

Transforming Cultural and Media Industries into a Unified Media Industry through Artificial Intelligence.



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Date of submission: 01/09/2025 Date of acceptance: 22/11/2025 Date of publication: 16/12/2025



Abstract:

This study investigates the changes occurring in the media and communication fields, along with their shifting economic dynamics. It starts by looking at the emergence of cultural industries, which aimed to turn arts, culture, music, and literature into commodities sold through outlets like books and newspapers. The study then explores the evolution of media industries, where news, press reports, and radio and TV broadcasts were transformed into profitable industrial products that serve both commercial and educational purposes. The research also examines how technology, particularly artificial intelligence, has reshaped the practices of journalism, radio and television broadcasting, and media production, including in the area of new media.

key words: Media Economics - Cultural Industries - Media Industries - New Media - Artificial Intelligence.

Introduction:

The primary focus of cultural industries has traditionally been on the creation, distribution, and consumption of cultural content through the reproduction of authentic and significant cultural works. Initially, the scope of cultural industries was confined to specific cultural sectors such as books, films, and music. However, from the second half of the

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twentieth century onward, this scope expanded beyond these areas to encompass the production of all forms of culture and other consumer products, including entertainment and sports. As a result, cultural industries now play a significant role in economic activity.

As an extension of cultural industries, research on media industries has evolved, highlighting the inseparable relationship between the two. Recently, there has been a growing interest among researchers in examining media and culture from an economic perspective, a topic that was previously not explored or studied. In the early stages of media and communication, beginning with the written press as the pioneer, followed by radio, television, and eventually new media, there was little focus on these media from a material or economic standpoint.

Initially, they were not viewed as industries, and attention was primarily given to their content. Over time, however, the focus shifted to their editorial structure, as well as the laws and regulations governing them. With the rise of newspaper circulation, the emergence of new media outlets, and increasing competition among these platforms, the media evolved beyond just an informational activity, garnering increasing economic attention.

As a result, the media has transformed into a profitable, commercial, and economic industrial sector, particularly with the substantial investments poured into it and the advancements in technology and techniques. This shift has led to a greater emphasis on the development and training of media professionals, the provision of paper and printing equipment, and the procurement of broadcasting and receiving devices for radio and television, among other resources. Consequently, news and media content has become a commodity with distinct markets, laying the foundation for the economics of media as both a science and an industry, similar to other sectors in society. Furthermore, media industries, which are an extension of cultural industries, have now become the third-largest industries globally, following the arms and chemical industries.

Today, we are witnessing significant and unprecedented transformations in the media and communication fields, which have reshaped the media industry and revolutionized the production, distribution, and reception of information. Modern technologies have introduced innovations that led to the emergence of new media, with methods and approaches distinct from traditional media. These technologies and algorithms have not only streamlined media operations

but also resulted in the elimination of many jobs. For instance, the electronic press has been able to overcome the high costs of paper and printing, which previously accounted for a large portion of its budget, especially in light of the paper shortage in many Arab countries. Distribution companies have been phased out, and administrative staff has been reduced. As technical advancements continue to reshape the media landscape, what is considered "new media" today may become outdated tomorrow, particularly given the rapid pace of technological and technical revolutions and the growing use of algorithms in media work. This shift has sparked a boom in media industries, especially with the integration of artificial intelligence technology into media production and operations.

Over the past two decades, there has been a significant surge in the use of smart technology within the media industry. This shift has not only reduced costs and eliminated certain stages in the media production process, as was the case in the past, but it has also led to the development of algorithms that can interact with and simulate human behavior in increasingly sophisticated ways. As a result, many human roles have been replaced across various sectors, including medicine, engineering, construction, aviation, and media, with machines—specifically robots—taking over tasks previously performed by humans. Today, major media organizations incorporate artificial intelligence at various stages of media and news production. This transformation has led to a shift from traditional cultural and media industries to media industries that increasingly rely on artificial intelligence.

This study aims to provide a theoretical and historical analysis of the industrial transformations in the media sector, tracing the shift from cultural and media industries to the media industry driven by artificial intelligence. The central question guiding this inquiry is:

How did the transformation from cultural industries and media industries to media industries using artificial intelligence occur?

