



# Education and Practice of the Creative Arts in the Age of Digital Technology

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## Abstract

“The creative arts” describes a wide range of arts in the humanities, comprising music, fine arts, and theatre arts, all of which deal with human creativity from various psycho-motor activities. The practice and teaching of the creative arts in the pre-digital era entail the use of analogies in the representation of reality and was characterised by the use of dedicated information storage and reproduction media. Hence, creative art education largely relied on teacher demonstrations within traditional classroom settings. The digital revolution, however, has provided alternative media in which the representation of real-life events now relies on successive dichotomy based on binary numbers to represent reality. This presents a more efficient and reliable representation that enables any form of data to be stored and reproduced using a single multimedia platform. Using Everett Rogers’ Diffusion of Innovation theory, this paper undertakes a critical exploration of the education and practice of the creative arts in the age of digital technology. It engages a discourse of educational practices in the creative arts in the pre-digital age, examining the effects of the digital revolution on creative arts education, with a particular focus on music. In the creative arts, digital technology has provided tools with which artists can easily produce and express their creativity. In music especially, digital technology has impacted composition, performance, recording, distribution, analysis, and criticism. There is a need for music educators to engage students in the use of digital tools to boost productivity, especially those that relate to their areas of specialisation, to maintain their relevance in the labour market, especially as music-making and performance have become volatile. Although there are ethical concerns surrounding the use of digital tools, music educators should devise ways by which students can personalise their use in such ways that they do not lose their ability to think critically.

## Introduction

The creative arts encompass various disciplines, including music, studio art, art history, digital arts, literature, theatre arts, creative writing, dance, architecture, and design (Hamm, 1991; Harpe et al., 2012). These disciplines embody the innate human desire to explore, express, and transcend the bounds of the tangible world. Creativity, being the ability of humans to generate surprising and valuable ideas and artefacts, is the main component of the creative arts. Creativity is expressed through visual and performative arts, such as music, drama, and dance. It is also important to note that the creative process within the creative arts transcends the means of producing aesthetically



appreciated works and helps significantly in addressing societal problems. Particularly, they help to foster new connections that aid the cultivation of a deeper understanding of the human experience. Boden (2007) emphasises the “value” of creativity in her definition of creativity as follows: “creativity is the ability to come up with ideas or artefacts that are new, surprising and valuable... It's not a special faculty but an aspect of human intelligence in general" (Boden, 2007:83). Like every other areas of human endeavour, the creative arts have intersected with technology, such as in the use of computer software in architectural design, graphic design, and music production.

### **The value of creative arts in society**

Moving forward on the value of the creative arts in solving problems in human societies, Goodill (2010) noted the significance of the creative arts therapies, which combine artistic expression with psychotherapy to promote healing and personal growth, thereby gaining attention in healthcare settings. This further stress the importance of the creative arts in human society, as well as their connection with science. In healthcare, creative arts therapies have also been shown to reduce anxiety, depression, and pain. Its ability to improve the quality of life in cancer patients during treatment, with some notable effects persisting during follow-up, has been observed (Puetz et al., 2013). In respect of human history, Coulson-Thomas (2017) noted the impact of the fine arts in documenting life across various periods. According to him, the creative arts have served as indicators, leaving marks about humanity across history through the drawings and artistic expressions of early human groups, such as paintings on cave walls and rocks that show what life looked like around them. This has helped human society define its culture and also channel new ways of documenting, preserving, and re-inventing its inherited artistic expressions (Coulson-Thomas, 2017).

The creative arts play a crucial role in education and personal development. They help to enhance the cognitive abilities of students, improve their learning outcomes, and also prepare them for future workplace demands that value creativity (Scholes & Nagel, 2012; Munteanu & Valeriu, 2022). Visual and creative arts play fundamental roles in improving the quality of education and facilitating the understanding of complex ideas across disciplines. Concerning this, for example, visual representation has been instrumental in explaining complex concepts across disciplines and also plays a significant role in the education of schoolchildren. For boys at risk of underachievement, research has shown that engaging with creative arts can help to enhance educational outcomes and motivation (Scholes & Nagel, 2012). Despite its impactful role, however, barriers to boys' engagement with the creative arts exist, necessitating innovative approaches in curriculum design, particularly in utilising the creative arts to enhance the educational outcomes of underachieving pupils.

