

Rethinking Media and Communication Education in the Digital Age: A Study of Successful International Experiences

Bochra MADACI

Faculty of Media and Communication Sciences, University of Algiers 3, Algeria.

Keywords:

Arab context,
Digital competencies,
Digital transformation,
International experiences,
Media literacy,
Media education,
Re-engineering of media
curricula.

Article History:

Received: 12 / 06 / 2025
Revised: 15 / 10 / 2025
Accepted: 01 / 04 / 2026
Published: 16 / 04 / 2026

Abstract. The field of media and communication studies has witnessed profound transformations in recent decades, driven by rapid digital advancements and the emergence of innovative media practices powered by artificial intelligence and interactive web platforms. This digital shift has extended beyond professional practices to fundamentally reshape the academic and institutional frameworks of media education. Consequently, there is an urgent need to review and restructure curricula, teaching methodologies, and core competencies to align with the evolving demands of the digital environment and the contemporary media labor market. This study analyzes prominent successful international experiences in re-engineering media education within the digital age. It explores the academic and institutional adaptation mechanisms adopted by these experiences and evaluates their effectiveness in bridging the gap between traditional academic training and the requirements of digital professional practice. Particular emphasis is placed on the role of media literacy, the development of digital competencies, and the implementation of comprehensive pedagogical strategies that foster critical awareness and enhance practical skills among students. The findings underscore that the systematic integration of digital competencies, combined with the creation of supportive learning environments, significantly improves students' readiness for the digital media industry. Moreover, these international models offer valuable insights and adaptable frameworks for strengthening media education programs in the Arab context.

1. INTRODUCTION

In recent decades, the field of media and communication studies has undergone profound transformations driven by the rapid advancement of digital technologies. These developments have given rise to new patterns of communication and innovative media practices, supported by artificial intelligence and interactive web platforms. The impact of this digital transformation has extended far beyond professional practices to encompass the academic and institutional structures of media education programs. It has necessitated a comprehensive review of curricula, teaching methodologies, and training competencies to align with the demands of an ever-changing digital environment and the emerging media job market.

In this context, the re-engineering of media education has emerged as a strategic imperative to bridge the gap between traditional academic training and contemporary digital media practices. Many countries and higher education institutions have increasingly adopted innovative models of education grounded in competency-based approaches, digital learning, blended training formats, and strategic partnerships with media and technology organizations. These initiatives have yielded successful international experiences that merit systematic analysis and examination.

Against this backdrop, the present paper seeks to analyze the most prominent successful international experiences in re-engineering media education in the digital age. It examines the academic and institutional adaptation mechanisms these experiences have employed, with the aim of extracting applicable lessons that can inform the development of media and communication education programs—particularly within Arab university contexts.

The central research problem of this paper revolves around the following key question: *To what extent have successful international experiences in re-engineering media education contributed to achieving academic and institutional adaptation to the requirements of digital transformation in media and communication studies?*

To address this problem, the study proceeds from a set of sub-questions, the most significant of which are:

1. What are the main manifestations of digital transformation that have necessitated the re-engineering of education in media and communication sciences?
2. What are the successful international models for modernizing media education programs and curricula?
3. What academic and institutional mechanisms have been adopted in these experiences to keep pace with digital transformation?
4. To what extent have these experiences contributed to narrowing the gap between academic training and the demands of digital professional practice?
5. What lessons and practical potentials can be derived from these experiences to advance media education in the Arab context?

Through this paper, the above questions will be analyzed and addressed via the following sections:

1.1. Manifestations of Digital Transformation Influencing the Re-engineering of Education in Media and Communication Sciences

The rapid scientific and technological progress, particularly in the domain of information and communication technologies (ICT), has triggered profound transformations across various institutions. These changes have directly influenced work patterns, communication processes, and knowledge production. The significance of these technologies has not been limited to facilitating

communication and information exchange among individuals and organizations across time and space; rather, they have become a fundamental factor in reshaping organizational structures, updating job roles, and creating new fields of employment.

Through digital networks and the Internet, information and communication technologies have eliminated spatial and temporal barriers and created virtual communication spaces. This has enhanced intra-institutional collaboration, streamlined work processes, and elevated levels of efficiency and effectiveness. These digital transformations have also diversified administrative communication channels, reduced traditional hierarchical structures, and improved monitoring and decision-making processes. Consequently, institutions have increasingly invested in digital solutions and embraced models of electronic governance.