Several sub-questions arise from this, including:

- What are cultural industries and media industries?
- How has the media landscape shifted from cultural and media industries to media industries utilizing artificial intelligence?
- When did the industrial and economic interest in print newspapers, radio, and television products emerge, and what impact has this had on newspapers, radio, television, and new media?

- How are media industries incorporating artificial intelligence (AI)?

This study will address these questions through a detailed exploration of the evolution of the media industry.

1. Conceptual framework of the study:

To understand the framework of this research paper, it is essential to define a few key concepts carefully chosen for their relevance to the study: cultural industries, media industries, and artificial intelligence. Defining these terms from a media perspective is the first step in providing clarity for the reader.

2.1. Cultural Industries:

Cultural industries refer to activities that produce and reproduce cultural works based on industrial production principles. This means that authentic cultural and artistic works can be transformed into consumer goods that are mass-produced and offered in the market, much like other industrial products, leading to widespread public consumption. (Allaoua, 2016, pp. 208–209), these activities involve the industrial production of artistic works, such as music, literature, and visual arts, which are then commodified and sold in the market.

The traditional theory behind cultural industries argues that the mass distribution of artistic, literary, and musical works, which are turned into commodities, results in the commercialization and utilitarianization of these works. This process often distances the art from its original social or human function, reducing its cultural significance in favor of commercial gain. (Abbane, 2019, p 13). Which highlights how the transformation of culture into mass-market commodities can strip away the deeper cultural or social value of artistic works.

From this definition, we can conclude that cultural industries involve the industrial and commercial reproduction of cultural materials. For example, a film might be reproduced and sold according to commercial principles, thereby turning the original cultural work into a commodity designed for mass consumption.

2.2. Media industries:

Media industries are aimed at a broad audience and, as such, require the use of mass production techniques. This makes them inherently industrial, where technology plays a crucial role both in the creation and evolution of media. A fundamental prerequisite for the growth of media industries is the existence of a social demand for these technical means. For instance, the development of printing techniques

during the Age of Enlightenment contributed to the rise of the publishing and printing industries, which played a pivotal role in modern society. Publishers and printing press owners, along with textile industry magnates, were among the first industrial capitalists (Fenni, 2017, pp. 40–41).

When we refer to media industries, we mean all institutions involved in media production and distribution. This includes the print and electronic press, publishing houses, radio and television networks, film production companies, and even new media outlets that compete in the market. These media organizations aim to reshape culture, politics, religion, and societal life, translating these aspects into media products such as news, articles, investigations, news bulletins, radio programs, dramas, or series—all of which are intended to generate economic profit.

The concept of media industries is closely tied to that of cultural industries. Cultural elements, such as art, discourse, images, music, literary works, and societal customs—have been transformed into commodities that can be bought and sold in the market, just like other commercial products. This transformation is the foundation of cultural industries. Media industries then took this process further by turning events, information, news reports, and radio and television broadcasts into profitable commodities. These media products are subject to market logic, with media professionals aiming to achieve economic returns through their creation and distribution.

2.3. Artificial intelligence:

The American scientist John McCarthy is credited with coining the term “artificial intelligence” in 1956. He defined it as the science and engineering of creating intelligent machines, particularly intelligent computer programs. Artificial intelligence (AI) is recognized as a branch of computer science aimed at creating machines that can perform tasks typically done by humans, but more efficiently in terms of time and accuracy. It is a field dedicated to making computers "think" in a way that mimics human minds. AI can automate tasks that require human intelligence, such as decision-making, problem-solving, and learning (Sham El-Din, Aqila, 2022, p. 276).

Minsky defines it as the construction of computer programs that engage in tasks that are satisfactorily accomplished by humans . (khelifi.gueda, 2024, p 417).

Artificial intelligence is one of the fundamental pillars of the technology industry in the present era, as it embodies the ability of digital

computers to perform certain tasks similar to those performed by humans. . (Doghman, 2022, p 2018).

In essence, artificial intelligence is the imitation or simulation of human intelligence, though it operates through different methods. The primary goal of AI is to enable computers to carry out tasks that would normally require human cognition. AI systems are designed to recognize faces, voices, and places, and to simulate these elements in ways that can be difficult to distinguish from natural, human-generated phenomena. This ability to replicate human traits underscores the increasing sophistication of *AI technologies*.

