AUDIO DIGITALISATION OF MUSIC: REDEFINING CREATION, PRODUCTION AND DISSEMINATION OF POPULAR MUSIC IN UGANDA

by

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DECLARATION

I, Pamela Mbabazi do hereby declare that the work in this dissertation is my original work and has never been submitted for any award of a degree in any University or Institution of higher learning.

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DEDICATION

To my family and friends

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CHAPTER ONE: GENERAL INTRODUCTION

1.1 Introduction

This dissertation is about how the emergence and development of digitalization technology has redefined the processes of creation and production as well as dissemination and consumption of popular music in twenty-first-century Uganda. I examine popular music in terms of music, which is mass-mediated and commercialized. I discuss digitalization as the use of digital technologies of music production such as samplers, computer synthesizers and the Musical Instrument Digital Interface (MIDI). I examine how the digitalization of music redefines the processes of creation and production and brings into question issues of homogeneity and dehumanization in musical expression and ownership in composition. In addition, I investigate how the digitalization of music has reshaped the dissemination and consumption of music. This study looks at music not only as an artistic object or its sound structure, but also as an economic product, which is defined and informed by the processes of production, dissemination and consumption.

1.2 Background to the Study

Like any other country, for example South Africa, Sweden, North America and Australia (see Greene and Porcello 2005), in the twenty-first century, Uganda has been greatly influenced by global technological advances which rapidly developed since World War II. The emergence of technologies of music production after World War II had a significant impact on the creation process of popular music in Uganda. Prior to the

emergence of sound recording and play-back technologies, popular music in Uganda was disseminated through live performances. The introduction of the gramophone in the 1920s by Indian business men enabled dissemination of Latin American and Indian musics in Uganda (Nannyonga-Tamusuza 2005a:49). Another important development in Ugandan popular music industry was the opening of the national radio station in 1953 and the national television station in 1963. Both media, radio and television, reached some audiences (only those who could afford) with Caribbean and Latin American popular music as well as local popular music genres (Nannyonga-Tamusuza 2005a:49-50). The radio exposed Ugandan audiences to a lot of music from around the world and gave a platform for the Ugandan musicians to perform their own music.

According to Sylvia Nannyonga-Tamusuza, Uganda had no recording studios until the 1970s and Ugandan musicians were taken to Kisumu and Kericho in Kenya to make recordings by Indian businessmen (2005a:49). One of the earliest recording studios in Uganda was Kagaabe International Sound Production in the early 1970s where musicians from all other cities recorded their music (Nannyonga-Tamusuza 2005b:52). By the mid 1980s, Uganda had at least one recording studio in every town, Kampala having the largest number (Nannyonga-Tamusuza 2005a: 50). Some of the recording studios include Dungeon studio, which was known for producing music of young artists as well as Steve Jean's Kasiwukiri Studio (Ssewakiryanga and Isabirye 2006:65).

Further, the liberalization of the media in the 1990s led to the development of numerous FM radio and television stations. A bigger variety of music could be obtained free from FM radio stations including Sanyu FM and Capital FM (Ssewakiryanga and Isabirye 2006:63-64).The emergence of other technological devices like cassette players, compact discs (CDs) and digital audio tapes (DAT) in the1990s had a great impact on Ugandan popular music (Ssewakiryanga and Isabirye 2006:63-64). As a matter of fact, these devices

enhanced the recording and dissemination of popular songs thereby accelerating the consumption of popular music in Uganda. In fact, there were more and cheap cassette players and CDs.

Since the beginning of the twenty-first century, one of the most significant developments in Uganda's music industry has been the increase in digital production of music and the economic viability of the music industry. The development in recording technology, especially at the beginning of the twenty-first century, has seen the birth of high quality digital recording, with compact disc and digital tape systems for consumer use. Among the devices which have played significant roles in the popular music production process is the computer and the use of programmes/software such as Logic Pro and Pro Tools. These programmes/software, together with the Musical Instrument Digital Interface (MIDI), have been used to simulate the sounds of instruments, including drums, pianos and guitars, on which the melodies are superimposed. As a result, there has been an increase in music output whereby more albums have been released in addition to the notably high increase in the number of new artists. Some of the Ugandan artists whose music has been enhanced by availability of digital technology include Joseph Mayanja a.k.a. Jose Chameleon, Moses Ssali a.k.a. Bebe Cool, Mariam Ndagire, Robert Ssentamu Kyagulanyi a.k.a. Bobi Wine, Juliana Kanyomozi and Sylvester Kyagulanyi. Most of these artists have no formal training in any field of music and their ability to create music is enhanced by the availability of digital technological devices which enable easier manipulation of musical sound including sampling during the creation and production processes.

1.3 Statement of the Problem

Uganda is one of the African countries whose music industry is very vibrant, with a high music output and high turnover of musicians. As a result of using digital technology in

the creation of popular music, an industry which has potential for contributing to the economic development has been formed (Ssewakiryanga and Isabirye 2006:70). The use of digital technology has resulted in new possibilities of creativity and performance and made production of music more accessible because digital technology is cheaper, easy to use, and faster. However, because of using similar software as well as sampled sounds, Ugandan popular music is somewhat homogeneous. Further, there are blurred distinctions between the actors involved in the creation, production and dissemination of popular music, which raises issues of ownership and copyright. Hence, it is clear that digitalization technology is an asset and yet a challenge to the popular music industry in Uganda.

However, while popular music scholarship is gradually taking ground, research on digitalization and how it relates to creativity, production, dissemination and consumption has been given inadequate scholarly attention. As such, there is need to carry out research about how digital technology has redefined the processes of creation, production, and dissemination of popular music in Uganda.

1.4 Definition of Terms

Auto tune Machine:	A device used to automate the human voice
Compressing:	The automatic control of the volume of input and output audio signals
Dehumanization:	The use of digital technology to produce sounds beyond human ability and in some cases (when sampled instrumental sounds are used) to replace humans
Dehumanized Music	Music which is mainly created and produced by use of digital sound samples

Digital Audio Workstation:	Any device where music can be recorded, stored and edited
Digitalization:	The use of computers to synthesize and process sounds
Digital Technology:	Devices and systems used to do work that would otherwise be done by human beings.
Dummy Keyboard:	A keyboard which does not produce sound when played but sound is only produced when connected to the computer with the corresponding music software.
Dummy Microphones:	Fake microphones, which musicians use to pretend to the audience that they are performing "live" when they are not
Equalizer:	A device used to balance sound and make its output uniform
Homogeneity:	The characteristic view of being similar/ the concept of being similar
Mastering:	The overall editing of the music, which involves assessing all the songs to create an album
MIDI Controller:	Any device that creates Musical Instrument Digital Interface (MIDI) messages and sends them to a sequencer or sound module or both
Mime Performance	Performance where a CD recording of a song is played as the musician mimes along
Off-hand Production:	The use of only sampled sound, especially in instrumentation, to produce a song
On-hand Production:	The kind of production that involves the use of live instruments
Programming:	Selection and arrangement of digital instruments using a MIDI keyboard
Reverberation:	The persistence of a sound after its source has stopped

Sound Module:	An electronic device used to simulate the sounds of musical instruments
Routing:	The ability to send any input signal from the computer to another device and vice versa
Vocoder:	A speech-synthesizing device that automates the human voice

1.5 Objectives

1.5.1 General Objective

To examine the impact of digital technology in the creation, production and dissemination of popular music in Uganda.

1.5.2 Specific Objectives

1. To examine the influence of digital technology on music-making practices and the changing forms of musicianship
2. To explore the relationship between creativity and economic gain in Ugandan popular music
3. To investigate the impact of digital technology on the roles of and relations between the musicians, producers, Dee jays and the audience involved with popular music in Uganda

1.6 Scope of the Study

1.6.1 Geographical Scope

The study was based in Kampala, the Capital City of Uganda, because several major recording studios, which promote popular music production, are located there. These studios enabled me to observe how popular music is produced as well as the technological devices that are used in the production of music. Moreover, by having access to these studios, I established contacts with music producers, musicians, and distributors who were useful during the research. More so, a number of musicians are based in Kampala and I could access them there. Further, Kampala's population has more access, than any other region in Uganda, to over twenty FM radio (see appendix 5) stations within the city, which broadcast popular music. Therefore, Kampala has more fans and consumers who easily access and can afford to listen to a variety of popular music. This audience provides the market for the music thus providing me with a wide range of informants needed for this study.

1.6.2 Content Scope

There are a number of issues that raise concern in the study of popular music in Uganda. For example, the social relations like gender and politics which are embedded in many popular musics as well as the appropriation of genres. However, in this study, I am concerned with the challenges and opportunities of digital technology and its impact or how it has reshaped the processes of creation, production and dissemination of popular music in Uganda during the twenty-first century. I focus on the audio aspect of popular music.

1.7 Hypothesis

The use of digital technology in Ugandan popular music has redefined the creation, production, and dissemination of popular music in Uganda.

1.8 Significance of the Study

The research will benefit the department of Music, Dance and Drama of Makerere University by adding study materials to the existing literature on Uganda's popular music. In addition, this research will benefit students of ethnomusicology and other researchers who will make reference to it so as to stimulate further research about the relationship between popular music and technology. People who deal with copyright enforcement also stand to benefit from this research because it creates awareness about the complex issues surrounding copyright in Uganda such as; 1) selfish interests from musicians who think that copyright may interfere with their popularity. As I will discuss in Chapter Five, popular musicians participate in perpetuating piracy by paying pirates and radio stations to distribute their music so as to remain popular and yet piracy is illegal under the Ugandan law. As such, I hope that this work will stimulate an enforcement of the law against piracy in the popular music industry. Moreover, since this study examines how digital technology has redefined the process of creation and production, this study is hoped to benefit upcoming musicians and music producers about the challenges of creating and producing using digital technology. As this study demonstrates, digital creation and production leads to loss of creativity by musicians and the production of homogenous music due to the use of similar software technology.

1.9 Dissertation Outline

In Chapter One, I give the general introduction of the dissertation by giving the background, objectives hypothesis and significance of the study. In Chapter Two, I review literature that relates to the study and also present the theory which informs my discussion.

In order to carry out the study, I used qualitative methodology through which I gathered descriptive information about how digital technology has affected the processes of creation, production and dissemination of popular music in Uganda. In Chapter Three, I discuss the research design and the research tools I employed and these include: interviews, participant observation, media, library research, photography, and audio recording.

In Chapter Four, I give the context of the study by discussing the technologies used to create, produce and disseminate popular music in Uganda. I take on the discussion in Chapter Four from a historical perspective by showing how technology, since the 1920s to the digital-dominated twenty-first century, has impacted popular music in Uganda. Further, I engage in a discussion on the nature of training and skills of the producers and musicians.

I discuss the processes of creation, production and dissemination of popular music in Uganda in Chapter Five. Arising issues such as homogeneity, complexity of ownership and copyright, as well as dehumanization of music are discussed. In addition, I explain the overlapping roles of the musicians, producers, and deejays to show how digital technology influences the way they create, produce, and disseminate popular music in Uganda.

Finally, in Chapter Six, I give a general summary of issues discussed in the previous chapters, conclusions drawn from the study, as well as the recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter, I review the state of research on how digital technology has influenced the creation, production and dissemination of popular music in Uganda and present the theory that informs my study. I discuss the nature, trend, content, and methodology of research on digital technology and its impact on popular music creation, production and dissemination. Whereas research has been carried out on Ugandan popular music by scholars like Nannyonga-Tamusuza (2002, 2005a, 2005b, 2006) and Ssewakiryanga and Isabirye (2006), inadequate attention has been given to the impact of digital technologies on the creation, production and dissemination of popular music. Most of the existing documentation on the use of digital technologies in the creation, production and dissemination of popular music in Uganda is journalistic rather than scholarly. Moreover, information found in the newspaper articles and articles on the internet is about the lives of the musicians and producers and not about the processes of creation, production and dissemination of popular music. While popular music has been defined in terms of technology (see Nannyonga-Tamusuza 2006:46), inadequate attention has been given to its impact on the creation, production and dissemination of popular music in Uganda.

Therefore, in this chapter, I review literature that relates to digital technologies of music production and popular music studies. The following themes guide this review: 1) popular music in Uganda; 2) digital technologies of music; and 3) impact of digital

technology on the processes of creation, production and dissemination. In addition, I discuss the globalization theory and show how it informs my study.

2.2 Popular Music in Uganda

Although scholarship on popular music in Uganda has been given inadequate attention, scholars like Gerhard Kubik (1981) Nannyonga-Tamusuza (2002, 2006), as well as SSewakiryanga and Isabirye (2006) have attempted to discuss some of the issues in Ugandan popular music in scholarly articles. Among the areas of discussion has been how popular music is used as a stage for performing such social relations like gender, politics and ethnicity (see for example Nannyonga-Tamusuza, 2002).

Definition of popular music is one of the issues that have been addressed in the study of popular music. For example, Nannyonga-Tamusuza (2006) offers numerous definitions and suggests that popular music should be defined historically. She argues that popular music should be defined as that which is time and culture specific. Further, her field research revealed that popular music is that music which is mass-mediated and commercially determined, a definition I adopt in this study. Although Nannyonga-Tamusuza uses the numerous definitions to examine the challenges in the identification and classification of popular music for archiving purposes, the present study adopts one of the definitions to give focus to the study.

In addition, there has been interest among some scholars in tracing the development of popular music in Uganda. One of the earliest writings on the development of popular music in Uganda was done by Kubik in 1981. Kubik discusses neo-traditional popular music in East Africa[1] since 1945. In his discussion, Kubik explains how political and cultural changes affected the development of popular music in East Africa. Kubik's study is a general

[1] East Africa is comprised of three countries including Uganda, Kenya, and Tanzania.

overview of the development of popular music in East Africa which does not focus particularly on Uganda. Nevertheless, Kubik's study provides insights on technological developments that influenced the development of popular music in Uganda.

Likewise, Nannyonga-Tamusuza (2005a) traces the development of popular music in Uganda. While technology has participated in the structuring of popular music in Uganda, Nannyonga-Tamusuza pays limited attention to it. The present study goes beyond mere mention of digital technology and examines how it has impacted on the creation, production and dissemination of popular music in Uganda.

Further, there has been scholarship focusing on gender, ethnicity and politics in popular music in Uganda. For example, Nannyonga-Tamusuza (2002) analyzes the song 'Kayanda' by Willy Mukaabya to highlight how gender, ethnicity and politics in Uganda are addressed in the song. Her arguments rest on the notion that meaning in music is unstable and concludes that popular music is multivocal.

Similar to Nannyonga-Tamusuza'a study of popular music and identity, Ssewakiryanga and Isabirye (2006) examine how popular music and politics interact. Basing on archival collections at the Center for Basic Research in Kampala, Ssewakiryanga and Isabirye give an approximation of the political environment within which popular music in Uganda has flourished. While their study provides insights to the present study for example, on the development of FM radio stations and other television stations as well as the emergence of digital technologies which impacted Ugandan popular music greatly, they focus on how popular music genres have been configured through the political history of Uganda since 1962.

Further still, Isabirye (2008) wrote a Master's dissertation on popular music and politics. Isabirye focuses on *federo* songs, which are politically oriented songs, describing the relation between their context and texts. Having been trained as a literature scholar, Isabirye's

discussion on popular music does not include music analysis approaches such as the structural analysis of music. As a matter of fact, structural music analysis enhances an understanding of musical elements such as the form, accompaniment, and harmony, the elements this study emphasizes while analyzing music.

2.3 Digital Technologies of Music

As Paul D. Greene has also noted, although digital technology has powerfully impacted music cultures around the world, there is inadequate scholarly documentation about it (2005:2). Available literature gives illustrations of various recording technological devices with the aim to make the reader understand the equipment used in a recording studio (Huber and Runstein 2005). The writers use these illustrations as a point of departure for their discussion on the practices of sound recording and production. Similarly, Cliff Truesdell (2007) gives various software available on the global market, and explains how best they can be exploited to produce sound.

In the same way, in Uganda, a few scholars have written about digital technologies of music. Some of the existing writings are unpublished undergraduate students dissertations emanating from diverse disciplines including mass communication and information communication technology (ICT) as well as music. For example Steven Alinaitwe (2008), has written an unpublished book concerning the principles of information communication technology. In his book, Alinaitwe gives comprehensive information about the computer and its accessories, and how each device functions. Further, Anne Nakibuka (1999) a student of the department of Mass Communication at Makerere University, wrote about how computer technology has revolutionized the work of Uganda's print media. The views expressed by Alinaitwe and Nakibuka deal with digital technology from the perspective of ICT and mass communication/media studies, respectively. As such, Alinaitwe's work informs the present

study since it offers significant insights on the computer and its accessories and how they are used**.** With Alinaitwe's views as a point of departure, the present study focuses on digital technologies of music and how they have reshaped creation, production, and dissemination of popular music in Uganda.

2.4 Impact of Music Technology on Creation, Production, and Dissemination

There has been relative interest among scholars in ethnomusicology and popular music studies concerning the impact of digital technology on the creation, production and dissemination of popular music. However, it was not until 1995 that ethnomusicologists met to discuss the impact of technology on musical practices (Lysloff and Gay 2003). Views from various scholars reveal that there are two major viewpoints of technology that characterize popular music production, the first of which is that technology interferes with creativity, somehow reducing the authenticity of musical expression. The second, contrasting viewpoint is that contemporary technologies give new possibilities for creativity and make music production accessible by increasing the number of people involved in production and creation of popular music. For example, scholars like Louise Meintjes (2005) and René T. A. Lysloff (2003) have suggested that the introduction of new digital technologies leads to changing forms and standards of musicianship. Furthermore, they argue that the wide range of digital technologies and techniques used in the music industry have led to the creation of sound that is "clear" to the ear. This creation of synthesized sounds is attributed to the ability of the computer to play back using the tracker software program thus providing more possibilities for composers to experiment with musical sound and structure (see Meintjes 2005, Lysloff 2003).

In his discussion on the digital computer as an instrument of musical creation, Luc Rondeleux (1999) examines the impact of digital technologies on music since their

emergence in the mid 1950s in Europe and America. For example, he mentions that the use of computer aided music (or music sound samples) enabled composers to acquire a new scope of aesthetic inspiration (1999:305). In addition, he explains the various developments of digital technology including the arrival of real-time-synthesis and MIDI control in 1982 which, he says, transformed the "whole world of technological music". Here, focus was turned to development of new musical concepts using digital technology. The aesthetic focus was based on the ability to control the principal parameters of musical perception including space, time and instrumentation. Rondeleux's views are relevant to this study although they are in the European and American context. I use Rondeleux's views to investigate whether digital technologies have been used to improve aesthetic value of popular music in Uganda.

Further, several scholarly articles on music and technology have been published including the articles in a book edited by Rene T.A Lysloff and Leslie C. Gay (2003). The essays in this collection examine the relationship between technology, music, and culture using an ethnomusicological approach, which involves ethnography. The authors focus on how issues of ownership, authenticity and copyright have been problematized by the use of technologies related to music.

Similarly, there is another collection of essays edited by Paul D. Greene and Thomas Porcello (2005). Taking their discussion from a global perspective, these scholars stress the role of sound-engineering technologies and practices that have shaped the world's music of the twenty-first century. Authors of these essays used an ethnographic approach. In addition, they also employed historical and psychological approaches. The diverse range of disciplines (ethnomusicology, popular music studies, cultural linguistic anthropology, communications, and cultural studies) and geographical areas (North America, South Africa, Sweden, and Australia) from which these scholars come emphasize the global nature of music and technology. These essays coincide with the present study in many ways. First, the present

study holds the same view that music technology enhances globalization even beyond the borders of where these technologies are designed and manufactured. Secondly, I agree with the view that technologies of music cause blurred distinctions between musicians and producers. However, the current study includes the dissemination process as well because it also involves technology. Besides, in the Ugandan context, the roles of the disseminators have also overlapped with those of the musicians and producers as a result of using digital technology. And thirdly, I share the same view that the use of music technology makes it possible for various people around the world to access various sounds and create new musical aesthetics.

