



# Rethinking Creative Practice: Technology and Artistic Expression in the Digital Age

**Thulani Zulu**

*University of Venda, South Africa*

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## Abstract

The rapid diffusion of digital technologies has reshaped how music is created, taught, distributed and performed, altering the working conditions of instrumental musicians across both the Global North and the Global South. This article examines how these transformations affect live music performance and the livelihoods of rural instrumental musicians in South Africa, with reference to the Vhembe District in Limpopo Province. Drawing on a narrative review of scholarly and policy literature published between 2015 and 2025 and informed by the Social Construction of Technology perspective and debates on platform capitalism, the study synthesises evidence on digital music production, streaming services, arts education and the position of rural musicians in the contemporary creative economy. The review indicates that digital tools have expanded creative possibilities and audience reach for some musicians, while intensifying competition, compressing earnings from recorded-music and marginalising instrumental performers who lack reliable connectivity, digital literacy and industry networks. Rural musicians in the Vhembe District appear particularly exposed, remaining dependent on live performance in an environment where such opportunities are shrinking and where participation in digital markets is uneven. The University of Venda's Jam Sessions are considered as a local counter-practice that seeks to preserve live performance while engaging with digital media. The article contributes to debates on platform capitalism, digital labour and cultural policy in the Global South, and outlines directions for arts education, digital-infrastructure development and targeted policy support for rural music economies in South Africa.

## Introduction

The integration of digital technologies into the arts has transformed the ways in which music is created, taught, distributed, and performed. In the contemporary music industry, artificial intelligence, digital audio workstations, streaming services, social-media and smartphones now play a central role in shaping both creative practice and arts education (Hesmondhalgh et al., 2022; Morris, 2020). These tools offer artists new platforms and modes of expression, allowing independent musicians to bypass the traditional gatekeepers of the recording industry and reach global audiences at low-cost (Baym, 2018; Wikström, 2020). At the same time, the shift from ownership to access, and from recorded sales to streaming, has reduced the earnings that musicians derive from recorded-music. Breese et al. (2020) note that “live music has become increasingly important for musicians as their income from other sources (in particular from sales of pre-recorded-music) has declined due to

piracy and the availability of music in other formats and outlets, e.g., streaming and downloads" (p. 179). This raises important questions about the sustainability of live musicianship, particularly for instrumental musicians whose income has traditionally depended on session and stage work (Klein et al., 2017).

These global developments have taken a distinctive form in South Africa. The country's music industry is characterised by a rich cultural heritage, diverse musical traditions and a vibrant live music scene. In recent years, urban artists in Johannesburg, Cape Town and Durban have used platforms such as Spotify, Boomplay, TikTok and Mdundo to reach continental and international audiences, contributing to the international visibility of amapiano, Afro-house and gqom (Morris, 2020; Psomadaki et al., 2022). However, the benefits of the digital economy have not been evenly distributed. As Mashau (2022) notes, rural musicians continue to face uneven internet connectivity, limited access to digital production tools, thin professional networks and few local venues equipped for hybrid live and virtual performance. The Vhembe District in Limpopo Province illustrates this asymmetry clearly. It is home to a rich instrumental tradition and a substantial community of live performers, yet its musicians remain largely peripheral to the digital music economy that increasingly shapes earnings, visibility and career progression in the sector.

Existing scholarship has documented, in some detail, the disruptive effects of digital platforms on record labels, publishing, artist-audience relations, and copyright regimes in the Global North (Arditi, 2020; Hesmondhalgh et al., 2022; Wikström, 2020). Less attention, however, has been paid to how these transformations are experienced by instrumental musicians in rural areas of the Global South, where the material preconditions for platform participation are unevenly distributed. Where South African evidence is available, it has tended to focus on urban artists and industry-level policy rather than on the everyday livelihoods of rural performers (Ndzuta, 2024; Shafi et al., 2020). This creates a problem of both scholarly and practical significance. Rural instrumentalists are being asked to compete in a digitally mediated market whose entry conditions they cannot readily meet. Furthermore, the policy tools available to support them remain thin, generic, and poorly matched to the specificity of rural music economies.