3. Transformations in media production from a cultural and media industry to the use of artificial intelligence technologies:

The interest in the media from an economic perspective is a relatively recent development. In the early days of media, particularly in its traditional forms, there was little focus on its cost, revenues, or economic scale. Journalists, editors, and publishers, as well as researchers and scholars in the field, did not initially consider the economic aspects of media. Instead, the focus was on the development of the media message and the pursuit of a prestigious societal role. Journalists worked for decades to elevate journalism's status and make it a tool for education and knowledge dissemination. The same was true for radio and television broadcasting. When these media first emerged, their economic function was not a primary concern; rather, the focus was on content development, form, and transmission methods, along with the legal frameworks that governed them to ensure regulation and control.

As the media evolved, with increasing newspaper page counts and rising financial burdens, alongside advancements in broadcasting technology, it became clear that media had transformed into one of the most powerful industrial sectors in the modern world. This shift inevitably led to growing interest in the media from an economic perspective.

Today, the media is recognized as an industry in its own right. Several factors confirm that the media has developed into an industry with a distinct economic structure. (El Tayeb, p. 57). For instance, it has become a commodity like any other, fulfilling the conditions economists refer to as "**Ms 5**" which include **Money, Manpower, Materials, Machines, and Management**. The objectives of media products mirror

those of other commodities: to satisfy the need for information and achieve profitability as a measure of industry productivity.

Media managers now play a crucial role in creating the right administrative environment to ensure that media products—such as newspapers—are treated as material commodities or tangible services designed to generate profit. The role of economics in the media industry has further expanded due to the global and local trend toward privatizing media activities. This shift reflects the growing economic significance of media across all levels.

The media industry has undergone significant transformations during the second half of the 20th century and continues to experience ongoing developments across various levels. The sector is still growing steadily due to advancements in technological tools, large capital investments, and the expanding markets for media activities, in addition to the profound impacts the media has on individuals, societies, systems, and governments.

Currently, artificial intelligence (AI) is being applied in many diverse fields. Machines have begun replacing humans in numerous areas. In medicine, AI now performs precise surgical procedures, even in specialized fields like ophthalmology. In construction, machines are taking over tasks previously handled by engineers, while AI has also replaced pilots in aviation. Major companies like Amazon have spent billions on AI, using it to process user data and understand consumer behavior with their products.

In the media field, many media institutions have undergone a complete transformation due to the changes occurring in the industry. With AI entering press, radio, and television organizations, AI broadcasters and robot journalists have emerged. Algorithms now analyze data and present it in a ready-made journalistic format. This study will focus on the industrial transformations within the media, from the economic shift that turned it into an industry to the integration of automation within media institutions. We will examine the changes in the press, radio, television, and new media, specifically how AI is influencing these transformations.

4. Newspapers: From industrial logic to artificial intelligence techniques:

The year 1982 marked a significant shift in journalism, transforming it into an industrial project. German scientist Ottogort established the modern newspaper's key criteria: regular publication,

automated printing, broad accessibility, and timely coverage of current events. This era signified a major shift, moving journalism into the industrial realm. Characteristics of this new journalism include an increased emphasis on time, intense competition among newspapers, the use of large teams across various journalistic roles, and the incorporation of technology to deliver news efficiently and promptly (Bouguerra, 2018, p. 8). The transformation of journalism into an industry is evident in the following points:

- **From Craft to Industrial Organization:** Initially, newspapers were a craft activity managed by the publisher, who performed all tasks such as editing, proofreading, printing, and distribution. However, as the industry grew, newspapers evolved into organized institutions with distinct management structures, task divisions, and separation of duties across publishing, editing, management, printing, and distribution. This marked the transition from journalism as a craft to an industrial activity (Fenni, 2017, pp. 66-67).

- **From Manufacturing the Medium to Creating the Content:** The newspaper industry now encompasses the entire process of producing information, with the evolution of newspapers requiring significant funding to cover large expenses. The industry operates with a dual market—one for readers and one for advertisers. Newspapers allocate space for advertisements, which are a primary revenue source, while also selling copies to the public. Thus, journalism is "sold" twice: once to advertisers and once to readers.

- **Multiple Forms of Financing:** Media institutions today are financed through a mix of commercial (subscriptions, pay-per-view, advertising) and semi-commercial methods (tax royalties), along with public assistance programs aimed at preserving pluralism in some countries (e.g., France) (Bouguerra, 2018, p. 8).

