Appropriating New Digital Technology In Community Radio Broadcasting In Kenya: A Case Study of Realist FM

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Abstract

New digital technologies have provided communities with new opportunities to share news and information concerning their local communities. As with traditional media, community media have needed to adapt to these new technologies that include the internet, social media, mobile technology, and streaming services among others. This has altered the kind of engagement that exists between citizens and community media as they seek to provide a platform to promote local voices that include diverse and marginalized groups in the society. This study focuses on community radio in Kenya with particular reference to the changing nature of community access and participation due to the integration of new digital technologies in community radio broadcasting. The study objectives were: To establish how digital technologies are incorporated into journalistic routines within community radio stations and to determine the role that digital technologies play in community radio stations in creating possibilities for greater community access and participation in their programming. This study is anchored upon the Domestication Theory which provides a framework for understanding the way in which information and communication technologies affect people's lives. This is a qualitative study and data was gathered from a rural community radio station, Realist FM located in Limuru Sub-County, Kiambu County. Interview guides were used for data collection and the data analysis focused on the themes that emerged from the data. This study demonstrates how technology is adopted and shaped in use as explained in the Domestication Theory. The study findings have also helped to explain how digital technologies are actually used in the context of a community radio station and to show how these stations are using various digital platforms in their broadcasting. This has brought about a disruption in the way in which community radio stations carry out their activities and broadcast their programmes. The study therefore concludes that in spite of the challenges that the digital divide portends, community radio stations are adopting digital technologies to enhance their activities and to provide greater opportunities for access and participation to their audiences.

Keywords: Digital Technology, Community Radio, Community Access, Community Participation

Introduction

New digital technologies have provided communities with new opportunities to share news and information concerning their local communities. As with traditional media, community media have needed to adapt to these new technologies that include the internet, social media, and mobile technology, among others (Mabweazara, Mudhai & Whittaker, 2014). This has altered the kind of engagement that exists between citizens and community media as they seek to provide a platform to promote local voices that include diverse marginalized groups in the society. Undoubtedly, these new technologies have had an impact on the community media landscape and especially on the ways in which citizens are able to access and participate in their broadcasting (Javuru, 2011, Bello & Willkinson, 2017).

This study focuses on community radio in Kenya with particular reference to the changing nature of community access and participation due to the integration of new digital technologies in community radio broadcasting. Access and participation are the two most central concepts in community media (Berrigan, 1979, p.8; Jankowski & Prehn, 2002, p.11). While the digital divide may be a key factor in Sub-saharan Africa especially in the use of internet-based technologies, community radio stations in Kenya are however adopting digital media in their work. They use digital technology and social media to complement their work, have active Facebook pages and some even stream their content live on their websites (Gustafsson, 2012). Through this analysis of a community radio stations' integration of digital technologies, it is expected that this study will enrich the already available literature on the relationship between community media and digital technology.

The main objective of community media is to serve people, to encourage expression and participation and to value local culture, with the sole purpose of giving a voice to those without voices, the marginalized groups and to communities that are far from large urban centres, where the population is too small to attract commercial or large scale state radio (Girard, 1992, p.ix). Deane (2007, p.210) therefore argues that the main distinguishing factor about community radio is the ability for community members to access and participate in the activities of the radio station. He argues that access and participation are the two most distinct characteristics of community radio.

Background of the Study

Community radio is a growing sector within the broadcasting industry that is structurally and philosophically distinct from public service and commercial radio platforms. It is owned and controlled by the audience, perpetuates a participatory relationship with its community members and is autonomous from commercial interests (O'Brien & Gaynor, 2011). Community radio is essentially different from other forms of broadcasting in terms of its governance structure, production practices and its on-air content. Community radio practitioners generally aim at serving their communities by achieving objectives that are beneficial to them.

The development of Information and Communication Technologies (ICTs) has led to various changes in the media industry globally. These include privatization of media industries and services, deregulation of government controls on gigantic media corporations, relaxation of regulations on entry of foreign multinational companies and concentration of ownership of ICTs in the hands of a few media conglomerates (Pavarala & Malik, 2007; Kimani, 2017). These changes have led to multinationals having control over public debate and discourse and to cultural homogenization, further excluding already marginalized poor communities from access to mainstream media. This has given new impetus to the growth of community radio in their bid to address issues that concern marginalized and poor communities. Community radio stations in Kenya are using new digital technologies to improve radio programming and operations through digital production and sourcing information from the internet (Javuru, 2011).