Other scholars who have contributed to the study of music and technology include John Connell and Chris Gibson (2003). In a chapter, Connell and Gibson analyze the impact of digital recording and global music distribution. They argue that the use of digital technology to produce and disseminate music has presented a number of challenges to copyright issues and to the way in which music is consumed. I discuss these issues in Chapter Five of the present study.

Further, Louise Meintjes (2003), a South African ethnomusicologist has written on politics in a production sound studio. Her study looks at how politics and ethnicity inform the recording practices in the production studio. However, Meintjes' study is outside the scope of the present study although it provides some insights on the study of the process of production of music using technology.

Although there has been inadequate scholarship on the impact of digital technology in Uganda, some undergraduate students at Makerere University have written dissertations about it. For example, Ssendikwanawa (2007) discusses the impact of technology on *kadongo kamu* music in Uganda. Ssendikwananwa's study is restricted to *kadongo kamu* music and yet, the present study looks at other popular music genres including hip hop, Raga, Reggae,

and afro beat. In addition, while Ssendikwanawa mentions that the Compact Disc has taken over human agency as a performance mode, he does not use views of the audience in his discussion. The limited nature of fieldwork at undergraduate level accounts for absence of such important discussions. I think that it would be important to find out how the audience reacts to the performance practice in which Compact Discs are the 'performers'. Therefore, the current study fills this gap as it will involve a discussion of the roles of the audience and its relations with the musicians and distributors when they create and disseminate music.

Further, there is inadequate scholarly documentation on the impact of the media on dissemination of popular music although the radio was one of the earliest forms of dissemination in Uganda. In his undergraduate dissertation, Brian Mali discusses the role of the media in promoting music artists in Uganda. Mali's dissertation focuses on three forms of the media including the radio, print media, as well as television. He describes the media as "the most reliable way that musicians can get to their audiences or fans" (2004:50). In addition, he found out that the media is responsible for the way in which society perceives musicians. The present research agrees with Mali's view because the media is what makes or breaks a musician in Uganda. However, beyond Mali's study, the present research examines the processes of creation and production which shape the popular music that is disseminated through the media. Further, while describing the dissemination of popular music in Uganda, I look at various modes of dissemination including performance, 'pirates', media forms such as the internet, radio and formats of distribution like Compact Discs and MP3s.

2.5 Theoretical Framework

This study is informed by the theory of globalization, a grand theory, which does not only inform ethnomusicology and popular music studies, but also other fields including anthropology, linguistics, politics, business, literature, culture and media, among others.

Globalization as concept was fostered by capitalist production, technology and media systems that were leaning towards a single system in terms of culture, economics, politics and geography. Time, space and distance became narrowed with the internet, new and fast transport systems as well as the media (Taylor 2003:66). While a number of scholars (see for instance, Negus 1996; Bernet 2000) have theorized about the relationship between globalization and music creation, production, and dissemination, the present study resonates most with Taylor (2003) and R. Wallis and K. Malm's (1984 and 1992, as quoted in Negus 1996), theorization.

As stressed by Taylor, "globalization as we currently discuss it and theorize it cannot be conceived of without taking into consideration digital technologies that have sped up the movement of information" (2003:64). In fact, there is a dialectical relationship between digital technology and globalization. While globalization has been enhanced by technology, globalization has supported the sharing and development of technology. Specific to music, digital technologies have enhanced the spread of music genres in terms of reducing distance and time in the process of creation, production and dissemination of music. For instance, one can access music from Australia, while in Uganda, within a matter of seconds. Because radio presenters have access to internet, they enable their audiences to access music from any part of the world. Moreover, because of digital technology, one does not have to go to Jamaica to get samples of reggae sounds; through the logic pro software, which is digitized, one can quickly create a reggae song. Moreover, you do not need to have human performers to create this music. And yet, as is the case of popular music in Uganda, you can give this sampled sound different text to create many "songs"; for it is all about cutting and pasting. Of course, copyright in Uganda is not only abused by the general public, but also radio stations.

Besides, musicians are able to cut down their performance production costs by performing alone since they can perform with a pre-recorded accompaniment on a CD.

Moreover, the use of other technological devices such as microphones increases the volume and also improves the sound quality of the music. As such, technologies of dissemination impact creativity in popular music.

Furthermore, according to Wallis and Malm's globalization is "the process of 'transculturation' whereby various forms of musical expression are continually interacting with one another, in the process generating a variety of musical styles that might be leading to a 'transnational music" (as quoted in Negus 1996:177). Popular music in Uganda has had a long term interaction with music from various people/countries including Indian, Caribbean, Latin American, European, Congolese, Kenyan, and American forms of music. In fact, in her discussion on the categorization of popular music in Uganda, Nannyonga-Tamusuza acknowledges the irresistible global influence on Ugandan popular music (2006:36). I contend with Nannyonga-Tamusuza and argue that the use of digital technology has farther enhanced the global influence on popular music in Uganda. Through digital sound samples, reggae sounds from Jamaica, jazz from America, soukous from Congo and rumba from Latin America have found their way into Ugandan music. Moreover, because they are in digital formats, they can easily be duplicated and pirated. These "cracked" software (to use the studio language) are acquired at cheap prices thus making them accessible to many studio producers.

However, because of using similar software, most of Uganda's popular music sounds somewhat similar, creating homogeneity, which results into compromised individual's creativity. Moreover, through a digital device called vocoder, vocal quality of a person can be manipulated to produce sounds that may even be beyond human ability and as such, dehumanizing the music. With homogenous and dehumanized sounds, the issue of ownership is raised.

While I contend with the view that globalization is a threat to diversity, I also acknowledge that globalization can lead to an increase in diversity due to rich varieties of musical sounds it exposes to musicians. In all, besides offering musicians with distant, fast, and easy to manipulate musical materials, digital technology has enhanced easier and faster access of music to the public as well as bringing into question the issues of creativity, ownership, and dehumanization of music in Uganda.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, I discuss the methodology that was used to collect data for this research. I explain the research design, sampling techniques, and the research tools employed as well as the methods used for data analysis. In addition, I report on the limitations and the ethics of conduct that influenced the research.

3.2 Research Design

I used qualitative methodology (Jan Hemming 2003:40), which enabled me to acquire descriptive information about the processes of creation, production and dissemination of popular music in Uganda. Qualitative methods of data collection involved an in-depth understanding of human behavior and the reasons that govern that behavior. As such, I investigated and found out the reasons behind the various aspects of creation, production as well as dissemination of popular music in Uganda.

My approach was ethnographic, which is the "systematic examination and interpretation of [an event] in context" (McGann, 2002:51). Ethnography involves seeking out knowledge on the ways in which informants understand and interpret their mundane experience (Spradley, 1979:25). One of the broad characteristics in ethnography is the use of fieldwork as a method of collecting raw data, an aspect upon which this research is based. As noted by Helen Myers, "[f]ieldwork is the most critical stage of ethnomusicological research" (1992:21) because it is a major characteristic of many social sciences, ethnomusicology

inclusive (1992:22). As such, the present study being an ethnomusicological work, I used fieldwork to collect data.

3.3 Sampling

A number of sampling techniques were used to conduct this research. The research was based on purposive sampling because the data sought was of a specified nature. Purposive sampling was done by selecting those informants who possessed specified data especially those involved in the processes of creation, production and dissemination of popular music in Uganda using digitalized technology. Therefore, I collected data from musicians, producers and distributors of popular music during fieldwork. In addition, snow ball sampling in which I acquired information and contacts of other informants from those I had earlier interviewed was used. Selection of informants was based on accessibility. Most audience interviews were informal conversations conducted during participant observation at concerts and while watching television. A total of forty-five informants were used during this research including seven producers, thirteen musicians, ten distributors, and fifteen members of the audience (see appendix I). Producers, musicians, distributors and members of the audience were interviewed because each of them had a particular experience with each of the processes of creation, production and dissemination as well as consumption of popular music using digital technology. Their involvement in the popular music industry made them suitable informants for the study.

3.4 Tools of Research

Fieldwork, as Edgerton and Langnes (1974) agree, "is not just a single method, but a varied set of procedures" (as quoted in Bruce Jackson, 1987: 65). I used a number of tools to

aid in the collection of data. These included: 1) interviews; 2) participant observation; 3) the media; 4) library research; 5) photography; and 6) audio recording. I used the various tools of research because: 1) they are appropriate for ethnomusicological research (see for example Berliner, 1978: xv) and 2) each research tool gave different opportunities for the interaction and interpretation of data. For example, some of the issues the research sought could not be put into a question for an interview yet they could be observed at a concert or during a studio recording session. Moreover, participant observation, for instance, gave more insights on the process of producing popular music than views from the media and interviews. Library research was also important since new knowledge builds from old knowledge.

3.4.1 Interviews

Interviewing is usually the quickest way of getting information (see Jackson 1987: 66). As ethnomusicologist Kwabena Nketia (1962) suggests, one can find out information about musical culture with proper interview techniques. More so, recent scholars of ethnomusicology such as Nannyonga-Tamusuza (2005c) advocate for interviews as a research technique. As such, I carried out interviews with musicians, producers, distributors and the audience so as to investigate how digital technology influences popular music in Uganda. I used structured interviews where I set questions about the topic of study to guide the interview (Hemming 2003: 47). Further, I used unstructured interviews in which I prepared a check list of themes and questions to guide the interviews although most of the questions were determined during the interview. I used more open-ended questions during the interviews because they gave opportunity for detail than close-ended questions which require specific response. To enhance a detailed discussion, I asked follow-up questions especially to clarify some issues. I also asked the same question in different ways in order to bridge the gaps in the informants' answers (see appendix 1 for sample questions).

I also used what Sylvia Nannyonga-Tamusuza calls "conversational interviews" (2005:48). These were informal conversations where I prompted my informants to provide a shared reflection on what was taking place at a concert or in the studio. As stressed by Mary McGann, these informal conversations were often "perceptive responses, interpretations or evaluations" (2002:50) of what had been experienced during a performance. Conversational interviews were carried out when I found an informant who in the course of a conversation provided information that was relevant to the study. The views acquired during conversational interviews were not always recorded but hand written in my notebook. All of the interviews were face-to-face. I preferred face-to-face interviews because they were appropriate for determining the mood and expressions of the informants (see appendix 2 for full list of informants).

3.4.2 Participant Observation

As noted in the views of scholars like Mantle Hood (1960), Nketia (1962:5) and John Blacking (1967) on ethnomusicological fieldwork, participation is an important part of research methodology because of the potential insights it provides. Participation is one way a researcher acquires a certain essential kind of knowledge about the area of research. As stressed by John Baily, "participation leads to improved opportunities for observation" (2001:96). Moreover, "information about musical events may be gathered through questions arising from the observation of situations" (Nketia 1962:5). On that note, I attended and participated in studio recording sessions with musicians and producers. In addition, I observed the creation, production and dissemination processes of popular music in Uganda by visiting recording studios (see appendix 3) and distribution centers including FM radio stations and distributing agents like XYZ located in the Old Taxi Park. I chose the events I attended based on convenience and availability. For example; 1) concerts were usually

advertised over the radio and on television; 2) during interviews with producers, I requested to attend their recording and production sessions; 3) I always got in touch with the programs directors of the Fm stations visited in order to access their studios; and 4) for deejays, I got their contacts during the course of attending events, such as parties and disco dance, where they participated. By attending some of the concerts staged by some of the popular musicians in Uganda, I was able to experience the nature of popular music performances in addition to interacting with fans whose views were important during the interviews above (see appendix 4 for full list of events attended).

3.4.3 Media

The media, as stressed by Mali Brian, is "the most reliable way that musicians can get to the fans" (2004:50). Therefore, I found it important to use the media as a source of information about popular music and musicians. The media through which I acquired information regarding popular music and musicians includes FM radio and television stations. I listened to popular music and debates about popular musicians on FM radio. Some of these debates were listened to while traveling in a taxi. As such, I was unable to identify some of the actual FM stations that broadcast these debates (see appendix 5 for sample list of radio broadcasting stations in Kampala). The television stations also enabled me to observe concerts that I had not attended. In addition, programs[2] broadcast on television enabled me to get views of musicians that could not be accessed for face-to-face interviews (see appendix 6 for list of television stations in Kampala).

[2] Some of the programs broadcast on some television stations include: 1) 'Rendevouz' on National television (NTV) every Thursday at 7:30pm, no presenter and 2) 'Da Beat' on Uganda Broadcasting Corporation (UBC) television presented by Richard Tiwangye where musicians are interviewed every Thursday 11:30 pm.

3.4.4 Library Research

I made use of the available literature about digital technologies in relation to the process of creation, production, dissemination and consumption of popular music. As noted by Keith Negus, "it is only through constant critique and dialogue that a broader and more inclusive range of approaches to knowledge about popular music can be developed…" (1996:5). The information acquired from the available literature enabled me to discover what other writers have done and the gaps the research would fill.

3.4.5 Photography and Audio Recording

I took photographs which were used for illustration when writing this dissertation. All photographs in the dissertation were taken by me. I also made audio recordings of the interviews and music that was played during fieldwork. The audio recorder, as noted by Mantle Hood (1957), is an important device in ethnomusiclogical field work because it is essential for transcription of records. The audio recorder enabled me to slow down a recording during play back making it possible to transcribe all the recorded information (1957:7). The audio recorded data was useful to me during transcriptions and analysis as they acted as a point of reference. The recording of the interviews and artifacts also enabled me to store information for reference, which would have otherwise been taken for granted when taking field notes.

3.5 Data Analysis

I used two types of data analysis including in-field and out-of-field data analysis (Nannyonga-Tamusuza, 2005c). In in-field analysis, I organized my data to make primary sense of it and to see connection between information given by different informants. During

out-of-field data analysis, I transcribed the data collected, indexed it, and then sorted the data by placing it in diverse themes. As Clifford Geertz notes, analysis involves "sorting out the structures of signification…and determining their social ground and import" (1973:9). Therefore, after data indexing, I put similar themes together for the systematic discussions in Chapters Four and Five. Basing on the selected themes, I was able to identify the various dimensions to take when interpreting the data obtained from the field research. Further, in line with Geertz's view, I analyzed the data as a way interpreting and having an in-depth understanding (1973:5) of how digital technology influences the popular music industry in Uganda.

3.6 Limitations of the Study

In any research, there are a number of limitations although they may not be reflected in the monographs. Nevertheless, there are some scholars who have presented their research experiences; including the challenges faced (Geertz, 1973; Berliner, 1978; Nannyonga-Tamusuza, 2005c).This research was not an exception because I experienced a number of challenges. The first challenge I experienced was a disappointment from my would-be-trainer in the production studio. Considering the importance of prior knowledge to the field of technologies of production of popular music (see Porcello, 2004), I had to acquire some skills especially in studio production. When the time came to meet the trainer, he was not available and this was very disturbing for me. However, because the research was not only about production but also about creation and dissemination, I had to rethink and change schedule to start with those informants who were accessible.

Popular musicians, producers, and distributors were very inaccessible due to their busy schedules. It was not always easy to have someone say "come now, I'll be there". Even when they said "yes" I waited in their offices or homes in vain. However, I had to exercise a

lot of patience with them. As a result, it was always difficult to make more than one appointment per day. For example, for most of the distributing agents, I only managed to interview the employees as their bosses were completely inaccessible to an extent of walking away when I entered their studios. But these employees were able to give me most of the information needed for the study.

Further, while I had earlier anticipated using video recordings, I was not able to use this tool since camcorders were not allowed in the studios, discotheques and at some of the concerts. Moreover, during live concerts where the camcorders were allowed, it was risky to use them because of the rowdy audience as well as the fear of having the camcorder snatched. Sometimes, even photographs of Studio equipment could not be taken because it was prohibited in many studios. However, I managed to convince some studio owners to allow me take photographs and a few at some of the concerts, which have been used for illustration in this dissertation.

3.7 Ethical Considerations

One of the important aspects I considered is the ethics of scholarly research. As noted by Mark Slobin, "most ethical concerns arise from interpersonal relationships between scholar and informant as a consequence of field work" (1992:329). He adds that the ethical concerns arise because of the close personal association the researcher shares with the people and conditions of study (*ibid*). Although I maintained a cordial relationship with my informants, I had to be aware of myself as a researcher. This relationship was maintained through meeting informants during the scheduled time. Further, I recognized the rights of my informants including the right to be asked before taking a photograph or carrying out an audio recording (Spradley 1979:35). As such, I always sought permission from the informant before turning on the audio recorder or taking any photograph. In situations where informants

were suspicious about being recorded, I explained that the recording is only done to save time which would be wasted through writing notes.

Further, I designed a consent form (see appendix 7 for sample of consent form) which I gave to my informants to sign. By signing the consent form, they agreed to the terms and conditions I had set as a researcher. For example, I have all the rights to re-use the knowledge I collected from them in any other academic project. However, the consent form also proved to them that the research was being conducted for study purposes only, thus making it easy for them to share their knowledge with me.

In addition, the need for confidentiality, anonymity and privacy was taken into account. I sought permission from the informants to know whether there was need for anonymity or privacy. Some informants did request me not to mention their names especially when they talked about the weaknesses of their fellow musicians or producers**.** As such, I present informants who requested anonymity with pseudo names or treat the information as anonymous. Further, since many African cultures view women as subjective (Ortner, 1996) I rejected stereotypes held by the common public or even I myself. The biases such as women cannot deal with technology (Greene, 2005:8) were rejected because they would bias the kind of interpretation as well as the data to be collected.

CHAPTER FOUR: DIGITAL TECHNOLOGIES OF MUSIC CREATION, PRODUCTION AND DISSEMINATION IN UGANDA

4.1 Introduction

In order to facilitate the discussion on how digitalization redefines the processes of creation, production, and dissemination of popular music in Uganda, it is paramount to examine the contexts in which these processes operate. Therefore, in this chapter, I present the technological development of popular music in Uganda to give the historical context within which music technologies have flourished. I describe the technologies used in the creation, production, and dissemination of popular music in Uganda. In this discussion, I focus on the analog and digital (hardware and software) technologies, revealing what they are and how they are used. I examine the analog technologies before the digital technologies because the latter is the basis of the former. Further, I examine the set-up of an analog and digital recording studio by describing the physical set up (exterior and interior) and how the technology is acquired. Lastly, I explain how the skills of producers are acquired and developed so as to use digital technology in creation and production of popular music.

4.2 Technological Development of Popular Music in Uganda

Popular music, as already discussed in Chapter One, is defined in this dissertation as music which is mass-mediated and commercialized. However, what constitutes popular music in any given place or time, or to any specific social group is highly contextual (Nannyonga-Tamusuza 2006:37). In Uganda, popular music has been influenced by mostly European and American forms of popular music. Most of these genres which include reggae,

raga, hip hop, as well as rhythm and blues, are adopted and reworked on across global boundaries.

Early forms of popular music in Uganda, including *kadongo kamu*[3] and *band*[4] music (Nannyonga- Tamusuza 2005a:50), were largely influenced by improved communication systems especially transport. Musicians from neighboring countries such as Congo and Kenya traveled from one country to another to perform their music. In addition, there was also the influence of missionaries who introduced western musical instruments like pianos and brasses, which enhanced the development of *band* music. Technological developments, such as gramophones, radio, television, reel-to-reel, cassettes, and record players have played an important role in the growth of Uganda's popular music industry.

In this discussion, I trace the use of technology to record and disseminate popular music from the 1920s to 2009. In the 1920s, music was recorded on gramophone discs and played on gramophone[5] machines. As Kubik reports, gramophones were introduced in Uganda in the early 1920s by Indians who played Indian music to attract customers (1981:90). Later, some wealthy Ugandans who could afford to buy gramophones imported them from Europe and America (Kubik 1981:90-91). Ephraim Bisase recalls that:

> "'I remember very well in the house where I used to stay… [in] 1925. The owner of the house was [a] fairly rich man, he bought a gramophone with a few gramophone records.' In 1925, these records still contained primarily popular music from Europe and America and no African recordings, but very soon after that the record companies sent recording teams to East Africa. Thus… in 1929, Odeon in Uganda recorded the most various forms of music, including traditional music as well as church music in the Namirembe Cathedral, Kampala" (as quoted in Kubik,1981:91)

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[3] *Kadongo Kamu*, in more general terms, is music with narrative singing (see Nannyonga-Tamusuza 2005a:51).