Several terms used throughout this article require clarification. Technology refers to the digital tools and systems used in the creation, production, distribution, and performance of music, including artificial intelligence, digital audio workstations, streaming services, social-media platforms, and smartphones (Chen & Wang, 2024). A digital platform, in this study, refers to an internet-based system through which musicians distribute, promote, share and monetise their work, including streaming services and social-media applications (Kirui, 2024). Live music performance refers to the presentation of music by performers to an audience in real time, whether in physical venues or through live digital broadcasting (Green et al., 2022). An instrumental musician is a person who performs music using musical instruments in live or recorded settings. In this study, the term refers specifically to musicians whose livelihoods depend on performance opportunities in communities such as those in the Vhembe District (Yende, 2023). Arts education refers to teaching and learning activities that develop artistic knowledge, practical skills and creative expression, with a particular focus here on the integration of digital technologies into music teaching, learning and performance (Liu, 2025). Rural, as used in this study, describes communities located outside major towns and cities that are generally characterised by low population density, limited infrastructure and reduced access to services, markets and professional networks. The term, therefore, denotes not only a geographical location but also a social and economic context that shapes musicians' opportunities (Yende, 2023). Unemployment, following the definition of the International Labour Organisation (2023), refers to the condition of persons of

working age who are available for and actively seeking work. In South Africa, the official unemployment rate stood at 32.9 per cent during the first quarter of 2024 (Statistics South Africa, 2024). In this study, unemployment refers specifically to the absence of stable, sustainable income-generating opportunities for rural musicians in the Vhembe District, despite their skills and willingness to perform (Ndzuta, 2024; Shafi et al., 2020).

This paper responds to that gap. It examines, through a narrative review of the existing literature, how digital technologies are reshaping live music performance and the employment prospects of instrumental musicians in South Africa, with particular attention to the Vhembe District in Limpopo Province. The review is guided by three research questions. First, how have digital technologies affected live music performances and contributed to unemployment among instrumental musicians, particularly in rural areas like the Vhembe District? Second, what sustainable strategies can be employed to integrate technology into arts education and creative practice while maintaining the significance of live musical performance? Third, what policy changes are necessary to support the South African music industry and address the unemployment of musicians in the digital age? The paper contributes to ongoing discussions on platform capitalism, digital labour and cultural policy in the Global South by centring a case that has received little attention in the existing literature. It also draws attention to local counter-practices, such as the University of Venda's Jam Sessions, that seek to preserve live musical performance while operating within an increasingly digital music economy. The remainder of the paper reviews the relevant literature, outlines the review method, presents the findings thematically, discusses their implications, and closes with recommendations for practice, policy, and further research.

### *Digital technologies and the reshaping of live music*

Digital technologies have transformed the music industry over the past two decades. The rise of streaming services such as Spotify, Apple Music and YouTube has changed the way music is consumed, produced and monetised. As Wikström (2020) observes, streaming has shifted revenue away from record sales towards access-based subscription models, where earnings depend on the number of streams rather than album purchases. In addition, independent artists can now record, release and promote their music without relying on major record labels, a development that has been described as a democratisation of the music industry (Arditi, 2020; Galuszka, 2015). However, the same platforms also concentrate distribution power in a small number of firms. Hesmondhalgh et al. (2022) argue that streaming exposes musicians to opaque algorithms, unpredictable discoverability and downward pressure on per-stream earnings. Baym (2018) further notes that the boundaries between the recorded and the live, and between the amateur and the professional, have become increasingly blurred in the digital age.

These developments have direct implications for live music performance. As earnings from recorded-music decline, musicians increasingly rely on touring, session work and other in-person appearances to sustain their livelihoods (Breese et al., 2020). At the same time, however, the growth of solo performance formats, backing tracks, and software instruments has allowed single artists and producers to stage full-sounding shows without hiring instrumentalists. Klein et al. (2017) note that this shift has contributed to a reduction in demand for session and ensemble players. Frenneaux (2022) similarly argues that digital tools have enabled solo artists to replicate the sound of a live band, further displacing traditional instrumentalists. The COVID-19 pandemic intensified these pressures. As Baym (2018) and UNCTAD (2022) observe, the suspension of live gatherings pushed performance activity onto streaming and video-conferencing platforms, an adjustment that benefited artists with existing digital audiences while further marginalising those without.

The South African music industry has undergone similar transformations, though shaped by local genre dynamics, linguistic diversity and consumer behaviour. According to Morris (2020), urban artists have used streaming services, YouTube and short-video platforms such as TikTok to circulate genres such as amapiano, Afro-house and gqom, reaching continental and international audiences that were previously inaccessible to South African musicians without major-label support. These developments have expanded the country's presence in global music markets and reshaped how young South African musicians view their career pathways. However, the benefits of platform participation are unevenly distributed. Psomadaki et al. (2022) note that visibility, audience growth and monetisation depend on continuous content production, sustained social-media presence and the ability to interpret platform analytics. Green et al. (2022) further observe that these requirements demand time, digital literacy, and infrastructure that are not equally available across the sector.