Realist FM under 40 Miles Entertainment or simply RFM Community Radio 99.9 is a community radio station based in Limuru Sub-County, Kiambu County, Kenya. It was established in 2017 with the aim of impacting the community through offering programmes that educate, inform and sensitize the community to create a sustainable long lasting change. With 20 presenters and 14 radio programmes, it broadcasts mainly in the community's local language, that is Kikuyu but also has some programmes in English and Kiswahili. RFM mainly focuses on topical issues affecting the community such as health, education, agriculture and youth empowerment.

Statement of the Problem

Community radio exists to give local communities access to the media, while at the same time demystifying media processes to them (Bosch, 2014). In this case, people who had only previously had access to state-run media and commercial media can now have broadcasting in their own languages on their own radio stations (Bosch, 2014). The use of digital technologies by community radio stations has the potential to affect the ways in which citizens access, engage and participate in community radio broadcasting. These technologies have previously been referred to as technologies of freedom that excite public imagination with narratives of democratization, democratic participation and civic engagement (Morisett, 2004; Papacharisi, 2010, p.3). This study focuses on the potential of the information communication technologies to democratize and open up community radio stations to the community. Aspects of convergence and digitization in community radio call for investigation to ascertain the manner in which these radio stations are integrating digital technologies in their daily routines and operations. Approaches to the use and adoption of technology tend to either focus on the impact of the technology on society or on how the user influences the impact of the technology (Ling, 2004). Deterministic approaches focus on the technology rather than on the user. In this case, technology is portrayed as a significant social change agent that impacts the society (Ling, 2004).

Significance of the Study

The significance of this study lies in its attempt to contribute an African, and specifically Kenyan perspective on the appropriation of digital technologies in the operations of community radio stations in Kenya. The media environment in Kenya today has had significant changes from government-controlled media to the emergence of vibrant privately-owned media establishments (Javuru, 2011). This change can largely be attributed to access to digital technology, market liberalization and democratization. The findings of this study will be key in understanding the appropriation of digital technologies by community radio stations within the framework of Domestication theory. While this theory was initially used to explain the use of digital technologies by individuals within households, and later extended to include organizations and institutions, this study attempts to extend the use of this theory to community radio stations.

The audiences of the radio station under study are rural communities who are using media in a changing technological environment. This study is therefore significant as it seeks to investigate how digital technologies enhance access and participation among community members, while acknowledging the disruptive nature of digital technology in broadcasting. It seeks to contribute to ongoing debate in explaining the use of digital technologies especially in the context of community radio stations. The findings of this study will therefore be significant not only to academics but also to policy makers, regulators of community radio broadcasting, civil society and the media industry as a whole.

Study objectives

1. To establish how digital technologies are incorporated into journalistic routines within community radio stations.
2. To determine the role that digital technologies play in community radio stations in creating possibilities for greater community access and participation in their programming.

Theoretical Framework

This study is anchored upon the Domestication Theory. The Domestication Theory provides a framework for understanding the way in which information and communication technologies (ICTs) affect people's lives. The concept of 'domestication' was derived from the taming of wild animals but is used here to describe the process of 'domesticating ICTs' (Haddon, 2007; Haddon, 2017). This theory is premised on the bottom-up approach to the role of media, and how media perpetuates or overcomes asymmetries of power (Haddon, 2011). In this case, media is evaluated based on how they are used, and by their effect on social change. Digital media has seemingly extended the reach of media into every area of daily life, including culture, online information seeking and sharing as connectedness with others have become part of our lives (Haddon, 2011).

Domestication Theory states that ICTs are introduced into individual's lives, and are used in different ways, creating routines of use. They are openly displayed and consequently developed meaning to the individuals (Silverstone & Haddon, 1996; Silverstone & Hirsch, 1992; Silverstone & Hirsch, 1994). The Domestication approach is summarized in the following processes: appropriation, incorporation, objectification and conversion.