[4] *Band* music was dance music which encompassed different types of foreign music and music instruments. Some of the instruments used in the band category include guitar, harp, accordion, trumpets, and percussion (Nannyonga-Tamusuza 2005a:50)

[5] A gramophone is a box-shaped device which consists of a turn table where the disc revolves. The gramophone also consists of a needle which picks sound from the disc by rubbing against it. These gramophone machines were heavy and bulky and thus not easy to preserve for future use (Nkonge 2003:66). In addition, gramophones were fragile as they could break easily and could be destroyed by heat.

In 1953, the first radio station, Radio Uganda[6], was introduced (Nannyonga-Tamusuza 2005a:49). Moses Matovu, a musician in Afrigo Band, told me that the emergence of radio was very influential in the development of popular music. Matovu told me that he was young when radio was introduced in Uganda, but through listening to radio, he learnt to sing by imitating the music he heard. He adds that the radio exposed Ugandans to a variety of music from Europe and America, and neighboring Congo, which have since influenced the kinds of instruments used in Ugandan popular music and the style of playing them (interview, May 21, 2009)[7]. The introduction of a national radio in 1953 exposed Ugandans to a variety of popular music especially Caribbean, Latin American (*ibid*) and from other parts of the world.

Further, in the 1950s, along with the radio, reel-to-reel[8] recorders and players and tape recorders were introduced (Ssendikwanawa 2007:13). Reel-to-reel players and recorders were mainly owned by institutions such as Radio Uganda. Using reel-to-reel recorders and players, Radio Uganda was able to record and disseminate popular music. Therefore, early recording and dissemination of music in the 1950s was mainly done by Radio Uganda.

During the early 1960s, jukeboxes were introduced (Kizito, conversational interview August 26, 2009). Jukeboxes were mainly used in bars to play music. A jukebox had a panel where titles of songs and their respective band names were displayed. Besides, the jukebox had space for about 10 discs. To play songs on the jukebox, coins were inserted and three songs were selected. Then the jukebox played the songs in the order in which they had been selected. After the set of selected songs had played, the jukebox stopped playing. The same

[6] Radio Uganda changed its name to Uganda Broadcasting Service and then to the current Uganda Broadcasting corporation.
[7] See also Nannyonga-Tamusuza, 2005a:50; Kubik, 1981:94.
[8] A reel-to-reel is a box-like player that uses two reels. On one side, an empty reel is placed while the playing reel is placed on the other side of the player. The playing reel plays while the tape transfers to the empty reel. A reel-to-reel player has play, stop, rewind, forward, and record buttons as well as volume control knobs. The reel-to-reel player also has input and output sound signals.

procedures would be followed every time music had to be played on the jukebox (Matovu, interview May 21, 2009).

Further, in the late 1960s, the record player, which used two sided long playing (LP) plastic disks on which the music was recorded was also introduced in Uganda (Kizito, conversational interview August 26, 2009). The record player was rectangular-shaped and had a turntable on which the disc revolved. Sound from a record player was produced when a small needle-like pin rubbed against the disc.

Besides, we cannot ignore the impact of television on the development of popular music in Uganda. The first national television station, Uganda Television (UTV), opened in 1963 (Nannyonga-Tamusuza 2005a:50). More television stations came up in the 1990s[9]. Like the radio stations, television stations also exposed Ugandans to foreign music and influenced their ability to create their own local music videos. Details on television as a technology for disseminating popular music are outside the scope of this dissertation.

Further, in the 1970s, the introduction of cassette tapes and cassette players replaced almost completely, the use of record players and long players as well as earlier technologies like the jukebox. The cassette tape is a rectangular shaped device that has a tape which runs from one side to another. The cassette tape has music recorded on two sides usually referred to as side A and side B. Cassette players also come in different shapes and sizes. A cassette player has play, record, rewind, forward, pause, eject and stop buttons. The cassette tapes and players were initially only used for playing, later for recording and dubbing music too. Later, the operational system of cassette players was improved to accommodate two decks such that when a cassette is playing in one deck, the music can be dubbed on another deck of the same cassette player. Therefore, owners of double deck cassette players were able to dub music more easily than when they had to use two different cassettes to dub. However, the cassette-

[9] See list of some television stations in appendix 5.

player-dubbed copies give music whose quality is not as good as that of the original tape. Despite the fast growing rate in the use of digital technologies such as CDs and computers, cassettes are still used in Uganda.

Another important factor in the history and development of popular music in Uganda was the emergence of music recording technology. Views acquired from informants like Matovu and Eddie Kan, as well as scholars like Nannyonga-Tamusuza (2005a:49) show that early musicians from Uganda went to Kenya to record their music. Matovu explains that recording was not easy because it was expensive for many up-coming artists. Recording was expensive because it involved travel expenses to Kenya yet, all instrumentalists and singers performing in a song had to be recorded live and at the same time. As such, when an artist decided to record a song, all the accompanists had to travel along with him together with all their instruments. Moreover, musicians had to have learned their songs very well before going to the studio since there were limited chances of repeating. If a group of musicians went to the studio to record a song and any of them made a mistake, the whole group had to play again (interview, May 21, 2009). Later in the 1970s, a few recording studios were established in Uganda. As Nannyonga-Tamusuza noted, one of the earliest recording studios in Uganda was Kagaabe International Sound Production in the early 1970s where local musicians recorded their music (2005b:52). In addition, during an interview with Matovu, he said that at the beginning of the 1970s, there was a record company called Serenade in Ndeeba, which had a recording studio and was also a distribution center for popular music. Serenade was owned by a British man called Case Maker who helped local artists to produce their music in Uganda (interview, May 21, 2009). By the mid 1980s, Uganda had at least one recording studio in every town, Kampala having the largest number (Nannyonga-Tamusuza 2006:49). Some of the recording studios in the 1980s and early 1990s include: 1) BAVA

owned by Hope Mukasa; 2) Peter Ssematimba's Dungeon Studio (Kan, interview February 27, 2009); and 3) Steve Jean's Kasiwukira Studio (Ssewakiryanga and Isabirye 2006:65).

Until the 1990s, the recording studios and dissemination formats were based entirely on analog technologies. Analog recording deals with external sound sources which may be electric from electric keyboards, and guitars or acoustic from drums, box guitars, and saxophones, to mention a few. Other equipments involved in analog recording include: microphones, mixers, and sound speakers. Considering that all performers had to be in the studio at the same time, early recording studios needed big spaces because the analog equipments were also big. As already noted, recording was done with all the performers present. The performers had to do all the necessary rehearsals before appearing in the recording studio. After recording, a master tape on which the music was recorded was given to the musician. The musician sold this tape to a distribution company, which dubbed the tape to make several copies and then sold the music to the general public. The radio stations also bought the music from the distribution company (Kan, interview February 27, 2009). Once a master tape was released, the producer did not remain with a sample of the music. As such, the distribution of music was left entirely to the distribution agents.

Again, in the 1990s, the media was liberalized and FM stations such as Sanyu FM and Capital radio were introduced. By the end of the twentieth century, there were over thirty FM radio stations in Uganda[10]. As Richard Ssewakiryanga and Joel Isabirye noted, the liberalization of the media (radio) in the 1990s led to the "aesthetic liberalization of popular music… in Kampala" (2006:64). Musicians were exposed to various music styles which influenced their creative skills. The media has had a historical influence on the creativity of popular music in Uganda. For example, Isabirye emphasized that "'[h]istorically, there has also been a high degree of hybridization with globally successful popular music forms, with

[10] See list of some radio stations in Kampala in appendix 4.

each decade since the 1950s seeing the incorporation of elements borrowed from particular genres from abroad into Ugandan music'" (as quoted in Nannyonga-Tamusuza 2006:46). At this point, we need to recall that the media emerged in Uganda in the 1950s and it is through media forms such as radio, cassette tapes and CDs that various music forms could be accessed by Ugandan audiences. This same view was expressed in a number of interviews with informants who said that musicians usually base on the ideas of already existing music by other artists to create their own (Matovu, interview May 21, 2009; Kan, interview February 27, 2009; Bwengye interview February 7, 2009; and Ahimbisibwe, interview February 7, 2009). They add that some musicians imitate the beats and others the style of playing particular instruments. For example, I observed Matovu play his saxophone along a playing Nigerian song on a CD during one of his practice sessions. Matovu explained that it is one way of learning and adding variety to the music he plays (interview, May 21, 2009). Indeed Matovu admits that his musical style has been influenced by both local and foreign artists. He said that "I was inspired by so many local musicians such as the Late Fred Masagazi, the Late Elly Wamala, the Late Nelson Ssabafuma, Fred Kanyike, and Bonny K. Steven, as well as international singers like Elvis Presley, the Beatles, Ricky Nelson, and Cliff Richard to mention a few" (interview, May 21, 2009). Matovu was able to access the music of most of these artists he claims to have inspired him through the radio, record players, as well as cassette tapes. Therefore, through technologies of dissemination, musicians are able to listen and learn from other artists without necessarily having physical contact with these artists.

During the 1990s, Compact Discs (CDs) became popular, especially in Kampala and in discotheques outside Kampala. CDs give a better sound output than cassette tapes and they are easier to operate because songs can be selected by track number. The CD is a portable device and can store many songs as compared to the earlier plastic discs used on record

players. To make the CD more accessible, the MP3 format was introduced in the late 1990s. Using the MP3 format, music files are compressed such that one CD can accommodate more than fifty songs. Unlike the cassettes, CDs are not widely used in Uganda. Rather CDs are more common among educated middle class and youths living in towns where there is electricity. With such a new development like the CD, there was need to update the analog devices to digital. Therefore, recording studios and dissemination centers like radio stations started phasing out analog devices gradually and adopted the new digital technology.

The introduction of digital technology of recording in the 1990s in which the computer was the central system of music production caused a lot of changes not only in the production but also in the dissemination of popular music in Uganda. Matovu informed me that the introduction of digital technology changed the image of popular music in Uganda. For example, more artists joined the music industry, more recording studios were established, and more FM radio stations were opened up. In addition, production and dissemination of popular music became easier, cheaper and faster (interview, May 21, 2009). As Eddie Kan said, FM radio stations use digital formats to record and disseminate information. Hence, radio stations like Radio Uganda that was still using analog devices had to change to the new digital system.

Since 2000, programs like 'Windows Media Player' installed on computers have replaced CDs as storage and playback devices of music sound. In fact, during an interview with Shiru, a club deejay, he informed me that CDs are bulky and make it hard to select songs when playing music in the club. Shiru uses 'Windows Media Player', a software he installed on a computer to store all the music in a file format. Such a digital format is easy to access by simply typing in the name of the artist and title of the song. Moreover, CDs get scratches after being used for some time yet; a song stored on a computer will never have scratches (Shiru, interview March 6, 2009).

Following the discussion on the technological developments on popular music in Uganda so far, different technologies are adopted and maintained not only because of their technical abilities, but also in regard of their cost. It is because of the low cost of a cassette tape, which is usually 1000 shillings ($0.5)[11] that many Ugandans can afford to buy them. Moreover, CDs and computers as play-back devices are most common among the educated middle-aged working class and the youths whose economic status is not low by Ugandan standards. Besides, most music distributors use computers not only for play-back, but also to burn CDs for sale.

4.3 Technologies of Music Creation, Production, and Dissemination

In this section, I discuss the technologies used in the creation, production, and dissemination of popular music in Uganda. While some studios are based entirely on digital technology, a number of studios I visited use both analog and digital technologies, for when change takes place, it does not happen wholesale (Merriam 1964). Therefore, it is important in this study to describe both the analog technologies and the digital technologies.

4.3.1 Analog Technology

As already mentioned in this Chapter, in analog recording, sounds are externally got from acoustic and electric instruments. The instruments used include: guitars, drums, saxophones and voices. I illustrate examples of some of the instruments found in the studios I visited. Figure 1 shows the drum set, and Figure 2 illustrates the electric guitar which is found in Dream studio.

[11] Throughout this dissertation, I use the following exchange rate of the U.S dollar to Uganda shilling: 1:2000.

Figure 1: Drum-Set in Dream Studio

Figure 2: Electric Guitar in Dream Studio

Because a few people know how to play the musical instruments, usually instrumentalists are hired either by the musicians or the producer to play these instruments. When a musician wants instruments recorded in his/her song, he/she hires the expert separately from the studio fees. However, some studio producers know how to play these musical instruments, and as such, they charge a higher fee when a musician needs their skills on instruments.

Another important device in the analog setting is the microphone. A microphone is used to capture sound from any external sound source including voices and instruments. In the Dream Studio and BK Studio, I observed that both studios used ribbon transducer microphones (see Figure 3). The ribbon transducer microphones are microphones used in recording studios because: 1) they are able to capture every detail/high frequency detail of the external sound source and send it to the mixer; 2) they have a warm and smooth tone quality; 3) they are good bi-directional microphones; 4) they do not need extra power source. A ribbon transducer microphone is plugged directly to the mixer.

Figure 3: Dream Studio Ribbon Transducer Microphone

Further, in the analog setting, the central unit of all analog devices is the mixer (see Figure 4). A mixer is a rectangular shaped device that comes in various sizes. These sizes differ basing on the number of tracks on each mixer. Some mixers have eight tracks, others sixteen tracks, and others have thirty two tracks. The number of tracks on a mixer shows the number of in-put and out-put signals a mixer can accommodate at the same time. The more the number of tracks, the more the number of in-put and out-put signals a mixer can handle. Further, a mixer has control knobs that are used to control the frequency and volume of the song.

Figure 4: Dream Studio Analog Mixer

I also noted that in any recording studio, there are speakers (Figure 5). The speakers are only used to listen to the sound output after it has gone through the mixer. Usually in a

rectangular-like shape, these speakers are connected to the output plug-in on the analog mixer.

Figure 5: Sound Speaker

The analog technologies used to disseminate popular music include: cassette tapes, cassette players, and vinyl. Ronnie Tekekwe, a mobile disco deejay, told me that he used cassette tapes and Vinyl players when he started the disco business in 1997. While using cassette tapes, he used a cassette player and speakers to be able to reach out to a wide audience. In 1998, Tekekwe left the cassettes completely and started using CDs and Vinyl players only (interview, February 28, 2009).

4.3.2 Digital Music Technology

Digital technologies are devices and systems used to do work that would otherwise be done by human beings. Digital music technology is in terms of hardware (physical devices) and software, which is a set of programs written for a computer. The hardware for recording and producing music include: computers, MIDI (Musical Instrument Digital Interface) keyboards, and mixers, and the most common software in Uganda is Logic Pro. Some of the hardware used to disseminate music include: computer, crossover, equalizer, and the sound

speakers. The software used in dissemination of music includes Numark PCDJ (Personal Computer Deejay), Virtual DJ, as well as the internet, which is a digital form of dissemination. In the first part of this section, I examine the hardware and software for recording and producing music before discussing the digital technology used in the dissemination of music.

While different studios have different types of hardware, they are based on the same principles of operation. Some studios have slightly different hardware with probably one computer that is a PC rather than a Macintosh. The difference in the type of equipment is based on different reasons; first, the nature and level of training acquired by the music producer. When the producer acquires formal training, he/she is in position to use better and more advanced equipment. Second, the cost of a Macintosh is higher than that of other computers, so this leaves the producers with limited capital with no options, but to seek cheaper alternatives. According to Elite Computers Limited the sole seller of Mac computers in Uganda, a Macintosh costs between three to four million Uganda Shillings (about $1500-$2000) while a PC (personal Computer) costs about 1.5 million Ugandan shillings ($750) (conversational interview, April 18, 2009).

Below, I give illustrations of the equipment used in two of the recording and production studios (Dream and BK), showing details of how different hardware and software is used to produce audio music in Dream Studio and BK studio. The first of the digital hardware is the computer (Figure 6) which is the central device since it synchronizes all the equipment in a digital studio.

Figure 6: BK Flat Screen Computer

The computer synchronizes all the equipment in the studio to output the sound. In several studios I visited such as Dream Studio and BK Studio, the computer hard drive is used as a storage device where all the recorded and programmed music is kept. When I visited Dream Studio, No End Studio, Good Enough Studio, and BK Studio, I saw that the computer was the device that was used as a Digital Audio Workstation (DAW). The DAW is any device where music can be recorded, stored, and edited.

Another important device in the digital recording studio is the MIDI keyboard shown in Figure 7.

Figure 7: Dream Studio's MIDI Keyboards

From top to bottom, the first keyboard has a range of six octaves while the second has a range of five octaves. These first two keyboards are used as both tone generators/sound sources which can produce music sound when played and MIDI controllers which create MIDI messages and send them to the sequencer or sound module. The bottom keyboard is only a MIDI controller and has a range of four octaves. This MIDI controller is a dummy keyboard; it does not produce any sound on its own. While some MIDI keyboards may be bought along with CD or DVD drives which are installed on the computer, the one in Dream Studio has a plug-in USB port, which connects it directly to the computer and together with corresponding software, such as Logic Pro to generate sound. The main purpose of this MIDI keyboard in the recording studio is to trigger MIDI messages including musical instruments such as a piano, horn and a violin, as well as automated voices. Figure 8 shows the set of sounds that was found on the MIDI device in Dream Studio.

Figure 8: MIDI Sound Set

1-8 Piano	9-16 Chromatic Percussion	17-24 Organ
25-32 Guitars	33-40 Bass	41-48 Strings
49-56 Ensemble	57-64 Brass	65-72 Reed
73-80 Pipe	81-88 Synth Lead	89-96 Synth Pad
97-104 Synth Effects	105-112 Ethnic	113-120 Percussive
121-128 Sound Effects		

(Source: Truesdell, 2007:459)

The MIDI sound set shown in Figure 8 is made up of sixteen tone banks, each containing eight timbres of an instrument. For instance, a tone bank for piano has eight different piano timbres; a tone bank for guitar has eight different guitar timbres. There is a variety of instruments that can be accessed using the sound modules and a MIDI keyboard. These sound modules offer possibilities of musical timbres from different parts of the world, which before the invention of this technology, necessitated one to be physically present in that part of the world to experience its sounds. As such, music is no longer modelled as something that happens in a local context, employing only expressive means specific to a locality. Instead, music making increasingly employs technologies produced elsewhere and is informed by a heightened awareness of sounds that are travelling rapidly around the world (Greene 2005:2). But how do we account for originality where there is use of different musical timbres from different parts of the world? We will return to this question later.

Another hardware used in music production is sound module. The sound modules in BK Studio included 'Roland XV 3080', 'EMU planet fat' which is a drum module and 'DM pro', also a drum module, which are used to generate tones. These sound modules are used to

generate sounds which producers use in programming of new songs. These drum modules are frequently used in studios that have ‘cracked’ or illegally acquired software. When one acquires a complete set of Logic Pro, it contains all such sounds that he/she would not require an external sound module. Then we have the synthesizers, which are used to generate sounds and to trigger signals from the sound modules. Then there is also the D/A converter or sound card. The D/A converter or sound card which converts analog audio signals to digital and vice versa.

There are two types of digital mixers that I saw in the studios I visited. They include: hardware mixer (Figure 9) and software mixer (Figure 11) which will be discussed later in this Chapter. The digital mixer is used to combine, control, distribute input and output signals of all the equipment in the studio. Lastly, there is the tube compressor which processes sound effects and is also used to condense the sound. After mixing, the final sound is routed to this tube compressor to make the sound clear.

Figure 9: Digital Mixer in BK Studio

For any computer hardware to operate there must be software. It is the nature of software which determines the functionality of the computer. There are a number of software used in production of popular music in Uganda. Some of these software include reason, garage band and logic pro as well as pro tools. In this discussion, I focus on Logic Pro because it is the most common software in the recording studios I visited. Logic Pro software exists in various versions. The software which is commonly used in most Ugandan studios is Logic pro versions 7 or 8. For purposes of this discussion, I will use one generic term "Logic Pro". Raymond Ssendikwanawa, a music producer, told me that Logic Pro is more accessible as it can be acquired from friends free of charge or at a subsidized cost than Pro Tools, for instance. A number of informants contended that the software used in Ugandan studios is acquired through piracy because original software is very expensive (Ssendikwanawa interview February 18, 2009; Mpagi interview February 16, 2009; Kayiwa, interview January 15, 2009). Mpagi explained to me that in Uganda, there are many people who sell Logic Pro cheaply, no wonder there are many studios that have come up within a short period of time (interview 2009). The cost of Logic Pro for Macintosh is between 800,000-1,000,000 Uganda Shillings ($400-$500) and half the price for a PC compatible one, yet the cost of pirated Logic Pro software for PCs is about 30,000 Uganda Shillings (about $15).

