The Impact of Social Media on Television Broadcasting and Film Production

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Abstract. Over the past half-decade, the appeal of streaming platforms has seen a consistent upswing, paralleled by a surge in subscriber numbers. This investigation seeks to unravel the impact of streaming platforms' ascendancy on the domain of filmmaking. The narrative of cinematic evolution is deeply intertwined with technological advancements. It is critical to acknowledge that groundbreaking innovations have heralded each epochal milestone in the cinematic saga. The advent of the digital era heralded a significant metamorphosis in the realms of television and cinema. Digital cinema, transcending traditional film and analogue methodologies, has become the de facto standard. Each transformative phase in cinema has heralded an enhanced cinematic experience, offering audiences novel vistas of engagement. Streaming platforms, a byproduct of digital innovation, offer content access at a predetermined fee, ensuring quality and accessibility with scant need for technical intervention. This research delves into theoretical discourse on digital technology's influence on cinematic evolution. It scrutinizes data depicting audience shifts across leading streaming services over the last decade. Findings indicate that the escalating consumer inclination towards streaming and online cinema platforms is reshaping viewer preferences regarding film genres and formats. To cater to evolving tastes, the filmmaking landscape is under constant renovation. It emerges that audience preferences are in flux, and film industry professionals must navigate these shifts adeptly. Looking ahead, it is envisaged that both global and Ukrainian streaming platforms will forge original content aligning with viewer expectations.

Keywords: Social Media, Television, Film Production.

1 Introduction

With the advancement of digital technologies, there's a parallel evolution occurring within the film and television industries. The infusion of innovative tools is impera-

tive for captivating audiences and fostering industry growth. Significantly, the epochs of film and television progress have coincided with the advent of technological breakthroughs. The dawn of cinematography can be traced back to the invention of the camera obscura, phenakistiscope, and chronophotography, collectively laying the groundwork for modern cameras. The production of "The Arrival of a Train at La Ciotat Station" marked a pivotal moment, introducing the world to a 50-second black and white film that catalyzed cinema's evolution. Initially, films lacked sound, relying instead on musical accompaniments and inserted textual dialogues. Silent films, notably those featuring Charlie Chaplin, exemplified this era. The challenge of synchronizing audio with visual footage initially hindered the incorporation of sound [1].

The 1920s witnessed the development of a low-frequency amplifier, overcoming the issue of inadequate sound volume. Warner Brothers, then on the brink of bankruptcy, gambled on sound films with the release of "The Jazz Singer" in 1925, heralding the era of sound cinema. Thereafter, film and television production flourished with new transmission channels, enhanced cameras, and innovative development and editing techniques. The industry saw improvements in cinemas and ventured into special effects, irrespective of the filming technique. The use of digital post-production and special effects became accessible to even mid-budget producers. Traditional cinematography and animation, both hand-drawn and puppet-based, laid the groundwork for digital effects, notably exemplified by George Lucas' "Star Wars" saga, which began in 1977 with "Episode IV: A New Hope."

Stereoscopic cinematography, or 3D filming, represented another technological leap, employing dual cameras to create a layered visual effect. With special filtering glasses, viewers could experience a semblance of three-dimensionality. The 1952 film "Bwana Devil" by Arch Oboler is recognized as the first color 3D film, sparking rapid technological adoption by major film studios [2].

Each innovation in the film industry has served to enhance the cinematic experience, offering audiences more immersive viewing experiences. Traditionally, film distribution adhered to analogue technologies, but digital advancements have transformed media consumption patterns, challenging established production models. The concept of the value chain provides a framework for examining the impact of technology on film distribution and consumption [3]. The shift from a unified value chain to tailored business strategies signifies a potential paradigm shift for independent cinema, transitioning from a supply-driven to a demand-driven market. The internet's profitability surged in 1995, with modern mobile phones processing information 30 times faster than the computers used during the first manned moon landing, leading to digital content production and storage [4]. This era witnessed the introduction of smartphones, tablets, and the transition from plasma to OLED TVs, enabling diverse viewing practices. Internet companies have catered to the voracious appetites of viewers, crafting a new informational ecosystem, and sparking a content race. The symbiosis of television and the internet saw TVs become "smart," capable of accessing internet content. By 2020, nearly all major media corporations had launched their online cinemas and streaming services. The escalating popularity of these platforms underscores their impact on the film industry, prompting this study's inquiry into digital technologies' role in shaping film and television production [5].

