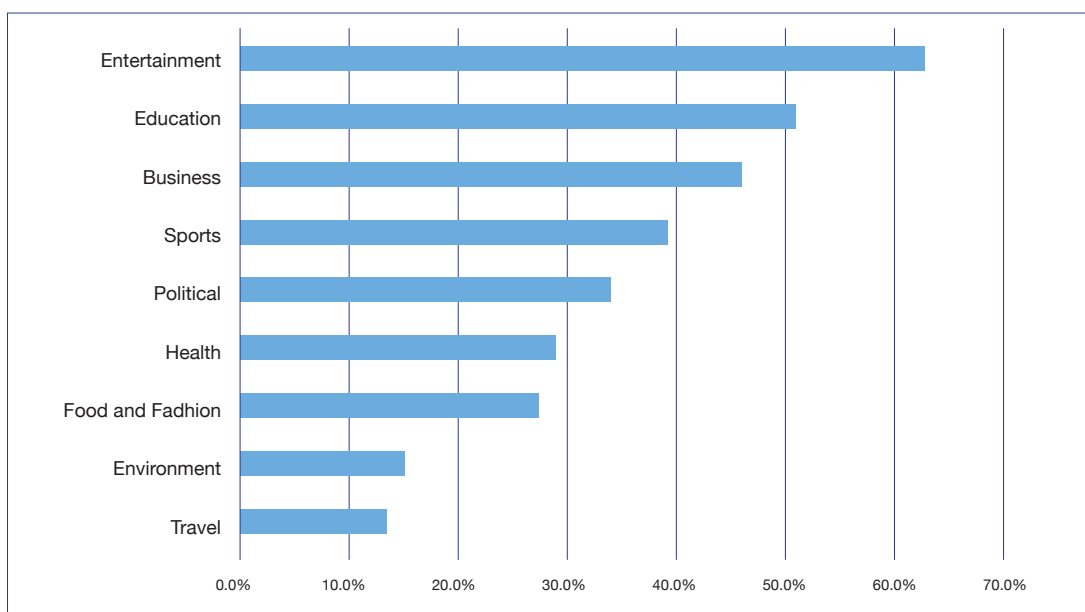


Figure 33: Blogs Read by Kenyans

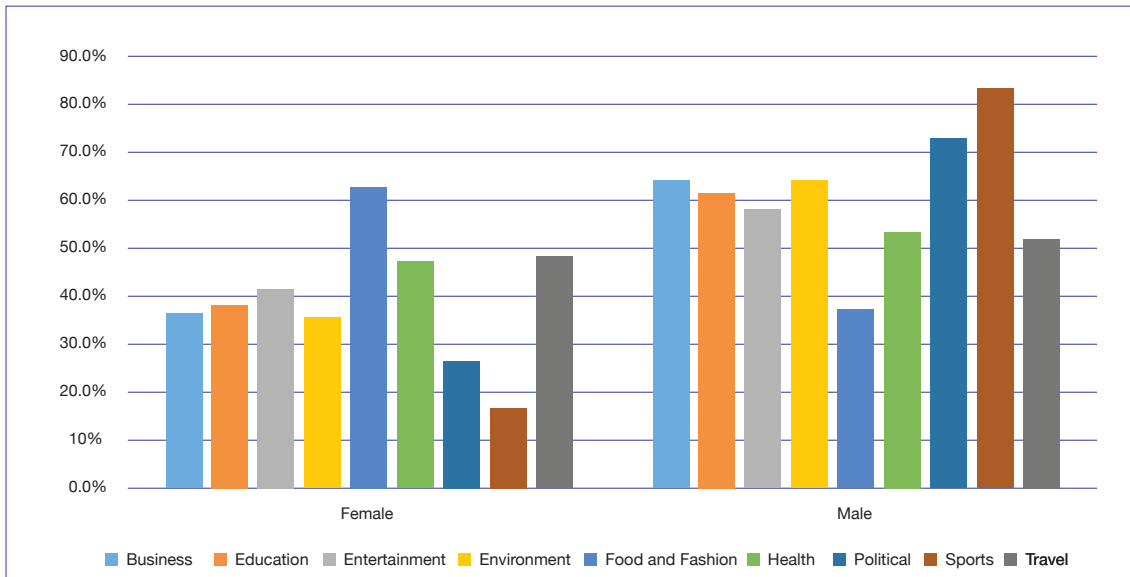


Types of Blogs Social Media Kenyans are reading by Gender

From figure 34, most male in Kenya read the sports online blogs. Few of the men read Food and fashion online blog. Most of the female in Kenya read Food and fashion online blog. Few of them read online blogs on sports. While most men read the sports blog, few women read it and while most women read the food

and fashion blog, few men read it. This is a direct opposite in the likes and preferences of the two gender with regard to the type of online blog they read. Almost an equal number of the male and female read online bogs on health and travel. There is a great difference in the number of males reading sports online blogs than the women reading the same compared to the other online blogs.

Figure 34: Types of online Blogs Kenyans are reading by Gender

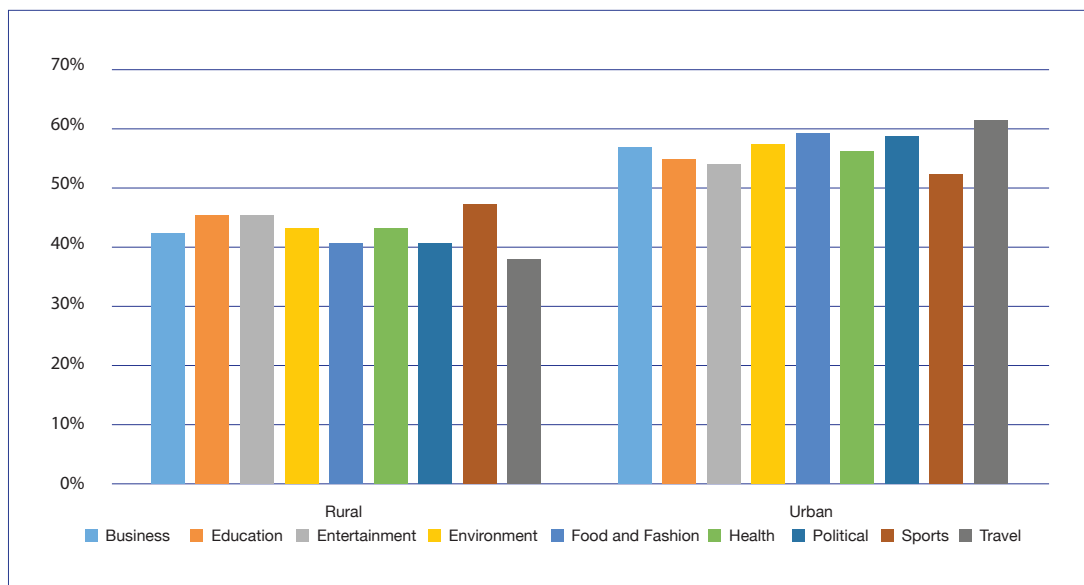


Types of online Blogs Kenyans are reading by Geo-Location

The most read type of blog in the rural areas is the Sports blog as compared to the urban areas where the most read type of blog is the travel category of blog

(see figure 35). The most popular blogs with the urban residents are the Travel, Politics and Food and Fashion blogs. For the rural areas, the most popular blogs are the Sports, Education and Entertainment blogs.