Further, Logic Pro is expensive because it is user friendly. Ssendikwanawa said that "most producers prefer Logic Pro because we have been using it for a long time and so it is easier to manipulate from other friends since we do not have training schools for this profession. So, we learn from other people who have been in the field. It is easier for us to learn and explore Logic Pro than other programs, which we have not been exposed to" (interview, February 18, 2009).

Logic Pro software has in-built sound samples which can be used without the external tone generators or sound modules. Figures 10 and 11 show how digitally programmed instruments appear on the computer screen and how a digital mixer is displayed on the computer using Logic Pro 7. However, in a bid to produce good music, some professionals in production like Mpagi have acquired different software for example Pro Tools, which is not yet common in Uganda (interview, February 16, 2009).

Figure 10: Digital Programming Using Logic Pro 7

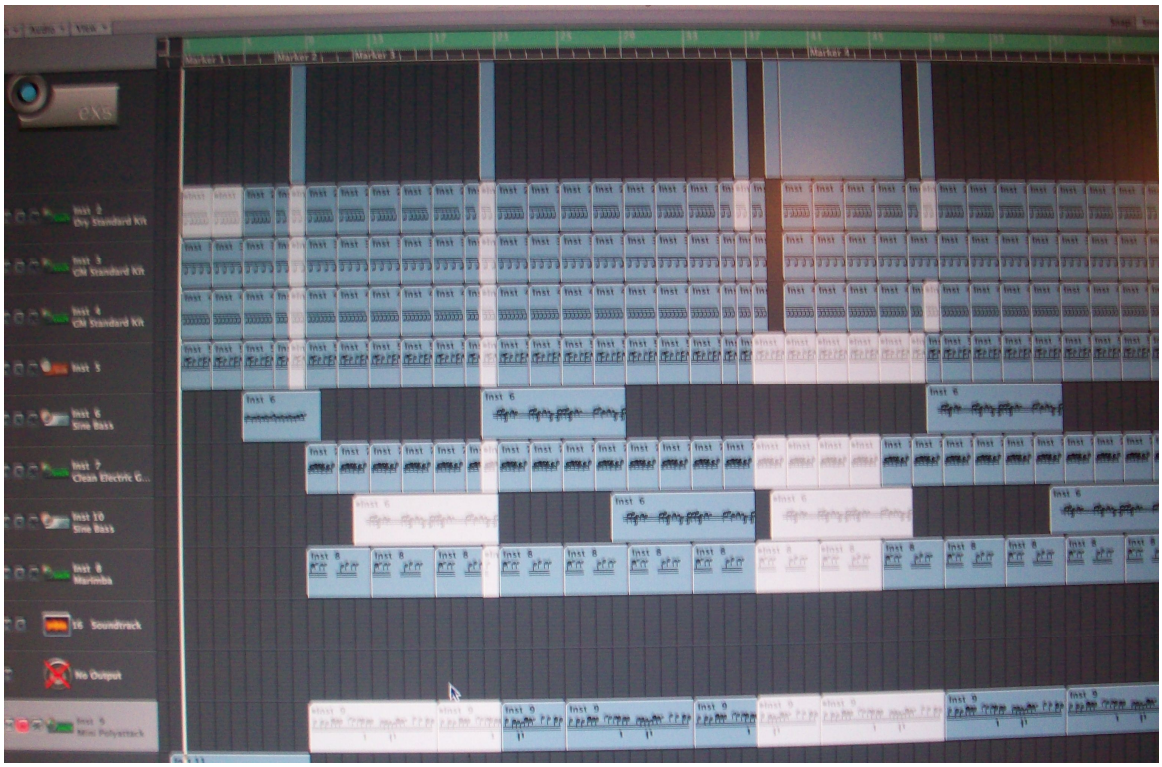


Figure 11: Digital Mixer Using Logic Pro 7

Like production of music, digital technology in dissemination of music also involves both hardware and software. However, the hardware and software used depends on the nature of dissemination. Music may be disseminated on radio, in live performance on stage, on CDs or by deejays in discotheques, and through the internet[12]. For purposes of this study, I focus on the hardware and software used for deejaying. The hardware used by deejays includes a computer whose introduction in dissemination is recent. For instance, Ronnie Tekekwe, a deejay, acquired his computer in 2000 (interview, February 28, 2009). The other hardware includes a mixer, crossover, a music player and an equalizer and two amplifiers; one for stereo and another for bass.

[12] Since there is limited access to internet in Uganda, I do not give details on internet as a form of dissemination because it is not representational of Uganda.

Figure 12: Tekekwe's Disco Hardware

The hardware in figure 12 includes a mixer, an equalizer, and a crossover. To set it up, an audio cable is connected from the Central Processing Unit (CPU) to the mixer which sends the sound to a crossover. The crossover separates the stereo from the bass and sends the audio signal to the equalizer. The equalizer sends this audio signal to the amplifier, which transfers sound to the speakers. Further, in a bigger setting like a discotheque or night club, similar equipment may be used although in larger quantities.

The software that deejays use include: Numark PCDJ, cool edit, virtual DJ, and Logic Pro. When I visited Tekekwe, I found that he was using Numark PCDJ which has two decks displayed on the computer screen. He uses both decks at the same time. When music is playing via one deck, he listens to another song via the second deck using headphones. By listening to the song on a second deck, the deejay is able to locate and identify songs of the same tempo, a tactic that is used when mixing songs for disco dancing. Further, Shiru, a deejay at club silk and presenter at Dembe FM, uses various software including cool edit,

Logic Pro and cubase. Using these software, Shiru is able to remix and record the remixes (details of these remixes will be discussed in Chapter Five). Sometimes, the remixing is done outside the discotheque and other times, it is done in the discotheque during the disco.

4.4 Set-Up of a Recording Studio

In this section, I describe the set-up of a recording studio in Uganda. In this description, I give the physical structure and the interior design of a recording studio. Because I became more familiar with Dream Studio in Kamwokya and BK Studio in Najjanankumbi, these studios will form the basis of the description. I also explain how the technological equipment used in the recording studio is acquired by the different producers. Additionally, I explain the analog and digital set-up in these studios.

Many owners of recording studios informed me that when people are beginning the music production business in Uganda, it is more experimental; it is not a well-structured business. As long as someone has a computer, they think they can start the music production business. However, Eddie Yawe carefully planned his production business by setting up a physical structure first. Explaining how he set-up the Dream Studio in Kamwokya, Yawe said:

> I didn't want to go into the cost of renting space because the business I was beginning was not big. I couldn't know when it would pick up. In order not to be discouraged by being kicked out of a rented space, I broke down my own house and constructed a recording studio. I knew where I was coming from. I knew one could hardly find someone who studied sound proofing, studio setting, sound testing and so on and so forth. So, as a producer or sound engineer, or as a musician, I was also supposed to take part-time studies in sound proofing, in mixing and

> mastering. So I ended up setting up this studio myself. For one to set up a studio as professional as this, he/she may have to bring many engineers that one can hardly pay or transport to Uganda. You have to bring a constructor whereby the thickness of the walls is supposed to be to a certain level, the angles of sound, the way you are going to set up the sound, what kind of instruments and equipment you are putting in, the sound proofing itself, many areas are supposed to be looked at. I used the laborers around to construct the studio (interview, February 13, 2009).

Yawe is one of the few producers whose studio is located in his own premises. Most of the other producers I interviewed do not own premises, but hire or work as co-producers with the already established producers. In fact, some studios are set-up in garages or even in one corner of the producer's sitting room. However, it should be noted that with or without clearly set premises, the general setting within the studio is similar in terms of hardware and software used. At this point, it is vital to discuss how the interior of some of these studios is set up or organized.

In BK Studio, there are two rooms, one being used as the technical/studio control room and the other as the musicians/singers room. The producer sits in the studio control room with all the equipment (computer, mixer, studio monitors, MIDI keyboard and all the sound modules). The musicians' room, which is adjacent to the technical room, usually has space for a microphone where an instrumentalist, vocalist can stand to play and sing, respectively.

Dream Studio has a big space with five rooms. The first two are used by the secretary and other studio workers and the studio has three rooms. Two of the rooms are used by

singers and instrumentalists and then the producer's control room with all the studio production equipment used to record, store and edit sound. The control room has an analog mixer which occupies most of the space. In addition, there are two computers which are located at the center because that is where most of the recording, programming and editing take place. In the same room there is a set of acoustic drums and guitars. The walls have sound proof material made out of sponge. However, I was able to hear the discussions between the producer and the musician as well as the tracks that were programmed while in the waiting room. In fact, at the entrance of the studio, there is a sign post which reads: "…keep silent for a better recording environment…" This warning shows that the nature of sound proof material used does not stop noise from interrupting the recording process and does not block the studio sound from being heard beyond the control room.

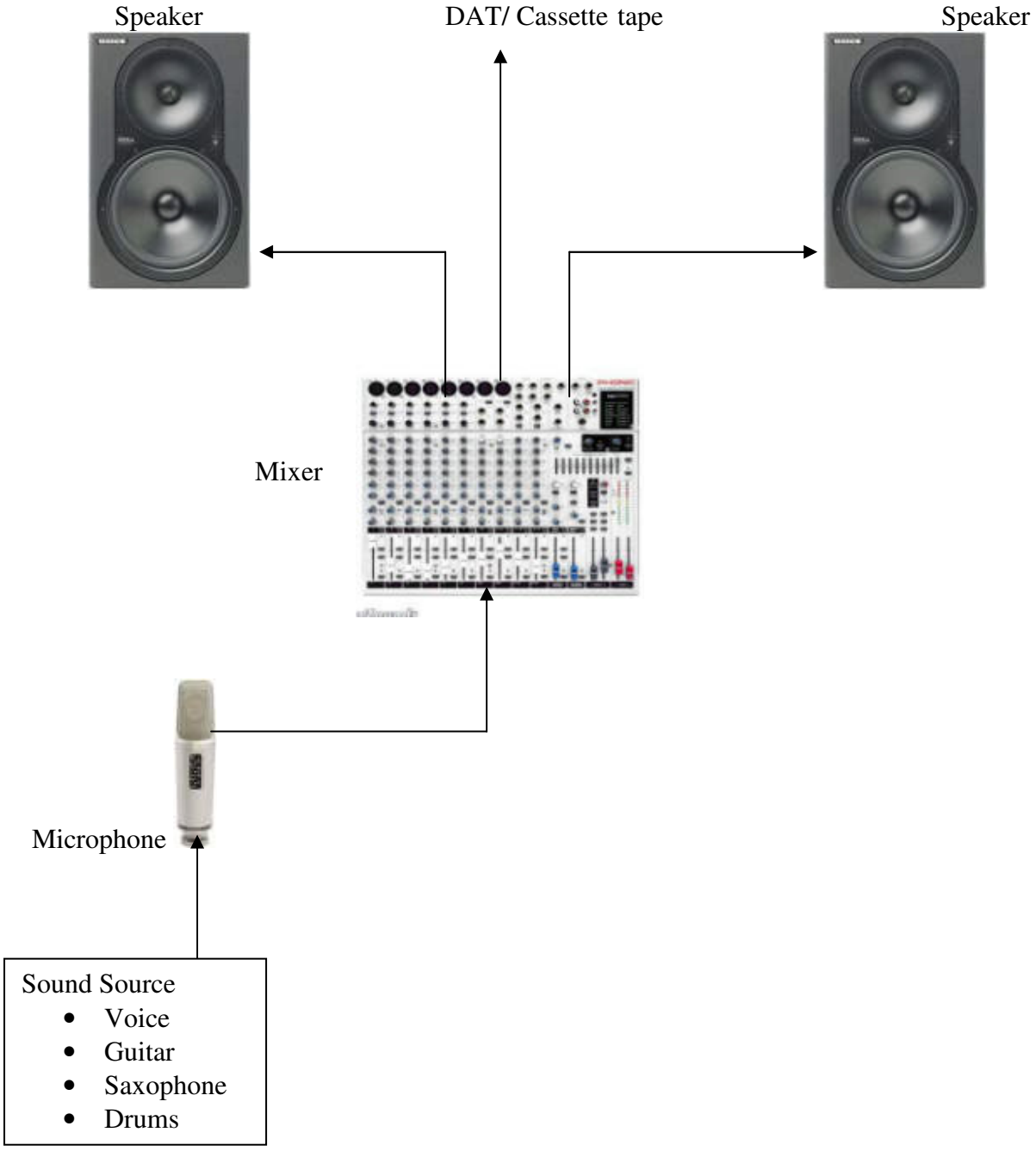
A number of producers informed me that when it was first introduced, the hardware used in most Ugandan studios was acquired from Europe and America, as well as Japan. Yawe said that the process of acquiring these technologies was very tedious and expensive as it came from far away. However, Richard Mugumya (a.k.a Witty), a producer and musician, informed me that he acquired his equipment from within Uganda; implying that the recording technology is now available on the Ugandan market (interview, January 27, 2009).

4.4.1 Analog Setting

I observed that a number of production studios in Kampala use a combination of the analog and digital settings. The analog involves use of external acoustic sounds. For example, in Dream Studio, there were acoustic instruments including guitars and drums in the studio. It is vital to understand the general setting of the analog studio because it is the foundation on which the digital studio is built. In the analog studio setting (see Figure 13), sound from voices, guitars, drums and percussion, guitars and keyboards is captured using microphones.

The sound from all these sources is sent to a mixer. From the mixer the collected sound is sent to a recording device for example a DAT (Digital Audio Tape) recorder and to the speakers to be heard. The mixer is the central and most important unit in the analog studio setting because it is on the mixer where recorded sounds are organized and leveled in terms of volume. The mixer is a collection and distribution point whereby music is sent to the speakers or a recording device such as a cassette tape or a DAT.

Figure 13: Analog Setting



Source: www.tweakheadz.com

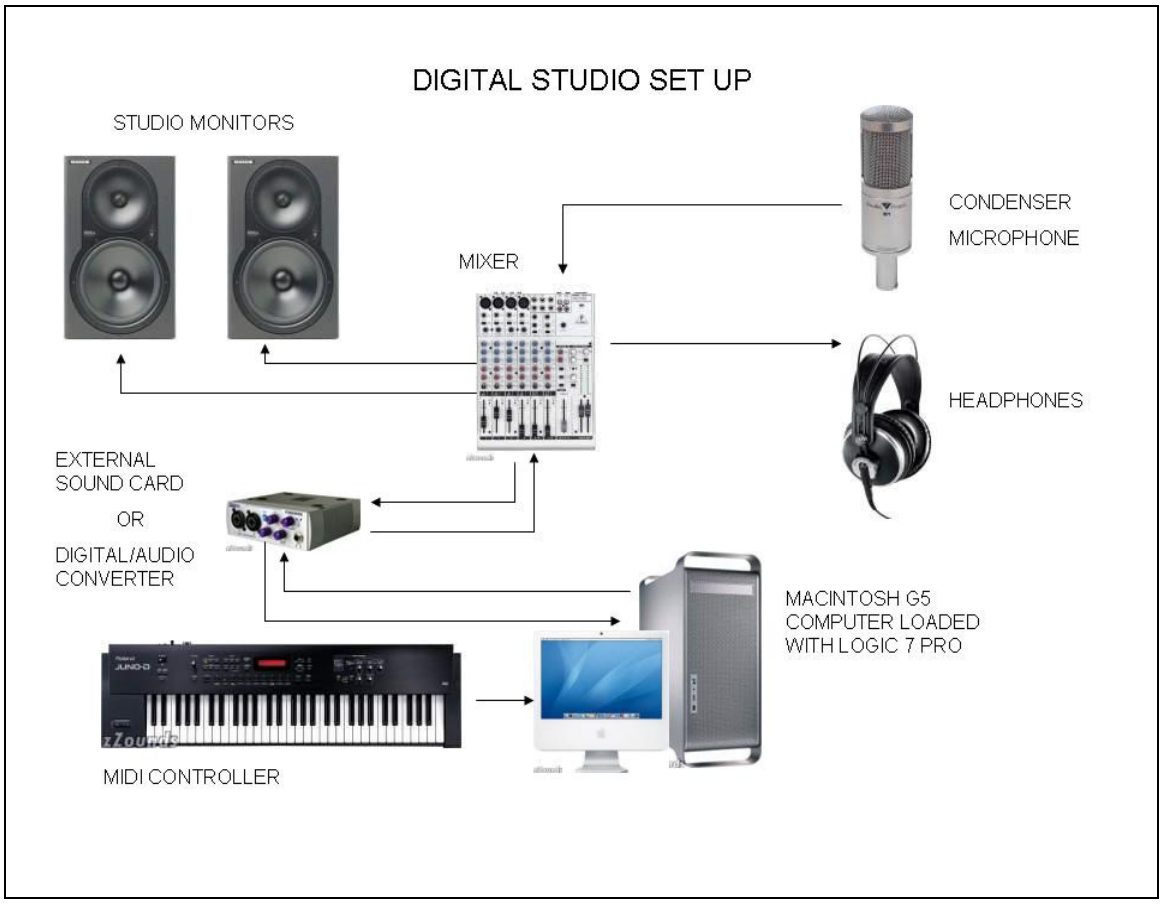
4.4.2 Digital Setting

In the digital setting, the computer is the central unit. It is responsible for processing collected sound, refining it, storing it and recording it on different mediums for storage including Compact Discs. From the digital setting, there are two possible ways of acquiring music sound.

First, a sound track can be created using a program loaded into the computer (Logic Pro).The MIDI controller is used to create the sound track. Sound created by the MIDI controller and Logic Pro is sent out of the computer in digital format to the D/A (Digital/Analog) converter. It is carried through USB cable, Firewire Cable or Optical Cable. The D/A converter then changes the digital information to analog signals. It then sends these analog signals through copper cable to the mixer which is the distribution point. The analog signal received by the mixer is then disbursed to the monitors and the headphones.

Second, sound can be picked by the microphone from a sound source such as a voice, keyboard, guitar and violin. Music sound picked by the microphone is converted into an analog signal. It is received by the mixer, which in turn sends it to the D/A converter through copper cable. The D/A converter changes the analog signal into digital information and transmits this information through digital cable (Firewire, USB, Optical) to the computer. Using Logic Pro 7, sound is then edited, processed, and stored in the computer's hard disc. The digital information is then imprinted onto a compact disc, which can be read by a compact disc player or another computer.

Figure 14: Digital Setting



Source: www.tweakheadz.com

The individual devices used in Figures 13 and 14 above were selected from (www.tweakheadz.com) for illustration purposes. I used them as a simplified way of presenting the analog and digital set up.

4.5 Training Producers in Digital Recording

Since I have discussed the technologies used to create, produce and disseminate popular music throughout this chapter, at this point, focus will be given to how the producers and musicians acquire training to be able to use digital technology. I discuss the formal and

informal types of training acquired by the producers. In addition, I examine the nature and skills of the musicians and how they acquire these skills in regard to the influence of digital technology. Like the producers, some musicians have acquired formal and informal training.

Training a producer is done both formally and informally. Some of the producers who have had formal education in music production include: Yawe and Mpagi. Yawe informed me that he first acquired a scholarship to the Netherlands to study radio production after which he got a scholarship to Morgan State University (USA) where he studied 'Sound on Sound' and 'Art of Sound' course. Yawe's course at the Morgan State University required him to gain and apply practical skills in sound production. As such, Yawe went to North Hollywood in America where he set up his first studio, Dream Studio, for his hands-on experience. Mpagi first acquired formal music education during his secondary education at Makerere College School in Kampala. His training in studio production started after his degree in 'Accounting' at Nkumba University. In 2000, Mpagi went to the UK and did a diploma at the School of Sound Recording which he completed in 2002 and graduated with a degree in Sound Engineering at Stanford University in Manchester (UK) in 2004.

