

Researching Media in the Digital Performance: Methods and Techniques

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Abstract

The intersection of media and performance has undergone a profound transformation in the digital age, giving rise to new paradigms of creation, dissemination, and audience engagement. This paper explores the methodologies and techniques used to research media within the context of digital performance, a field that merges traditional performance practices with digital technologies such as virtual reality, augmented reality, live streaming, and interactive media. Through a critical examination of qualitative and practice-based research methods including ethnography, digital ethnography, performance analysis, and creative practice as research this study maps the evolving landscape of media in digital performance. It also addresses key challenges such as ephemerality, interactivity, and technological mediation. The aim is to provide a comprehensive framework for scholars and practitioners to navigate and interrogate this rapidly evolving field, contributing to the broader discourse on digital humanities, media studies, and performance theory.

Keywords

Digital Performance,
Methods,
Techniques, Research



I. Introduction

Digital technologies have fundamentally altered the landscape of contemporary performance, reshaping how artists create, how audiences experience, and how scholars study performance. The integration of digital media into performance spaces ranging from stage-based multimedia theatre to immersive online environments has not only expanded the possibilities for artistic expression but also complicated the methodological approaches to researching these hybrid forms. In this context, digital performance refers to performances that incorporate or are mediated by digital technologies, whether through live streaming, computational interactivity, motion capture, virtual staging, or algorithmic processes.

The study of media within digital performance necessitates a rethinking of traditional performance analysis tools, as well as the adoption of interdisciplinary methods drawn from media studies, digital humanities, anthropology, and art practice. Researchers are increasingly challenged to develop new frameworks that can account for the fluidity, interactivity, and temporal instability inherent in digital performance environments.

This paper seeks to address the methodological gap by examining the tools and techniques that enable rigorous analysis of media within digital performance contexts. It begins by contextualizing the historical evolution of media in performance, and then surveys current research methodologies emphasizing both analytical and practice-led approaches. Finally, it considers how these methods respond to key conceptual concerns such as presence, liveness, embodiment, and audience agency. By foregrounding methodological innovation,

this study contributes to a more nuanced understanding of how digital media shapes, disrupts, and enhances contemporary performance practices.

II. Review of Literature

Digital Performance

Digital Performance is an evolving art form that leverages computer technology to connect creators and audiences through diverse media such as images, sounds, video, animation, and interactivity. It transcends traditional boundaries of theatre and performance by incorporating digital elements that enhance or even entirely define the performance experience. From multimedia-rich stage productions to fully online performances in virtual environments, digital performance reflects a fusion of artistic expression and technological innovation. The integration of computer-based techniques such as projection mapping, real-time motion capture, digital scenography, algorithmic sound design, and live streaming has expanded the creative possibilities available to artists and has redefined how performances are both created and consumed.

At its core, digital performance represents an intersection between performance arts and digital media. It encompasses a wide spectrum of practices, ranging from the simple inclusion of digital projections in traditional theatre productions to more complex configurations where the technology itself becomes a co-creator of the performance. For example, in some live performances, digital technologies are used to manipulate stage environments in real time, responding to the performer's movements or audience interactions. In other cases, entire performances are staged online, using platforms like Zoom, YouTube, or bespoke virtual reality spaces where audiences engage with performers across physical distances. These forms challenge the conventional understanding of performance as a time- and space-bound event, allowing for asynchronous or globally networked performances that unfold in both physical and virtual realms.

Digital performance can occur in various settings, including live stage productions enriched by visuals and digital sound's capes, site-specific installations that use augmented reality, street performances that incorporate mobile apps or digital projections, and fully immersive virtual or mixed reality performances. Regardless of the setting, what distinguishes digital performance is the central role that digital technology plays in shaping the aesthetic, dramaturgical, and experiential qualities of the performance. In this context, technology is not merely a tool or background element; it is an integral part of the artistic vision and performative process.

Digital performance becomes increasingly prevalent; the study of media within this context becomes essential for understanding its multifaceted nature. Researching media in digital performance involves investigating the influence of digital tools and platforms on how performances are conceived, produced, and received. This includes examining how specific media technologies such as digital projection systems, computer-generated imagery (CGI), or networked communication tools affect the creative choices made by artists, the modes of engagement available to audiences, and the broader cultural meanings that emerge from these technologically mediated encounters.