#### *Rural musicians and the digital divide in South Africa*

South Africa's digital divide remains one of the most persistent structural features of its information economy. Rural provinces continue to report lower rates of household internet access, less reliable connectivity and higher relative data costs compared with urban centres (IFPI, 2023; UNCTAD, 2022). For musicians, these conditions place constraints on uploading recordings, streaming performances, engaging with online audiences, and using cloud-based production tools. Furthermore, digital literacy is unevenly distributed. As Mashau (2022) and Yende (2023) note, many rural musicians report limited access to formal training in digital audio production, online promotion and rights management. The result is that the tools that most transform the industry are least accessible to the musicians who most need the earnings they might provide. Instead of closing the gap between musicians in different settings, digital transformation appears to have reproduced and, in several respects, deepened it.

The Vhembe District in Limpopo Province illustrates these dynamics in concentrated form. The area is home to established Venda and Tsonga musical traditions, a substantial community of live performers, and a music department at the University of Venda that has documented aspects of the local scene over successive years. According to Mashau (2022), musicians in Vhembe report limited access to venues equipped for hybrid live and virtual performance, few opportunities for paid session work, and constrained pathways into the digital promotion practices on which contemporary careers increasingly depend. In response to the erosion of local performance opportunities, the University of Venda's music department has hosted Jam Sessions as regular events where local musicians can perform live for student and community audiences. Nambinga (2024) argues that initiatives of this kind can be understood as counter-practices that seek to preserve the pedagogical and cultural value of live performance, while operating within a music economy increasingly organised around digital circulation.

Policy responses to the challenges facing rural musicians in South Africa remain limited in both scope and design. The national government has recognised the importance of the cultural and creative industries as sites of employment and cultural expression, and has developed frameworks intended to support the sector (Shafi et al., 2020). However, as Ndzuta (2024) argues, existing frameworks are oriented primarily towards established urban artists and industry-level actors rather than towards the specific circumstances of rural instrumentalists. Nambinga (2024) similarly notes that rural music economies require targeted investment in digital-infrastructure, accessible training in digital production and promotion, subsidised access to production tools, and support for venues capable of hosting hybrid performances. Without such measures, the digital transformation of the music industry is likely to continue widening the gap between musicians in urban centres and those working in rural areas.





### **Theoretical framework**

The study is guided primarily by the Social Construction of Technology (SCOT) perspective, first advanced by Pinch and Bijker (1984) and subsequently developed by Bijker et al. (1987). According to Pinch and Bijker (1984), technologies do not evolve according to an internal logic, but are shaped through the practices, meanings, and negotiations of the social groups that design, use, and interpret them. Applied to the music industry, this perspective directs attention away from claims that digital tools have autonomously reshaped musicians' lives, and towards the socially organised conditions under which those tools are adopted, refused or adapted. Axell (2019) similarly emphasises this two-way relationship between technology and society, noting that outcomes depend on infrastructure, skills, cultural preferences and institutional support as much as on the capabilities of the tools themselves. SCOT is therefore well suited to a study of rural South African musicians, whose experience of digital technology cannot be understood in isolation from the social and material conditions of the Vhembe District.

The SCOT perspective is complemented by the concept of platform capitalism, developed by Srnicek (2017). According to Srnicek, digital platforms have emerged as a dominant infrastructure of contemporary economic activity. Platforms are not neutral intermediaries. Rather, they are firms that structure the terms on which producers and users interact, extract value from user data, and concentrate market power. Applied to music, platform capitalism illuminates how streaming services and social-media firms shape what is visible, what earns revenue and what forms of labour musicians are required to perform in order to remain viable in the sector. Morris (2020) applies this perspective to music platforms, arguing that they optimise cultural production in ways that concentrate benefits among high-volume, well-networked artists. This perspective is particularly useful for the South African case because it draws attention to the political economy of the platforms themselves rather than treating them as neutral channels of distribution.