2   Materials and methods

This research examined the global evolution of digital technologies in film and television production, focusing on cinematography's modernization and cultural significance. It compared analogue and digital film production, with a special focus on Ukrainian cinema's development over the past century.

The study analyzed the rise of digital cinemas from 2006 to 2019 and compared digital films from 2000-2015 with analogue ones. It also examined the role of streaming services, including Netflix, Amazon, YouTube, and Ukrainian platforms Megogo and Takflix.

Netflix's growth from 2012 to 2019 was a key focus, analyzed against other services. The research synthesized findings to highlight digital technology's impact on the film industry and Ukrainian film production, offering recommendations for leveraging digital technologies and streaming platforms.

3   Results and discussion

Digital technology's imprint on the filmmaking landscape is profound and transformative, heralding new paradigms in production, editing, distribution, and viewing of motion pictures. This evolution has steered the film industry towards predominantly digital productions. Whereas the year 2000 saw films chiefly produced through analogue means, the introduction of digital cameras marked a significant shift, as highlighted by the resultant surge in digitally shot films (Fig. 1). The advent of electronic media for capturing and reproducing moving imagery catalyzed this shift, enhancing distribution avenues and production techniques, notably through virtual image synthesis, thereby amplifying cinema's entertainment quotient [6].
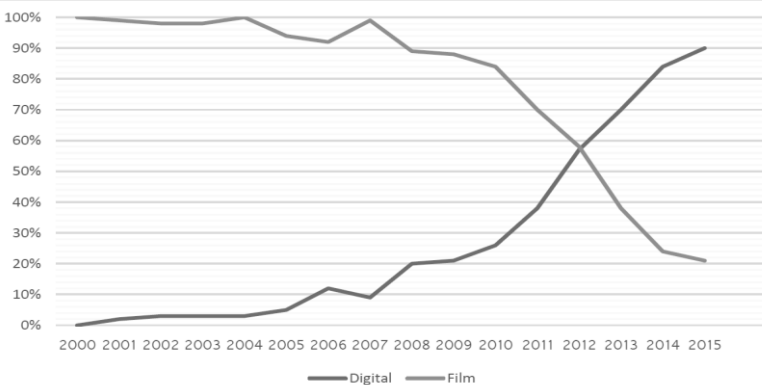
Fig. 1. The total number of films shot worldwide using digital and analogue technologies

Significant technological advancements facilitated not only novel on-screen performances but also surmounted specific challenges like image and sound quality enhancement. This era of innovation expedited production processes, reduced costs, and

provided filmmakers with greater creative latitude. The transition to digital cinema necessitated upgrades in cinema infrastructure, including new screening media and equipment. From a mere 2,991 digital screens globally in 2006, this number has escalated markedly (Fig. 2).
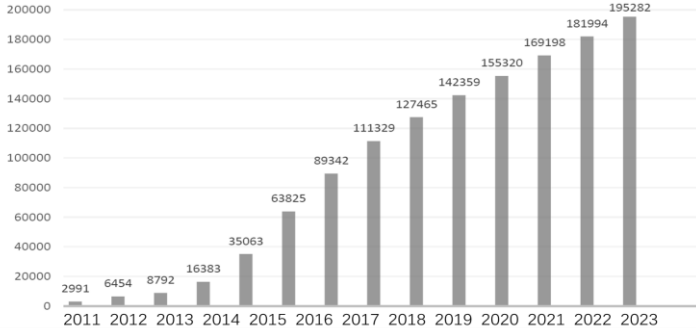

Fig. 2. The number of digital cinema screens worldwide from 2006 to 2019

The proliferation of digital technologies inevitably led to the rise of streaming services, tasked with delivering high-quality content directly to consumers. By 2018, streaming service subscribers outnumbered cable TV users, a milestone indicating the shifting paradigms of media consumption. The global entertainment market mirrored this transition, with streaming platforms such as Amazon, CBS, Hulu, and Netflix at the forefront, soon joined by tech giants like Apple and Disney. The digital distribution revenue soared by 34%, contrasting with a 14% decline in physical media sales, underscoring a growing preference for digital film acquisitions [7].