"Appropriation" denotes the kinds of negotiation and considerations that led to the acquisitions of technologies, "incorporation" explains how the ICTs were spatially located in the home, "objectification" shows how their use was scheduled in people's routines and hence time structure, while "conversion" focuses on how ICTs are mobilized to become part of our identities and how we present ourselves to others, such as in the way we talk about and display these technologies (Haddon, 2011; Haddon, 2017). These processes describe how the introduction of technologies is managed, how they are physically or symbolically positioned in the home and how they are fitted within our daily routines and consequently into our time schedules and finally, how they are displayed to others and what kind of messages they give about themselves (Haddon, 2007). This process presents the different stages of domestication from the time the potential adopter is made aware of the innovation and begins to develop perceptions of its potential usefulness to the time that the adopter actually acquires it and how he/she continues to embed it into their daily routines (Ling, 2004).

Domestication Theory portends that how an ICT is used is important and it therefore seeks to explain use of technology beyond simple adoption (Silverstone & Hirsch, 1994). This theory helps to explain the use of digital technologies without necessarily looking at them as either empowering or disenfranchising (Birkland, 2013).

The Domestication Framework requires an in-depth approach to research which involves interviews and observation, to elicit information. Consequently, this explains the reasons why certain technologies are not adopted or are adopted in a very limited way. In this way, the domestication approach is able to discuss the digital divide or social exclusion, and is therefore ideal in explaining the appropriation of digital technologies by community radio stations, bearing in mind the composition of community radio audiences and the assumption that they have lower access levels to the internet or mobile phones. The theory provides a framework within which to explain the social shaping that comes with the use of technology. The focus here is on the consequences of technology on our lives, relationships, our quality of experience, and if and how technologies empower us (Bakardjieva, 2005a).

Methodology

This study adopts a qualitative approach to accomplish the objectives of the study and makes use of case study design to investigate the appropriation of digital technologies by community radio stations. Case study research consists of a detailed investigation, often with data collected over time, of phenomena, within their context (Thomas, 2011).

The aim is to provide an analysis of the context and processes which illuminate the theoretical issues being studied. The overall approach in case studies is generally inductive analysis that focuses on processes in the social context (Thomas, 2011). The case in this study is Realist FM located in a rural setting in Limuru Sub-county, Kiambu County.

This study deployed semi-structured in-depth interviews as the most suitable data collection method. The interviews were conducted with a purposively selected sample of managers and journalists of the community radio station. Leedy and Ormrod (2005, p. 206) encourage such a process as a way of choosing people who are either "typical" of a group or those who represent diverse perspectives on an issue. The population of interest in this study comprised of all the staff and volunteers of the selected community radio station who were 20 in total. The sample size comprised of one manager and 6 presenters who were purposively selected. The eligibility to be included as part of the study sample was based on pre-selected inclusion requirements that required that such a person had experience in the use of digital technologies and had worked at the station for at least one year. Such sampling criteria is a requirement in qualitative research where participants are selected based on their ability to express their ideas, experiences, attitudes and opinions (Miles & Huberman, 1994).

The interview guide was prepared in advance to ensure that the research objectives were achieved. However, there was flexibility in the order in which questions were asked, and how clarification of previous answers was sought. The questions were open-ended and were formulated in a way that encouraged the participants to offer in-depth responses. Data from interviews was gathered and recorded before being transcribed and later analysed. Respondents were assigned pseudo codes to enhance anonymity of data while maintaining data integrity and eliminating chances of confusion during data analysis. Data analysis was then conducted using transcribed data that had been translated into English.

Data analysis for this study was carried out using thematic analysis that discusses the themes that emerged from the data generated. The focus was mainly on the intensity, frequency and specificity of the comments, and hence the identification of the most noteworthy quotes and any unexpected findings in the study. According to Lachapelle et al. (2004), the actual analysis begins with the identification of sentences or groups of sentences within the transcripts (termed as meaning units) describing or conveying a coherent concept or belief. Therefore, the researcher is expected to identify the key themes that emerge from the analysis of the narratives.

The Study Findings

This section provides a summary of the study findings gathered from in-depth interviews with the Realist FM community radio station staff. The study sought to address the following study objectives: to establish how digital technologies are incorporated into journalistic routines within community radio stations and to determine the role that digital technologies play in community radio stations in creating possibilities for greater community access and participation in their programming. An analysis of the study findings is also provided in the following section.