Moreover, such research provides valuable insights into the evolving relationship between performer and audience. Digital performance often alters traditional dynamics of spectatorship by inviting interactive participation, allowing audiences to shape the

performance in real time, or enabling them to become co-creators in user-driven narratives. This participatory dimension, facilitated by digital media, blurs the lines between artist and viewer, live and recorded, real and virtual. As a result, scholars studying digital performance must consider not only the technical aspects of media use but also the socio-cultural implications of these shifts in performative interaction.

Digital performance is not simply the use of technology in performance, but a complex and dynamic art form that reconfigures the very nature of performance practice and theory. It calls for an interdisciplinary approach to research that incorporates media studies, performance theory, digital art, and cultural analysis. The act of Investigating how media technologies shape the creation, production, and reception of digital performances, researchers can better understand the transformative impact of the digital age on the arts. This understanding is crucial for both academic inquiry and artistic innovation, as it helps map the changing landscape of performance in a technologically interconnected world.

When carrying out research in media performance, the following aspect must be looked into:

1. Digital platforms: Analyzing how digital platforms like social media, streaming services, and online forums influence the dissemination and consumption of digital performances.
2. Multimedia elements: Examining the integration of multimedia elements like video, audio, and graphics in digital performances.
3. Virtual and augmented reality: Investigating the use of virtual and augmented reality technologies in creating immersive digital performance experiences
4. Digital identity and presence: Researching how digital performances shape and reflect digital identities, online presence, and social interactions.
5. Participation and engagement: Studying how digital performances facilitate audience participation, engagement, and feedback.
6. Digital curation and preservation: Exploring the challenges and strategies for curating and preserving digital performances for future generations.
7. Digital performance art: Investigating the intersection of digital technologies and performance art, including digital installations, live coding, and algorithmic performances.
8. Virtual events and festivals: Researching the organization, production, and reception of virtual events and festivals, including digital theatre, dance, and music performances.
9. Digital storytelling: Analyzing how digital performances employ narrative techniques, interactive storytelling, and immersive experiences.
10. Ethics and accessibility: Examining the ethical considerations and accessibility issues surrounding digital performances, including privacy, inclusivity, and digital divide concerns.

III. Result and Discussion

Researching Media in the Digital Performance employs various methods and techniques to investigate the intersection of media technologies and performance, the combination of these methods and techniques will help the researcher(s) gain a comprehensive understanding of the complex relationships between media technologies, performance, and audience engagement in the digital age.

The methods and techniques includes the following: Qualitative Methods, Quantitative Methods, Mixed methods, Digital Methods, Performance Analysis Techniques

3.1 Qualitative Methods

The qualitative method of research is centred on gathering deep, contextual, and non-numerical data to gain a comprehensive understanding of human behaviour, emotions, social processes, and personal experiences. Rather than relying on statistics or numerical measurements, qualitative research focuses on rich descriptions and interpretations that capture the complexity of lived realities. This approach is particularly useful in the humanities and social sciences, including performance studies, where the aim is often to explore meaning, symbolism, interaction, and perception in context. Data is typically collected through open-ended questions, allowing participants to express their thoughts and experiences in their own words.

There are several key types of qualitative research methods, each offering distinct advantages depending on the research goal. One common method is observation, which involves watching human behaviour either directly such as being physically present at a performance or indirectly, such as through video recordings. This method enables researchers to understand actions and reactions in real time. Case studies provide in-depth analysis of specific digital performances, events, or platforms, offering detailed insights into particular examples and allowing for contextualized interpretations.

Another important method is interviewing, which involves conducting structured, semi-structured, or unstructured interviews with artists, producers, designers, and audience members to gather perspectives on their experiences with digital performance. Focus groups bring together several participants to discuss topics collectively, often revealing shared or contrasting views, fostering discussion, and generating broader insights into audience engagement or artistic intentions.

Lastly, content analysis is used to systematically analyze performance-related materials such as videos, images, digital artifacts, and written texts. This method helps to uncover underlying themes, narratives, and aesthetic patterns in digital performance. Together, these qualitative approaches allow researchers to explore the nuanced and multifaceted nature of digital performance in a way that respects its complexity and human-centred dimensions.