The digital transformation has compelled educational and academic institutions to reconsider their management and training methods, shifting from traditional models to digital ones that rely on advanced technological infrastructure, sophisticated software resources, and qualified human competencies capable of effectively utilizing technology. This shift has also underscored the importance of information literacy and digital culture as essential prerequisites for the optimal exploitation of information and communication technologies.

In the field of media and communication sciences, these digital transformations have served as a decisive factor in driving the re-engineering of media education. This has involved updating curricula and adapting educational programs to the requirements of digital work environments, while responding to the evolving nature of media professions. Effective training has become impossible without integrating digital tools and developing students' skills in using new media, artificial intelligence, and modern communication platforms—thereby contributing to narrowing the gap between academic education and the demands of contemporary professional practice.¹

1.2. Artificial Intelligence Journalism

The media sector is among the fields experiencing the most rapid and boundless proliferation of artificial intelligence. This phenomenon has prompted major global media institutions—especially in the post-COVID-19 era—to adopt advanced technologies, including artificial intelligence, to ensure the continuity of the journalism profession in an age where technology increasingly intersects with numerous areas of human endeavor.

In recent years, the world has witnessed several notable experiments in this domain. Among the most prominent is the Chinese news agency Xinhua's broadcasting of a news bulletin featuring the world's first virtual news anchor. This involved the real-time integration of audio and video recordings with a virtual persona powered by technology that simulates human cognitive capabilities. Similarly, two years ago in South Korea, the virtual news presenter "Kiki" delivered a news bulletin in collaboration with a human anchor, clearly illustrating the advancement of artificial intelligence in media production.

Artificial intelligence journalism relies on the application of AI technologies to perform various journalistic tasks, capitalizing on the benefits and facilitations offered by these tools. The most significant advantages include:

1. Supporting routine journalistic tasks, such as real-time event monitoring and instant alerts.
2. Automated content scheduling, enabling the organized and pre-planned publication of news and articles.²
3. Automatic generation of articles and news stories through natural language generation algorithms, such as GPT-3.
4. Executing complex procedures based on the analysis of massive volumes of data.
5. Expanding the scope of media coverage in areas that are difficult for journalists to access—such as conflict zones, war zones, or hazardous climate environments—by utilizing advanced self-imaging technologies and sophisticated drones (UAVs).

In this manner, artificial intelligence has become an essential tool for enhancing the performance of media and news institutions, while opening new horizons for innovation and productivity in the journalism profession.³

1.3. Successful International Models for Modernizing Media Education Programs and Curricula

With the advent of the modern era and the rapid expansion of information technology and mass media, higher education institutions began responding to these transformations by establishing specialized academic programs in media education. Journalism and communication education within higher education institutions forms an integral part of this historical evolution. The first independent media programs were established in the early twentieth century. In the United States, the first school of journalism was founded at the University of Missouri on September 14, 1908. It became the first academic institution to award university degrees in journalism and to implement the practical learning approach known as the "Missouri Method," which integrates academic study with professional practice within a real media environment.

In the following years, other media programs were established at major American universities. For instance, the Department of Journalism at the University of Florida was founded in 1925, and the first degrees were awarded in the late 1920s, reflecting the growing academic recognition of the field. Similarly, other institutions, such as the American University in Washington, began offering communication and media programs as early as the late nineteenth century. The Department of Communication was established there in 1893, contributing significantly to the deepening of academic inquiry in this specialization.⁴

In Europe, institutions such as the French Institute of Press (Institut français de presse) in Paris have played a pivotal role in developing media studies curricula since its founding in 1937, making it one of the oldest specialized institutions in media and communication.

As these programs evolved, their curricula expanded to include both theoretical and practical components, such as journalism ethics, media history, mass communication theory, audience analysis, and public opinion studies, alongside professional skills in print, broadcast, and audiovisual journalism. This integration of theoretical and practical dimensions has strengthened the status of media studies as an independent academic field within the social sciences, while increasing interest among students and researchers in the discipline.

With the emergence of the digital revolution and the widespread adoption of the Internet in recent decades, media education

1 Ammariya, Abd al-Hakim, and Rashida Sebti. 2018. "Information and Communication Technologies and the Imperative of Electronic Transformation of Institutions." *Journal of the Researcher in Humanities and Social Sciences* 10, no. 3: 972–973.