Figure 35: Types of Blogs Social Media Users are Reading by Geo-Location

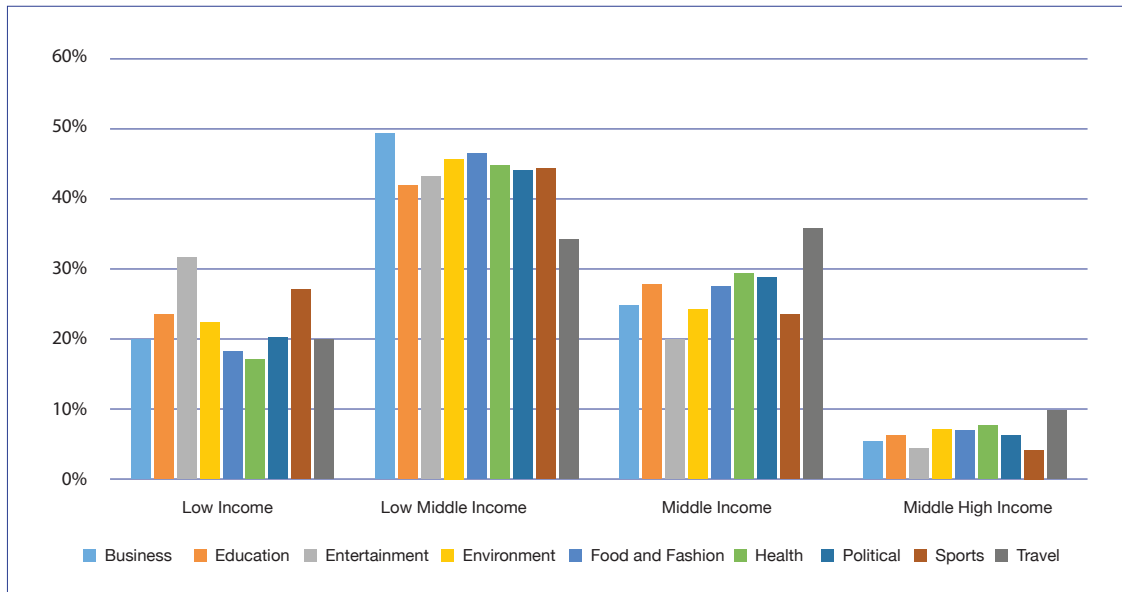


Types of online Blogs users' by Income Levels in Nairobi

From figure 36, majority of Nairobi residents read online blogs, but they vary in the type of blogs they read based

on their income levels. Residents of low-income areas of Nairobi are more likely to read entertainment and Sports blogs and the residents of the high-income areas of Nairobi are more likely to prefer reading travel blogs.

Figure 36: Types of Blogs Social Media Users are Reading Online by Income Levels in Nairobi



Social Media Use in Political Participation



Martin Emmer,
Freie Universität Berlin

It's more than 25 years since the Internet promised a new quality of participation in public discourse and the political process for citizens. The former US vice-president Al Gore described it as a new “electronic agora” and communication scholars highlighted the matching of the network structure of the new digital media with the ideal of “discursive democracy” developed by Juergen Habermas (1998). However, the Internet in these days still resemble more a “multimedia” version of existing media, with the World Wide Web as a mass-medium-like structure, combined with media for interpersonal communication like e-mail or online chats. Only since the so-called “social media” appeared on the scene – platforms offering free and easy-to-use applications to produce and distribute content and interconnect with others – the full potential of digital media became apparent. The rapid growth and popularity of platforms like Facebook or YouTube in

many countries indicates how much social media can add to the social lives of people.

This popularity of social media made them a relevant factor in many segments of modern society – economy, politics, education – and affected them in a “disruptive” way. These disruptions opened up new opportunities and threats at the same time. In the field of political communication and participation, the negative implications of social media have moved more and more to the center of political and scholarly attention: the initially free and open digital sphere has been privatized more and more by the big global internet companies Google, Apple, Facebook and Amazon.

They created ecosystems of operating software like iOS and Android and closed platforms like the social network Facebook, which operate on the paradigm of supporting every need of their users with the prime aim of maximizing ad contact and profit. Following this logic, Google, as an example, is analyzing every single search query and user action in order to estimate the very order of search results that fits best their individual expectations – and selling users within milliseconds in online auctions to online-advertising companies. One consequence of these processes is a partial loss of user autonomy, which initially was one of the greatest promises of the Internet. Another result is the exploitation of the rigid algorithmic content curation of social media platforms by manipulative actors: there's no better way than using Facebook, Twitter and YouTube to effectively “feed the trolls” with propaganda, hate and fake news, interfering with online political debate, influencing elections, polarizing societies and mobilizing extremist groups.

But besides these current problems it is still true that digital and social media are opening up a new sphere of action for ordinary citizens, broadening fundamentally the opportunities to gather, discuss and act on social and political issues in their individual social environment as well as on a national and global level. While information flows were directed top-down for centuries, giving governments and political elites comprehensive

control over the issues debated in a society, with the help of easy-to-use social media or mobile phones citizens now command of manifold tools that allow them to interconnect in a self-determined way and their voice to be heard in public sphere. Participatory platforms like Change.org or Ushahidi are good examples of how a well-organized integration of a broad variety of digital tools, including social media, can have a strong and positive impact, making citizens a relevant factor in the political process.

These two faces of social media – empowering people as citizens on one hand and being a tool for manipulation on the other – demonstrate that

technology alone most probably is not the solution for social problems; social media technologies have to be appropriated by citizens in their everyday environments, which requires them to be skilled not only technically but also with regard to citizens' norms. And second, a technical and regulatory infrastructure is needed, giving people access to these technologies regardless of their economic and social status and securing their freedom of use and curtail manipulative interference by the state or other political actors in this participatory sphere. Under such conditions, social media can be powerful tools for social and political participation



How Social Media and Internet Consumption Research Can Improve Lives of Kenyans



María Arnal Canudo,
Georgetown University

Among many other responsibilities and functions of the public administrations in developing countries, two of them are to improve the life conditions of citizens and to strengthen the capabilities of the state. There are many ways to approach each of them and from several public policies angles. However, any policy designed and implemented requires a rigorous data collection process in order to tackle the public target and amplified its impact in the society; and hence, to contribute to the growth of the country.

In this sense, Jerven¹ argued that one of the problems that many African countries face is the lack of statistical data available to be used by policymakers. As a result, the design and implementation of several policies by both, national and international parties, fail and become a waste of resources. A few years ago this could be a

justification for the performance of the governments. Indeed, nowadays many countries in Africa are still lagging behind in this sense. However, the digital era has brought the opportunity to fill this gap for public policy agents in some fields.

In case of Kenya, although there are several private initiatives that attempt to shed a light on the social media and Internet consumption, the sources and outreach of data they provide does not give a map to design public policy. It is a surprise that despite a country like Kenya, known as one of the technological hubs in the continent and in which several digital platforms and mobile solutions have been launched such as M-Pesa or Lynk, there is not data available that provide a scope of what, how and when Kenyan consume on Internet and social media that is useful for policymakers and private sector to design policies according to the needs of citizens. Therefore, initiatives as SIMElab are necessary.

The rigorous academic research in data collection and analysis is required to design proper solutions for the challenges people face in their daily life. Thus, not only public administration can benefit from it, but also private sector to launch their products and increase in both sectors the successful rate. Hence, the knowledge provided by academia combined with the tools available turn this kind of initiatives in a key part of the gear to improve the living conditions of people and growth of the country. Currently, according to report of the last quarter of 2017/2018 of the Communication Authority of Kenya, the number of mobile data subscriptions in Kenya is 40.7 million, 38% more than in the same period the previous year and the Internet penetration in the country is 83%² based on the Internet World Stats. Thanks to these figures along with the initiatives already exist in the market, as in many other African countries, experts³ point out the future of the labor market is more related with digital platforms than with formal or informal sector. The level of consumption of Internet as well as presence of e-commerce has given the opportunity to many entrepreneur to set up their business on Internet

and reach their public through the net at low price and regardless the size of the businesses. As a result, the informal sector that has been claimed as the driver of growth for many countries could turn into a transparent market showed on the net. In this line, governments and policymakers have the opportunity to regulate this new scenario in order to improve the productivity of workers and strength the foundation of the public

infrastructures; and as result, the economic growth of the country. Nevertheless, to achieve this goal, it is key to know the trends, ways and reasons of consumption of Kenyan citizens in order to properly map the market in which not only the entrepreneurs develop their businesses, but also the citizens consume the products and services, in order to satisfy the needs of both markets.