The newspaper industry is undergoing further transformation with the introduction of artificial intelligence (AI) technologies and algorithms across all stages of newspaper production, especially in electronic journalism. AI has significantly changed the landscape, with algorithms playing a central role in newsrooms, particularly in major international newspapers like The Times and The Los Angeles Times. Future predictions suggest that print journalism may eventually disappear due to high printing and distribution costs.

Where journalists once had to search the streets for news, AI now allows them to access vast amounts of data, documents, and updates.

Journalistic institutions no longer rely on traditional opinion polls to understand their audience; instead, algorithms can track reader behaviors and interests, enabling newspapers to meet public demand more efficiently.

Robot journalism today utilizes natural language generation (NLG) algorithms powered by AI to automatically convert data into news stories, images, and videos, which are then distributed through automated platforms (Shams El-Din, Aqila, 2022, p. 304).

. These technologies, including *NLG*, natural language processing (*NLP*), and deep learning, ensure that the output aligns with human language and can even detect fake news.

5. Radio and Television: From Industrial Logic to the Use of Artificial Intelligence:

Dr. Ashour Fenni outlined several general characteristics of visual and audio media products, categorizing them into artistic and industrial products as follows (2012, pp. 73-74):

- **Artistic Products:** These are unique works of art with distinct qualities that set them apart from other products, justifying their creation. They are protected by copyright laws, similar to other artistic works. Examples include news programs, fictional productions, artistic and musical programs, reality TV shows, and products that can be archived, such as films and documentaries. These archived products retain their artistic, media, or scientific value and may even increase in production value. In contrast, non-archived products include live shows and programs broadcast directly to the public.

- **Industrial Products:** The industrial nature of these products includes being standardized, requiring advanced production techniques, and being capital- and labor-intensive, with a focus on creative qualifications.

- Stages of Industrial Production in Radio and Television Institutions:

- **Program Production or Purchase:** In this stage, the media organization either produces programs in-house (in studio or on location) or acquires them from production companies. This process involves numerous tools and technologies such as cameras, studios, microphones, mixers, and guest coordination.

- **Program Scheduling:** This step is critical, as it relies on a team of programmers who create the station's programming lineup. The

profession of programming is central to modern television operations (Baalouj, 2018, p 910).

- Preparation for Broadcasting: After producing or purchasing programs and scheduling them, the next phase involves preparing the equipment and obtaining licenses required for broadcast and transmission.

- Broadcasting and Transmission: This stage encompasses various methods, including Hertzian broadcasting, cable broadcasting, satellite transmission, and direct or recorded broadcasts.

With the integration of artificial intelligence in television production, the media industry has experienced significant shifts in all its stages, particularly in the production, presentation, and broadcasting of television news. The introduction of AI has altered the production methods, mechanisms, and economics of radio and television. One of the notable changes is the emergence of AI broadcasters, such as the robot journalist Ebtekar, introduced by Al Jazeera in March 2023. Additionally, the Elaph news channel introduced Hala Al-Wardi, an AI broadcaster with features representing Arab beauty. In South Korea, a human broadcaster, Kim Joo-ha, interviewed her AI counterpart, a robot version of herself, indistinguishable in voice, features, and style, demonstrating the ability to manage dialogues and interview guests effectively.

Artificial intelligence technology has enabled the addition of interactivity to television, addressing one of the primary criticisms of traditional TV compared to internet-based and interactive television (ITV) services. ITV integrates conventional television technology with AI-based data services, creating a two-way system that allows users to interact through commands and information. The set-top box plays a crucial role in the interactive television system, supporting various types of interactions. For instance, viewers can control video on demand, pause, rewind, fast-forward, or skip commercials. They can also engage with the content of the program, such as choosing plot details, and endings, or modifying them, and access additional information related to the broadcast, like news, weather, sports, or movie details (Shams El-Din, Aqila: 2022, 314-315).

Moreover, AI has led to the replacement of traditional studio setups with virtual studios, offering endless visual possibilities. This technological advancement has also facilitated the rise of interactive

television and robot journalists, which autonomously produce and write news stories without human involvement.