What kind of technology do you use to connect with your audience?

When asked about the specific kind of technology the radio station used to connect with their audience, the radio station staff mentioned that they made use of the internet, email, mobile phone, computers and a variety of software. The presenter of a show known as *Rigithua*, which runs from 6pm to 9pm daily noted that the technology used to connect with members was the internet and mostly social media while another presenter pointed out the following, *"We have computers that we use, and softwares like VMIX that we use to stream beyond our frequency, so that people can listen to us without any hustle, we use VMIX to stream to Facebook. As you know community radio stations are given a small frequency and we are not even able to cover the small frequency. We also use an App called Radio Garden and the users of this app can gain access to us wherever they are in the world."*

The producer/presenter for the mid-morning show known as *Kumatha* that airs from 10am to 1pm noted that, *"First, radio in itself is a technology because we able to transmit on frequency 99.9, but over and above that, we are able to beat geographical limitations. We are able to connect to the rest of the world via Facebook. Sometimes that is Internet over the Internet. I also do posters on Instagram to reach people and on Twitter, but our audience prefer Facebook, that is where we usually connect with a bigger audience who are usually not on the station's frequency."*

Other presenters also stated that besides their community radio frequency 99.9FM, the most commonly used form of digital technology social media and specifically Facebook Live and Twitter. These were identified as the most appropriate as it was noted that their listeners were able to access them with ease.

Are community members able to access digital technology with ease?

The question on whether community members were able to access digital technology with ease presented varied opinions. One presenter who hosts a daily show targeting the youth known as *Ramata Express* noted that, *"The kind of technology we always use is Facebook Live and our audience can connect with us on our Facebook Live page….. another way, I always use to connect with young people is by creating WhatsApp groups that bring people together. Due to the changes in technology and the empowerment with the people over years, they are now able to access that technology with ease."*

Another presenter pointed out that, *"community members are able to access with a lot of ease because of the 2G, 3G and 4G connectivity in the Limuru area, where we transmit from. This was corroborated by the views of another presenter who noted that, "I think we are advantaged in Limuru, because internet penetration is high and the percentage of people who access the internet is high…. Limuru is covered under the Nairobi Metropolitan Services and with this, most of our people are able to access internet so you find even the older generation 40 and 50 years can be able to access the internet."*

Other presenters were also of the view that everyone has moved to the digital space, and everyone wants something that will enable them to have access to the internet, because in their broadcasts, they keep encouraging the audience to connect with them via Facebook. One of the presenters noted, *"We keep pushing the agenda or the idea of Facebook and people watching us live. So, people aspire to go to the internet and Facebook especially and I believe right now, whoever is able to access internet is doing that. Nowadays, we've got even cheaper bundles and easier ways of accessing the internet. So, we are able to reach out to those who we thought we would not have reached due to the limited reach of our frequency".* He observes that, *millennials have moved away from Facebook because it has become for the old people now, meaning our parents now have hopped onto Facebook".*

Is the audience able to access the Internet?

All the presenters noted that their audience was able to access the internet because a good number of people were able to access the internet through their smartphones. One noted, *"In their daily routine, people always use smartphones, so they use data to access the internet, and the of use social media platforms".* It was also notable that besides being able to access the internet mostly through the smartphones, others were accessing the internet through cyber cafes.

From the data, it emerged that greater access to the internet had been made possible due to the fact that the cost of access had been reduced. One of the presenters noted that, *"We have a lot of providers of cheap internet, even phones that can be able to access internet have also become very, very cheap. And now we have more parents who understand how to use technology because their children are always on the phone and when they want to find out what is happening on the phone, their children can give them information".* This observation implied that cheaper internet had ensured that it is not just the millennials that have access, but the older generation also has access to the internet. The lower cost of phones and cheaper internet have opened up the digital space and made access to the internet easier. Some of the presenters also noted that there were many companies providing internet services, and that this also contributed to the reduced internet charges and provided the users with options to choose from.

How has technology helped in connecting with your audience?