Cyber Security and privacy issues associated with Social Media



Dr. Bright G. Mawudor
Head of Cyber Security Services (MEA),
Internet Solutions Kenya Limited.

The Internet has become the fastest growing infrastructure in today's socio-economic setting and the threat landscape increases exponentially every minute that one stays online. Information has become power and many will take all risks to get access to them due to the enormous usage it poses.

The interconnectivity of the web has opened many avenues with positive outcomes such as doing business as well as quicker access to resources. Social media as a medium has made it easier for businesses to advertise themselves in a cheaper way



leading to revenue growth and connection to customers across borders. Individuals can make friends and connect on unimaginable levels for both collaborations to work and sharing of images.

Figure 37: The image above shows the amount of activity that goes on the Internet every minute. Social media usage take the majority chunk and it is not about to reduce anytime soon.

All these great upshots do pose a lot of security to both one's computer, personal lives, privacy as a whole and business. Social media has led to cyber bullying and harassment, stalking, teens using it to spread rumors and at times share unflattering or illegal images. There exist predators who use social media to build connection with their targets and at times harm them. Social media has its cognitive effects on people to keep sharing and that at times lead to one taking their own life. A lot of people are getting hacked via social media to gain access to into their lives or into their businesses. It has become the easiest avenue for social engineering which I consider to be hacking the human brain. This is almost defenseless as everyone is trusting with social media sites.

Hacking Methods

Hackers share links that seem to be of valuable information or access to resources that are too good to be true. This includes shopping sales or attractive news that will make one to click. Such links contains malicious code to track user's activity to breach privacy or install malware to compromise user's computer or mobile phone. One of the most common methodologies of social media and cyber breaches occurs via email. Many receive phishing emails that are very difficult to distinguish. The most common is to allow one to get verified on their social media page which means their account cannot be impersonated easily. However, such emails request a user to enter their username and password that in turn gets to the hacker leading to account takeover. Such a technique of exploitation leads to further hacks that is beyond social media. Many re-use the same password everywhere they go and that can cause financial and reputational losses. Social media passwords are the same they use for their internet banking, emails and business portals.

Protective Mechanisms

It all starts with knowing what to share online or what is necessary. Social predators or people shall always use information that are shared on social media platforms to compromise you as an individual or as a business. It is always advisable to share only essential information where needed. Opening links requires extra caution as click bating result in extensive malware infection of your computer or mobile phone which are almost undetectable. Hackers are finding new ways to make malwares embed in devices in a very stealth way and causing harm that are difficult to notice.

Research has shown that many do not activate their Two Step verification that is present on all social media platforms. Two-Step verification is an extra layer of security that stops a hacker from compromising an account even if they do get hold of a user's credential. A code is sent to the user's mobile number that is unique to a short period as authentication to an account. This should be enabled on all social media platforms and most importantly the base source which is email address.

An email address is known to be the base source of any social media takeover as access to that is a golden ticket to almost all platforms. This is because almost all social media platforms are registered with an email and most often than not, users repeat the same password and do not have Two-Step verification activated. A good password is one that not only contain characters, numbers and letters but one that is a phrase. A good password should also contain a mother tongue as majority do not think it is necessary then numbers or characters can be added as well. It is difficult to remember passwords hence the need to use password managers such as LASTPASS which is a secure vault to keep passwords and have a master password to guard them all. LASTPASS also has the feature of activating two step verification. Last but not least, one needs to remember that the Internet does not forgive and does not forget.

Social Media and Learning – The Missing Piece



Dr. Craig Blewett,
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Social media sites such as Facebook and Twitter have been blamed for everything from increased rates of divorce to rising syphilis to fake news among other things. However, whatever our views of the good or bad of social media, one thing is certain, it has impacted most aspects of everyday life.

Nearly ten years ago, a Stanford article warned of an avalanche coming in higher education due to a confluence of changing economies, higher education fees, decreasing value of degrees, and ubiquitous content (Barber, Donnelly and Rizvi, 2013). Universities are under threat because increasingly students are being provided with other opportunities (Bendorf, 2012). The most recent are the opportunities around blockchain technology - the same technology that powers cryptocurrencies like Bitcoin, to radically democratise education (Dickson, 2018).

However, where the unseen tectonic tensions are taking place is in the primary and secondary education space. It's here where two great forces are increasingly at tension with one another - children's new ways of interacting with content and each other, and the current inflexible and outdated approaches of schools (Robinson, 2010). Decrying the impact of social media and technology is not the solution. The fact is that we are now living in a world where our current generation of children have been weaned on a digital diet resulting in decreased attention spans (Watson, 2016).

Further exacerbating the situation are myths around potential solutions. One of the most dangerous myths is that training teachers to use technology will result in better teaching. The implication being that when research shows a decrease in academic performance when using technology, the technology must be to blame (Carter, Greenberg and Walker, 2017). However, there is something fundamental missing in modern technology approaches to teaching and learning - pedagogy. The issue is not the technology, or a lack of training teachers to use technology, it is a lack of training teachers to teach with technology.

Pedagogy is to teaching what recipes are to baking. They are proven approaches that are effective. However, pedagogy has been forgotten in the enthusiastic pursuit to digitize the classroom. As Dan Schwartz, the Dean of Stanford's Graduate School of Education put it, "The literature on how to do this stuff is a giant mountain of goo. I can tell people they need to teach better. But if I don't give them things that are easy for them to implement, they won't do it" (Westervelt, 2016).

Addressing the needs of 21st century students requires more than just a list of pedagogies; it requires an arrangement of easy to implement approaches. The Activated Classroom Teaching (ACT) approach is the first Taxonomy of Teaching and Learning (TOTAL) for 21st century classrooms (Blewett, 2016).

The ACT model consists of five digital-age pedagogies that seek to leverage the affordances of technology and

PEDAGOGY ACTIVITIES 21 SKILLS

| | | |
|---------------------|--|---|
| CHAOS | SYNTHESIZING, RECOGNIZING, CONNECTING | METACOGNITION, PROBLEM SOLVING |
| CREATION | DESIGNING, MANAGING, CONSTRUCTING | CREATIVITY, INITIATIVE VISUALIZATION |
| CORRECTION | SOLVING, FAILING, EVALUATING, ADJUSTING | RISK TAKING, FLEXIBILITY PERSISTENCE |
| CONVERSATION | EXPLAINING, LEADING, LISTENING, CONVINING | CURIOSITY, HUMILITY COMMUNICATION |
| CURATION | FINDING, SELECTING, ARRANGING, AMPLIFYING | CRITICAL THINKING CONTEXTUALISATION |

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the learning approaches of modern students in order to develop key 21st century skills. The focus is a shift from passive pedagogies (consumption) to active teaching and learning approaches (curation, conversation, correction, creation and chaos). This aligns with research which shows children are spending more than half their online time actively engaging - creating content (3%), “interactive consumption” (25%), and communicating (26%) (Common Sense Media, 2015)

Ignoring the tectonic shifts taking place in our classrooms is not the solution. Simply dropping technology into our classrooms is not the solution. Simply training teachers to use computers is not the solution. Modern education needs both a paradigm and pedagogic shift. Social media has changed how students connect and learn, but “if we want students to become smarter than a smartphone, we need to think harder about the pedagogies we are using to teach them. Technology can amplify great teaching but great technology cannot replace poor teaching.” (Jacks, 2015).

References

Barber, M., Donnelly, K., Rizvi, S., & Summers, L. (2013).

An avalanche is coming: Higher education and the revolution ahead. The Institute of Public Policy Research.

Bendorf, A. (2012).

Five myths about organ donation in Australia. [online] The Conversation. Available at: <https://theconversation.com/how-technology-can-open-up-south-africas-universities-5008> [Accessed 24 Jun. 2019].

Blewett C. (2016)

From Traditional Pedagogy to Digital Pedagogy. In: Samuel M.A., Dhunpath R., Amin N. (eds) *Disrupting Higher Education Curriculum. Constructing Knowledge: Curriculum Studies in Action*. SensePublishers, Rotterdam

Blewett, C. (2019).