Two further concepts inform the analysis. The literature on digital labour, developed by Fuchs (2014) and Scholz (2013), draws attention to the additional forms of work that musicians perform in digital environments, including online promotion, audience engagement, content creation and profile management. As Mühlbach and Arora (2020) argue, much of this work is unpaid or paid only indirectly through eventual visibility and audience growth. Bourdieu (1993), in turn, developed the concept of the field of cultural production, which emphasises that artistic success is shaped not only by talent or technical resources, but also by access to economic, social and cultural capital, including networks, reputation and institutional recognition. Together, these concepts help explain why access to digital tools alone does not equalise opportunities within the music industry, and why rural musicians in the Vhembe District may face structural constraints on their participation. Technological determinism, which foregrounds technology as an independent driver of social change (Chandler, 1995; Lahtinen, 2020), is acknowledged here but treated as an insufficient framework because it under-specifies the social and economic conditions that mediate technological change.

### **Methods**

This study adopts a narrative literature review design to synthesise existing scholarship on the effects of digital technologies on live music performance and instrumental musicians in South Africa, with particular reference to the Vhembe District. Narrative reviews are appropriate where the aim is to interpret, contextualise and integrate a body of literature that spans multiple disciplines and methodological traditions, rather than to test a specific hypothesis or estimate a summary effect (Grant & Booth, 2009; Snyder, 2019). This approach is well suited to a topic that combines empirical research on the music industry with theoretical work on digital labour and cultural policy, and that draws on

scholarly, policy, and industry sources. Unlike systematic reviews, which apply predefined selection rules to a narrowly defined question, the narrative review allows the researcher to incorporate diverse evidence flexibly, while maintaining transparency about how sources were identified, selected and interpreted (Paré et al., 2015; Snyder, 2019).

The literature search was conducted between March and June 2025 across four databases: Google Scholar, Scopus, JSTOR, and Sabinet African Journals. Google Scholar was used for its broad coverage of grey literature and open-access material. Scopus and JSTOR provided access to peer-reviewed journal articles. Sabinet was included to ensure coverage of South African journals that are often under-represented in international indexes. The search combined terms relating to the music industry (music industry, live music, live performance, instrumental musicians, Jam Sessions), digital technologies (digital platforms, streaming services, digital audio workstations, artificial intelligence, social-media), and geographic focus (South Africa, Vhembe, Limpopo, rural, Global South). Boolean operators were used to combine terms, and results were filtered by publication date to prioritise material published between 2015 and 2025. In addition, reference lists of key sources were consulted to identify further relevant studies through backward citation tracking, a method commonly used in narrative reviews (Snyder, 2019).

Sources were retained for review if they were published in English between 2015 and 2025, appeared in peer-reviewed journals, academic books, chapters from established publishers, or credible policy and industry reports, and addressed at least one of the following topics: the transformation of music production or distribution through digital technologies; the changing conditions of live music performance; the position of musicians within the digital economy; arts education in relation to digital tools; and the situation of musicians in South Africa or comparable African contexts. Selected earlier sources were also included where they represented foundational theoretical contributions, for example, Pinch and Bijker (1984) on the Social Construction of Technology, and Bourdieu (1993) on the field of cultural production. Sources were excluded if they were purely technical treatments of music technology without social or economic analysis, if they addressed music genres outside the study's scope in ways that offered no transferable insights, or if they duplicated material available in more comprehensive sources.

Retained sources were read in full and coded thematically, following the principles of thematic analysis proposed by Braun and Clarke (2006) as applied to secondary literature. Initial coding focused on recurring topics such as digital music production and distribution, streaming and platform economics, live performance dynamics, digital labour, rural music economies, the digital divide and inequality, arts education, and cultural policy. These initial codes were then grouped into higher-order themes, which formed the basis of the findings presented in the results section. Throughout the process, attention was paid to points of convergence and disagreement across sources, and to how findings from Global North contexts translated, or did not translate, into the South African and rural African settings that are the focus of this study. Notes were kept on emerging patterns, contradictions, and gaps to support both synthesis and the identification of directions for further research.

Several limitations of the method should be acknowledged. Firstly, the review is restricted to sources published in English, which may underrepresent scholarship in Afrikaans, isiZulu, Tshivenda, Xitsonga, and other South African languages, particularly regarding community-based music practices. Secondly, reliance on published literature means that the voices of rural musicians are represented only indirectly, through studies that have interviewed them. Primary data collection with musicians in the Vhembe District would be needed to test and extend the review's findings. Since no primary data were collected and no human participants were involved, the study did not require

ethical clearance beyond standard academic conventions. However, care was taken to represent cited authors accurately, acknowledge sources through appropriate citations, and avoid overstating the applicability of Global North findings to the South African rural context.