The presenters seemed to agree that digital technology had a great impact on the audience, since being a community radio station with limited coverage, their audience was also small. With digital technology however, the audience became unlimited, as the station was able to reach not only the people in their locality and its environs but, a global audience.

One presenter noted, *"Technology has really helped me because it is the easiest way you can reach out to people through the social media platforms like Facebook live, WhatsApp, Twitter and Instagram and you can have a lot of discussions with young people."* Another presenter also stated that digital technology had helped them in reaching a wider audience especially through social media platforms such as Facebook Live.

Another presenter noted that using digital technology was the best thing that had happened to them because as a community radio station, the Communications Authority of Kenya had given them a limitation in terms of the radius that they are able to reach on the frequency but now *"with the internet comes Facebook and we are able to broadcast to a wider audience across the whole world. We are no longer limited geographically, we able to beat that limitation. That means someone who's in Doha, someone who's in the UK, someone who is in the US, so long as they have access to the internet, so long as they can get time, they can now watch our shows across the whole world. We get people who send us feedback from across the world".*

What challenges do you face in connecting with them in this way?

The presenters noted that they had faced several challenges since they began using digital technology. Some of the challenges were related to language barrier because they mainly broadcast in Kikuyu language. This was noted as a challenge with regards to the people who did not understand the language and especially now that they were not only able to reach people in their locality but even those across the globe.

The presenters also noted that the fact that most of their audience were not able to access 4G or fast internet also posed as a challenge. This was contrasted by the fact that some areas faced a problem of internet connectivity. Therefore, while some were having fast internet connectivity, others did not seem to be aware of the internet around them or did not even have the required facilities or equipment to enable them to access content online.

The presenters also mentioned the cost of data bundles as one of the challenges that was experienced by the audience. Since all their shows were on Facebook Live, access to the shows was expensive for listeners, hence they could not be online for long periods of time. Therefore, most listeners were only able to tune in for a specific show or shows so as to put a control on the cost of data bundles.

The presenters also noted experiencing weak internet signals at the station which caused a disruption in their broadcasting and interrupted the flow of the programmes, and being trolled online. In some cases, audiences were unable to join the link to the live transmission via internet due to poor internet connectivity or no connectivity at all.

Discussion on the Study Findings

This section aims to provide a discussion on the key findings of the study by presenting the main themes that emerged from the study. From the findings, it has been observed that the use of digital technology by community radio stations has the potential to affect the ways in which the audience accesses, engages and participates in community radio broadcasting. This study was premised upon the Domestication Theory that not only demonstrates why people adopt new digital technology or not, but also how people adapt the technology to their own use and how this adaptation affects their use of the technology as they fit them into their daily lives. The theory therefore provided a framework within which to understand how new digital technology affects community radio stations.

Data analysis and interpretation for this study mainly concentrated on the data drawn from the interviews that were carried out. The data was then analysed thematically, and the following themes emerged from the data:

Community Access and Participation

From the data, it was evident that members of the community gain access to the radio station in two ways. One is through the frequency which is 99.9 FM which has a 10 Kilometer radius and is accessible to the people in Limuru and its environs. The second way is through Facebook Live, which means that if one has access to the internet, one is able to listen to and watch the broadcasts live. The findings also showed that new digital technology enables community radio audiences to access information that they would otherwise not receive and to participate in community radio activities. However, Girard (2003) cautions that new digital technology does not necessarily make a difference without going beyond connectivity and promoting enabling environments for the community to participate in community activities through their access to the technology. This therefore means that the use of new digital technology by community radio stations is only beneficial if the communities it is intended for are able to adapt these technologies to their needs.

The types of technology used

The data also shows that Realist FM has adopted well to the use of technology in its daily routines and operations. The digital technology being used includes mainly their frequency, 99.9 FM, Facebook Live, Instagram, Twitter, WhatsApp and digital radio. Therefore, as Javuru (2011) notes, the digital disruption has affected even the community radio stations. As the internet and mobile phones are changing the face of radio globally, the effect is being felt even in these small community radio stations with their limited resources and sometimes unskilled personnel. Technological convergence on radio is inevitable because as Moyo (2012; 2013) argues, it is expected to open up radio to the audiences.