2 Salma Masoudi and Ibrahim Salem Eshtawi, "The Historical Process of Using Artificial Intelligence in Algerian Media," *Journal of Communication Research – Faculty of Media – Al-Zaytuna University*, Tripoli, no. 17 (2025): 528.

3 Ibid., 528.

4 Qashi, Lotfi Ali. 2024. "Challenges of Updating Education and Training in Media and Communication Sciences: Toward a Competency Model in Media and Communication." *Al-Zuhayr Journal for Communication and Media Studies* 4, no. 1: 17–18.

curricula have increasingly incorporated modern skills related to digital media and technological interaction, including digital marketing and social media platforms. This development enables programs to keep pace with labor market demands and the ongoing transformations in the journalism profession. It reflects the commitment of educational institutions to continuously update their programs in response to global technological and communicative advancements.⁵

1.4. Academic and Institutional Mechanisms Adopted to Keep Pace with Digital Transformation in Media Education

One of the fundamental requirements for addressing digital transformation in media education is the adoption of comprehensive pedagogical and educational strategies. These strategies go beyond merely developing learners' technical and instrumental skills to foster a critical awareness that empowers new generations to understand technological and media transformations and to analyze their social and cultural implications. Media education in the digital context does not aim solely at integrating individuals into the digital society; rather, it seeks to enable them to contribute to its development, confront manifestations of inequality and media dominance, and comprehend the contemporary world beyond narrow elite interests.

Within this framework, mastery of technology and communication tools constitutes one of the core pillars of any academic or institutional policy aimed at modernizing media education. However, responding to this challenge does not necessarily require the creation of overly complex pedagogical models or unproven innovations. Instead, it calls for activating a well-established educational model that has historically proven its effectiveness: media education (or media literacy education). This model provides a solid theoretical and practical foundation for building genuine digital literacy that responds to the real needs of society amid the growing convergence of technology and media.

Media education is recognized as a scientific discipline within the field of education sciences. It emerged alongside the rise of mass communication media and primarily aims to equip citizens with the ability to use technological media products in a conscious and critical manner. It enables them to analyze media messages, understand the mechanisms of their production, and express themselves through multiple modes of communication. This educational approach rests on two complementary dimensions: a theoretical dimension that addresses media-related issues in dialogue with other educational sciences, and a practical dimension that focuses on developing precise didactic strategies and integrating them into educational and institutional contexts.

Today, media education stands out as one of the essential academic mechanisms for keeping pace with digital transformation in media training—particularly given the increasing power and social penetration of digital media. The epistemological structure of this discipline has not fundamentally changed in the era of the digital revolution, as its core objectives remain centered on supporting social upbringing, reinforcing democratic values, and cultivating critical citizens capable of engaging consciously with media messages. Therefore, the modernization of curricula and didactic models in media education should proceed from this foundational reference, while strengthening dialogue between media education and educational technology within a comprehensive institutional vision that aligns with contemporary digital transformations.⁶

1.5. The Role of International Experiences in Narrowing the Gap Between Academic Training and the Requirements of Digital Professional Practice

International experiences play a pivotal role in bridging the gap between academic training and the demands of digital professional practice by adopting artificial intelligence technologies in media education and training. The use of AI systems—such as educational robots and advanced learning software—has become an effective tool for enhancing interactive learning and enabling students to acquire practical skills quickly and efficiently. These technologies support cognitive processes and information analysis within sophisticated digital learning environments.

Studies confirm that integrating artificial intelligence into education extends beyond learning tools to include the development of an interconnected knowledge structure. This enables students to understand relationships between data, classify information, and construct knowledge in a systematic manner—thereby reducing the divide between theoretical training and the practical skills required in the job market.

These international experiences also highlight the importance of ethics in the use of artificial intelligence to ensure its responsible and equitable application. This includes respect for laws governing access to information and user rights, as stipulated in legislation such as Law No. 28 of 2017, the Amendment Decree of 2020–2021, as well as the guiding principles issued by UNESCO and the Future of Life Institute in California.