## **Results**

The thematic synthesis of the reviewed literature yielded four interrelated themes. Firstly, the review identified shifting revenue and performance models within the music industry. Secondly, it highlighted uneven access and the persistence of the rural digital divide in South Africa. Thirdly, it highlighted the implications of digital transformation for arts education. Finally, it highlighted the role of local counter-practices oriented towards preserving live performance. Rather than presenting the effects of digital technologies as uniformly positive or uniformly negative, the reviewed sources describe an uneven landscape in which outcomes depend on the interaction between technological developments, musicians' skills and resources, and the wider economic and policy context in which music is produced and consumed. Each theme is presented below in turn and is drawn on in the Discussion to interpret the position of Vhembe musicians within contemporary industry and policy debates in South Africa.

### ***Shifting revenue and performance models***

The reviewed literature suggests that digital technologies have reorganised the economics of music in ways that shift risk and reward away from recorded-music and towards live performance and platform-mediated attention. Streaming has become the dominant mode of music consumption, yet per-stream royalties remain low. As Hesmondhalgh et al. (2022) and IFPI (2023) note, the majority of streaming income continues to accrue to a small proportion of high-volume artists. Musicians who once relied on album and single sales have therefore become more dependent on live gigs, merchandise, brand partnerships and, increasingly, direct-to-fan platforms (Baym, 2018; Breese et al., 2020). Live performance itself is being reshaped. According to Klein et al. (2017) and Frenneaux (2022), the ready availability of backing tracks, digital audio workstations and software instruments allows solo artists and producers to stage full-sounding shows without hiring instrumentalists. Chen and Wang (2024) similarly observe that these developments have intensified the precarity of instrumental musicians whose earnings have traditionally depended on ensemble work.

### ***Uneven access and the rural digital divide***

The reviewed literature consistently indicates that access to digital music technologies is unequally distributed and that these inequalities map onto pre-existing patterns of geographic, economic, and educational disadvantage. In the South African context, rural provinces such as Limpopo continue to lag urban centres on measures of household internet connectivity, affordability of mobile data, and access to devices capable of supporting music production and streaming activity (UNCTAD, 2022). As Mashau (2022) and Yende (2023) observe, musicians in the Vhembe District report limited digital literacy, thin professional networks, and few opportunities for formal training in online promotion, rights management, or the use of production software. These conditions constrain rural musicians' ability to convert their creative work into digital revenue or visibility, even as urban and international artists benefit from the same platforms. Rather than closing the gap between musicians in different settings, the digital transformation of the industry appears to have reproduced and, in several respects, deepened it.

### ***Implications for arts education***

Arts education, and music education in particular, emerges from the reviewed literature as a site in which the tensions between digital innovation and traditional performance practice are especially visible. On the one hand, as Liu (2025) observes, digital tools have expanded the range of resources

available to music learners. These include online tutorials, virtual classrooms, artificial intelligence-assisted practice tools, and low-cost production software that can be used outside the formal studio. On the other hand, the widespread adoption of these tools has coincided with reduced institutional visibility for live ensemble performance in some curricula. As Nambinga (2024) notes, this raises questions about how instrumental musicianship is transmitted to the next generation. Mashau (2022) further argues that in South Africa, especially in under-resourced institutions in rural areas, the pace of curricular change often lags behind that of technological change. Students are therefore prepared for neither platform-based careers nor traditional performance economies.

### ***Local counter-practice: the University of Venda Jam Sessions***

Alongside these broad shifts, the reviewed literature identifies local initiatives that seek to preserve live performance while operating within a digitally organised music economy. The University of Venda's Jam Sessions are one such initiative. Mashau (2022) describes them as regular concert events organised by the music department to provide performance opportunities for local musicians and to expose students and community audiences to live instrumental work. Framed within the literature on cultural policy and community music, initiatives of this kind can be read as counter-practices that resist the tendency of digitalisation to displace live performance, while also providing pedagogical value by embedding students in real performance contexts (Nambinga, 2024; Ndzuta, 2024). The reviewed literature does not, however, contain a systematic evaluation of the Jam Sessions' effects on musicians' livelihoods, audience development, or student outcomes. Such empirical assessment is identified as a priority for further research.

