II ВСЕУКРАЇНСЬКА НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ
З МІЖНАРОДНОЮ УЧАСТЮ

«ІННОВАТИКА В ОСВІТІ, ДИЗАЙНІ ТА МИСТЕЦТВІ»

Державний заклад «Південноукраїнський національний педагогічний університет імені К. Д. Ушинського»

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ЗБІРНИК МАТЕРІАЛІВ

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Інноватика в освіті, дизайні та мистецтві : матеріали ІІ Всеукраїнської науково-практичної конференції з міжнародною участю, м. Одеса, 24-25 квітня 2025 року. Одеса: Університет Ушинського, 2025. 194 с.

До збірника ввійшли матеріали ІІ Всеукраїнської науково-практичної конференції «Інноватика і освіті, дизайні та мистецтві», яка відбувалася у Державному закладі «Південноукраїнський національний педагогічний університет імені К. Д. Ушинського» 24-25 квітня 2025 року.

Матеріали конференції відображають науково-дослідницькі та методико-орієнтовані підходи та сучасні тенденції, щодо використання різноманітних інновацій, актуальних проблем в освіті, дизайні та мистецтві в контексті сьогодення.

Збірник призначений для науковців (докторанти, аспіранти, магістранти), здобувачів вітчизняних та зарубіжних закладів вищої освіти, педагогічних працівників різних типів закладів освіти, художників, дизайнерів, представників творчих спілок, арт-ринку.

Відповідальність за дотримання вимог академічної доброчесності в текстах доповідей несуть їх автори.

СЕКЦІЯ 3. ІННОВАЦІЇ В СУЧАСНОМУ МИСТЕЦТВІ ТА ДИЗАЙНІ

MEDIA ART AND DIGITAL DESIGN IN CREATING VARIETY POP PERFORMANCE

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Key words: Media art, digital design, performing arts, visual communication, AR/VR, motion design, generative art, innovation in art.

In the 21st century, contemporary art increasingly uses digital technology tools, which creates new forms of cultural expression. In this context, the combination of media art and digital design plays a key role in the development of stage forms, especially within the framework of pop performance. The use of innovative technologies in scenography and visual design of the stage creates the prerequisites for the emergence of a new model of interaction between the artist and the audience.

Media art as a direction of artistic activity associated with the use of digital media, acquires special importance in the context of creating a stage spectacle. In this field, art, science and technology merge, generating new forms of expression and communication. Digital design, in turn, provides visual design, virtual scenography and interactive elements that interact with the performer and the viewer in real time.

As L. Manovich notes, media art is a type of art that uses the latest media technologies as a means of artistic communication: video art, digital art, interactive art, VR/AR, generative art, etc. Its key characteristic is the symbiosis of the technical and the aesthetic, which provides a new level of emotional expressiveness. In his work The Language of New Media, Manovich emphasizes that media art "democratizes artistic practices" as digital tools make the process of creating art more accessible to a wider range of authors. This changes not only the form but also the content of artistic expression, which is increasingly encoded by algorithms, interfaces, and interactive interaction [5].

This idea is continued by K. Paul in her work Digital Art, where she argues that digital technologies not only provide new technical possibilities, but also lead to the emergence of new types of artistic thinking [6]. In particular, this is manifested in the creation of nonlinear

narrative, multimedia environments and synesthetic forms of artistic expression.

Digital design, which includes graphics, 3D animation, video installations, generative graphics, motion design, video mapping, augmented and virtual reality, is increasingly integrated into the performing arts. This process provides not only an aesthetic component, but also a functional one – the formation of visual narrative, spatial logic and technological interaction within the performance.

In the latest productions, the design of scenography changes from a static to a dynamic and reactive system. Thanks to interactivity, the stage environment reacts to movement, voice, sound, changing in real time. This allows you to create a synchronized video sequence that combines with choreography, dramaturgy and music, forming a holistic media space [2].

One of the most striking examples of this approach is the show Björk Digital, where Icelandic singer Björk combines her original music with virtual reality, 3D video installations and generative graphics. The project used VR technologies to create a personalized immersion into the world of her compositions, in particular through video clips for the tracks "Stonemilker" and "Notget", broadcast in individual VR headsets. This experience highlights the ability of digital design not only to illustrate, but also to visually interpret music, adding a new dimension of perception to it.

Another significant example is the stage aesthetics of the Korean pop group BTS, especially in the performances of the Love Yourself and Map of the Soul world tours. BTS concerts are distinguished by the use of interactive scenography, LED panels, 3D animation, video mapping, as well as individual LED devices (ARMY Bombs) that are synchronized with music and lighting effects in real time. Such experiences demonstrate the potential of media scenography in transforming the traditional concert form into a total multimedia performance, where audio and visual communication channels are integrated into a single artistic system.