Wake up class!. Durban: Teachernology Publications.

Common Sense Media. (2015).

The Common Sense Media Census: Media Use by Tweens and Teens. Retrieved 08 22, 2016, from Common Sense Media: <https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-tweens-and-teens>

Dickson, B. (2018).

Can blockchain democratize education? This startup seems to think so. [online] The Next Web. Available at: <https://thenextweb.com/insider/2018/01/30/can-blockchain-democratize-education-this-startup-seems-to-think-so/> [Accessed 24 Jun. 2019].

Ford, M. (2019).

Facebook blamed for rise in syphilis. [online] Nursing Times. Available at: <https://www.nursingtimes.net/facebook-blamed-for-rise-in-syphilis/5012966.article> [Accessed 22 Jun. 2019].

Jacks, T. (2015, 09 15).

Are iPads in schools a waste of money? OECD report says yes. Retrieved 08 23, 2016, from The Age: <http://www.theage.com.au/victoria/are-ipads-in-schools-a-waste-of-money-oecd-report-says-yes-20150914-gjmnqf.html#ixzz3rcq4eEg>

Protalinski, E. (2019).

Facebook blamed for 1 in 5 divorces in the US | ZDNet. [online] ZDNet. Available at: <http://www.zdnet.com/article/facebook-blamed-for-1-in-5-divorces-in-the-us/> [Accessed 22 Jun. 2019].

Roarty, A. (2017).

Americans blame Facebook for fake news, new poll finds. [online] McClatchy. Available at: <https://www.mcclatchydc.com/news/nation-world/national/article175970831.html> [Accessed 22 Jun. 2019].

Robinson, K. (2010).

Changing education paradigms. [online] Ted.com. Available at: https://www.ted.com/talks/ken_robinson_changing_education_paradigms [Accessed 24 Jun. 2019].



Social media and politics



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Social media is slowly changing the dynamics of political communication in Kenya, presenting new prospects as well as challenges for the country's fledgling democracy. The proliferation of mobile telephones and use of social media in Kenya is fundamental changing political communication landscape. Facebook, Twitter, YouTube and WhatsApp are increasingly having a tremendous influence on the creation, dissemination and consumption of political content.

Social media provides opportunities for individuals to share content or engage directly with politicians, either privately through Messenger, WhatsApp or publicly via Facebook, Twitter and YouTube. They also allow individuals opportunities to deliberate on political issues. Likewise, politicians and those seeking public office are turning to social media to canvass for votes,

communicate their messages and to engage with their constituencies.

Enhanced sharing and connecting has resulted in new cultures and behaviours involving voters and politicians. Electoral campaigns, and squabbles between parties and contestants have assumed new dimensions due to the influence of social media. Political parties, candidates, 'pundits' and citizens in general have taken to the social media in unprecedented ways to project their voices on key issues. Information shared in social media, also attracts the attention of mainstream media, who are not only using the platforms for content sharing but also as vital sources for news stories.

With an improving accessibility to smartphones, even people with limited income and access to mainstream media have used social media to send messages in real time with new implications for democratization. Communications via social media has thus permeated virtually every aspect of the conduct of political communication elections from pre-election to post-election periods.

While social media creates new opportunities for political campaigns, mobilization, engagement, and participation it also raises urgent questions about the impact and accuracy of viral information conveyed at speed on Facebook, Twitter or even Instagram. Of particular concern is the role of algorithms in filtering, ranking, selecting and recommending content that gets displayed in the users' news feeds. In so doing, algorithms determine the visibility and invisibility of content in social media.

The role of social media algorithms in politics is further exacerbated by automated actors such as bots. Bots (short for robots) are software that can execute commands when they receive specific input. Social bots mimic human behaviour. They run automatically to produce messages, posts in online forums, and interact with social media users through likes, comments, advocate ideas, act as followers (fake accounts) and even share social media contributions. Bots can infiltrate

social media groups and spread messages for malicious purposes.

These bots can even start and catalyse online phenomena in order to stir outrage and artificial hypes. In so doing, bots can potentially alter perceptions of political reality by spreading propaganda, and false information. Bad actors such as troll factories, propagandists and PR firms manually create fake accounts, which they then deploy automatically to amplify messages in order to influence the public opinion and election outcome. For example, it is estimated that between 9-15 % Twitter accounts are social bots (Ferrara, Varol, Davis, Menczer, & Flammini, 2016), while several such accounts also exist in Facebook.

The prevalence of the deployment of social bots in African elections is much more than previously envisaged. According to a report by Portland Communications, How Africa Tweets 2018, 53% of the

leading voices on Twitter around ten elections contested between June 2017 and May 2018 came from outside the country in which the elections were contested (Portland Communications, 2018). The authors found that bots, and accounts displaying machine-like behaviour, were active across all elections, and in some cases potentially more influential than news media, bloggers, government, campaigners, politicians and think tanks.

In Kenya, for example, bots are the most highly ranked potential influencers on Twitter at 27.6 %, ahead of other influencers, such as the media, politicians and bloggers. These findings are worrying as they show how bots drove the Twitter conversations during elections in Kenya. Bots on social media have not only been an influential actor, but also been fingered in the spread of misinformation and fake news. Fake news is arguably undermining democratic processes. Social media is becoming a dominant factor in Kenyan politics



Influence of the Bloggers’ Community within the Kenyan Blogosphere



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USIU-Africa

Technology is known to amplify inequalities. To have any influence through social media, one has to know “What to share, how to share, where to share and how often to share”. A talk with most online blog readers and you get the sentiments that we have bloggers and political bloggers in the Kenyan blogosphere. Melvin Kranzberg (1985) contends that technology is not inherently good or bad; nor is it neutral. However, the Kenyan blogosphere has over the years been considered antagonistic.

This could be attributed to the misconception that Kenyan bloggers are all political bloggers and whose contents cannot be trusted. Why this fallacy? Most Kenyan political bloggers are thought to be fake, or whenever they write, they are dancing to the tune of their highest bidder. However, this has not deterred

Kenyans from reading online blogs. Moreover, there are tens of non-political blogs in the Kenyan blogosphere. Between January 2016 and July 2018, many of the Kenyan political bloggers were arrested and charged in the courts of law for either “publishing false statements likely to cause fear and alarm to the public” or by “contravening the provisions of Section 29 of the Information and Communication Act”. However, their arrests were unusually brief and only served to create public sympathy. A report by the Bloggers Association of Kenya (BAKE) indicates that at least 60 bloggers were arrested in 2016 alone.

There is an assumption that most Kenyans read political blogs than any other kind of blogs, yet, there are many and more stimulating blogs on matters education, fashion, food, entertainment, sports and travel in the Kenyan blogosphere. There are more readers of the entertainment, educational, business and sports blogs than there are political blog readers.

But, it has been said that “Technology is inherently political” and that technologies are compatible with certain political configurations and relationships. This is true in regard to the social media platforms and the Kenyan political bloggers. Most Kenyan political bloggers know the importance of using multiple social media platforms, and are good in sharing the same message in multiple platforms. A blogger will have the story on their blog and tweet the link to their followers and also add the link to their Facebook page, the Instagram account and several WhatsApp groups. However, the question most Kenyans are asking is why is it that most of the stories by the Kenyan political bloggers are petty, emotionally charged and are not evidence based.

In many African countries, general election voting patterns and behavior indicate that the rural and urban voters vote in contrasting manner except where tribalism and nepotism prevails. Could this be attributed to the fact that most of the urban population receive election information via social media platforms as opposed to the rural population who mainly depend

on vernacular radio stations as a source of election information?

In Kenya, political bloggers like stirring up online debates using multiple social media platforms and especially the Twitter. For over a year, the SIMElab Africa at USIU-Africa have been doing social network analysis on most of these online debates. By observing the geo-location of the participants of these debates, it can be concluded that most of these political discussions are more often urban based than rural. Hence, the Kenyan political bloggers have more influence in the metropolitan areas rather than the rural areas. Is it

possible to have the political bloggers really have any influence on the Kenyan public beyond the urbanites? Can the political bloggers be candid enough to actually use the social media platforms to fight for social justice as many bloggers have done globally?