### **Discussion**

The findings of the review can be interpreted through the theoretical framework outlined earlier. According to Pinch and Bijker (1984), the digital tools reshaping the music industry are not autonomous forces, but socially organised artefacts whose effects depend on the practices, meanings and material conditions of their users. From this vantage point, the difficulties faced by rural instrumental musicians in the Vhembe District cannot be attributed to digital technology in the abstract. Rather, they arise from the interaction of specific technologies with specific social and economic conditions, including uneven internet connectivity, limited digital literacy, weak professional networks and few venues equipped for hybrid performance. Srnicek (2017), in turn, argues that digital platforms structure visibility, audience access and monetisation in ways that concentrate benefits among high-volume, well-networked actors. This helps explain why rural musicians, who lack the infrastructural and cultural capital required for meaningful platform participation, remain marginalised even when nominally connected to the digital music economy.

Comparison with the Global North literature reveals both similarities and differences in the position of instrumental musicians. In the United Kingdom, the United States and much of continental Europe, streaming has depressed earnings from recorded-music and increased reliance on live performance, touring and secondary income. As Hesmondhalgh et al. (2022) and Wikström (2020) argue, this has generated widely reported concerns about musicians' economic precarity. Similar patterns are visible in South Africa, where urban artists have benefited from the international circulation of amapiano and related genres while local session and ensemble players report shrinking opportunities. However, as Mashau (2022) notes, the distinctive feature of the South African rural case is the depth and persistence of the digital divide. This divide prevents rural musicians from participating in the platform-based strategies that their urban counterparts have used to partially offset declines in recorded-music income. The result is a compounding of disadvantages in which the same musicians who have the



least access to platform revenue also have the fewest opportunities for paid live work in a shrinking local circuit.

When read against these findings, South African cultural policy shows both progress and enduring gaps. According to the Revised White Paper on Arts, Culture and Heritage, the cultural and creative industries are recognised as a strategic economic sector, and the state is committed to supporting professional development, market access and audience building (Department of Sport, Arts and Culture, 2020). The Mzansi Golden Economy strategy has channelled funding into festivals, venues and creative enterprises, while the South African Cultural Observatory (2021) has produced sectoral analyses intended to inform planning and investment. However, the reviewed literature suggests that the everyday livelihoods of rural instrumentalists remain poorly served by these frameworks. As Ndzuta (2024) and Shafi et al. (2020) argue, policy design tends to focus on flagship urban venues, established genres and industry intermediaries. Instruments such as data allowances, equipment subsidies, and community-scale venue upgrades that would matter most to rural musicians receive comparatively little attention. Aligning policy with the material conditions of rural music economies, therefore, remains an unfinished task.

The findings also carry implications for arts education and for institutions such as the University of Venda. Liu (2025) and Nambinga (2024) argue that music curricula must simultaneously equip students with the digital fluency needed for platform-based careers and the ensemble and performance skills needed for live musical practice. Initiatives such as the University of Venda's Jam Sessions occupy an interesting position within this dual requirement, because they preserve a space for live instrumental work while operating within an environment increasingly organised around digital circulation. Read through the lens of platform capitalism and digital labour, these initiatives can be understood as attempts to reassert forms of musical value that are difficult to monetise on major platforms, yet remain pedagogically and culturally significant (Fuchs, 2014; Mühlbach & Arora, 2020). Their long-term viability will depend on sustained institutional support, community-engagement and, ideally, systematic evaluation of their effects on musicians' livelihoods and student learning.

### ***Limitations***

Several limitations of the review should be acknowledged when interpreting these findings. Firstly, as a narrative review, the study integrates evidence from a diverse body of sources rather than establishing causal relationships or systematically appraising the methodological quality of individual studies (Grant & Booth, 2009; Snyder, 2019). Secondly, the empirical base is uneven, with more sources available on the Global North music industry than on rural South African music economies. Conclusions about Vhembe therefore rest partly on the transfer of insights from other settings. Thirdly, the absence of primary data means that the perspectives of rural musicians and audiences are represented only indirectly. Finally, the review has emphasised the challenges associated with digital transformation. A fuller account would also examine the opportunities that digital tools have created for rural musicians who have been able to access them, including through mobile-first platforms designed for African markets (Kirui, 2024; Morris, 2020). These limitations shape the scope of the discussion above and inform the directions for further research set out in the concluding sections.