6. The Impact of Artificial Intelligence on New Media Industries:

Artificial intelligence has not only transformed the newspaper, radio, and television industries but has also impacted the content industry through new media platforms like social media, news websites, and blogs. The rise of economies of scale in new media allows for the production of media content at little to no cost. Since production costs are incurred upfront, increased demand leads to better absorption of fixed costs. As sales grow, companies can reduce prices, further boosting sales, achieving profits, and eliminating costs. The vast quantity of content is a key feature of new media, which, despite often lower-quality content compared to traditional media, spreads widely. Social media, for example, despite its sometimes poor or simplistic content, achieves broad reach, whereas the products of established mass media, despite their higher-quality content, do not attract the same level of viewership, negatively impacting their economies. (Brik, 2023, p353).

Today, artificial intelligence analyzes vast amounts of data on social media platforms to detect trends, hashtags, and patterns, aiding in understanding user behavior. With the help of algorithms, AI can monitor scattered user comments to provide personalized experiences and identify emerging issues and crises. Social media also utilizes AI to expand its operations and enhance its business and economic models to more advanced levels. (Shams El-Din, Aqila: 2022, 314-315).

- Conclusion:

With the ongoing transformations in the media industry, including journalism, radio, television, and the rise of algorithms, many journalists, media professionals, editors, producers, photographers, and programmers are concerned about the future of their jobs. While they once created news, information, and technologies, these technologies and algorithms are now controlling their roles. Artificial intelligence can replace any journalist without the need for a salary, vacation, or specific working hours, which has altered the media industry's landscape. However, this raises several issues, such as the stereotypical nature of robot broadcasters, who lack facial expressions, struggle to understand metaphors, and lack imagination, unlike humans who possess creative and analytical abilities.

Since humans are the ones who teach and program machines, rather than the other way around, it is said "*humans have learned what they did not know.*" Additionally, robot journalists lack the intelligence and empathy that humans have. For example, while a human media professional can engage with issues or guests by expressing emotions such as fear, anxiety, or empathy, artificial intelligence cannot replicate such emotional depth. Therefore, AI's capabilities remain limited compared to human intelligence. In conclusion, while introducing artificial intelligence into media industries is necessary, it must be done within a framework of legal, ethical, and ration

Bibliography List

1. Books :

- Fenni, Achour (2012). Economics of Audiovisual Media. Tunisia: Radio Research and Studies Series.
- Shams El-Din, Fathi & Aqila, Abdel Mohsen (2022). Virtual Reality and the Future of New Media in the Age of Artificial Intelligence. Cairo: Dar Al-Nahda Al-Arabiya.
- Fenni, Achour (2017). From Cultural Industries to Media Industries. Algeria: Al-Watan Al-Youm Publications.
- Abdel Nabi, Abdullah Al-Tayeb. Management of Press Institutions. Sudan University.
- Radwan, Bouqra (2018). Pedagogical Material in the Measure of Media Economics for Second-Year Undergraduate Students in Media and Communication Sciences. Mohamed Boudiaf University, M'sila.

2. Journal article:

- - Zamel, Salam Munem (2017). Economics of Media. Noor Publishing.
- Ballouj, Zineb (2018). "Television Programming Techniques in Algerian Private Channels: A Reading of Programming Trends on Echourouk TV for the 2017–2018 Season." Journal of Human and Social Sciences, Vol. 07, Issue (27).
- Brik, Zahra (2023). "New Media and Its Impact on the Economics of Mass Media: A Descriptive Analytical Study." Journal of Al-Risalah for Studies and Human Research, Issue 02, Vol. 8.
- Allaoua, Fawzi (2016). "A Contribution to Formulating the Concept of Cultural Industries." Journal of Social Studies and Research, Issue 17.
- Saif Al-Din, Aban (2019). "Cultural Industry and Cultural Media in Algeria: Defining Concepts and Exploring Realities." Journal of Al-Risalah for Studies and Human Research, Issue 1, Vol. 4.
- Abed arrazak, khelifi, Guedda Hamza (2024). "journalists attitudes towards the use of Artificial Intelligence Technology in creating content for news websites." Journal of Qabas Journal of Studies Human and Social, Issue 8, Vol. 2.
- Hala, doghman (2022). «The uses of artificial intelligence technology as a new trend for the development of life skills for people of higher determination." Journal of Journal of Qabas Journal of Studies Human and Social, Issue 6, Vol. 2.