Use of digital technology tends to reflect, reproduce and amplify existing inequalities. The communities living in the rural areas and urban slums are often at a disadvantage when it comes to social media access. These communities' social media access challenges could be summarized using Roberts (2017) five A's of technology access as depicted in Figure 39 below.

Five 'A' of Technology Access

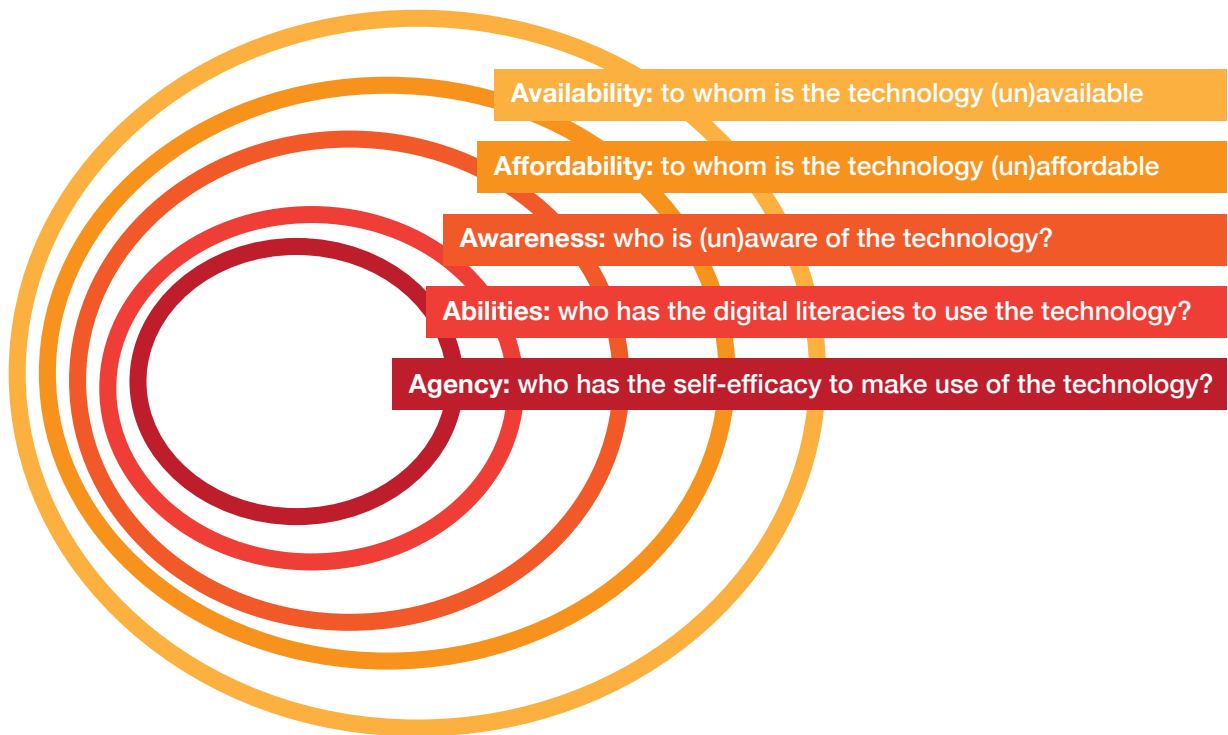


Figure 39: Five 'A's of Technology Access

Availability:

In many remote rural communities the internet is simply not available; there is no cable or cellular internet coverage and satellite connectivity is prohibitively expensive.

Affordability:

In some rural areas and urban slums, cellular coverage exists but the costs are so high in relation to local income levels that access remains unaffordable for many. Awareness: Even where access is available and affordable low levels of awareness may be a barrier to people using internet access to improve their well-

being and development. If people do not know that the internet is available or do not know in what ways, it might be relevant to their life or interests then access itself is not equal to valued development.

Accessibility:

To people aware of the potential benefits of using the internet, accessibility barriers may put them beyond their grasp. The absence of adaptive technologies for people with disabilities means that millions of blind and visually impaired people are denied access to the internet. Ability: Appropriate user skills are necessary to translate ICT access into valued development.



Influencer Marketing: A New Dawn in the World of Marketing



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Over the last decade, social media in the context of marketing has evolved into one of the most crucial tools to sell products and advertise employing various tools and strategies, varying from omnichannel to influencer marketing, or at the very least, the introduction of the overall marketing mix.

The concept of influencer marketing began in the 2010 and is generally a hybrid of old and new marketing tools, bringing in the idea of celebrity endorsement into modern-day content driven marketing campaigns. A key difference however, is that the results of the campaign are collaborations with the so called “influencers”. But what makes the Influencer influential? Their large following on various social media platforms such as Facebook, Twitter, Instagram among others as well as a relatively high level of engagement on their content, usually in the form of likes, retweets, shares etc. They

range from fashion bloggers to cyber security experts, media personalities and even religious leaders. While it is easy to think that influencer marketing is simply about finding an individual with a large following and endorsing them to say positive things about your brand, there is a need to employ effective strategies that ensures the success for the brand in terms of some measure of return on investment and more followers or engagement for the influencer without compromising on the quality of their audiences.

A simple rule that is critical to ensure that both the brand and influencer reap maximum benefit is to market to the influencer first. It goes without saying that the best person to speak about a product or service is one who believes in it. Following on the diffusion of innovations theory, influencers are usually the early adopters. Their large base of followers witnesses the belief the influencer has on a product or service and follows through by partaking on the same belief. You will notice that many brands, ergo, choose influencers when launching a new product or service.

One of the key precepts when engaging with influencers is to keep in mind the concept of “influencer fit”. The influencer fit is how well an influencer matches up with a product or service. Since influencers are some sort of new media channel with the social media sphere, it would be wise to recognize when and which influencer to use. As an example, social media personalities that have an affinity for vehicles would easily be tapped as influencers to market engine oil and maybe a new motorshow.

For brand custodians, the concept of influencer fit cannot be ignored. You may have an influencer with hundreds of thousands of following, but the return on investment would not materialize if the said influencer does not align their voice, purpose, mission and existence to your brand’s. The influencer is not influential because they have a large following, they are influential because they command a niche in the space of social media communities. Your work as a brand custodian is to recognize the niche you want to invade and find the leader of that niche.

With the source of the influencer's influence now defined, many brand custodians have come to the realization that influencers are not effective just because they have a large following. This has given birth to the now new category of influencers: the nano-influencers. These are influencers with a small following, usually in the lower thousands. Nano-influencers have been found to be more believable, authentic and trustworthy. This may be because nano-influencers are more 'grounded' in the eyes of social media users. They are the guy next

door and the friend you meet every once in a while. So, now, brand custodians may opt to hire an army of nano-influencers as opposed to spending the same amount of money on few macro-influencers. What may happen is that you will find your brand reaching out to more varied and pocketed audiences. Influencers are here to stay, they are the faces and priests of social media. How you utilize them could be the difference between sales success or failure.



Flying Social



Harriet Luyai,
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The aviation industry is a mix of extremes when it comes to management and governance of its entities. Globally, there is a perfectly orchestrated coordination of over 100,000 flights daily and the logistics around it. Kenya Airways operates to 55 destinations globally, daily, we carry over 11 thousand passengers and have over 160 take offs and landings from our hub, JKIA. Delighting our customers is at the heart of everything we do, and every employee shares a responsibility in ensuring each individual customer has a great experience.

The digital economy is changing the dynamics between customers and airlines in Kenya and globally. The relationship is increasingly transparent, authentic, with customers having access to information and alternate choices on the go. It is the age of “the empowered customer”. This has been enabled by an increasingly connected, mobile and digital media environment.