Netflix's subscriber growth from 33.3 million to 192.9 million over seven years exemplifies this trend (Fig. 3). In 2018, Netflix alone constituted 14.9% of global app traffic, surpassing other major streaming formats and platforms, with Ukraine boasting 47,000 subscribers [8]. This surge in streaming service adoption has significantly enriched the viewer's content library, available at a fixed monthly rate.
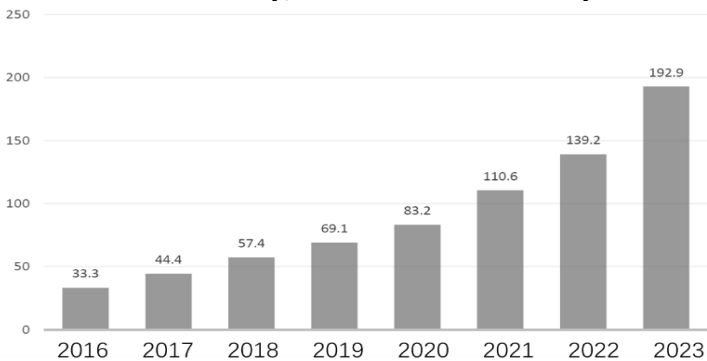

Fig. 3. Netflix streaming service audience

The digital era has not only transformed viewer consumption habits but also galvanized streaming platforms into becoming content producers themselves, investing billions in original content across films, TV series, and music. Despite this investment in originality, a notable scarcity of content adapted for the Ukrainian audience persists, propelling users towards more localized services like Megogo and Takflix, the latter championing Ukrainian independent cinema through a unique pay-per-view model without requiring subscriptions or registrations.

Streaming services have indelibly influenced filmmaking practices, as filmmakers now navigate through an expanded toolkit of visual effects and high-quality imaging technologies to cater to evolving audience preferences and consumption habits. Despite the technological upheaval altering content consumption, cinemas maintain their allure, thanks in part to their unique social and experiential offerings that streaming services strive to emulate or complement [9].

This technocultural shift encapsulates the duality of technological advancement and cultural adaptation, urging interdisciplinary research to unravel the multifaceted impacts of digital transformation on cinema. As digital cinema becomes the norm, the industry grapples with standardization challenges and the financial implications of transitioning from traditional to digital formats. The study underscores the necessity for collaborative efforts among tech companies, studios, and cinemas to navigate the complexities of digital cinema implementation, thereby securing a future where digital innovation and cinematic tradition coalesce harmoniously [10].

4   Conclusion

The digital era has transformed our engagement with cinema, significantly advancing film production over the last fifteen years. Enhanced filming technology and improved image quality, along with the easy access to movies and TV shows for urban dwellers, mark a pivotal shift. While cinemas remain popular, the rise of internet connectivity and streaming services has revolutionized the viewer's experience. For filmmakers, streaming platforms like Netflix, which acquires broadcasting rights for Sundance Festival films, provide a new avenue for distribution, bypassing traditional channels and saving niche genres from obsolescence. These platforms have also increased the popularity and quality of series and TV shows, offering legal access to high-quality content. Cinemas still dominate blockbuster screenings, but streaming services provide space for subtler genres. Film companies now face the challenge of targeting audiences and creating content suited for streaming success. The evolution of television into a digital network tailored to individual preferences highlights technological progress. However, Ukraine lacks homegrown content to compete internationally. Developing Ukrainian streaming services and focusing on original content creation is crucial for nurturing Ukrainian cinema in the digital age.

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