3.2 Quantitative Methods

Quantitative research methods are primarily concerned with the collection and analysis of numerical data. This research approach emphasizes objectivity and seeks to test hypotheses through systematic investigation, typically involving experiments, surveys, or statistical modelling. Quantitative methods aim to establish patterns, test theories, and make predictions based on measurable evidence. By focusing on quantities and frequencies, this method enables researchers to derive generalizable conclusions from data sets, making it ideal for studies that require precision, comparison, and replication.

Chandwani et al. describe quantitative research as “a research that is based on the measurement of quantity or amount. It can be applied to a phenomenon that can be expressed in terms of quantity” (3). In other words, quantitative research deals with aspects of reality that can be counted or measured, such as frequency of audience interaction, number of digital downloads, viewership statistics, or performance durations. This numerical focus allows for the statistical analysis of relationships, trends, and variations within large samples, thus offering a broad and systematic understanding of the subject under study.

There are several types of quantitative research methods. **Descriptive research** is used to observe and describe the characteristics of a population or phenomenon, often through surveys or questionnaires. **Experimental research** involves manipulating one variable to determine its effect on another, typically conducted in controlled environments.

Correlational research examines the relationship between two or more variables to identify whether a connection exists, without inferring causality. **Quasi-experimental research** shares similarities with experimental methods but lacks random assignment, making it suitable for real-world contexts where control is limited.

In digital performance studies, quantitative methods may be applied to analyze audience engagement metrics, measure user behaviour on digital platforms, or assess the impact of digital interventions on performance outcomes. This approach complements qualitative methods by offering empirical evidence to support or refute theoretical claims.

3.3 Mixed Methods

Mixed Method Research is another type of research that is not so commonly used like qualitative and quantitative. According to Nasir, mixed method research is an approach to enquiry which consist of both qualitative and quantitative forms that has to do philosophical assumptions. It is beyond just the collating and analyzing of data because it involves both approaches (12). This type of research simply applies a combination of both qualitative and quantitative approaches and this depends on the nature and area being researched into. Examples of mixed method research are:

1. Ethnographic research: Combining participant observation with interviews and content analysis.
2. Discourse analysis: Analyzing language and communication patterns in digital performance contexts.
3. Multimodal analysis: Examining the interplay between different media modes, such as text, image, and sound.

3.4 Digital Methods

Digital Methods refer to research techniques and analytical tools designed specifically for studying and interpreting data within digital environments. These methods are particularly useful for exploring behaviors, interactions, and cultural practices that occur on platforms such as social media, websites, blogs, online forums, and digital archives. Unlike traditional research methods, digital methods take advantage of the vast amount of data generated through digital activities, allowing researchers to analyze trends, user engagement, network dynamics, and content flows in real time. Tools such as web crawlers, digital analytics software, sentiment analysis, and data visualization platforms are often employed to handle and interpret large datasets. Digital methods are instrumental in understanding how digital technologies shape communication, identity, and community formation in online spaces. They are increasingly relevant in fields like media studies, digital humanities, and communication research, as they provide deeper insight into the rapidly evolving digital landscape and its impact on contemporary society and culture.

a. Types of Digital Methods

1. Web scraping: Automated extraction of data from websites and online platforms.
2. Social media monitoring: Tracking social media conversations, hash tags, and keywords.
3. Digital ethnography: Participant observation and immersion in online communities.
4. Online surveys and questionnaires: Collecting data through online questionnaires.
5. Digital content analysis: Analyzing online texts, images, and videos.

b. Advantages of Digital Methods

1. Access to large amounts of data
2. Ability to study online behaviors and interactions
3. Insights into digital cultures and practices

4. Opportunities for remote and automated data collection
5. New forms of data visualization and representation

c. Disadvantages of Digital Methods

1. Data quality and validity concerns
2. Ethical issues around online data collection and privacy
3. Technical challenges and platform changes
4. Difficulty in generalizing findings to offline contexts
5. Need for specialized skills and tools