Airlines are embracing agile methodologies to adopt to these transformations coupled with service differentiation in order to stay relevant and in business. Social Media is shaping how airlines do business, we have ceased to solely compete on a similar-category level but on a cross-category competition. This has then led to a culture of all brands competing for audiences to own the biggest social-share of voice, create trends, control narratives and subsequently target based on audience needs. He who entertains influences-attraction, engagement, conversions and retention. In general, our objectives span across customer relationship management, market research, social commerce, social media marketing, brand image and reputation management. Strengthening our brand equity and driving advocacy is our goal. It is imperative to highlight that each social media platform plays a specific role in the ecosystem based on it’s native purpose and use cases overtime. We place this at the core of our strategy and embrace the provision of organic and promoted engagement approaches to reach the right person with the right message at the right time, real-time.

Customer trends on social media have raised the stakes in Kenya and globally within the network we operate to. Pioneers are disrupting the status quo and are setting higher expectations of what great customer experiences look and feel. Anything could go wrong at any moment within or outside of our control, social channels being where many customers go to vent, a delay in response or resolution can lead to a minor crisis which can quickly escalate into a catastrophe. Instead of being loyal to brands, customers are loyal to their experiences first. For airlines, nowhere does this play out more than in customer experience.

We have overtime realized the importance of social media as a key customer touchpoint and have since invested in people, processes and technology. Operating in a global market place and serving customers of diverse cultures with dynamic travel needs, we invest in multilingual and multi skilled resources to efficiently serve our customers real-time. Our processes are continuously evolving to meet

the ever-changing customers' needs and we are embracing technology and data to create personalised and connected experiences that deliver transformative outcomes for the customer then the business.

In the error of big data, artificial intelligence and virtual reality experiences, airlines must stay innovative with relevant technologies which value can be drawn.

Social media has become the world's most influential storytelling platform, the stories we tell through social media have the power to reach and influence. With great influence comes great responsibility hence the future is bright for airlines and brands who prepare adequately for tomorrow now.

The customer is and will be the constant and major influencer for any brand.

Footprints of Cyberbullying in Kenyan Universities



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There is general agreement amongst researchers and practitioners that the use of information technology (IT) has several benefits in the promotion of teaching and learning within academia. Students not only use technology for academic purposes but also for social engagements through social media platforms such as Facebook, Twitter, and Instagram among others. Further, there has been a rise in the use of smart mobile phone devices to enhance these experiences. This online world presents a new environment in which vulnerable students can fall victim to perpetrators of cyberbullying who find electronic means as a perfect avenue to cause acts of harassment.

Over the recent years, Kenya's higher education sector has witnessed tremendous growth in terms of the number of universities and students' enrolments. It is worth observing that a good number of these students

have active cyber life. As the country matures into an information society, it is increasingly getting confronted by an evolving cyber threat landscape and cyberbullying cases in the country have attracted considerable media attention in recent years. The country's press provides anecdotal evidence indicating that cyberbullying is slowly but steadily taking root in the country.

Evidently, the government of Kenya recognizes the present challenge of cyberbullying within the country and the need for regulations and frameworks to address it. To this end, it has established the Computer and Cybercrime Bill 2017 which became law in May 2018. Section 14 of this law gives focus to cyberbullying. With a majority of the students today being digital natives, there is even a more growing need for academic institutions to be conscious of the cyberbullying crisis. Not only does cyberbullying result into emotional-social impact, it has ramifications on the learning process as well. Consequently, this subject remains of utmost relevance within the academia and a number of institutions continue to grapple with its impact. Education and awareness of the challenges related to cyberbullying within institutions of higher learning in developing countries are thus necessary.

The fact that the perpetrators can engage in this act anonymously through the electronic platform makes it even more attractive in comparison to the traditional form of cyberbullying which requires physical presence. Additionally, due to the infinite nature of the internet, the effect of cyberbullying, like humiliation, might be permanent. Likewise, the content placed in electronic form can be accessed repeatedly and there is limited or no control on the number of individuals who can gain access to such content. This means that cyberbullying can be perpetrated on a much wider scale.

It is imperative, therefore, that educational systems in Africa and developing countries put in frameworks to deal with the emerging reality of cyberbullying within institutions of higher learning. Such frameworks should facilitate the implementation of useful strategies to help victims of cyberbullying and at the same time offer deterrent mechanism to the perpetration of

cyberbullying. It would be useful if such frameworks are proactive as well as reactive in order to offer support and guidance to the students.

Additionally, increased awareness on cyberbullying needs to be promoted as lack of it could potentially

lead to sustained or increased incidences of the cyberbullying amongst students, with devastating consequences. It is important for students and other stakeholders to understand both the technology as well as the social ramifications of cyberbullying.

SOCIAL MEDIA IN THE NONPROFIT SECTOR



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In the last couple of years, social media has become a vital communication tool for organizations globally to reach a vast majority of netizens.

According to a report by Datareportal, the number of active social media users globally now stands at 3.4 billion as of January 2019 from different sectors. This therefore means that players in Non-Governmental Organizations (NGOs) have an opportunity to integrate online platforms in their communication plans to strategically distribute content to wider audience besides the traditional way of disseminating information. As more NGOs continue to use these platforms, it is important to establish from the onset what to achieve. Online communicators and content strategists in this sector have a huge task to ensure that not only do brands focus on metrics such as retweets, likes, views and others but plan strategically on how to engage with

the audience to educate, share knowledge, lead them to a call to action, listen to conversations and evaluate online activities.

As social channels algorithm keeps changing from time to time, online communicators need to learn that publishing content for the sake of ticking the box does not bring any results. What matters is the activities that happen beyond retweets, like or video views outside the online platform with the people you are communicating to and having the right tactics and messages to execute online activities to achieve social goals that are aligned with the organization strategic plans (both long and short term) and identifying the right social channels. Key to note is that all these efforts require proper and detailed monitoring and evaluation to establish whether the defined activities work as per the organization vision or will require one to go back to the drawing board at some point to re-strategize. How nonprofits are using social media?

Raise awareness: Social media is a powerful platform for raising awareness about the organization, help the audience connect with your brand to reach a vast majority of online masses in a cost effective and timely manner. Brands/organizations can raise awareness about causes, organization activities, fundraising campaigns, advocate for something, share organization impact to the society and much more.

Storytelling: Stories are powerful, stories have a huge impact, powerful stories have something to remember and good stories connect with our emotions that simply is the power of storytelling on social media today. Social platforms provide NGOs an opportunity to create new ideas and ways to talk about the brand in an authentic manner compared to traditional methods.

From back in the ancient days, stories have been part of our lives and the same narratives are now being applied in the corporate world, media agencies, individuals, celebrities, the movie and entertainment industry, institutions of learning, brands too have found ways to tell their stories. It is important is to remember that the people we tell these stories to and how the story is told

is what matters to differentiate from the rest and leave a memorable experience that will lead to a specific action. Resource mobilization: Nonprofits are leveraging on social media to reach out during fundraising campaigns as one of the organization fundraising strategies when there is an emotional connection to support a specific cause and at the same time make supporters feel important and part of the organization. Though leadership and subject matter experts, Organization thought leaders and subject matter experts on social media need to clearly understand who their audience are, the channels they use and what content applies to them and ensure a two-way communication. It is also

important to post content (can be a video, speech, press statement, blog) and engage regularly with the community.

Crisis communication: Social media platforms have become key sources of information to share timely and regular updates especially in times of crisis. This is usually a critical moment when the public and other stakeholders are looking for information. This requires organizations to respond where required within the shortest time possible to save its image and reputation while considering those affected.

Data Mining in Social Media



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“To solve your data problem you need a person, not a platform”m-Jeff Leek (2019)

Data has become a significant component of everyday life over the past few decades. They directly impact every industry with the advent of big data, from procurement and manufacturing, marketing and consumer engagement. Most of these data are in unstructured form. Unstructured data refers to contents in form text written “by humans for humans,” such as memos, emails and policies, legal documents, and posts on social media. They lack a predefined data model to describe their contents. Given the huge amounts of these data, companies need to adopt big data management solutions that can carry insightful data mining to provide them with insights to make informed decisions.