The creative arts have the potential to enhance, enable, enrich, and empower individuals and communities across various contexts. This is because the various disciplines in the creative arts are at the centre of humanity, critical thinking and human creativity. They also offer numerous benefits, including enriching work and leisure activities, stimulating imagination and innovation, addressing social issues, and providing sustainable career options resistant to technological replacement (Coulson-Thomas, 2017). Generally, creative arts education is critical for developing adaptable and well-rounded individuals who are capable of meeting the challenges of the 21st century (Munteanu & Valeriu, 2022; Scholes & Nagel, 2012).

### **The place of music in the creative arts family**

Music as one of the branches of the creative arts, is a multifaceted art form with significant importance among humans. It is recognised as both an art and a science, encompassing creative expression and scientific principles (Ibekwe and Ojukwu, 2020). It is usually viewed in terms of its facial aesthetic and entertainment values, which easily resonate with individuals' minds. However, beyond its artistic and entertaining properties, studies have engaged its scientific characteristics. According to Ibekwe and



Ojukwu (2020), music derives its artistic characteristics from various features, including styles and performance skills such as dancing, instrument playing, and singing. It is also considered an art when one focuses on its connection with other related disciplines in the creative arts that possess similar attributes, such as Performing Arts, Costume Studies, and theatre arts, all of which deal a lot with creativity (Ibekwe and Ojukwu, 2020).

The authors, on the other hand, view music as science from the perspectives of acoustic studies, mathematical relationships, and intervallic applications. Similar to the aforementioned position of Goodill (2010) regarding the therapeutic role of the creative arts, Yerejepobna (2022) highlights the impacts of music beyond entertainment, noting its influence on fetal development, mood, and general human health, to link music with science. Owoaje et al. (2020) also highlight the use of music in mitigating anxiety during natal expectation. In addition, Koç et al. (2016) take a historical approach, discussing the utilisation of music by various civilisations in the healing of the mind and body. According to them, music, rhythm, and dance play essential roles in health, based on social and cultural levels of various human civilisations.

The impact of music in human society is further emphasised by Yerejepobna (2022), who highlights its use in everyday environments such as worship centres, shopping malls, restaurants, and sporting and fitness facilities. According to Yerejepobna, the use of music in these environments helps to create the desired atmosphere, which contributes to the prestige of such establishments. Similarly, Owoaje (2023) also examined the use of popular music in shaping spirituality and well-being. The study particularly examined how the themes in the music of Ebenezer Obey, a popular Nigerian Juju musician, shape spirituality and inspire well-being among the Yoruba, and how his songs provide new content for other Yoruba Christian musicians. While music is often used as a tool of entertainment, it is essential to recognise its functional roles in human society, extending beyond mere entertainment.

Music education encompasses the teaching and learning of music skills, knowledge, and appreciation. In other words, it deals with music literacy and competence in individuals. As a multidisciplinary field, music education nurtures creativity and personal growth, thereby enhancing both cognitive and social competencies. Generally, music education plays a vital role in holistic development and human flourishing (Bowman, 2002; Yick-Ming, 2005), and also fosters enjoyment, enthusiasm, creativity, and participation, which are fundamental to educational development (Yick-Ming, 2005). As noted by Pitts (2017), music education contributes to the lifelong musical engagement of individuals through promoting creative, social, and cognitive benefits in the lives of young people. According to her, music educators are in a position to shape the values and attitudes of individuals by educating them through music. Additionally, music education fosters a positive attitude towards music and a deeper understanding of diverse cultures and social contexts (Georgiou and Papademetriou, 2021). This is made possible through the exposure of students to music from other cultures outside their cultural environment, facilitated by music educators.

### **Digital technology**

Digital technology is the foundational basis of the digital revolution, often known as the third industrial revolution. The third industrial revolution was distinguished by the extensive dissemination of information and communication technology, as well as the widespread acceptance of digital technologies and the transition to a digitised society (Adam 2019). The digital revolution involves the advancement of technology from the use of analogue electronic and mechanical devices to the adoption of digital technology available today (Roy, 2017). According to Roy, the digital revolution era began during the 1980s and has been sustained till the present time. The reshaping brought about by the adoption of digital technology occurs in areas such as communication,



education, politics, and economic structures, fuelling global connectivity through the advent of the internet and social media (Bagirova, 2024).