The changing face of radio

Due to the use of the internet to broadcast their programmes, audiences are able to not only hear their presenters' voices, they are also able to see the presenters and guests at the radio shows. In this way, they are able to connect with them at a different level. From the data, it was apparent that the community radio station used the internet not only to get information from there, but also to post information there in form of their broadcasts. Through their

website and through live streaming their programmes on Facebook live, the presenters are able to use the internet to broadcast their programmes and to provide greater access to their audiences. The internet therefore offers an opportunity for exchange of information and interactivity, hence providing a platform that can be used for sharing information with the listeners. Bruno (2011) and Gulyas (2013) have noted that the staff at the community radio stations seem to be changing the traditional practices of news gathering and verification of stories through incorporating digital technology in their daily routines and practices. This is in line with Mudhai, Tettey and Banda's (2009) assertion that the value of new media lies in the extent to which they enmesh with old media to provide multimedia platforms that allow for greater democratic participation, inclusion and expression. Other studies (Nafiz, 2012; Rodriguez, 2001) have also shown that community radio stations are appropriating new digital technology in their daily routines and activities.

Audience is no longer local

The use of the internet and especially social media has meant that the community radio station, whose coverage is usually limited to the local community, is now able to have an unlimited audience that is global. The rate of internet access in Kenya is steadily rising and according to the Communications Authority of Kenya (2018), most Kenyans use their mobile phones to access the internet. However, a study by Ndung'u, Lewis and Mothobi (2019) established that despite having high mobile phone penetration levels in Kenya, only a quarter of the population owned smartphones. The majority of the people (84%) in Kenya do not have access to the internet and are based in the rural areas. In spite of these statistics, this study established that Realist FM was still keen on appropriating new digital technology at their station and they were aware that this broadened their reach beyond the geographical boundaries around the station.

Greater access due to cheaper internet and smart phones however, the cost is still prohibitive to some of the audience members.

There is now greater access and participation by the audience due to cheaper internet and lower cost of smart phones. However, the cost is still prohibitive to many as the Realist FM audience was mainly composed of a rural community with possibly lower levels of income.

From the data, it emerged that the radio station was making great efforts to install internet connectivity at the station. Even though the cost of connectivity had been significantly

lowered due to the emergence of mobile internet (Stork, Calandro & Gillwald, 2012), the cost was still prohibitive to the community radio station and to some of the members of the community. This was evident from the responses received from the radio stations' staff about their internet connectivity. In spite of the challenges encountered, it appears that Realist FM was keen to become and remain digitally connected.

Conclusion

The main objectives of the study were to establish how digital technologies are incorporated into journalistic routines within community radio stations and to determine the role that digital technologies play in community radio stations in creating possibilities for greater community access and participation in their programming. From the foregoing, it is clear that community radio stations are using digital technologies on various platforms in their broadcasting. It is also clear that this has brought about a disruption in the way in which community radio stations carry out their activities and broadcast their programmes. It has also had an impact on the way the audiences access and participate in the radio broadcasting. As Coyer, Dowmunt & Fountain (2007) note, access entails both content and infrastructure where content is provided by independent producers providing alternative programming while infrastructure is the opening of the airwaves for community groups to legally create their own stations. On the other hand, Berrigan (1979) states that access is the opportunities available to the public to choose varied and relevant programmes and have a means of feedback to transmit its reactions and demands to production organizations. The findings support these views and show that digital media has given the community greater opportunity to access community radio stations.

This study has demonstrated how technology is adopted and shaped in use as explained in the Domestication Theory. The study findings have also helped to explain how digital technologies are actually used in the context of a community radio station. Domestication Theory portends that how an ICT is used is important and it therefore seeks to explain use of technology beyond simple adoption (Silverstone & Hirsch, 1994). The study therefore concludes that in spite of the challenges that the digital divide portends, community radio stations are adopting digital technologies to enhance their activities and to provide greater opportunities for access and participation to their audiences.

The convergence of the internet and radio presents greater opportunities for the creation of local content that is relevant to the needs of the local community and that propagates the local

culture and presents content in the local languages. This study demonstrates that convergence between the internet and radio has had an impact on the audience as well as on broadcasting. New digital technology in the radio station under study seems to be a tool in the work of the radio station as well as a factor that enhances better performance of tasks.

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