Further, there are producers who have had formal music education, but are not formally trained in studio production. The studio production skills are acquired informally. For example, after Ssendikwananwa's degree in music at Makerere University, he started to read books about recording technology. Ssendikwanawa had earlier acquired experience while pursuing his studies in ethnomusicology at undergraduate level because it was a requirement for his research. Ssendikwanawa informed me that he downloaded information about studio production from the internet. Further, Ssendikwananwa listened to a lot of music similar to the kind of music produced in Uganda to be able to know what kind of music he would be dealing with. Therefore, Ssendikwanawa acquired his training through listening, experience, by observing other producers in the recording studio, and by reading relevant

literature. Similarly, Tony Hauls Bikumbi informed me that he acquired music production skills from experienced producers such as Yawe. More so, Bikumbi got contacts of part-time correspondence learning via the internet and also read some books on studio production, mastering and sound management. However, Witty and Omondi said that they acquired skills in music production because they had a computer with software for production at their disposal. More so, they got contacts with producers in recording studios where they were able to learn by imitation. For most of Uganda's producers, skills of production have been acquired by observation, practice and reading of relevant literature. In cases of musicians who are producers, the skills are acquired when they are in the studio working with producers to produce their songs. With the abilities of digital technology and how easily it can be manipulated, the observers quickly turn into "professionals."

CHAPTER FIVE: DIGITALIZING THE CREATION, PRODUCTION AND DISSEMINATION OF POPULAR MUSIC IN UGANDA

5.1 Introduction

In this Chapter, I discuss how digital technology has influenced the processes of creation, production, and dissemination of popular music in Uganda. I discuss the impact of digital creation, production, and dissemination on ownership of songs and the related copyright issues. Furthermore, I discuss how digital creation and production of music relate with the "musical" homogeneity-- the characteristic view of being similar. I also examine the dehumanization of music when technology controls the entire music production. In this study, I define dehumanization as the use of digital technology to produce sounds beyond human natural ability and in some cases (when sampled instrumental sounds are used) to replace humans. In addition, I discuss how digital technology has influenced the process of dissemination of popular music. Discussing the process of dissemination, I examine how digital technology has influenced the different modes of dissemination which include: 1) stage performance; 2) radio broadcast; 3) deejaying; 4) piracy; and 5) legal music distribution.

Although digital technology is a medium through which the processes of creation, production, and dissemination happen, there is the human agency which operates it. This human agency includes musicians, producers, and distributors. In order to understand how the musicians, producers and distributors interact with digital technology-- to create, produce, and disseminate popular music-- it is important to discuss their roles. Examining the roles of

musicians, producers and distributors, I discuss specifically how issues of creativity and economic gain in popular music are dealt with when creating, producing and disseminating it.

5.2 Conceptualizing Homogeneity, Dehumanization, and Ownership of Music

Homogeneity is the essence of being similar. As noted by Greene, technology has enhanced the homogenization of different musics and music practices across the world (2005:3). As such, many world cultures have adopted particular music genres including hip hop, reggae and raga, to mention but a few, thus making much of the music sound somewhat similar. Ugandan popular music is no exception because it also has such genres as reggae, hip hop and raga. Similar technologies used in the production and dissemination of popular music account for this state of affairs. As already mentioned in Chapter Four, many Ugandan music production studios use Logic Pro as the main software. Available on this software are sound samples and effects which can be used by the producer to create and produce music. The homogeneity of music becomes obvious when similar sampling technology is used to create music. Using sampling technology, the musician and producer select samples of already existing sounds and incorporate them in a new song. The process of homogenizing music will be discussed later in the Chapter.

Dehumanization of music happens in the process of production where sampling technology and MIDI have replaced human beings (Porcello 1991:82) in the creation, production, and dissemination of music. A sampler, as its name suggests, is used to sample sounds which can then be altered in different ways. MIDI allows the interconnection of different machines so that they can interact (Longhurst 2007: 81) in the creation and production of music. The point is that with sampling technology which developed as "a more convincing means of emulating conventional instruments" (Thèrberge 1999:218), there is a tendency for composers to work directly with music sound rather than writing music scores

and hiring musicians specialising in particular instruments. Moreover, according to Brian Longhurst, the development of computer technologies in recent years has caused innovations (for example MIDI) which have led to the increased availability of pre-recorded sounds and programmes that can be manipulated. As a result, there is wariness toward technologies that threaten to replace human labour, something Rebekah Farrugia and Thomas Swiss refer to as the elimination of human agency (2005:37) in the creation and production of music.

In addition, technologically manipulated sounds can be made to sound like human voices, as Greene argues:

> [i]n contemporary musical cultures, [music] engineers can produce what I call 'Pygmalion moments' in which synthesized timbres suddenly begin to sound like and be perceived as those produced by a living human body; and as well, such 'human' sounds can also be dismantled before the listener's very ears, into sounds obviously produced through technological artifice (Greene 2005:13).

At this point, I will consider Kay Dickinson's discussion of Cher's track, "Believe", and the vocoder effect. Dickinson explains how the vocoder electronically modifies the human voice resulting in more articulate sounds as compared to the humanly produced sounds (2001: 334). In the case of Uganda, musicians such as Morris Hassa have also adopted the use of automation effects in their music resulting into what I have termed "deindividualisation" of the human by the voice of the vocoder or auto tune device. Furthermore, Thomas Porcello (in his interview with Brewer-a studio engineer) notes the implication that "samplers 'dehumanise' music… not only on effective qualities in the musical product[,] but also the production process itself in which machines are physically replacing humans" (1991:82). This dehumanization of music is because (according to Brewer) "the sampler is well suited… to the needs of the composer who wishes to have lifelike sounds available to experiment with

during the compositional phase of musical production" (*ibid*: 83). Following the above discussion, in addition to disrupting human expression, new technologies and techniques of production undermine the issue of ownership of the music. The use of sampled sounds means that the human agency has been replaced by technology thus causing dehumanization of music. In addition, these sampled sounds are similar when particular software is used. As such it is difficult to determine the owner of a song where sampled sounds are used and when the music sounds similar, thus making ownership of music a complex issue.

The issue of ownership is also raised by the fact that technology has given rise to the multinational entertainment business and also made possible new forms of cultural democracy and new opportunities for individual and collective expression which arose in the late 1970s (Frith 1986: 278). With the rise of these new possibilities, one wonders how power is distributed to those seen performing with these technologies, those working with them and those consuming them. For Greene, recording technology has enabled the separation of sounds from musicians, which has resulted in the musicians' subsequent loss of control over their circulation, meanings as well as ownership (2005:10). The inability to trace the authorship or ownership of music means that copyright in the digital technological realm is complexified. Steven Feld clarifies this point arguing that once sound has been split from its source and the recording is taken to the marketplace, one has little control over how it is consumed (1994:288). Yet, according to Frith, there is always a need for someone to be the author of a sound, an artist, although he notes that the relative artistic significance of writers, musicians, singers, producers, engineers and arrangers keeps shifting (1986:267-268). The issue here is that with the commodification of music, the various people involved in the music-making process should benefit. How then will these contributors benefit if they do not have the power over the supply of their commodity? We shall return to this question later.

5.3 Creation of Music

Creation of music is a process of composing music. The informants that I interviewed narrated the following process in the digital creation of a song: first, a theme, which is the main idea of the song, is selected. The theme is usually based on topical issues and experiences of the song creator. Second, is the creation of the lyrics which are based on the theme. Third, the creator identifies the melody, which is the main tune of the song. Finally, the forth process is the identification of the instruments, which are to accompany the song. In this section, I discuss the procedures involved in the digital creation of popular music. I then examine how digital creation of music relates with homogeneity, dehumanization, and ownership of music.

As already noted in this Chapter, the process of music creation starts with the identification of the theme. Once the theme has been identified, the musician has an idea of what lyrics to include. One such example is Robert Ssentamu Kyagulanyi's (a.k.a. Bobi Wine)[13] view on how he creates his music. Bobi Wine, the 'Ghetto' President and Leader of the Fire Base Crew[14], is one of Uganda's celebrated popular musicians. In an interview with Bobi Wine, he told me that he does not have to think hard to create a song. He said, what is important to him is having a theme for the song he intends to sing. He picks the themes from his experiences or the experiences of someone known to him and sometimes uses stories from newspapers. Otherwise, he does not take time to compose any music. Everything is done in the studio (interview, January 16, 2009). At the time of the interview, Bobi Wine had come to

[13] For the rest of this dissertation, I will use Bobi Wine to refer to Robert Ssentamu Kyagulanyi.

[14] According to the on-line dictionary-wikipedia, a ghetto is described as a portion of the city in which members of a minority group live, especially because of social, legal, political or economic pressure. As Wikidepia further notes, the term ghetto has been used to refer to the broader range of social situations such as any poverty-stricken urban area (www.wikipedia.com). However, putting it in a Ugandan context, it is not the minority groups, rather the majority of Uganda's population that lives in ghettos. For example, Kampala City constitutes a number of slums such as Kisenyi, Katwe, Kivulu, Katanga, Bwaise, and Kamwokya, all having a high population, poor housing facilities, high crime rate, all culminating into a very low standard of living.
Fire Base Crew is a team of young Ugandan musicians who claim to be dedicated to fighting for and improving the lives of the ghetto people in Uganda.

his Bukoto Fire Base Studio to record a song and he told me that "today, I came to record a song, but I don't know what am going to sing" (interview, January 16, 2009). As Bobi Wine has said, once a theme has been identified, the musician goes to the studio where the melody and accompaniment are created.

Further, Joanita Kawalya, a music creator and major female vocalist with Afrigo Band, told me that in Afrigo Band, an individual comes up with an idea or a theme of a song, and as a band, they discuss various parts of the song and how to be put together. Each member of the band makes a contribution in terms of lyrics, instrumentation and the structure of the song. She adds that the musician who comes up with the original idea becomes the owner of the song (interview, February 23, 2009). According to Gift Gloria, a presenter at Vision Voice, one of the radio stations in Kampala, musicians are fond of writing about the same themes for example, love, hatred and praising themselves (interview, January 22, 2009).

For Eddie Mpagi, a musician and producer with Ngoni[15], experience and experiment are key to creation of music. Mpagi explains that creating a song depends on the mood and experiences of an individual (interview, February 16, 2009). Like Mpagi, Kawalya also says that she creates her music depending on the issues that are taking place at the time and from her experiences in life. She told me that one of her songs, *Yanefulila,* was created as a result of "a friend who had been chucked by her boyfriend. They had been together for some time. When the man returned to Uganda from the United States, he married another girl" (interview, February 23, 2009). It should be noted, however, that because of the need for commercial gain from fans, artists create songs which communicate themes that will easily sell to the fans. Fiske notes that the communication of the meanings that we have made for ourselves to others through talk is an important way in which fans can form communities. These fan communities produce texts, which circulate among themselves and eventually

[15] Ngoni is a band name of two musicians: Eddie Mpagi and Patrick Kimbugwe.

impact on the text produced in music (as quoted in Longhurst 2007:236). Therefore, fans are involved in the creative process, but not necessarily creating music. Moreover, as Karl Neuenfeldt stated, the energies of the musicians and producers are all directed toward making the music fans want to hear and buy (2005:87).

During fieldwork, I discovered that the approaches to the creation of popular music in Uganda vary from one musician to the other. Whereas some musicians develop lyrics and melodies simultaneously, others develop lyrics and then create the melody in the studio. In an interview with Mpagi, he informed me that when creating music, he creates bits of the song texts together with their melodies and then puts them together to form a refrain. He goes through the same process to create the verses. In addition to putting lyrics and melodies together, he also changes the language when necessary. For instance, after setting the original words, which are usually in Luganda, he then translates it to either Kiswahili or English. Many times, he employs a Kiswahili[16] translator. During the translation, the melody and lyrics may change because of the intonation of the words in the two different languages. After the translation, Mpagi sings through to make sure the intonation of the words corresponds to the music (interview, February 16, 2009). Similarly, Moses Matovu and Joanita Kawalya, of Afrigo Band, also told me that they sometimes create their music by creating the lyrics and melodies simultaneously (Matovu, interview May 21, 2009; Kawalya, interview February 23, 2009).

Much as the discussion has so far focused on some musicians who create their own melodies and lyrics before going to the studio, there are other musicians who involve digital technology in the process of music creation. For example, Raymond Ssendikwanawa, a producer, said that "once an artist has two lines of lyrics, he is ready to go to the studio" (interview, February 18, 2009). Ssendikwanawa adds that, such musicians rely on the

[16] Kiswahili is a language that was formed out of a fusion of the Bantu languages of the East African people and Arabic of the Arabs.

contribution of digital technology because with it, a producer can be able to cut and paste parts of a song and add sampled sounds of instruments. Because of the use of technology to record, playback, cut and paste parts of a song, musicians find it easy to go to the studio where they can create several melodies which they record and playback and then select what they want and delete what they do not want. In creating these melodies and accompaniment in the studio, both the musician and producer participate.

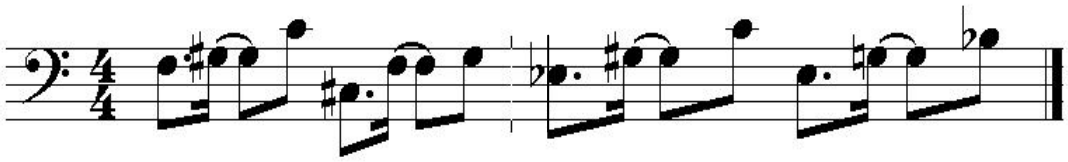
Further, Moses Matovu, a musician and Vice President of the Uganda Performing Rights Society (UPRS), told me that up-coming musicians of the twenty-first century are fond of creating a song with little text that is repeated over and over (interview, May 21, 2009). This style of composition causes monotony in Uganda's popular music. Further still, Gift Gloria, a presenter of Vision Voice, told me that Ugandan musicians are 'stagnant' as far as creating lyrics is concerned. In other words, the musicians are not creative because they make the same music. Similarly, Abu Matovu has written that "the [music] industry still has a long way to go when it comes to lyrical content. Most of their lyrics do not make sense." He adds that "for most artists, lyrics are the last thing on their minds; they just want to make anything that people can dance to" (2009:10).

Finally, after the theme, lyrics and melodies have been created, the musician, or the producer or sometimes the musician and producer, creates the accompaniment. According to Matovu, the instrumental accompaniment is created depending on the melody and meaning of the song. There are two kinds of accompaniments: 1) those which are based on sound modules from the MIDI keyboard and other music softwares; and 2) those which mix live instruments and sound modules. In the case of Afrigo Band, the live instrumental accompaniment is created before going to the studio. However, Matovu admits that he uses digital samples of drum beats provided on the computer when producing Afrigo Band's music in the studio (interview, May 21, 2009).

The digital samples for the accompaniment got from the MIDI keyboard include timbres of different instruments, like saxophones, guitars, drums and pianos or other virtual instruments (see Figure 8, Chapter Four).

The processing of these audio sounds takes place in the Digital Audio Workstation (computer). In the computer, different software used in music creation and production is loaded. This software, for example Logic Pro, has pre-existing sound samples that can be selected and used to create new music. These sound samples may be used to create accompanying tracks and melodies for the new song. I discuss the extent of sampling within a Ugandan setting using Moses Ssekibogo a.k.a. Mozey Radio and Douglas Mayanja a.k.a. Weasel's[17] song *Zuena* (listen to track 1 on the accompanying CD) and P-Square's *No One Like You* (listen to track 2 on the accompanying CD) showing how they have used similar sound samples. In Figure 15, I give an excerpt of the basic accompanying track played in both songs to show the similarity in the two songs:

Figure 15: Basic Accompanying Track of *Zuena* by Radio and Weasel and *No One Like You* by P-Square



In *Zuena*, Radio and Weasel begin the song with singing and rapping as the accompanying track plays along. This introduction is followed by the refrain, which is also accompanied by the same accompanying melodic track (Figure 15) and percussion instruments. The general structure of the song progresses thus: refrain-verse-refrain-verse-refrain-verse. A similar structure is noted in P-Square's *No One Like You.* However, in *No*

[17] For the rest of the dissertation, I use the names Mozey Radio and Weasel to refer to Moses Ssekibogo and Douglas Mayanja, respectively.

One Like You, the accompanying track shown in Figure 16 together with similar percussion instruments as those in *Zuena*, play the introduction without the singing. The singing of the refrain in *No One Like You* begins on the third beat of the fourth bar. Radio and Weasel also have different lyrics and language from what P-Square had done. While P-Square sings in English language only, Radio and Weasel sing in three languages including Luganda, English, and Kiswahili. Moreover, both songs were popular as they featured on most radio and television stations during the same period. Besides, Gloria, a presenter of the 'urban afternoon' show at Vision Voice, told me that the songs *Zuena* and *No One Like You* were popular during radio request shows because listeners usually requested for them. To test whether the audience is able to differentiate the two songs, I played *Zuena* and *No One Like You* and then asked a fan of both songs to listen and identify if there are any similarities in the two songs. At first, Kifuba Kyangabo said that the two songs were different. However, when I played the introductory parts of the two songs one at a time, he could not tell any difference between these songs. In fact, he told me that I was playing the same song (interview, August 24, 2009). As such, members of the audience may not tell whether a song is a duplication of an earlier composition or not. As noted in a number of interviews with producers including Mpagi and Kayiwa, digital technology has made it very easy to copy music and change a few ideas to make a new song.

Still using the computer, there are musicians who employ digital sounds to add effects to their voices. For example, recent technology has seen the birth of devices like auto tune and vocoder[18], both of which can be used to produce music sounds which a human being cannot produce. An example of such music where an auto tune device is used is *Kaleke Kasome (*listen to track 3 on accompanying CD*)*, a song by Morris Hassa in which he adds digital sound effects to give an automated robotic sound. I note in such cases as that of Morris

[18] A vocoder is a "speech-synthesizing device" that automates the human voice (Weheliye 2002:22).

Hassa, there is more use of digital technological sound effects than the human voice in the creation of sound. Ssendikwanawa also noted the use of automated sounds and said, "technology has enabled production of sounds that are beyond human imagination" (interview, February 18, 2009). This manipulation of sounds causes 'deindividualization' of music by detaching the music from the person. Therefore, the use of the vocoder or the auto tune device dehumanizes music.

From the views expressed by producers and musicians about digital creation of music, I note that because of digital technology, the practice of digital music creation may involve more of studio work, hence blurring the two previously distinct processes of creation and production. This practice of using digital technology to create music, for a number of informants, is destroying music by tampering with creativity, ownership, and causes music to be homogeneous. Moreover, as stressed by Erika Bradby, "with technologies of digital sampling, the previously stable categories of [ownership]… are now threatened" (as quoted in Greene 2005: 7).

Besides, according to Naomi Kabarungi, a member of the audience at a concert in Nakivubo stadium, the standard of music has gone down. She adds that "musicians are no longer creative" (interview, March 1, 2009). Kabarungi's comment was a result of the music sounding the same during the performance. The issue of loss of creativity and individual expression due to digital technology has not only been of interest among popular music fans, but also popular music critiques in the media. Moses Banturaki wrote that: "we have all become digital souls, a people detached from our inner selves and whose creativity seems to be waning by the day because we think technology takes care of it all" (2009: 20). Explaining homogeneity and the loss of creativity and blurring of ownership, Kabarungi told me that because of the ability to duplicate any music, it is possible that a musician listens to a song and goes to the studio to use the same track to create a new song. Moreover, "[w]ith the

advent of new digital technologies--including inexpensive software and free Internet Web sites that allow sound manipulation--fans now find themselves in the position of being able to create their own remixes of somebody else's music" (Farrugia and Swiss 2005:35-36). For example, *Bread n' Butter* by Radio and Weasel and *No Body* by Arafat and Magla (listen to Track 4 and 5, respectively on accompanying CD). The two songs are based on exactly the same rhythms, instrumentation, and rhyming pattern of the lyrics. Without carefully listening to the lyrics which are the only difference, one would think it is the same song. Therefore, digital technology makes popular music homogeneous.