Against this backdrop, this study examines the intersection of education and practice in the creative arts, with a particular focus on music, in the age of digital technology. It engages with a discourse on educational practices in the creative arts of the pre-digital age. Also, it examines the digital revolution and its effects on education and general professional life, as well as the impacts of digital media on creative arts education, with a particular focus on music.

### **Methodology**

The study employed a qualitative design to interrogate purposively selected music educators in a focus group. Primary data were obtained through informal interactions with practitioners and educators in music, particularly those involved in creative arts education, to capture their experiences and insights on the evolution of teaching and practice in the digital age. While this interaction provided firsthand perspective on how digital tools are being adopted in areas like composition, performance, and pedagogy, secondary data were derived from existing studies relevant to the discourse. Data analysis was conducted using a thematic analysis approach.

### **Theoretical discourse**

The study draws from Everett Rogers' Diffusion of Innovation theory to explain how digital tools have become widely adopted in every facet of life, especially in the creative arts. According to Rogers (2003), new ideas, technologies, or practices spread within a social system over time. Rogers identified five categories of adopters of innovation, including early adopters, early majority, late majority, and laggards. Factors such as relative advantage, compatibility, complexity, trialability, and observability can influence or determine the rate and extent to which an innovation diffuses. Innovative technologies have gradually increased creativity and have been adopted by the creative arts in the digital era. Innovators and early adopters are individuals who initially adopted digital products such as Adobe Creative Suite, CorelDRAW, and Sibelius. The early majority (schools and teachers) are incorporating these tools into their curricula because they are effective, whereas the late majority adopt them out of necessity. The least quick to adjust, or laggards, continue to use conventional techniques but are under growing pressure to change, as the sector moves towards using digital tools. The practice and teaching of the creative arts have evolved in response to this gradual acceptance, and digital literacy has become increasingly necessary.

### **Digital technology in the creative arts**

The digital revolution has significantly transformed the creative arts, ushering in a new era of artistic expression and innovation (Berry, 2012). Concerning research in the creative arts, for example, Berry (2012) noted the impact digital technology has had on the way research is carried out, arguing that there is rarely an academic who does not employ digital technology in their research endeavours. As noted by Edmonds et al. (2005), the advent of digital media and computational tools has also opened up a world of possibilities, enabling artists to push beyond the bounds of creativity and explore new realms of artistic expression. In the visual arts, for instance, digital tools like Adobe Creative Suite, which consists of various programmes used in graphic design and photo editing, have brought about a transformation in artistic outputs. Apart from Adobe Suite, other digital tools, such as CorelDRAW Graphics Suite, have also revolutionised the way visual artists create highly detailed artworks. Through the use of these digital tools and many more, artists can create photo-realistic art, experiment with 3D modelling, and employ digital painting techniques to express ideas that might be difficult or time-consuming to convey through traditional media. Mike Winkelmann is one of the prominent artists whose digital artworks have gained significant attention, especially in the NFT space (Non-



fungible tokens - blockchain-based authorship attribution and authentication schemes that represent unique assets, such as pieces of art, digital content, or media).

The digital revolution has also transformed how humans interact with and experience art. Contrary to the traditional model of arts appreciation, the widespread digitisation of art collections has made it easy for individuals to explore and enjoy artworks located in various museums and art galleries, even those in distant locations. This helps to expand our access to, as well as our understanding of, the creative arts (Cetinić & She, 2021). This is made possible through the internet and the use of digital devices that enable pictures and videos of such artworks to be captured and posted on a webpage, where they can be viewed for free or through authorised access. Likewise, rather than earning money solely through physical exploration of the museum or gallery, artists can now generate more income through authorised access granted to online viewers.

### **Digital technology in Music**

The discourse surrounding digital technology in music manifests in various areas, including music composition, music performance, music recording, music distribution, music analysis, and criticism.

#### ***Music Composition***

Music composition in the analogue era required the use of manuscripts to document musical ideas on paper manually. In my research endeavours on the Yoruba Native Air tradition in Christian Liturgy, particularly in the aspect of its history (Owoaje, 2020), one of the problems I have come across regarding documentation of the works of composers whose works I studied, pertains to improper documentation and loss of manuscripts. All of these are a result of the use of the analogue technique of music composition and documentation. The bulk of the foremost Native American air composers employed analogue means in writing their music, which would have required a significant amount of time and energy, making it difficult for them to be full-time composers.