The rapid growth of social networking sites like Facebook, LinkedIn, Twitter, Customer reviews and Blogs has led to vast amount of user-generated content in unstructured form. Based on the nature of these data, data mining attempts to extract interesting, interpretable and useful information from the large sets of raw data with an aim of discovering patterns and generating insights.

Data mining emerged as a result of an effort to try to extract insights from the ever-increasing volume of unstructured contents. The main concept underneath data mining is to discover new information in a concealed set of data. Data mining software is divided into two clusters: applications and tools. While applications apply techniques that are tailored to address a particular business problem, tools provide techniques that can be utilized for any problem. Data mining techniques are able to manage the three prevalent aspects of SNS data which are noise, size and dynamism.

According to social network sites (SNS) statistics roundup, there are more than three billion social media users today – with 11 people creating an account every second. The analysis of SNS information, particularly opinions expressed by SNS users with data mining techniques, has proved efficient and helpful in research. Today, the success of any business largely lies in its ability to extract and process data. Organizations can analyse past and present data to identify trends which will then allow them to make better business decisions. Organizations can differentiate the most appropriate platform, time, and format for their advertisements by analysing the demographic of their reach on various social media platforms.

For example, in 2016, scientists at ORNL mined social data from Twitter to examine power outages across the U.S. By looking at textual and image data, paired with information on where this data was coming from (geospatial), they could see in real-time where major outages were occurring. Fake news has been on the rise more so in social media. Data mining techniques are classified in to four main categories of classification,

Regression, clustering and association rule learning. There are various open source tools that apply these techniques in data mining. These include: Weka is a Java based, open source tool developed by University of Waikato in New Zealand. It consists of a collection of machine learning algorithms for data mining functions. Orange is Python based tool from the AI Laboratory in Ljubljana, Slovenia with vast compilation of mining and machine learning algorithms. R is an open source tool for statistical computing and graphics written in C++. R Studio is IDE designed for R language. It is one of the popular tools used to do data mining tasks and has several libraries built specifically for data mining. Rapid Miner is an open source DM tool that incorporates various data mining features from pre-processing to predictions, and easily integrates with WEKA and R. KNime is an open source data mining tool used in data pre-processing and popular amongst financial data analysts. It has modular data pipe lining, leveraging machine learning, and data mining concepts for building business intelligence reports Tanagra is an open source data mining software for academic and research purposes. It consists of various data mining methods from exploratory data analysis, statistical learning, machine learning and databases area. XLMiner is the only comprehensive data mining add-in for Excel, with classification, regression, association rules and

clustering. The drawback of XLMiner is that it is paid add-in for excel with 15-day free trial option. Other notable data mining tools are Python, Spark, H2O and Rattle.

While data mining is beneficial, it has its pitfalls, such as opportunities for organizations to sell their customers data to other firms for cash. It's possible to misuse information extracted for ethical reasons. Unethical individuals or companies may exploit this data to benefit vulnerable individuals or discriminate against a group of individuals.

Applying data mining techniques to SNS data sets has the ability to continue improving search outcomes for search engines, performing industry-specific targeted marketing, helping psychologists study behaviour, providing sociologists with fresh insights into social structure, personalizing consumer services, and even helping to identify and stop spam. Furthermore, open access to data offers immense volume of data for research that can enhance efficiency and effectiveness of data mining methods. The evolution of data mining is centred on availability large data sets. Social media is an essential source at these unstructured data needed for developing and improving data mining techniques.



Social Media and Civic Engagement in Kenya



Abraham Kiprop Mulwo,
Moi University,

The proliferation of the new media technologies in Africa in the past two decades has had a significant impact in re-shaping the political, social and economic realities of Africans. In Kenya, it is reported that more than 5 million people are currently on the internet, with a large percentage of these being active on the mobile web. At the same time, Kenya is also currently undergoing a major shift in its political and governance structure as the new constitution that was promulgated in August 2010 gets implemented. The constitution, which was a product of several years of civic activism, created two levels of government – the central government and the county governments. The previous centralized system of government had been widely criticized for entrenching tribalism, nepotism and corruption, and for being a main source of development imbalance owing to its governance structure that centralized power around the presidency. However, cases of massive corruption

and mismanagement of funds being reported in the new governance structure, has led to new forms of civic engagement especially among the youth who feel disillusioned.

Young people aged 35 years and below constitute more than 67% of all voting population in Kenya, yet this age group remains invisible in leadership and national/regional. Young people rarely feature in decision making organs in political parties and both the national and county governments, despite the instrumental role that they have played in catalysing the political changes that led to the adoption of the new constitution in 2010. The general assumption in Kenya is that younger people are less prepared to handle the processes of policy making and governance issues. In fact, the concept of generational change has been a rallying call in Kenyan politics in recent years with 50 year-olds declaring themselves as representing the youth. While arguing for increased youth participation in decision making and policy formulation, Michael Waikenda, a prominent political commentator in Kenya, argued that “public recognition of young people as key actors in social and economic development processes of a county is a prerequisite in positioning for a massive economic advancement (Sunday Standard, 20th October, 2013). Ignorance has been identified as one of the key obstacles hindering effective youth participation in political leadership.

New media technologies have been deployed in Kenya in recent years to enable public participation in civic engagement activities. For instance, the Uwiano Peace Platform was established to prevent violence during the Kenyan referendum. The system took advantage of mobile technology to get up-to-date information on tensions, hate speech, incitement, threats and violence from citizens nationwide. The system allowed for free SMSes from the public to be sent to the Uwiano secretariat. Analysts then verified, mapped and relayed the data on to rapid response mechanisms for quick intervention. The public knew how to report incidents because the platform was advertised in the electronic media, print media and Interim Independent Electoral commission. A vigilant civil society, vibrant media and

new media tools have played a pivotal role in Kenya's constitution-making process.

With the rise of social media platforms, facilitated by increasing access to internet through mobile telephony, more and more young people are engaging in social media as an online public sphere through which they discuss issues affecting them in their everyday life. Social media platforms have therefore increased the possibilities of young people access to news and have provided a platform through which young people may challenge mainstream socio-political ideologies and propose alternative lenses through which issues affecting them can be perceived. Whereas socio-political discourses outside social media affect young people's

construction of realities in their online conversations, it is also evident that the social media platforms have afforded young people space through which they could counter mainstreamed ideologies.

Furthermore, emerging debates contribute in widening the social media users' horizons of interpretation, through the multiplicity of points of view shared in the social media platforms. Whereas public debates outside social media are limited in the scope within which alternative voices are drawn, social media provides a platform for global audiences/users to engage on particular issues, hence enhancing spaces for civic engagement.



TwitterCrazy: Reimagining civic participation in Kenya



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Technology has significantly disrupted life as we know it; from education, health, personal relationships to governance and politics. Over time, digital tools have democratized communication with power shifting from those in the communication profession or positions of authority to individuals and communities who create, share, and consume digital content. This can best be described as the Groundswell phenomenon by Li and Bernoff. This concept theorizes that the Internet has created space for people to connect, be bold, and draw power from each other. Institutions cannot ignore this trend but must come up with strategies to engage with increasingly connected and powerful citizens.

Digital democracy research shows that citizens are progressively and increasingly organizing online, and

demanding governments and corporations to listen to them. This growing web participation and engagement by citizens has in turn resulted in them wielding the power to make, break, create, and debilitate brands and institutions, governments included.

In the last year, I have been working on a research that explores the use of Twitter for digital civic participation in Kenya’s development agenda under the rubric of the #Big4Agenda which was launched by the fourth president of Kenya Uhuru Kenyatta on 12th December 2017. The study notes that governments should by now be leveraging social media tools and conversations to broaden and strengthen civic engagement.