Further, Innocent Bwengye, a member of the audience at Rock Catalina Pub in Ntinda, told me that with the current trend of music, anyone can be a musician. In fact, during some studio sessions, I observed a situation where a musician came to studio and asked the producer to use the style of a re-known artist. Some musicians came with CDs of the music they wanted to imitate and asked the producer to use the same tracks. In this regard, how can we explain the aspect of ownership and difference in creation of popular music? More so, Matovu informed me that recent technology has simplified music and made it an everyday thing such that anyone can be a singer (interview, May 21, 2009).

However, digital technology can also be used to enhance creativity. Firstly, digital technology provides musicians with a wide range of instrumental timbres and sound effects, which would not be performed by musicians in Uganda. The various accompanying sound modules or samples that are available on various recording softwares have also enabled Ugandan musicians to perform music in different genres including hip hop, reggae and afro pop. Secondly, digital technology can be used by producers and musicians to vary/ recreate instruments. For example Mesach Ssemakula, a musician, in his song *Njagala Nyimbire Omutanda* (listen to track 6 on accompanying CD), uses digital technology to record and add

effects to Kiganda[19] drums and fuse them with 'western' percussion instruments. In an interview with Lyn Abarungi, a musician, she said that there are musicians who have taken advantage of technology to fuse western styles of music such as hip hop and reggae with our traditional music. An example here is Klear Cut and Percussion Discussion who in their song, *Klear Discussion* (listen to track 7 on accompanying CD), blended hip hop with Kiganda drums. Thirdly, digital technology makes music creation faster, easier, and cheaper since a musician can create the guiding accompanying track without going through the hassle of hiring instrumentalists. For instance, Abarungi told me that when she goes to the studio, she gets a demo[20] to help her rehearse before finally taking it to the studio for production. Further, through track recording, a musician can sing different parts of the song meant for different people alone.

5.4 Production of Popular Music in Uganda

Production of music is a process that takes place entirely in the studio. The production process involves recording, programming, mixing and mastering of music. During the process of production, the musician works together with the producer until the song is ready for dissemination. In this section, I discuss the types of production as well as the procedures involved in producing a song. In addition, I discuss the role of the producer in the process of producing music. I also discuss how digital music production challenges ownership and copyright, homogeneity, and dehumanization of music.

[19] Kiganda is an adverb which denotes that which belongs to the Baganda people of central Uganda.
[20] A demo is a demonstration track that is created using already existing sounds on the computer.

5.4.1 Digital Production of a Song

In order to understand the process of production in Uganda, it is important to examine the types of production in Uganda's studios. There are two kinds of production in Ugandan studios. The first kind of music production is what Kayiwa, a producer, calls "off-hand production" (interview, January 15, 2009). Off-hand production involves the use of only digital formats, especially the instrumentation, to produce a song. The instrumental accompanying tracks are selected from samples of existing sounds, a process called programming. The second kind of music production is what Kayiwa refers to as "on-hand production" (*ibid*). On-hand production involves the use of live instruments in the accompaniment which are recorded and incorporated into the digital system and then edited to the producer's satisfaction. In this case, recording process involves capturing of sounds from external sources--including the voice and other musical instruments like pianos, violins, brasses and percussion--to the recording device.

As I observed in a studio session I attended at Dream Studio, the process of production begins with the musician singing through the song so that together with the producer, they determine the style and key in which the song will be performed. In addition, I observed that, a producer gives advice on the key and style basing on the vocal range of the musician and the nature of the song. The next stage is programming which is about creating the accompanying instrumental tracks. In the studios visited, an accompanying track is created using Logic Pro 7 software and the MIDI controller. The sound created by Logic Pro is sent out of the computer in digital format to the D/A (Digital/Analog) converter (or sound card). It is carried through USB cable, Fire wire Cable or Optical Cable. The D/A converter then changes the digital information to analog signals. It then sends these analog signals through copper cable to the mixer. The mixer then distributes the analog signal to the monitors and the headphones of the producer and musician to assess the quality of the music.

Once the musician and producer are satisfied with the accompanying instrumental track, the musician's voice is recorded over the accompanying instrumental track. The producer routes the signal from the computer to the room where the singer is so that the singer can listen to the accompaniment track through the headphones as she/he sings along through a microphone. The singer's voice is then captured through the mixer to the sound card (D/A converter) and then to the computer. If the refrain is repeated many times, the musician may sing it once and the producer makes the multiple repeats during the editing. This process applies to only off-hand production.

However, if on-hand production is done, the producer records the instrumental accompaniment first. Yawe and Kayiwa informed me that some musicians hire instrumentalists to play the instruments to accompany their songs (interview February 13, 2009; interview January 15, 2009). During the recording in the studio, microphones are attached to all the instruments such that the sound received is clear and articulate. In a performance with many musicians, each musician is recorded individually and their voices saved as separate tracks. Sound received through the microphone is then sent to be received by the mixer, which in turn sends it to the D/A converter (sound card) through copper cable. The D/A converter changes the analog signal into digital information and transmits it through digital cable (fire wire, USB, Optical) to the computer's hard disc. As Yawe said, there is always need to play the instruments first because they guide the singer and then record the singer later as she/he sings along this accompanying track.

In some Ugandan recording studios such as No End Studio, Dream Studio, Afrigo Studio, and Good Enough Studio, some producers blend off-hand and on-hand production by combining recorded and programmed sounds of the accompanying tracks. Here, the producers use both the synthesized sounds provided on Logic Pro 7 software as well as live instruments such as guitars, saxophones, among other instruments. The use of external sound

sources also means that the recording process involves the use of analog technology in addition to the digital technology. There are a number of reasons that explain the use of both digital and analog technology in many recording studios in Uganda: 1) the musicians are able to express themselves relying on their own abilities rather than those of digital technology. Moreover, as already discussed in Chapter Four, the ability to play a musical instrument is one of the major characteristics considered to regard one as a good musician; 2) different players (instrumentalists and singers) sometimes play or sing individually while the sound is recorded and then all the parts are combined and edited by the producer. For example, Matovu said that he records the sound of his saxophone and then transfers the sound to a computer, where the producer will merge it with that of other players and singers of Afrigo Band during production process (interview, May 21, 2009). Therefore, recording technology makes music production convenient; and 3) change from analog to digital takes a longer process. Kan told me that "we have started phasing out analog, bringing in digital, gradually. Like it is now, we still have analog because you cannot just wake up one day and say I have closed analog, now let me go to digital" (interview, February 27, 2009).

The next process after recording and programming is mixing. Mixing is the process of adjusting and combining various sound inputs to create a single output. The process of mixing involves changing of dynamics and altering the frequency of the song, as well as arranging the song. When arranging the song, the producer asks a number of questions including: 1) Does the song need a prelude, interludes or a postlude? 2) What music material should be included in this prelude, interludes and postlude? 3) When should the refrain come in? 4) When should the verses come in? While dealing with these questions, the producer uses the music material in the recorded song as well as the sound samples and effects provided by the music software. Further, when mixing a song, the producer can add sound

effects to the song such as reverberations[21] and other pitch-related effects including vibratos. As Mpagi and Ssendikwanawa informed me, the mixing processes may last for a day or two and sometimes a week, depending on how complex the song is and depending on who the producer is. Mpagi said that after recording and programming a song, he does not listen to that song for about a week (interview, February 16, 2009). He said that he needs to come back to the song with a fresh mind, without bias (*ibid*). According to Mpagi, when he comes back to the song, the first thing he edits is the refrain because: 1) the refrain is used to formulate the accompaniment; and 2) since popular music is commercialized, the producers have to ensure that the song will be commercially viable by creating a refrain that their target audience would identify with. He listens to the refrains, sung accappella, to get a feel of the song as if it were new. Then he singles out the verses to rearrange and edit by giving them the reverberations and compressing[22] them. After editing all the sung sections of the song, the producer edits one instrument at a time and later balances the instruments and voices. While balancing, the producer ensures that the role played by each instrument/voice is clearly articulated in terms of phraseology and dynamics. For example, if the voice is playing the major role in the song, the producer has to make sure that it is not overshadowed by the accompanying instruments.

As a means to improve creativity in Ugandan popular music, some producers, such as Mpagi, have bought new software. In an interview, Mpagi informed me that he had realized that using Logic Pro across many studios in Uganda is the reason as to why most of Ugandan popular music sounds similar (interview, February 16, 2009). In order to deal with the issue of monotony and homogeneity, Mpagi has invested in a different kind of software called Pro Tools. He combines it with Logic Pro to improve the quality and creativity of his music. This view of combining different software to improve creativity has not only been of interest

[21] Reverberation is the persistence of a sound after its source has stopped. (http//dictionary.die.net/reverberation)
[22] Compressing is the automatic control of the volume of input and output audio signals.

among producers in Uganda, but also in Europe and America. For example, Cliff Truesdell reports that different programs can be "synced together…and routed to a single host [music] program. This allows the user to take advantage of the strengths of one program that may be deficient in another and vice versa" (2007: XXVI).

Further, I noted that homogeneity of music is caused by producers in some of the studios. For example, during an interview with Zack Kibirige (not real name), he informed me that the monotony of some songs is due to the kinds of studios used. In Dream Studio, for instance, there is what is called the 'dream sound'. This sound is common in most of the music that is produced in Dream Studio. There are many producers working in the studio. When one has created a track, another producer copies the track and transfers it to his own file. This track is then used in the songs produced by other producers who have access to the computer in the studio (interview, February 9, 2009).

The final procedure, after recording, programming, and mixing, in the process of production is mastering. Mastering is the overall editing of the music, which involves assessing all the songs to create an album. In other words, mastering is the final review before making multiple copies. Mastering involves scrutinizing of the entire arrangement of the song, checking how the frequency and volume of the song has been balanced, and checking the brightness of the song. To create an album, the mastering engineer (as is usually referred to) has to make sure that the songs are different because there is always a possibility to have similar songs (Yawe, interview February 13, 2009). Mpagi and Yawe informed me that changing the frequency of a given instrument can affect the style and timbre of the music. To be able to balance the frequency well, knowledge on the possible ranges of instruments and voices and characteristics of music genres is crucial.

I noted that many musicians take their music for mastering to different studios from those where the recording and mixing was done. When mastering is done in the same studio,

it is usually done by a different producer who did not participate in the recording and mixing of the song. A different producer/ studio is used for mastering a song because "it is not easy for one person to effect certain changes or to see his mistakes if he has been working on the song" (Matovu, interview May 21, 2009). Matovu told me that most of Afrigo Band's music is mastered in the UK or USA. Matovu adds that mastering improves the quality of the song. The mastered copy, stored as digital information on the hard disc is then burned onto a Compact Disc, which can be read by any Compact Disc player or computer.

As Steward and Garrat discuss, "the producer's job is to direct the overall sound" (as quoted in Longhurst 2007:52) in a recording studio. Some producers, in fact, "impose their ideas on artists who are there simply to make the basic noise the producer wants" (*ibid.*). As such, a producer has a number of roles including recording, programming, editing, and mastering the song. However, in a Ugandan studio, producers also participate in the creation of a song as well as training the musicians. I observed, during a recording session, a producer singing through a song for the musician to be able to sing it in the correct key. In fact, some people blame the producers for a poor voice quality in a song. For instance, Kan, a Programs Director of UBC, stressed that musicians need guidance from the producers to come up with good songs (interview, February 27, 2009). In fact, a number of musicians and producers informed me that the producer contributes more than 60% of the whole song; sometimes even up to 90%. Moreover, during some of the studio sessions I attended, I observed that some musicians come to the studio with only a few song texts. In such a situation, the producer would create the melody and the accompanying instrumental tracks. Later, when the producer was editing the song, he added effects to the voice. In some cases, some musicians could not maintain the beat and correct pitch, and the producer made the necessary changes during the editing stage. In this case, the producer doubles as the musician. As Louise Meintjes has noted, the producer is able to double as a musician because of the "developments in audio

technology that place artistic control increasingly in the hands of those who have the technological competence to manipulate electronic controls and to work through often complex user interface systems" (2005:27). The producers usually have the knowledge of how to use digital technology for creating music. An important question at this point is: who owns the songs created through these processes? A number of informants agreed that the songs belong to the musician since he/she pays the producer before he/she begins studio work. These informants said that payment is usually done before the producer works on the song and after that, whatever comes out of the song in terms of income belongs to the musician.

Further, Abarungi told me that the practice of being a producer and a musician should be discarded because it leads to conflict of roles. According to Abarungi, if a producer is a musician, he/she may be tempted to use accompanying instrumental tracks and ornaments of the other musicians whom they produce (interview, January 18, 2009). However, Yawe who is a producer as well as a musician argued that it is okay for him to take on both roles so long as the style of music he produces in his songs is different from that of musicians that contract him to produce their music (interview, February 13, 2009).

5.5 Digital Technology Creating the Musician: Compromising Creativity, Dehumanizing Music and Questioning Ownership?

In this section, I examine how digital technology is used to "create" musicians by discussing how the skills of a musician are acquired and how popular musicians create their music. I discuss how digital technology compromises creativity, dehumanizes music and brings into question the issue of ownership.

A number of popular musicians in Uganda have not had formal training in any field of music. Rather, they depend on their interest and talents. Having been brought up in Christian

families, most musicians are influenced by churches, which develop their talent through choir singing. According to Kayiwa, a big part of music in Uganda is based on talent, and he emphasizes that: "Uganda is a singing country." Kayiwa adds that for some artists, talent is developed from the churches and for others; it is developed by listening to music of other artists. For Kayiwa, artists like Bobi Wine and Chameleon have been popular since 2001 up to present day, despite the fact that they are not trained musicians, which means their talent has kept them going. He adds that technology has also played a big role in keeping these musicians on the music scene. However, he also adds that although talent is an important aspect, creativity is also necessary. I note that formal training would help the musicians to improve their talents and thus improve their creativity.

Similarly, in an interview with Ssendikwanawa, himself a music graduate from Makerere University, he said that musicians in Uganda usually do not acquire formal training in music but they have their in-born talents, which are only improved using digital technology. Ssendikwanawa said: "So, when the artist comes with a song, it may not be in order or it may not be good. It may need improvement in the lyrics and in the flow. The variation of the melodies within a song may not be good. The producer listens to the song and gives the necessary advice and together with the musician, they agree on the style which the musician wants" (interview, February 18, 2009). In this case, the musician does not need to know the song before going to the studio, because digital technology does it for him or her. Similarly, Mpagi told me that, "an artist knows that he does not need to rehearse to go to the studio. Some musicians can even dream and go there the following day because if one needs a certain texture within his voice, the technology in the studio will do that. It has killed real musicians" (interview, February 16, 2009). For example using digital technology, a producer can add effects to the musician's voice and produce sound qualities that many musicians are not able to produce since they lack musical training. As noted in the creation process,

producers experiment with different sounds that are provided as samples in the computer, using them to promote the abilities of a musician.

The question here is; who are the real musicians? According to Mpagi, a real musician is one whose music would be appreciated as being good without considering how much the computer has added (ibid.). In other words, according to Mpagi, musicians who depend on technologies are no musicians. Examples of musicians who have made hits using technology include groups like the *Obsessions* (anonymous, interview March 1, 2009) and songs such as *Kaleke Kasome* by Morris Hassa (listen to Track 3 on the accompanying CD). Such musicians have made 'hits', but when it comes to live stage performances, they use dummy microphones[23] because they are unable to produce the sounds that were recorded in the studio.

In other cases, musicians hire singers they have seen perform elsewhere, especially those who are not involved with popular music. Some of these singers are seen at school festivals and in church choirs. These singers are paid to sing and the sound is recorded. The popular musician who pays the singer claims this sound as his/her own and when it comes to performance, he/she cannot reproduce the same voice. That is also a reason as to why they use CDs to play in the background as they mime a long. For example, Dream Gals, an all-girls' band, used a voice of the best girl in Tusker Project Fame 2008 in their song, *Weekend* (conversational interview, February 14, 2009). How can ownership be claimed in this case? In a situation where someone else or an auto tune machine is the voice behind the entire song, how can the popular musician be able to express himself or to create a sound that is his own? Who claims the ownership of such music?

This discussion takes us to Yawe's view that "many Ugandan musicians cannot sing." Explaining his view, Yawe argues that "you can get the top 4 or 5 [artists] that are regarded

[23] Dummy microphones are fake microphones, which musicians use to pretend to the audience that they are performing "live" when they are not. These dummy microphones can be made by switching off the actual microphone or by not putting in any batteries so that no sound enters and goes through the microphone.

in the PAM [Pearl of Africa Music] Awards of Uganda and just take them to the country where they are not known and also get other Jamaicans or musicians from another country and take them to a country where they are not known, and ask them to come up with a piece of music, ours [Ugandan artists] will fail completely. They don't even know the basics. They don't know when they are singing discords. They even don't know what a flat pitch is" (interview, February 13, 2009). There is more reliance on digital technology than on the human agency as vocalists have resorted to auto tune machines and other sound effects provided by the computer to automate vocal sounds (for example, listen to Track 3 on accompanying CD), while instrumentalists have been replaced by samples of instruments on computer software like Logic Pro and MIDI (see Figure 8). This reliance on digital technology by musicians causes dehumanization of music.

Furthermore, "musicians today use the same tracks for different songs, they simply change the lyrics" (Kabarungi, interview March 1, 2009). Without the lyrics, the song is the same. For example "Judith Babirye's[24] *Beera Nange* album, uses the same track, but changes the lyrics of the songs and maybe sometimes changes the speed of the song" (*ibid*). A similar example is Radio and Weasel's *Bread n' Butter* and Arafat and Magla's *No Body* as already discussed in this Chapter. I am reminded here of an interview with Radio and Weasel that was broadcast on television. While talking about the sameness of their music on *The Beat*, a UBC television show, Radio and Weasel said that they do not want to make the life of the "fans hard because our people are already stressed with many other problems like children, land issues, poverty and wars, so we just give them entertainment not adding stress to them by complicating our music." [25]

Further, because of digital technology, some musicians have recreated themselves into music producers. According to Mpagi, these are musicians who are interested in making

[24] Judith Babirye is a popular Ugandan gospel music artist.
[25] Program is Da beat on UBC presented by Richard Tiwangye on Thursday at 11:30m.

music in order make a living (interview, February 16, 2009). Views got from a number of informants show that economic gain is the primary aim of many Ugandan popular musicians. The use of digital sound samples (vocal and instrumental), which enable sound to be copied, imitated, and incorporated into a new song has compromised individual creativity. I relate creativity with the state of musicianship because to be creative is to have a skill as a musician. But what skills do Ugandan musicians, producers and audiences consider regarding a musician as being creative?

The forms of musicianship have changed as technology advances. Brian Longhurst (2007) notes the view that "in the area of music it has been suggested that the introduction of new technologies leads to a decline in forms of previously established and valued standards of musicianship" (2007:76). While Longhurst opposes this view, it resonates with my experience in the field. For example, during an interview with Innocent Bwengye, a member of the audience, I was told that prior to the development of digital technologies of music production, playing a musical instrument was a basic requirement for one to be regarded a musician. Knowledge of western instruments like a piano or a saxophone was a great supplement to the musician's skill. Explaining this view, Bwengye gives an account of his experience as follows:

> When I was in high school, we had an organ. To learn this instrument, one needed a lot of time and commitment. We had three students whom I think, learnt how to play the instrument before they came to this school. I asked one of them to teach me how to play this organ; I wondered how someone's eyes can read and then the fingers move swiftly on the key board, yet getting it right. I was impatient and I could not get the skill. What the guy did was to press for me a button on the key board and it gave the beat (sound module); now, that is

> what technology is doing. There are preset sounds in the computer which one can access at the click of a mouse (interview, February 7, 2009).

Bwengye's experience implies that one is a musician if he/she can play a musical instrument. While playing a musical instrument, the musician is able to express him/herself without relying on any other person. However, it should be noted that "every stage of production, distribution and consumption in the musical life of the industrialised world has been so permeated by technology that we no longer even recognise complex devices such as a piano as technological artefacts..." (Auner 2003:99). Further, Bwengye's experience exposes the impact of digital technology: 1) it simplifies music; and 2) it is a faster way of dealing with the musician's skill. It should be noted that the skill of a musician determines his ability to express him/herself. How then does the musician interact with digital samples to express him/herself?