With the digital revolution, however, composers can now easily use music notation programmes such as Sibelius, Finale, Forte, MuseScore, Noteflight, MusicRadar, and Noteworthy for their music composition. Depending on the user's versatility, some of these programmes feature digital generative tools that generate ideas based on melodic lines, such as tonic solfa notation, instrumental accompaniments, and simple harmonic progressions, which can help composers generate various instrumental lines. Apart from these, they enable composers to format their music score to their taste. One of the most significant aspects of these tools is the opportunity they provide for composers to play and listen to their composition, which makes it necessary to effect corrections as they evolve and work on their musical ideas. With the use of these programmes, composers now have more time to focus on other essential tasks while spending less time developing their musical ideas. In addition, they can easily store their musical works in universal digital storage devices, such as flash drives and external hard drives, in any format (E.g., Picture, PDF, MIDI, WAV, MP3). They can also save their musical works on cloud-based storage platforms, such as Google Drive, Google Cloud, Dropbox, Microsoft OneDrive, and Internxt.

Additionally, all music notation programmes are compatible with a universal file format called MusicXML, which is an XML-based (Extensible Markup Language) file format designed to represent Western musical notation. Musical works in MusicXML can be edited using many or all of the aforementioned music programmes, providing easy access to music information, regardless of the specific programme used to write them. Some of these programmes are also equipped with features that allow them to translate musical scores in picture and PDF format into editable music data.

### The Artificial Intelligence (AI) factor

The role of Artificial Intelligence in music composition is also becoming notable, with tools like AIVA, which allows one to create a new composition using various preloaded steps and ideas, such as style, chord progression, step-by-step, influence, and MIDI. Exploring all of these digital tools makes music composition an easier task, depending on the composer's capability to work with the computer. Shown below are workspaces from the AIVA AI composition tool.

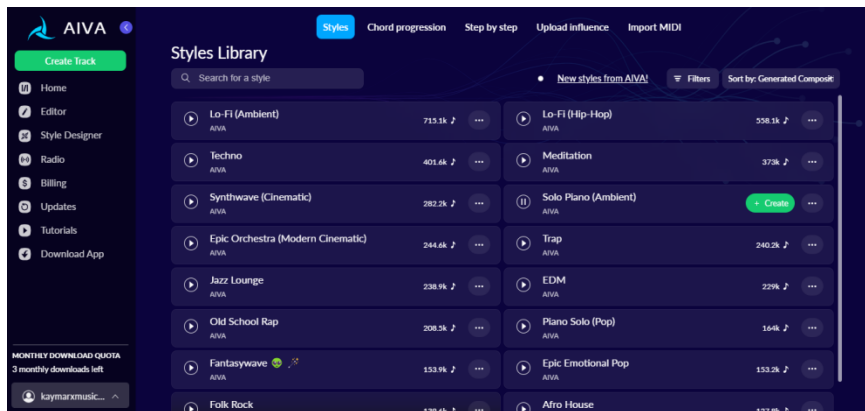


Figure 1: Picture showing AIVA workspace (snapshot taken by the author)

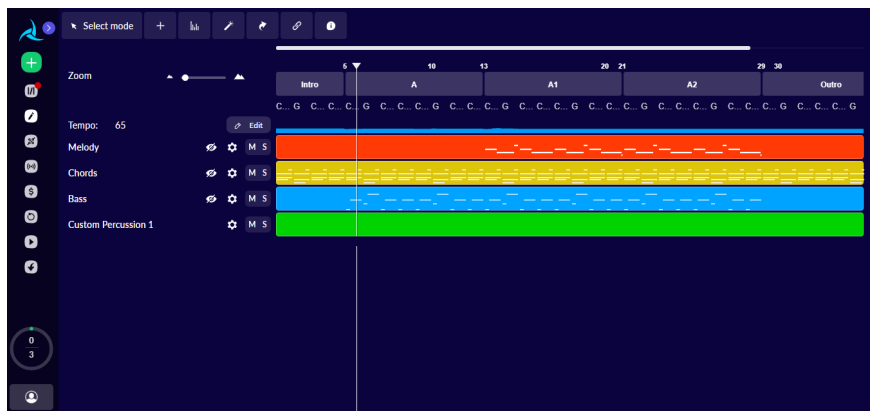


Figure 2: Picture showing Editor tool on AIVA workspace (snapshot taken by the author)