Similar artistic and technological approaches are observed in the stage practices of other representatives of the Korean pop scene, in particular the band ASTRO, whose concert shows are also distinguished by a high level of digital integration. Another example of the integration of digital technologies into the field of art is the use of media art and digital design in their concert shows. At their concerts, the integration of media art and digital design is implemented through the use of high-tech scenographic solutions, in particular video mapping, dynamic LED screens, as well as interactive lighting synchronized with musical compositions.

These elements create a virtual-physical spatial environment that enhances the emotional immersion of the viewer and forms the effect of multimodal perception. This form of media installation transforms a concert performance into a polystructured art product that combines audiovisual dramaturgy, the band's graphic identity, and the aesthetics of digital culture.

While the previous examples demonstrate the symbiosis of digital media with pop culture aesthetics, other artists use media art to create experimental sound spaces.

Another example of the reinterpretation of the soundscape in performance is the work of Tim Hecker and Kara-Lis Coverdale, who work in the direction of ambient electronics. Their live performances are based on the creation of an acoustic space through multi-channel sound and synchronization with minimalist lighting effects. The sound composition in this case performs a dramatic function, activating the emotional space of interaction between the viewer and the spatial scenography.

In parallel with individual performances and concert shows, media art is actively penetrating social and theatrical formats that involve the viewer in new forms of participation.

The European association Rimini Protokoll, known for its activities within the framework of documentary theater, operates in the direction of social media art. In their projects, they actively involve digital localization technologies, GPS navigation, mobile applications and digital cartography, creating elements of augmented reality in urban space.

This performance format not only breaks down the barrier between stage and audience, but also transforms the very concept of the "spectator", who becomes a participant in a scenario unfolded using digital algorithms.

At the other end of the visual spectrum are large-scale installations that completely model the perceptual environment using light, sound, and algorithms.

Among the more visually impressive projects, it is worth mentioning SKALAR, a media installation by Christopher Bauder (WhiteVoid) and composer Kangding Ray. The installation is a fully generative environment where laser beams, mirror structures and powerful sound waves create an atmosphere of total immersion. The absence of a live performer does not reduce the emotional power of the performance - on the contrary, it emphasizes the total aesthetics of digital presence, in which the audience interacts with algorithmic design objects.

In this context, digital minimalism is also noteworthy as a specific artistic strategy that focuses on the visualization of abstract digital data.

It is worth mentioning separately the experiments of Ryoji Ikeda, representing digital minimalism as a form of stage presence. His project Datamatics is a stage visualization of numerical data created in real time. He uses information flows, bit signals, frequency oscillations to create a visual-sound fabric that acts as a metaphor for the digital world. His work illustrates how data as a material can be an object of performance, artistic composition and stage expression.

That is, media art in the context of modern pop and stage art functions not only as a design tool, but as an active participant in the artistic activity.

The use of media art in pop art today goes beyond the decorative function or addition. It is a full-fledged participant in the performance, capable of changing the rhythm, content and format of interaction between the performer and the audience. Thanks to the technologies of computer graphics, generative design, light calculations and audiovisual synchronization, a new type of stage act is created, in which artistic expression is realized as a digital event.

Thus, intermusical and visual synthesis in digital projects allows for the realization of the concept of total art, in which sound, image and space form a single communicative structure. According to G. Jenkins, this form of interaction meets the challenges of "convergence culture", where the boundaries between genres, media and audiences are gradually disappearing [4].

Modern stage technologies include:

• 3D Mapping – projection technologies that transform architectural elements into

• virtual environment or overlay digital objects on reality;

• Motion capture – capturing body movements and transforming them into a digital image;

• AI algorithms – dynamic scenes;

• AR/VR – real-time generation of audio-visual content [1].

An illustrative example is Refik Anadul's Machine Hallucinations performance, in which artificial intelligence analyzes millions of visual images and transforms them into a living "visual symphony" [1]. This example embodies a new type of art where the author is a system, a trained artificial environment, and the viewer is immersed in an algorithmic visual flow.

This type of performance raises important ethical and conceptual questions. The viewer ceases to be a passive observer and acquires the

status of an active participant interacting with the environment. This forms a new model of artistic communication in which the creation, interpretation and experience of the work of art occur simultaneously [2].

Since digital design and media art are interdisciplinary fields, their study in art education is becoming an integral part of the training of a modern specialist. According to D. Gauntlett, it is project-oriented, creative and collaborative learning that contributes to the development of flexible competencies needed in the digital art environment [3].

Such educational approaches ensure the development of visual thinking, digital literacy skills, as well as the ability to work in a team, adapt to change and produce innovative artistic content.

That is, "Media art" and digital design in the context of pop performance are not only visual design, but also the conceptual core of modern performing arts. They transform the idea of the stage, the audience and artistic communication, opening up new horizons for creative experimentation.

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