Mpagi informed me that because of the use of computer software to create and produce music, some musicians have become producers. Some musicians come to a studio for six months to do an album. While in the studio, he/she learns what the producer is doing and later sets up his/her own studio. An anonymous informant told me that, "artists that have opened up their own studios and tried to work at their own studios have failed artistically: for example, Mega Dee, Raga Dee, Mesach Ssemakula. Until Ssemakula went back to where he used to produce his music from, he had lost his fame. Whoever thinks they have money to buy equipment thinks he/she can become a producer. It is all about money; it is not about being able to use the software" (interview, May 15, 2009). According to Mpagi, one needs to be a producer first before becoming a musician. He adds that one needs to "understand the music first because you can be a musician first but if you picked interest in production out of

the urge to save money, then you are doing the wrong thing" (interview, February 16, 2009). This involvement of musicians in production shows that the roles of musicians and producers overlap.

The above discussion shows that digital technology has dehumanized music since the music is produced by technology rather than humans. More so, because digital technology has promoted a homogenous popular musical sound in Uganda, it also raises complex issues of ownership and copyright when musicians and producers use sampled sounds. Further, the distinction between producer and musician becomes blurred when their roles overlap. In My view, digital technology should be used to enhance creation, but not to be totally relied upon.

5.6 Dissemination of Popular Music in Uganda

Dissemination involves the distribution of music to the consumer through live stage performance, radio broadcast, discotheques and night clubs by deejays, dubbing pirates, and legal distribution agents. In this section, I discuss these various modes of distributing popular music in Uganda with particular attention on how digital technology has influenced them.

5.6.1 Stage Performance

A live stage performance is a situation where musicians and their accompanists sing and play instruments to a particular audience in a particular place. Performance is the avenue Ugandan musicians look forward to, to show off their abilities and for financial gain. Through musical performances, musicians are able to earn money in terms of the payment collected at entrances. In addition, musicians use performance as a stage to express their musical ability. There are three performance practices of popular music in Uganda including: 1) "live performance" in which live instruments accompany singing and the music is amplified to reach wider audiences; 2) karaoke, where instrumental accompaniment tracks

are played through an amplified music system and musicians sing along using a microphone; and 3) “mime Performance”, where a CD recording of a song is played as the musician mimes along. All these three performance practices involve the use of technology, but the extent to which the technology is used varies. I was able to observe the three performance practices and noted that the ones where Ugandan popular music featured most were “live” performance and mime performance.

The first performance practice, “live performance” was observed at Club Obliggatto in Kampala, staged by Afrigo Band (see Figure 16). Instrumentalists and vocalists always appeared on stage to play their parts. During one of their performances, I observed a number of instruments on the stage including: guitars, brasses, keyboards, drums, rattles, bells, shakers, and singers. Each instrumentalist and singer had a microphone which was used to capture the sound that was transferred to the speakers for amplification. During the performance, the audience participated by dancing, clapping, smiling, nodding, and sometimes singing along some of their favourite tunes. One of such tunes that made the audience jump to the dance floor and sing along was *Batuse* (listen to track 8 on accompanying CD).

Figure 16: Afrigo Band Performs at Club Obliggatto

The second type of performance practice, karaoke, was common in bars such as 'Rock Catalina' in Ntinda, where musicians sing over already recorded tracks. The musicians do not necessarily have to be the actual creators of the songs. The songs were usually common to the listeners and they included both local and foreign popular musics. At Karaoke performances, the audience always participated by screaming, laughing and sometimes clapping and singing along.

The third and most common form of stage performance is "mime performance" in which musicians mime their songs during live shows. As already defined at the beginning of this section, a live stage performance is supposed to be a show where musicians and their accompanists sing and play instruments to a particular audience in a particular place. In the Ugandan context however, a live performance may mean only the physical presence of the "creator" of a song, even though he/she simply mimes. During a performance titled: 'The East African Carnival' at Kiwatule Recreation Center in Kampala (see Figure 17), I observed that all the musicians at that show mimed their songs. For example, during the performance

musicians would utter words like “thank you”, “are you ready”, to the audience while the music was playing.

Figure 17: Audience at the East African Carnival Concert

I had a similar experience at a performance viewed on Record Television where Juliana Kanyomozi was launching her album in Mbarara District of western Uganda. Kanyomozi was miming her songs. Moreover, there were parts in her songs that required participation of two singers. For example *Usiende*, was sung by Bushoke and Kanyomozi. During Kanyomozi’s performance in Mbarara, Bushoke’s parts could be heard yet he was not seen on stage. Sometimes, Kanyomozi uttered different words to the audience, for example “abe Mbarara muli mutya” (meaning; how are you people of Mbarara), while the song went on playing.

Commenting about this kind of performance, Yawe said that while a number of musicians claim to make money from concerts, "most musicians cannot play live. They can't sing live. They use too much of the technology" (interview, February 13, 2009). Although Bobi Wine assured me that during a performance he takes along his Crew members, instruments as well as the public address system which he uses to amplify his music, he also sometimes performs his songs karaoke. During a live television show of the Tusker Project Fame Finale in Kenya, broadcast on UBC[26] in 2008, I observed Bobi Wine performing his song, *Bada,* on stage alone without any instrumentalists or backup singers. In fact, he was miming. However, Bobi Wine acknowledges that most artists in Uganda do not perform live, rather they mime along CDs. When asked why this performance practice is happening, Bobi Wine said that live performance is still very expensive for many Ugandan popular musicians. He adds that these artists who mime their songs are not to blame. He said, "Sometimes they go somewhere and the microphone is not good. So even when an instrumental is played and you are singing you are not heard. So they resort to miming over the songs" (Bobi Wine, interview January 16, 2009).

According to Kawalya, "mime performance" is done because of the expenses involved in "live performance" Kawalya does not deny the fact that she sometimes performs with a CD playing in the background. She says that there are performances which she has to handle as an individual. During such performances, she is on her own and it would be expensive to hire the other musicians in the band to come along and play with her. So on such occasions, Kawalya uses a recorded CD as she sings along (interview, February 23, 2009).

However, commenting about live stage performance in Uganda, a member of the audience said that: "I feel that going for a concert is a waste of time and money. The artists are just miming with a CD. You just hear a lot of: 'DJ track number 2', as they wait for the

[26] UBC is an abbreviation for Uganda Broadcasting Corporation

DJ to play the song. So, with all the music in our faces on television, cheap CDs from pirates, and FM radio stations, I would go for a concert to hear a musician's real live voice. But they use recorded tracks" (Kabarungi, interview March 1, 2009). As Lysloff argues "...an increasing amount of our day-to-day experiences is mediated rather than live" (2003:32). He adds that "new media technologies have altered our relationship with the world around us so radically that the real and simulated seem to be indistinguishable" (2003:31-32). As a result, the borders between an authentic human presence and the machine are becoming increasingly permeable and unstable. Therefore, "there is a shift of emotional expression from the human to the technological realm" (Auner, 2003:99). As such, the trend of performance practice has caused wariness not only to musicians and producers such as Yawe, but also to the audience in Uganda and scholars outside Uganda. Nevertheless, during all the performances I attended, the audience was always excited and giving loud applause to these artists whether they played live or mimed. For example, during the 'East African Carnival' concert, I concluded that: 1) since the people were closely packed together, as shown in Figure 17, there were many people who attended the concert; 2) the musicians were appreciated since they were cheered by the audience especially by screaming and shouting out the names of the artists; and 3) the audience enjoyed the performance since they watched the concert until after midnight.

However, Kayiwa argues that it is not good for a musician to mime during a concert. He adds that musicians are "stealing" from the audience when they mime along CDs because the audience pays money to attend a live concert. By failing to perform live, Ugandan musicians are showing that they are "studio products" and without the studio, such people would not be musicians. Kayiwa informed me that by performing live, musicians are giving good music to the audience. Kayiwa's argument implies that the quality of music relates with the musician's ability to perform live (interview, January 15, 2009).

5.6.2 Radio Broadcast

There are several types of media in Uganda that disseminate popular music in Uganda including radio and television stations, print media like newspapers and magazines and more recently, the internet. In this study, however, I focus on radio dissemination of music. In Uganda, radio is one of the most far-reaching modes of communication. In Uganda, there are over fifty FM radios (see Appendix 5 for sample list). As Keith Negus has noted, the gap between artists and audiences (fans) was initially narrowed by the invention of the radio, which "gave many people across the world access to music of which they had no previous knowledge" (1996:77). In addition to distribution of musical experience and knowledge across space and time using technologies of transmission, Negus' argument helps me to show how technology has enabled the notion of collective expression in music by bringing fans closer to musicians. For example, in Uganda, the radio presenters host request shows during which listeners call in and request for the songs they want to listen to. Moreover, radio stations can replay a song many times during different programs thus enabling the audience to listen to the music many times.

Furthermore, radio broadcasting led to increased speed of musical change, which "made the turnover time of popular songs much faster" (Negus 1996:79). Negus also notes that "although the duration of a song's commercial popularity had shortened; the number of listeners that could be reached had greatly increased" (1996:79). Therefore, radio is a wider and faster mode of disseminating popular music. Similarly, Peter Manuel stresses the notion that radio is the most widespread and farther-reaching form of media (1988:4). Besides, I noted throughout the interviews and field experience that, radio is the most targeted form of dissemination and consumption of popular music by Ugandan musicians and audiences. As Richard Middleton notes while defining popular music, it is the music which is disseminated through the media (1990:4). In an interview with Timothy Lwanga, the Music Director of

Sanyu FM, he said that a popular song that has potential to become a hit has the capacity to run through several radio stations, and several international databases within a very short period of time through the internet. He said, "if the song hits the airwaves on another radio station and I don't have that song, it's just a matter of calling up the music director of that station, introduce myself as a music director of Sanyu FM and he e-mails it in just a second and I play it on my station. So, the advantage with digital technology for a musician in Uganda now is that their songs can spread within a very short time like the wide fires you see that are in Australia"[27] (Lwanga, interview February 10, 2009). To use the "spread of fires in Australia" as an expression to explain how music is disseminated today implies that digital technology has enabled easy and quick distribution of popular music. The musicians' chances of gaining popularity are very high now with the use of digital technology in the media. As such, one cannot separate popular music and the media, which has been influenced by technological advancement.

Unlike in the 1980s, when a distributing agent acquired a song from the artist by buying distribution rights of the song who in turn sold it to the radio for popularity (Matovu, interview 5/21/2009 and Kan, interview February 27, 2009), today in the twenty-first century, musicians pay FM radio presenters to play their music (Lwanga, interview February 10, 2009; Gloria, interview January 22, 2009; Kan, interview February 27, 2009; Matovu, interview May 21, 2009). Further, a number of informants told me that there is too much music being released from the production studios and therefore, a song can only be popular for a short time because there are many more songs that must be heard. This increasing number of musicians and musics partly explains the reason as to why many popular songs do not remain popular for a long time. I also noted that once a song is taken to the radio station for air play, it is overplayed causing the listeners to get tired of the song quickly. As such,

[27] At the time of the interview, there was a wide fire spreading very fast in Australia and this issue was a major headline through all forms of media.

musicians have to always be on their 'toes' trying to create a new song as the one they already released will soon be boring.

There are two contradicting ideas of popularity of music and musicians when the radio is used as a medium of dissemination. On the one hand, musicians like Abarungi, Bobi Wine, and Mpagi think that FM radio stations make their music popular by overplaying them thus increasing their chances to have concerts where they are able to gain economically. On the other hand, Lwanga thinks that FM radio stations cripple the musicians' financial prospects because the songs are exposed to the audience before they are launched. Therefore, during the "real" launch period, people may no longer pay much attention to the songs any more.

5.6.3 Deejays as Music Disseminating Agents

There are two categories of Deejays that the research revealed and these include what I have called "night club deejays" and "mobile disco deejays." "Night club deejays" are those that are permanent employees at discotheques. The equipment they use for deejaying is usually bulky and stationed in one place. However, "mobile disco deejays" are usually those that are hired to play music at different functions including political rallies, parties, and weddings, to mention a few and usually their equipments are lighter for easy mobility. Generally, the equipments deejays use include: 1) a computer loaded with software such as Numark PCDJ, Virtual DJ and Logic Pro; 2) speakers; 3) crossovers; 4) equalizers; and 5) mixers.

Night club and mobile disco deejays have been influential not only in the dissemination, but also the recreation of the music they play. The existence of digital technology has enhanced the ability to disseminate and recreate music through rearrangement and remixing of songs, at the same time. Simultaneous dissemination and recreation is done

in different ways depending on the kind of software used. For example, when a deejay uses Numark PCDJ software, it provides a possibility for two decks which are displayed on the computer screen. On one deck, the deejay can play a song through the speakers while he listens to another song via headphones on the other deck. The deejay listens to the next song in order to choose a song that has similar tempo with the proceeding song. In addition, the deejay creates an overlap of the songs by superimposing one song over the other. According to Rebekah Farrugia and Thomas Swiss (2005), one of the major characteristics of deejay culture is remixing which arose in 1975. As the term suggests, "a remix creates a new artifact out of an existing track or tracks" (Farrugia and Swiss 2005:35). This process of remixing involves the extension of versions of songs to keep the crowd dancing a time longer than when dancing to one song (Omondi, interview February 25, 2009; Shiru interview March 6, 2009; Abarungi, interview January 18, 2009).

While examining the role of the club deejay, Kai Fikentscher notes that the deejay "has helped to bridge the transition from the analog to the digital era by redefining the turntable and sampler as performance instruments" (2003:290). According to Shiru, a club deejay at Club Silk in Kampala (see Figure18), using Logic Pro and Virtual DJ software, he creates dance music by adding 'reggaeton'[28]to recorded music. I observed that the deejay plays the reggaeton drum loop repetitively while matching its beat with the tempo of the recorded song. When I listened to the combination of reggaeton with genres like Rn'B, and afro beat, the outcome sounded as though it was a new song. Shiru explained that as a deejay, his ability to change the beat or style of any recorded song into another style makes him unique from other distributors (interview, March 6, 2009). The music whose beat or style is changed is recorded on to a CD or stored on a computer hard disc as a remix. Therefore, it should be noted that technology and the art of deejaying transforms music that was

[28] Reggaeton is a drum loop that has a relatively fast tempo and is commonly used in dance hall music or it may be superimposed on to any other kind of music such as rhythm and blues to make it danceable.

previously viewed as a finished product ready for consumption into active and creative forms of musical production, performance and interaction (See also Fikentscher, Kai. 2003:298). Therefore, the deejay has multiple roles as creator, producer and distributor of music.

Figure 18: Deejay Shiru (Standing) Preparing a Night Disco Session at Club Silk

The music the deejays create is based on sounds created, arranged, and recorded by others. With these overlapping roles, how do we deal with the issue of ownership of music that is digitally created, produced, and disseminated? Abarungi, a musician, believes she still owns the song even after a remix has been done. However, how does she own this music even when the deejay remixes this music without the musician's consent? Moreover, when these remixes are played, the deejay's name is mentioned over and over. Further, remixed songs are many times disseminated beyond the discotheques through the deejay and pirate networks such as street, plaza and kiosk dubbing pirates. Nevertheless, Moses Matovu informed me that the existing copyright law does not cater for remixed songs and it is

assumed that the song still belongs to the musician even after the remix (interview, May 21, 2009). As Paul D. Greene has also noted, "[digital] technology has enabled the separation of musical sounds from musicians, which has resulted in the musicians' subsequent loss of control over their circulation, their meanings and all too often their ownership" (2005:10). The inability to trace the authorship or ownership of music means that copyright in the digital technological realm is a complex issue to deal with. Indeed, Steven Feld has also observed that once sound has been split from its source and the recording is taken to the marketplace, one has little control over how it is consumed (1994:288). Yet, according to Simon Frith, there is always a need for someone to be the author of a sound, an artist, although as he notes further, the relative artistic significance of writers, musicians, singers, producers, engineers and arrangers keeps shifting (1986:267-268).

5.6.4 Dubbing Pirates

In this study, dubbing pirates are those people who pirate and duplicate music for sale. In her discussion of the popular of Ugandan music, Nannyonga-Tamusuza notes that "the Ugandan music industry is too infected with the piracy and dubbing disease" (2006:38). I identified three categories of these dubbing pirates: 1) Street Dubbing Pirates, who sell CDs and cassette tapes along the streets of Kampala; 2) Plaza Dubbing Pirates, who have established shops in busy areas in town like the taxi park, Majestic Plaza; and 3) Kiosk Dubbing Pirates, who set up kiosks in city suburbs like Wandegeya, Kamwokya, and Ntinda. I interviewed agents from all the three categories and noted that they have all the music any buyer would want. These agents usually repackage the music by selecting songs of different musicians and dubbing them on one CD. Of course, the repackaged music does not have an original cover of the CD, instead the list of songs is written in pen. Moreover, the consumer also participates in the repackaging process. For example, as part of the research process, I

bought a CD from one of the kiosk dubbing pirates. The pirate asked me to select the songs she wanted. I selected songs of different artists and these songs were copied from the computer to a CD. The song titles were then hand-written on the CD cover. The cost of a kiosk dubbed pirated CD is 2,000 Uganda shillings ($1) as compared to 20,000 Uganda Shillings ($10) for an original CD. For a number of these pirating and dubbing agents, their business is good for the country because it helps to reduce unemployment in Uganda (Mwanjje, interview February 25, 2009). In addition, I also noted, in a number of interviews and conversations with musicians and pirates that musicians also participate in the pirating and dubbing of music in a number of ways: 1) When a consumer requests for a CD of their music, they refer him/her to the streets; 2) the musicians supply the music to many different distributors including the dubbing pirates and deejays as well as radio station presenters even after selling their distribution rights. Moreover, according to Gozibert, a worker of XYZ distributors, once a musician has sold his/her distribution rights to the distribution company, no one else is supposed to distribute it (interview, January 29, 2009). I noted that the practice of musicians participating in pirating music is common among up-coming artists, who promote their music by distributing it to dubbing pirates. For example, Lyn Abarungi, a musician, informed me that the pirates, club deejays and radio presenters are very helpful and play an important role in distributing and exposing new Ugandan music (interview January 18, 2009). In fact, the musician has to pay them some money so that they devise means of attracting consumers to buy/listen to his/her music. Some of these pirates informed me that they play loud music to attract the customers (Namulondo, interview February 25, 2009). Jane Namulondo, a kiosk dubbing pirate in Wandegeya, told me that using a computer or a CD to dub and play music is good because the output of the music is good thus attracting more customers. In this regard, I note that recent technology such as computers and CDs give good quality music even when it is dubbed.

Furthermore, Mpagi informed me that "legal distribution in Uganda is more or less nonexistent [because] piracy took over" (interview, February 16, 2009). Yet, piracy is illegal according to the Uganda copyright law. In a lecture, Sylvester Kyaggulanyi, a musician, said while the copyright law was passed on 4th.August.2006, many artists did not care or even know what to do about it. He said further, that when the copyright law was passed in Uganda, it met many feelings that brought confusion among people in the music industry because: 1) there is lack of unity among musicians; and 2) the music industry in Uganda is still looked at as a gamble because it is not a well structured industry.

All the same, the involvement of musicians in dubbing piracy makes the copyright law complex. However, I argue here that once a musician gives a CD to a 'pirate', he/she has consented with piracy. Indeed, for most of the musicians, selling CDs is done for popularity rather than economic gain. In fact, Mpagi said that he cannot sell his music to any distributor. Instead, he gives it to radio broadcasters and is more interested in live stage performance. Why is this so? According to Sylvester Kyaggulanyi, since musicians do not earn money from album sales due to piracy, they compromise and distribute their music through the dubbing pirates so that their music is distributed and made popular with the audience. In return, the musician expects a bigger turn up for his/her concert since concerts are the only income generators for musicians in Uganda.