### ***Recommendations***

Investment in rural digital-infrastructure is a precondition for the meaningful participation of rural musicians in the digital music economy. As Ndzuta (2024) and UNCTAD (2022) argue, policy actors such as the Department of Sport, Arts and Culture and provincial authorities should prioritise the extension of affordable broadband, mobile data and community access points in districts such as Vhembe. Community and multi-purpose centres, including those attached to universities and cultural

institutions, can serve as anchor points for shared studio equipment, upload facilities and rehearsal spaces that individual musicians would struggle to afford. Public and private partnerships with mobile network operators, cultural funders and platform providers offer one mechanism for delivering such investment while distributing risk across actors. Without addressing the underlying infrastructure gap, other interventions targeted at rural musicians will have limited effect, because they will not reach the musicians most affected by the digital divide.

Digital skills training programmes should be developed and delivered in partnership with universities, community organisations and creative industry bodies, and should be designed with the specific circumstances of rural musicians in mind. As Mashau (2022) and Yende (2023) argue, many rural musicians have limited access to structured instruction in digital audio production, online promotion, platform analytics, rights management and independent distribution. Kirui (2024) further observes that digital literacy is essential for independent musicians navigating streaming services and social-media. Training should combine practical, hands-on components with attention to the business and legal aspects of digital music work, and should be delivered in formats accessible to musicians whose primary means of engagement is mobile rather than desktop-based. Institutions such as the University of Venda, which already serve as focal points for local musical activity, are well positioned to host such programmes and to link them to their existing teaching and community-engagement missions.

Investment in hybrid performance venues would help rural musicians benefit from both live and virtual performance opportunities. Small-scale venue upgrades that enable high-quality live streaming, recording, and social-media broadcasting from local performance spaces can extend the reach of rural musicians without requiring individual purchase of production equipment. As Mashau (2022) and Nambinga (2024) argue, initiatives such as the University of Venda's Jam Sessions can serve as models for such hybrid spaces, provided that their outcomes are systematically evaluated so that lessons can be shared and scaled to other rural settings. Priority upgrades might include reliable broadband and back-up power, basic audio and video capture equipment, and simple digital platforms for archiving and distributing recordings. Support from cultural funders, festival organisers and telecommunications operators would strengthen the sustainability of such venues and support their integration into wider circuits of touring, education, community-engagement and audience development across the region.

Arts education institutions should design music curricula that balance digital literacy with sustained attention to live instrumental practice and ensemble performance. As Liu (2025) and Nambinga (2024) argue, curricula that favour either the digital or the traditional in isolation risk producing graduates who are prepared for neither the platform economy nor the live circuit. A balanced curriculum would integrate training in digital audio production, online promotion, platform analytics and rights management with structured opportunities for ensemble work, performance in front of live audiences and engagement with community musical traditions. Institutions positioned close to distinct musical cultures, such as the University of Venda in relation to Venda and Tsonga musical practices, are especially well placed to develop curricula that treat local musical heritage as a resource for pedagogical, creative and community-engagement innovation.

## **Conclusion**

This paper has examined how digital technologies are reshaping live music performance and the employment prospects of instrumental musicians in South Africa, with particular attention to the Vhembe District in Limpopo Province. Drawing on a narrative review of scholarly and policy literature published between 2015 and 2025, the paper has synthesised evidence on the shifting

economics of the music industry, the persistent digital divide between urban and rural musicians in South Africa, the implications of these developments for arts education, and local counter-practices such as the University of Venda's Jam Sessions. Informed by the Social Construction of Technology perspective and related concepts in platform capitalism, the review indicates that the position of rural instrumental musicians cannot be understood as an inevitable effect of technology. Rather, it is the outcome of the interaction between technological change and the social, economic, and institutional conditions in which musicians live and work.

The paper contributes to debates on platform capitalism, digital labour and cultural policy in the Global South by centring a case that has received little attention in the existing literature. It also links the experience of rural South African musicians to broader theoretical questions about the social construction of music technologies. The recommendations outlined above suggest specific directions for policy and educational practice, while the limitations acknowledged in the Discussion indicate priorities for further research. In particular, empirical studies with musicians and audiences in the Vhembe District, systematic evaluation of initiatives such as the Jam Sessions, and comparative research across South African rural music economies would provide a stronger evidence base for policy design and for the further development of arts education curricula. Building such an evidence base is essential if South African cultural policy is to respond effectively to the challenges and opportunities of the digital age in ways that include, rather than exclude, rural musicians.

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