### Music Performance

In music performance, digital technology has provided musicians with numerous tools that enhance music performance, making it much easier than it was in the analogue era. For example, Digital audio workstations (DAWs) like Ableton Live enable musicians to manipulate sound in real time whenever they are performing. Ableton Live helps musicians to trigger between preset loops, add effects, and alter the structure of a song on the go. This way, musicians can dynamically interact with their audience. A similar experience can be achieved using sophisticated digital keyboards (also referred to as synthesisers) such as the Yamaha Montage and Yamaha MODX. Within the Nigerian popular music landscape, solo saxophonists, especially, have demonstrated a unique innovation by using pre-recorded audio loops as their accompaniment, which contain the desired instruments while they perform alone. Although this is a time-consuming task that requires saxophonists to put in a great deal of effort, it gives them the freedom to achieve their desired level of creativity. Such pre-recorded

loops have been used by solo saxophonists, especially in the Ibadan metropolis, for as long as they are required to play.

There is also the hybrid performance in which artistes blend traditional musical instruments with digital tools to create hybrid performances. In this case, they utilise gadgets like personal computers (PCs), phones, and tablets to incorporate such sounds into their performance. The use of audio effects, for instance, helps to multiply a singer's voice in unison, or preprogrammed intervallic harmony, based on desired settings. Apart from using specially designed voice effects for this purpose, the same effect can be achieved on some keyboard (synthesiser) models. Among dance bands in Nigeria, for example, the term "SCOSCOLA" is used to describe a Nigerian drum sequence, which is usually played by the Omele Isaju and Omele Ikehin/Atele (Lead and Backup drums), agogo (gong), sekere (gourd rattle), and Acord (a small-sized mud-rimmed drum).



Figure 3: An illustration of SCOSCOLA rhythmic configuration

This drum sequence, when used by live dance bands, eliminates the need for the aforementioned drums, reducing the band's size to the talking drummers, keyboard player, bass guitarist, saxophonist, guitarist, drum set player, and singers. Apart from cutting costs for these bands, this sequence provides them with a metronome and also enables them to disengage in succession if necessary, especially during long hours of performance. Although this in some ways may lower the demand for musicians who play the looped instruments, it also opens up an opportunity for them as recording artistes. Being able to play alongside a metronome and maintain consistency in this context requires expertise. These musicians can record as many varieties as possible and market them using digital platforms like YouTube, Spotify, and Audiomack. Similarly, Ed Sheeran also utilises looping technology in live performances to build complex layers of sound using just a guitar and a loop pedal. Apart from all of these, the use of AI in musical performances is fast becoming notable with artists such as Holly Herndon, who makes use of a trained AI tool named "Spawn" that enhances her creativity, even during live performances. She utilised the AI tool in her album, *Proto*, which was released in 2019.

Lastly, one of the advantages of digital technology in musical performances is the opportunity for collaborative composition and virtual performances that allow remote collaboration. This facility was explored in diverse ways during the COVID-19 lockdown in 2020. For instance, Travis Scott and Marshmello both held virtual concerts in 2020, inside "Fortnite", a video game, attracting about 12.3 million viewers. This number of viewers has never been gathered in a location for a live concert, but this size of audience was able to participate actively in the in-game concert held by Travis Scott and Marshmello. The record for the largest physical concert attendance to date was Rod Stewart's New Year's Eve performance on Copacabana Beach in Rio de Janeiro, held in 1994, in front of 3.5 million people.



Choral groups such as the Capital Pride Singers, The Aeolians, Shades of Yale, and the Mosborough Virtual Choir all utilised digital platforms like Zoom and Twitch to record various versions of the song “We Shall Overcome” during the COVID-19 lockdown in 2020. This is despite their members being in separate locations around the world. Likewise, the University of Ibadan Choir achieved a virtual performance of “Ojurere” (Composed by Steve Rhodes, arranged by Tunji Dada) during the 2020 COVID-19 lockdown. Individual videos, guided by instrumental accompaniment, were compiled into a single video for virtual choral performance. It is therefore essential for music education to take account of these sorts of innovation in the training of music graduates, to equip them to achieve such innovations, and thereby, remain relevant in the contemporary performance space.