Commenting on the issue of musicians participating in piracy, Bobi Wine told me that, artists have not shown interest in the pirating business. He added that "this is because most Ugandan artists come from the ghetto. [In other words], they come from low profile families; so, they have shallow dreams. As long as an artist can afford meals for the family, school fees for a few children, a small car and house, they do not look beyond that" (interview, January 16, 2009). Further, Timothy Lwanga, the Music Director of Sanyu FM, said that for Ugandan musicians, the copyright law only slows down their chances of

popularity because in Uganda, popularity means more money for a musician from live concerts (interview, February 10, 2009).

5.6.5 Legal Music Distribution Agents

Legal music distribution agents are the formal distribution companies because they buy distribution rights from the musicians and they are registered by Kampala City Council (KCC). An agreement is made between the musician and the distributor and a legal document signed by both parties. (See Appendix 8 for a sample of the agreement between a musician and a distributor).

According to Betty Nalubwama, a worker in X-Zone International, before purchasing an album from a musician, they have to establish whether it will sell in different ways: first, by listening to radio to find out if there are many callers requesting for the song; and second, through the demands of the customers. Indeed, distribution is a business since most of the distributors will talk about losses and profits when deciding which music to buy. As such, legal music distribution is profit-oriented and also depends on the popularity of the song and the artist. Usually, the popularity of a song is determined by what is most listened to on the radio. These distributors "buy the musician" who gives them one CD of his album, out of which several copies are made by the distributor (Nalubwama, interview February 17, 2009). According to Nalubwama and Katisha Gozibert,[29] for up-coming artists whose songs have a high demand from the audience, the distribution company may pay an amount of 500,000 Ugandan Shilling ($250). They add that when the artists are already established, the distributors pay an amount of up to 2million Uganda Shillings ($1000) (Nalubwama interview February 17, 2009; Gozibert interview January 29, 2009). Once the music has been bought from the musician, the distributor makes several copies of the music in CD format and

[29] Katisha Gozibert is a worker in XYZ Distributors located in the old taxi park in Kampala.

in Cassette format using a computer for CD dubbing and a computer and cassette dubbing machine for dubbing cassettes.

In X-Zone International, they do not only sell music on CDs, but also copy the music to cassette audio tapes, which are dubbed using a computer and a cassette dubbing machine. As such, while we may think that we have gone into the digital realm, there is still room where digital material is converted to analog as is the case among many legal music distributing agents. In fact, there are also some pirates who sell cassette tapes, especially the street vendors. The cost of a recorded CD is 5000 Uganda Shillings ($2.50) and that of a cassette tape is 1000 Uganda Shillings ($0.50). The cassette tapes sell more in towns outside Kampala and among car owners (Nalubwama, interview February 17, 2009). Gozibert also says that although technology has been changing and people are using CDs, cassette tapes still have a bigger market. The availability of market for tapes is what has kept the business flowing. Otherwise, with the CDs, pirates have taken over. Moreover these pirates sell their CDs at cheaper prices (2000 Uganda Shillings or $1) because they do not incur any costs with the musicians (Nalubwama, interview February 17, 2009; Gozibert, interview January 29, 2009). In addition, the formal distribution companies do not repackage the music by selecting tracks of some artists and dubbing it to one CD or cassette tape. The question here is: how many people are willing to buy expensive music from these legal music distribution agents yet the dubbing pirates have the same quality of CDs at a cheaper price? Besides, the consumers of popular music prefer to select their music such that they can put their favorite songs from different musicians on one CD or cassette tape (Ssemaganda, interview February 25, 2009).

In the discussion on dissemination of popular music in Uganda, I have discussed the various distribution modes including stage performance, radio broadcast, deejaying, dubbing pirates, and legal distribution agents. Throughout the discussion, I have noted that digital

technology has influenced all these distribution modes. However, some of the distributors, for example, the dubbing pirates have used digital technology to violate copyright. While copyright is violated by the dubbing pirates, musicians have also participated greatly in its defiance. It is also clear in this discussion that musicians have become in charge of their own distribution. They pay money to the various distributors especially pirating and dubbing agents, as well as radio stations to be able to distribute their music to increase their popularity. This popularity then improves their economic ability which is acquired at performances. But as discussed in the stage performance section, digital technology has also taken over as most musicians depend on it even at concerts.

In this chapter, I have discussed how digital technology redefines the process of creating, producing, and disseminating popular music. Throughout the discussion, I show how homogeneity, ownership, and dehumanization relate with the processes of creation, production, and dissemination of popular music. These concepts are made complex as a result of using digital technology. However, I also note that digital technology has made the creation, production, and dissemination of popular music easier, cheaper, and faster. Further, in this chapter, I examine the roles of the creators, producers and distributors of popular music in Uganda. Discussing their roles, I note that their roles overlap as a result of using digital technology. For example, a deejay who is principally a distributor ends up being a creator and producer of music because of the software used in deejaying.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

In this dissertation, my discussion has focused on how digital technology has redefined the processes of creation, production and dissemination of popular music in Uganda. My argument rests on the notion that digital technology gives new possibilities of creativity, performance, and dissemination and makes music production more accessible because it is easier to use, cheaper and faster. I have also argued that because of using the same technologies, especially software such as Logic Pro, much of Ugandan popular music is somewhat homogeneous. Further still, the use of sampled sounds instead of humans dehumanizes music. As a result, when music sound is not produced by a person and the sounds of one song can be heard in another musician's song, the music sounds somewhat similar and the concept of ownership also becomes complex.

In Chapter One, I gave a general introduction of the study highlighting the problem which inspired the research, the scope as well as aim of the study. In addition, the theory on which the study is based is discussed in this Chapter. I use the theory of globalization and show that it has a dialectical relationship with technology. While technology shapes globalization, globalization also defines technology.

I reviewed literature that related to the study in Chapter Two. The themes reviewed include: 1) popular music in Uganda; 2) digital technologies of music; and 3) impact of digital technology on the processes of creation, production and dissemination. The literature reviewed enabled me to show the gap the current research is filling and provided insights to

the present study as well as creating points of departure for the discussions in the proceeding Chapters.

In Chapter Three, I discussed the research methodology including its design, research tools, limitations of the study, as well as the ethical considerations and data analysis. I used qualitative research methodology. In addition, I state the sampling criteria used to select informants for this study. I discuss the research tools I used which included: interviews, participant observation, the media, photography and audio recording.

I give the context of the study on how digital technology has redefined the processes of creation, production and dissemination of popular music in Chapter Four. The Chapter involves a discussion on the technological development of popular music in Uganda to show the historical context within which music technologies have flourished. Further, I give the set-up of a recording studio and a description of the analog and digital technologies used in the creation, production, and dissemination of popular music in Uganda. Besides, I explain how the skills of producers are acquired and developed so as to use digital technology in creation and production of popular music.

In Chapter Five, I discuss the processes of creation, production and dissemination of popular music in Uganda, showing how digital technology has reshaped them. In addition, I explain how digital technology has been used to create musicians. Further, I show how the roles of people working with digital technology have been blurred thus making complex the notion of ownership and copyright in popular music in Uganda**.**

6.2 Conclusion

The research has revealed that digital technology has redefined the creation, production and dissemination of popular music in Uganda. While digital technology has made music creation, production and dissemination easier, cheaper and more accessible, the

use of digital technology raises issues of copyright and ownership. In addition, the use of digital technology has blurred distinctions between producers, musicians and distributors. The complexity of ownership of music is linked to the creative role of the musicians, producers and the deejays. Furthermore, because of using similar software, most of Uganda's popular music sounds somewhat similar, creating homogeneity, which results into compromised individual's creativity. Moreover, through a digital device called vocoder, vocal quality of a person can be manipulated to produce sounds that may even be beyond human ability and as such, dehumanizing the music. With homogenous and dehumanized sounds, the issue of ownership is raised.

Further, digital technology offers musicians and producers varieties of sounds from different instruments of the world which enables them to create songs with diverse timbres. Moreover, most of the technological hardware, which was previously acquired from Europe and America, is currently available on the Ugandan market. Besides, popular music producers and musicians can access sound tracks, such as reggae and hip hop, using music software without being in the countries where they were created. In addition, the research indicates that most of the music software is acquired through piracy, which results into emergence of many music production studios in twenty-first century Uganda. However, most of these musicians and producers are more concerned about economic gain from their music than individual creativity. As such, they have allowed technology to define their styles. And since musicians have access to the same software their music is somewhat homogeneous.

Because of its central position in the digital production of music, the computer has become a musical instrument. Creativity has been digitalized because musicians simply manipulate computer-aided sounds to make most of their music. Moreover, even vocal effects are also enabled by digital technology. This trend causes wariness not only to the skills of the present musicians but also to the future of the popular music industry in Uganda. As such,

this study has confirmed the hypothesis that the use of digital technology in Ugandan popular music has redefined the creation, production, and dissemination of popular music in Uganda.

6.3 Recommendations

The present study was limited to the audio aspect of popular music in Uganda. Future research could examine the visual aspect of popular music in Uganda, focusing on popular music videos have been affected by the advancement of digital technology.

During fieldwork, I observed that there are a number of gender implications in using digital technology to produce popular music. For example, there were more males in production studios than females. Therefore, future research should consider gender relations in the studio and why there are more men than women using digital technology in the popular music industry in Uganda.

More so, I advocate for a study on how politics is played out in the production studio as an area that future research could venture into. Additionally, I suggest that future research may be done to explore how the use of digital technology in creation, production and dissemination of music enhances people's culture and sense of identity in Uganda.

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APPENDICES

Appendix 1: Sample Questions

Context

1. What do you know about the development of popular music in Uganda?
2. What factors are responsible for the development of popular music in Uganda?
3. What are analog technologies and how are they used?
4. What are digital technologies and how are they used?
5. Describe the physical set up of an analog recording studio.
6. Describe the set up of a digital recording studio.
7. How did you change from analog to digital technology? Why?

Creation/Musicians

1. How do you create the music?
2. What themes guide your music? How do you acquire the themes?
3. What influences the kind of music you create?
4. Have you done any kind of training in music? How?
5. How has digital technology affected the way you create music?
6. Describe the process of creation of music?
7. Who owns the music in the industry chain?
8. When do you employ digital technology when creating music?

Production/Producers

1. How do you produce music?
2. How have the different technological advancements affected the production of music?
3. Have you had any kind of training? Which one? How?
4. What influences the music you produce?
5. What kind of hardware do you use? How?
6. What kind of software do you use? How?
7. How did you acquire the hardware/software?
8. What role do you play in the music industry?
9. How do you relate with the musicians?
10. How do you interact with digital technology as a producer?

11. Describe the process of production of music.
12. Who owns the music you produce?
13. How long have you been producing music? Are there any changes with time?

Dissemination/Distributors

1. How do you acquire the music for distribution?
2. How do you distribute it?
3. How much does a tape/ CD cost?
4. Is there any kind of agreement? Who is involved?
5. Do you have any rights over the music?
6. Comment about copyright and piracy in Uganda's popular music industry.
7. What kind of technology do you use as a distributor?
8. How has digital technology affected the distribution of popular music in Uganda?

Consumption/Audience

1. What do you think about Ugandan popular music?
2. Which music/musician do you like? Why?
3. Comment about the popular music performances of Ugandan musicians.
4. How do you access popular music?

Appendix 2: List of Informants

Name	Date of Research	Position/Status	Place of Research
Ahimbisibwe Bosco	2/7/09	Fan	Ntinda
Ahlam Saidi	2/3/09	Fan	Kyebande
Anonymous	2/14/09	Fan	Club Obligatto
Anonymous	2/14/09	Fan	Club Obligatto
Anonymous	3/1/09	Fan	Nakivubo
Anonymous	5/15/09	Fan	Hotel Africana
Ayebare Rita	3/17/09	Fan	Naalya
Atuhaire Lyn	1/18/09	Musician	Mulago
Bwengye Innocent	2/7/09	Fan	Ntinda
Baganda Mya, Chandiru Jackie, Mbabazi Lillian (a.k.a. Blu*3)	4/16/09	Musicians	Industrial Area
Bikumbi Tony Hauls	1/16/09	Producer	Bukoto
Gift Gloria	1/22/09	Presenter (Urban Afternoon show)	Vision Radio, Industrial Area
Jingo	4/13/09	Fan	Kiwatule
Kabarungi Naomi	3/1/09	Fan	Nakivubo
Kan Eddie	2/27/09	Music Programs Director	UBC, Nile Avenue
Katisha Gozibert	1/29/09	Music Distribution Company Worker	XYZ, Old Taxi Park
Kawalya Joanita	2/23/09	Musician	National Theater
Kayiwa Paddy	1/15/09	Producer	Kamwokya
Kibira Jim	2/3/09	Fan	Kyebando
Kibirige Zac	2/9/09	Producer	Kamwokya
Kifuba Kyangabo	8/24/09	Fan	Kamwokya
Kizito Robert	8/26/09	Fan	Kiwatule
Kukunda Julius	4/18/09	Computer Shop Attendant	Parliament Avenue
Kyagulanyi Robert Ssentamu (a.k.a. Bobi Wine)	1/16/09	Musician	Bukoto
Kyeyune David	2/7/09	Deejay	Rock Catalina, Ntinda
Lwanga Timothy	2/10/09	Music programs director	Sanyu Fm, Crane Bank Building
Matovu Moses	5/21/09	Musician, Vice Chairman UPRS	Kibuli
Mayanja Douglas (a.k.a. Weasel)	5/14/09	Musician	Nyanama
Mpagi Eddie (Ngoni)	2/16/09	Producer, Musician	Makindye
Mugumya Richard (a.k.a. Witty)	1/27/09	Producer, Musician	Majestic Plaza
Mwanjje Sulaiman	2/25/09	Music Distributor	City Center, Pioneer Mall Veranda

Nalubwama Betty	2/17/09	Music Distribution Company Worker	X-Zone International, Kampala
Namulondo Jane	2/25/09	Kiosk Operator	Wandegeya
Nsimbe Zamba Ernest (a.k.a. GNL)	4/23/09		City Center, Luwum Street
Nuwasasira Patricia	2/26/09	Fan	Ntinda
Omondi Brian	2/25/09	Producer	Ntinda
Rachael Angel	2/4/09	Fan	Kamwokya
Shiru	6/3/09	Deejay	Club Silk, Industrial Area
Ssekibogo Moses (a.k.a Radio)	5/14/09	Musician	Nyanama
Ssemaganda Jawadu	2/25/09	Distributor	Pick up Vehicle, Behind Pioneer Mall
Ssendikwanawa Raymond	2/18/09	Producer	Najjanankumbi
Tekekwe Ronnie	2/28/09	Deejay	Bunga
Yawe Eddie	2/13/09	Producer, Musician	Kamwokya

Appendix 3: List of Studios in Kampala Visited During the Research

Name of Studio	Location
Dream Studio	Kamwokya, Old Kira Road
No End Studio	Kamwokya
Fire Base Studio	Bukoto, Above Sunrise Supermarket
Good Enough Studio	Makindye, Salaama Road
BK Studio	Najjanankumbi
Afrigo Studio	Kibuli
UGA-Wood Studios	Majestic Plaza

Appendix 4: List of Events Attended

Date	Event	Place	Role
15/1/09	Music Production session	Dream Studio, Kamwokya	Observer
28/1/09	Music Production session	Ntinda	Participant
7/2/09	Music Production session	Ntinda	Participant
8/2/09	Music Production session	Ntinda	Participant
14/2/09	Concert by Afrigo and Eagles production	Club Obliggatto	Observer
24/2/09	Music Production session	BK studio, Najjanankumbi	Observer
27/2/09	Concert by Afrigo band	Club Obligatto	Observer
1/3/09	Embutu ye Mbutikizi	Nakivubo	Observer
13/4/09	East African Carnival	Kiwatule	Observer
15/5/09	Album Launch by Radio and Weasel	Hotel Africana	Observer

Appendix 5: List of Radio Broadcasting Stations in Kampala

Radio Station	Assigned Frequency (MHZ)	Status
Capital Radio	91.3	On Air
Central Broadcasting Service	88.8	On Air
Spirit FM	96.6	On Air
Impact FM	98.5	On Air
Radio One	90.0	On Air
Sanyu FM	88.2	On Air
Supa FM	88.5	On Air
Radio West	95.2	On Air
Metro FM	90.8	On Air
Dembe FM	90.4	On Air
KFM	93.3	On Air
East Africa Radio	99	On Air
Uganda Broadcasting Corporation	105.7	On Air
Touch FM	95.9	On Air
Radio Buddu	95.5	On Air
Vision Voice	94.8	On Air
Kampala FM	99.6	On Air
Magic FM	100	On Air
University FM	106.1	On Air
Alpha FM	102.1	On Air
Power FM	104.1	On Air

Top Radio	89.6	On Air
Dunamis FM	103	On Air
Radio Sapiensa	94.4	On Air
Radio Maria	103.7	On Air
Beat FM	96.3	On Air
Prime Radio	91.9	On Air
Mama FM	101.7	On Air
Simba FM	97.3	On Air
Hot 100	100.9	On Air
BBC World Service	101.3	On Air
Suubi FM	104.9	On Air
Family Radio	105.3	On Air
Star FM	87.5	On Air
Akaboozi Ku Biiri	87.9	On Air
Voice of Africa	92.3	On Air
Kingdom Radio	93.0	On Air
Radio Bilali	94.1	On Air

Appendix 6: List of Television Stations in Kampala

Television Station	Assigned Frequency
Capital	34
East Africa (EATV)	31
ITV	34
Light House (LTV)	22
Nation (NTV)	54
NBS	12
Record TV	42
Top TV	11
Uganda Broadcasting Corporation (UBC)	05
Wavah Broadcasting Service (WBS)	25

Appendix 7: Sample of Consent Form

CONSENT FORM

I…… (Informant) have been selected by ……. (Researcher) to participate in this research aimed at exploring how digital technology has redefined the creation, production, and dissemination of popular music in Uganda.

I will voluntarily give information about the above mentioned research and will expect no compensation in return. The information gathered shall be used for academic purposes ONLY, including publication.

Name of Informant…….……. Signature……..

Date…….

Name of Researcher……Signature…….

Date…….

Appendix 8: Sample of Agreement between Musicians and Legal Music Distributors

THE REPUBLIC OF UGANDA

AGREEMENT

THIS AGREEMENT is made on the **……** day of **……** 2009 **BETWEEN** **……** of**……** (hereinafter called "**the Artist**") on the one part and **……** of **……** (hereinafter called "**the second party**") on the other part.

WITNESSETH as follows:-

WHEREAS the Artist is the owner of the Musical Album known as ……

AND

WHEREAS the producer is desirous of having the said album sold out on the market;

IT IS HEREBY AGREED and **DECLARED** as follows:-

1. **THAT** in consideration of Shs**……** which shall be payable in installments by the producer to the Artist, the Artist has given the producer exclusive rights to market and sell out the said Musical Album by Audio Visual.

2. **THAT** the producer has paid to the Artist and the Artist has received from the producer a deposit of a post dated cheque dated**……..** for Shs**……..** upon execution of this agreement the receipt whereof the artist irrevocably acknowledges receipt by affixing his signature hereto.

3. **THAT** the producer shall pay to the artist the balance of Shs**……..** on or before **……**

4. **THAT** the artist has agreed with the producer on the copy right of this album to run for four (4) years only but shall be renewable after its expiry.

5. **THAT** the Musical Album herein mentioned has got the following songs:-

……. …….

…… ……..

6. **THAT** no other person is allowed to record, reproduce or and sell any or all of the songs mentioned in paragraph 5 herein without the consent of the producer in writing.

7. **THAT** the producer herein is given the authority to arrest, cause the arrest, prosecute and or take any legal action against any person or persons who shall be found selling, reproducing, recording or in any way dealing in the said Album without the requisite consent in writing from the producer.

8. **THAT** this agreement cannot be cancelled nor can any term herein be altered except by mutual agreement of the parties hereto.

IN WITNESS WHEREOF the parties hereto have hereunto affixed their respective hands the day, month and year first above written.

Signed and Delivered by the said: - **……**

PRODUCER

Signed and Delivered by the said: - **……..**

ARTIST

In the presence of: - **……..**

WITNESS