3.5 Technique

a. Performance Analysis Techniques

These are structured methods employed to examine, interpret, and evaluate the artistic, technical, and cultural elements of various performance forms, including theatre, dance, music, and digital performances. These techniques enable scholars, practitioners, and critics to gain a deeper understanding of the components that contribute to the meaning and effectiveness of a performance. Through tools such as dramaturgical analysis, semiotic analysis, phenomenology, and audience reception studies, researchers can explore elements like narrative structure, symbolism, performer-audience dynamics, spatial use, and technological integration. In the context of digital performance, analysis may also include examining interactivity, virtual presence, and the role of media in shaping the experience. Performance analysis considers not only what is presented on stage or screen but also how cultural, historical, and social contexts influence interpretation and reception. Ultimately, these techniques provide a critical framework for understanding performance as a complex, multifaceted form of human expression and communication.

Types of Performance Analysis Techniques include:

1. **Dramaturgical Analysis:** Examines the structural and narrative elements of a performance, such as plot, character development, and dramatic structure.
2. **Phenomenological Analysis:** Explores the subjective experience of the performance, focusing on the audience's perceptions, emotions, and interpretations.
3. **Semiological Analysis:** Analyzes the signs, symbols, and codes used in the performance, such as language, gesture, and costume.
4. **Feminist Analysis:** Investigates how the performance represents gender, sexuality, and power dynamics.
5. **Critical Race Analysis:** Examines how the performance represents race, ethnicity, and power dynamics.
6. **Technical Analysis:** Examines the technical aspects of the performance, such as lighting, sound, and stage design.
7. **Historical Analysis:** Situates the performance within its historical context, examining how it reflects or challenges the cultural and social norms of its time.

b. Advantages of Performance Analysis Techniques

1. In-depth understanding of performances and their cultural significance
2. Insights into artistic and technical choices
3. Understanding of audience experiences and interpretations
4. Critical perspectives on power dynamics and representation
5. Contextualization of performances within broader cultural and historical contexts

Researching Media in the Digital Performance using the above methods and techniques will help Artists, Artistic directors, Policy makers, and Producers explore new

creative possibilities, push boundaries, and redefine the future of digital performance while researchers also gain a nuanced understanding of performances and their impact on audiences, contributing to the development of performance studies and related fields.

c. Recommendations

Based on the analysis of current methodologies and challenges in researching media within digital performance, this study offers the following recommendations for scholars and practitioners:

1. Adopt Interdisciplinary Methodologies: Researchers should integrate methods from diverse fields such as media studies, digital humanities, cultural studies, and performance theory to more comprehensively capture the complexities of digital performance.
2. Embrace Practice-Based Research: Creative practice as research should be recognized as a legitimate and productive methodology, particularly when investigating performative media that defy conventional observation and analysis.
3. Utilize Digital Ethnography: With the increasing prevalence of online and hybrid performance spaces, digital ethnographic tools are essential for understanding audience behaviours, performer-audience interactions, and community formations in digital environments.
4. Prioritize Documentation and Archiving: Given the ephemeral nature of many digital performances, researchers should develop robust strategies for documenting, archiving, and analyzing performances, including video capture, metadata tagging, and reflective commentary from creators.
5. Critically Engage with Technology: Rather than treating digital tools as neutral conduits, scholars should interrogate the technological infrastructures themselves—examining their biases, affordances, and limitations within performative contexts.
6. Foster Collaborative Research: Encouraging collaborations between technologists, artists, and researchers can lead to richer, more nuanced insights and methodologies that reflect the collaborative nature of digital performance creation.

IV. Conclusion

The rapid convergence of media and performance in the digital age calls for innovative, flexible, and critically engaged research methodologies. As digital performance becomes an increasingly prominent mode of artistic and cultural expression, scholars must expand their methodological repertoires to account for its unique characteristics: interactivity, virtuality, hybridity, and technological mediation.

This paper has highlighted the importance of both analytical and practice-led approaches to researching media in digital performance. By mapping key techniques and recommending future directions, it contributes to an emerging discourse that values methodological plurality and responsiveness to digital change. Moving forward, the field must remain open to experimentation, interdisciplinary dialogue, and critical reflection, ensuring that research practices evolve in tandem with the media and performances they seek to understand.

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