### ***Music Recording/Distribution***

Music production in the analogue era required a band to perform together without interruption, while also minimising mistakes during recording sessions. It also required spending a significant amount of time at the recording studio. Music production has, however, become one of the most accessible musical activities, thanks to the development of digital tools that enable music production at any scale, whether on a large or small scale. Sound designers and music producers utilise music production programmes such as Cubase, Ableton Live, Logic Pro, FL Studio, and Bandlab to produce music, alongside other equipment like a sound card, pop filter, microphone, mixer, and MIDI controller. However, beyond the use of these gadgets that are usually found in professional studios, music production can now be done on programmes like Bandlab and FL Studio, which work on any digital device like an Android phone, tablet, or laptop. This allows individuals to use their phone to produce music from scratch, without limitations.

Music distribution in the analogue era also required duplicating plates and cassettes, which were only playable on designated devices. However, the digital revolution has created multimedia platforms for storing and distributing music. For instance, while the analogue distribution required cassette players to play songs stored on cassettes, music storage, especially in audio formats, can now be distributed online, where consumers can access it through permits granted to them after making some payments. They can also be streamed through streaming platforms, where the accumulated number of listeners translates into money for musicians.

### ***Music Analysis/Criticism***

Music analysis and criticism in the analogue era depended on both listening and glancing through musical scores to identify properties such as melody, rhythm, form and structure, harmony, texture, and text. However, digital technology has provided tools to aid music analysis and criticism, offering a faster and more straightforward approach to music analysis and critique. Electronic keyboards, such as the Yamaha PSR-S series, can analyse musical notes recorded in them and generate musical scores for visual review of sounds. Similarly, the AIVA music composition tool mentioned earlier also analyses musical notes by breaking down pieces and generating variations based on the structure of the primary sounds. Through the use of AI plugins, Sonic Visualiser also helps to analyse music by providing detailed visual representations of audio files, focusing on pitch, harmony, and rhythm. Other tools in this category include Google Magenta and MuseNet.

Apart from this, ChatGPT (OpenAI) also demonstrates an excellent capacity for musical analysis and criticism. Using ChatGPT4, I uploaded one of my musical arrangements (*Aye mi yoo dara*) shown below, instructing ChatGPT to analyse and critique the piece.

## Ayé mi yòò dára

Tolu Owoaje C. O. Owoaje

**Con spirito** ♩ = 65

Choir

1. E - mi'n fe k'á-yè mi dá - ra, Mo ti gba Jé - su O-lu-  
 gba - la gbó; A - yé mi yòò dá - ra.

2. Emi n fè k'áye mi l'áyo  
 Mo ti gba Jesu Olugbala gbó  
 Ayé mi yòò láyo

6. Emi n fè k'áye mi ní'tumo  
 Mo ti gba Jésu Olugbala gbó  
 K'áye mi ní'tumo

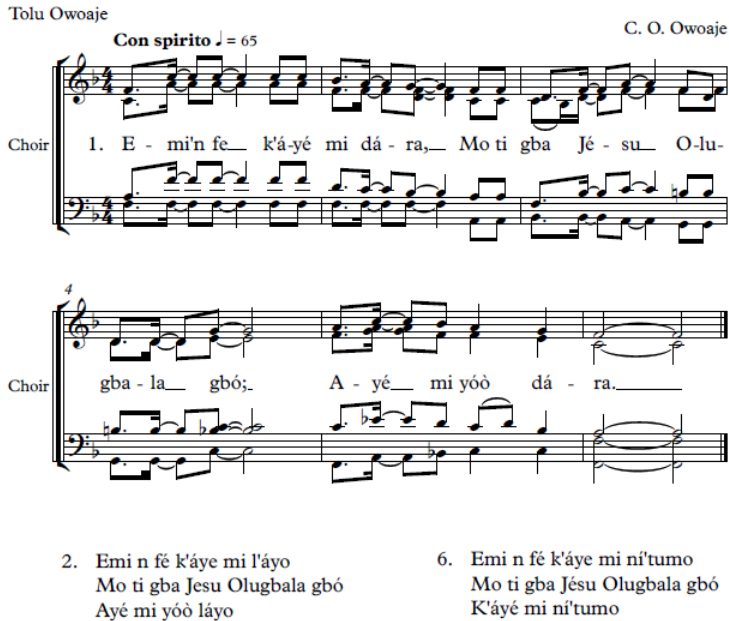


Figure 4: Musical score of "Aye mi yoo dara"

The analysis and critique of the piece by ChatGPT4 is shown as follows:

The musical piece "Ayé mi yòò dára", composed by Tolu Owoaje, is a choral work characterized by its spiritual and uplifting nature. The lyrics, rooted in Yoruba, translate to a message of hope, faith, and optimism, with repetitive themes of seeking joy, glory, beauty, and fulfillment through faith in Jesus Christ.