. In, Kenya, there has been an ongoing ‘tug-of-war’ on keyboard activism vs street activism, with each side arguing why the other is more credible. However, not enough research exists on the direct relation between either and subsequent actual action from governments to address concerns raised. Exploratory studies on digital democracy appreciate the current transformation of citizenry models from duty-based citizenship to active participation making it more viable for the Internet to become a medium of addressing some democracy deficits by offering networked interactivity.

Evidently, citizens are no longer, (and can no longer be) by-standers in the development agenda. The digital ‘insurgency’ has opened up new dialogue spaces, turning digital participation into a sociocultural practice, a new normal, a lived reality for citizens globally. Examples are many-we saw US presidential candidates extensively using social media to connect with the electorate in the 2008 elections. A 2017 Twiplomacy analysis reveals that Twitter is the social media that is most used by governments and heads of state. It is used by up to 176 heads of state in 178 countries, representing 92% of all United Nations (UN) member states. In Kenya, popular hashtags have been used on Twitter to fuel civic participation. Kenyans on Twitter, popularly known as #KOT, join forces using these hashtags to call out the government on corruption, participate in the development agenda, engage in global dialogues, and share jokes as noted by two researchers

Tully and Ekdale.

According to 2019 data from We Are Social and Hootsuite (2019), there are almost 4.4 billion Internet users globally and 3.5 billion social media users worldwide at the start of 2019. Statista (2019) indicates that there were 326 million active monthly Twitter users globally by the end of 2018 sending 500 million tweets every day. We Are Social (2019) further indicates that Twitter is the seventh most used website globally. Twitter has grown significantly because of its ease of use and accessibility. Li and Bernoff describe Twitter as “free and open, connects people, and gives them power.” Twitter users in Kenya account for 9.36% of social media users as of February 2019 (Stat Counter, 2019). Nendo (2018) further indicates that Twitter has 1.5 million active monthly users in Kenya as of May 2018 (now estimated to be 2 million).

This has presented immense opportunities for Kenyans on Twitter to participate in the current development priority. My study has so far noted that the top influencers of the hash tag #Big4Agenda are Kenyans on Twitter, indicating that the Twitter platform has given citizens an opportunity to have their voices heard in the public space. The study also noted that the government of Kenya is keen on using Twitter to share information on the country’s current development agenda, the big four. The study noted majority of the users used the platform to share general information on the big four but interactivity/participation with the content is still fairly low.

While digital tools are evidently making it possible to have a more effective citizen-powered democracy, leveraging these tools for sustained and effective digital civic participation is not a given. As the world becomes increasingly tech-enabled and connected, it may be that digital tools will become a necessary but not a sufficient condition for effective civic participation. Active participation does not linearly emerge from the mere existence of the platforms. Existing studies indicate that a lot of work still needs to be done to strengthen the relationships between citizens and the state to ensure

citizens have direct influence on democratic processes. Additionally, questions on inclusivity, measurement and impact of digital democracy and how these tools can be leveraged for good governance remains under-researched. On the practice side, a lot more needs to be done on ways to improve responsiveness from the government from the findings that governments mainly use web-based technologies to send out information, thus lacking the two-way communication factor.

Digital democracy experts agree that active and meaningful civic participation is a distinguished feature of democratic societies. This meaningful participation which is geared towards the delivery of essential public services by governments with the goal of improving the quality of life of the citizenry can be enhanced by social media. Social media makes provision for a two-way information flow between citizens and the government, which in turn strengthens civic participation. Rethinking digital democracy

As one of the most digitally connected countries in sub-Saharan Africa, the Kenyan government cannot ignore the power of social media to win support, communicate, and interact with citizens. For Kenya to truly be a democratic country, people must and need to be at the center of social, economic and political development agenda.

It is not enough for citizens to increasingly demand greater accountability, essential service delivery, and more liberal governance approaches, the government needs to be responsive which is currently the missing link. This can be achieved when public communications strategists treat digital media users as communities that should be strengthened and maintained if they are to survive the impact of the groundswell movement where the power has shifted online. As a country, we can and should do more to ensure digital tools such as Twitter are used to entrench a culture of normative or direct participation by the people as stipulated in the Kenyan constitution.



Dr. Patrick Wamuyu
(in dark glasses) with
research assistants in a
data-collection mission
in Mandera County.



**“Information travels
faster than ever
before, and with it, —
unfortunately – fake
news”-**

Ambassador Robert F.
Godec speaking at USIU-
Africa on April 5th, 2018.

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Patrick Kanyi Wamuyu is an Associate Professor of Information Technology at United States International University-Africa, Nairobi, Kenya. Dr. Wamuyu earned his Ph.D. degree in Information Systems and Technology from the University of KwaZulu-Natal, Durban, South Africa. He completed his postdoc research at the Indian Institute of Information Technology, Allahabad, India and the Freie Universität, Berlin, Germany. His research focuses on a broad range of topics related to Information and Communication Technologies for Development (ICT4D), Digital Media in Civic and Political Participation in Developing Countries, e-business infrastructures, ICT Innovations and Entrepreneurship, Wireless Sensor Networks and Databases. He has published in Six of the premier publishing houses namely: Elsevier, Springer, IEEE, Wiley-Blackwell, Emerald and Taylor & Francis as well as in various other Information Systems and Technology journals. His academic publications include a book, book chapters, peer reviewed journal articles, and conference proceedings. He has over twenty years of experience in the computing and information technology industry that have taken him from software development, running his own Information Technology

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communication, international communication, and journalism studies. Most of his research is founded on such theories as agenda-setting, framing, hierarchy-of-influences, and knowledge gap. In research methods, he specializes in content analysis, survey, focus groups, and in-depth interviews. In addition, at USIU-Africa he is the Chair Academic & Research Committee of the Faculty Council. He previously worked as a reporter for The People Daily and in public relations at Gina Din Corporate Communications, both in Nairobi.

Abraham Kiprop Mulwo, Ph.D.

Dr. Abraham Mulwo heads the Department of Communication Studies at Moi University where he has taught since 2004. He also serves as a member of Nandi County Assembly Service Board where, amongst other responsibilities, he assists in strengthening public communication and citizen participation in county governance. Additionally, Dr. Mulwo is a member of the Task Force on Improving Government Information and Public Communication, which is tasked with advising government on how to improve communication with its citizens. Dr. Mulwo has also previously worked as a



research consultant with UNESCO/Ministry of Education (Kenya), Centre for AIDS Development, Research and Education (CADRE, South Africa) among others. He graduated with a Ph.D. in Communication and Media Studies (University of KwaZulu-Natal, South Africa) in 2010 and has since undertaken further training with several international institutions.

About SIMElab Technologists

Jacktone Momanyi



Jacktone Momanyi is currently pursuing MSc. in Information Systems and technology at USIU-Africa. He also holds a bachelor's degree in Information Systems and technology from USIU-Africa. Momanyi has also covered classes on database administration, online marketing (Google digital skills for Africa) and Web analytics (Google Analytics). As a Data Scientist in USIU-Africa SIMElab, he specializes in Social Network Analysis (SNA), Natural Language Processing (NLP) and Data Mining from social media platforms. He also serves as technical assistance and trainer to both industry and academia on Data Mining, SNA, NLP, Data analysis and visualization. Prior to joining USIU-Africa SIMElab, he worked as business intelligence intern at USIU-Africa Business Application department where he was involved in visualizing data and creating dashboards for managerial decision making. He also worked at Child.org a non-governmental organization where he worked as data analyst in the M&E department.

Immaculate Tallam



Immaculate Tallam is a graduate student pursuing a MSc. Information Systems Technology at USIU-Africa and serves as a research associate at SIMElab, with expertise in Social Media Intelligence, Big Data and Machine Learning. Her passion for data landed her a role at the SIMElab where she could finally utilize her competencies and gravitate towards impactful research. Immaculate typical job is to extract data, diagnose, critique and catalogue data to gather any useful insights from the data. Immaculate's role in the data science field and more so, Social Media research, is actively engaging multiple audiences via social and mobile media to increase visibility, interactivity and brand awareness.