**Melodic and Harmonic Structure:**  
 The melody in this score is simple yet expressive, designed for a choir to sing in unison or in harmonic parts. The composer uses a call-and-response style, where a soloist may lead, and the choir responds, a common feature in African church music. The harmonies are built around traditional diatonic progressions, with some use of dominant and subdominant chords, giving the piece a grounded, tonal stability that supports the uplifting message.

**Rhythm and Tempo:**  
 Marked *Con Spirito* (with spirit) at a tempo of  $q = 65$ , the piece has a moderate pace that gives it a contemplative and reverent feel. The rhythm is mostly straightforward, with some syncopation in the vocal lines to add a sense of liveliness and engagement. The 4/4 time signature aligns with the spiritual nature of the piece, allowing the text to flow naturally with the musical phrasing.

Figure 5: Analysis and critique of "Aye mi yoo dara" by ChatGPT



**Cultural and Spiritual Context:**

The piece reflects elements of African Christian worship music, specifically from Nigeria. The Yoruba text connects deeply with the cultural identity of the region, and the composition captures the essence of traditional African praise while integrating it into a more formal choral structure.

**Overall Critique:**

While the piece is simple in its harmonic and melodic design, its strength lies in its emotional impact and cultural significance. The repetitive structure might feel limited in terms of musical development, but this simplicity enhances the spiritual message and allows the performers to focus on conveying the text's meaning. The balance between Western choral traditions and African worship styles is handled effectively, offering a heartfelt and accessible composition.

For future performances, more variation in dynamics or layering of vocal parts could be explored to add depth and texture to the piece. However, its current form is well-suited for congregational or choral worship settings, where the goal is community participation and spiritual reflection.

*Figure 6: Analysis and critique of "Aye mi yoo dara" by ChatGPT*

As can be seen in the response above, the analysis and critique are exhaustive. However, this tool cannot be heavily relied upon, as it could sometimes be susceptible to hallucination. From the musical score, the author's name is at the top left corner, which contains the name of the arranger or lyricist. The response generated by Chat GPT4, however, proclaims the author as the composer, whereas the composer's name in the top right corner is completely ignored. Hence, while students need to be introduced to these facilities, they must also be subjected to human intervention and moderation.

With the use of the digital tools, music composition, performance, recording, distribution, analysis, and criticism have become easier processes than they were in the analogue era. There is a need for music educators to engage students in the use of these tools to boost productivity, especially those that relate to their areas of specialisation. This has become increasingly necessary so that music graduates can utilise their in-depth knowledge of music and the available digital tools to carve out a desired space for themselves in the rapidly evolving musical world. It is essential to note that these tools are gaining popularity, allowing individuals without formal musical knowledge to create good music through a series of trials and errors.

**Ethical concerns in the use of digital technology in music education**

There have always been concerns about the use of digital tools, especially Artificial Intelligence, in an educational context. Such concerns centre on the possibility that these tools hinder students from engaging in critical thinking. While this may be a valid argument, students need to be trained in accordance with industrial trends, so that their ability to utilise these tools can be a competitive advantage in the labour market. The role of music educators in this regard is, therefore, to devise ways by which students can utilise these digital tools and personalise them in such a way that their use only enhances their creativity. This could be achieved through analogue class work and other exercises that would require them to demonstrate their creativity outside the use of digital tools.



## Conclusion

In line with the Diffusion of Innovation theory, digital technology has revolutionised the creative arts, like every other sector of human life. In the creative arts, digital technology has provided artists with tools that enable them to produce and express their creativity easily. In music, especially, digital technology has significantly impacted composition, performance, recording, distribution, analysis, and criticism. It is therefore crucial for music educators to engage students in the use of digital tools to boost productivity, especially those that relate to their areas of specialisation. By combining their musical skills with mastery of digital tools in their specified areas, they would be able to maintain their relevance in the labour market, even as music-making and performance have become volatile. Although there are ethical concerns surrounding the use of digital tools, music educators should devise ways for students to utilise these tools and personalise them in a way that enhances students' creativity.

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