These experiences underscore that the systematic integration of artificial intelligence with media education, ethical legislation, and institutional academic guidance significantly enhances students' ability to adapt to digital transformations. It equips them with practical and critical competencies that enable them to confront the challenges of professional media practice with efficiency and professionalism.⁷

1.6. Media Education in the Age of Artificial Intelligence

Artificial intelligence technologies have brought about a profound transformation in the fields of media and journalism, leading to the emergence of what is known as "AI journalism." This refers to journalism that relies entirely on artificial intelligence applications to perform various tasks, capitalizing on the advantages and benefits these technologies provide. Among the most prominent positive contributions of artificial intelligence to the media sector are the following:

1. Supporting routine journalistic tasks: AI-powered systems enable the execution of daily routine tasks in newsrooms with greater speed, efficiency, and sometimes higher accuracy and quality than humans.
2. Providing alerts and notifications about events: Artificial intelligence can issue instant alerts regarding global news and events, contributing to continuous and accurate event monitoring.

5 May Al-Abdullah, "A Critical Vision of Research Methodologies in Media and Communication Sciences," Al Jazeera Center for Studies, May 29, 2022, <http://studies.aljazeera.net/ar/article/5384>.

6 José Gómez Galán, "Media Education as Theoretical and Practical Paradigm for Digital Literacy: An Interdisciplinary Analysis," arXiv preprint arXiv:1803.01677, 2018, <https://arxiv.org/pdf/1803.01677>.

7 Diya Kamil Hussein and Sanaa Shabani, "Students' Knowledge, Beliefs, and Practices Regarding the Ethics of Artificial Intelligence," *Mu'ashshir Journal for Survey Studies*, vol. 3, no. 13 (Germany, April 13, 2024): 13–14.

3. Automated content scheduling: AI allows for the automatic scheduling of news and media content publication according to precise timelines set by the user. This reduces the burden on journalists and helps streamline media workflow.⁸
4. Automatic generation of news stories: A notable example is the use of natural language generation (NLG) algorithms by the British newspaper *The Guardian* in collaboration with OpenAI, where news articles are produced automatically using artificial intelligence.

Recent studies have also identified key areas of AI application in media, including:

1. Radio and television production: Many media organizations, particularly television outlets, have turned to augmented reality applications and technologies for visual storytelling, revolutionizing the ways in which news is presented.
2. Enhancing productivity and efficiency within media institutions: AI tools have facilitated the rapid and accurate transfer of information, improved workflow, and created greater opportunities for media creativity.

It can be argued that integrating artificial intelligence into media education offers broad opportunities to modernize academic curricula and align education with the requirements of contemporary professional practice. However, this integration must take into account the ethical and professional challenges associated with these technologies.⁹

1.7. Lessons Learned and Practical Potentials for Developing Media Education in the Arab Context

International experiences and studies indicate that the gap between academic training and the digital skills required in professional practice represents one of the fundamental challenges that must be addressed to ensure students' readiness for labor market demands. These studies emphasize that bridging this gap requires the development of digital and media infrastructure, along with the adoption of clear strategies to guide students and empower them to acquire the necessary digital competencies.

International experiences have demonstrated that integrating digital competencies into educational programs enhances students' ability to effectively use digital and statistical tools in research and practical applications—whether in the public or private sector, or at the level of general and specialized education. They also show that neglecting the development of these competencies leads to underutilization of digital resources and limits students' capacity to achieve practical learning objectives and develop critical thinking skills. In this regard, the following points are of particular importance:

1. Strengthening core competencies in the use of digital and statistical tools and enabling students to apply them in practical contexts.
2. Integrating digital competencies into curricula with an emphasis on hands-on training in devices, software, data analysis, and adherence to ethical standards in handling information.
3. Creating a supportive learning environment for digital and statistical education that ensures equal opportunities and reduces technological and knowledge gaps among students.
4. Expanding the use of digital and statistical resources in scientific research and professional practices to facilitate the transfer of expertise and knowledge between educational and professional institutions.

These findings confirm that the development of media education in the Arab context must be comprehensive and grounded in international experiences. This requires well-structured educational programs, robust infrastructure, and effective evaluation tools to ensure the sustainable development of students' digital and statistical skills.¹⁰

1.8. Arab Media Regulatory Institutions in the Age of Artificial Intelligence: Opportunities and Challenges

The Arab media landscape faces significant challenges in managing and directing media content while ensuring its alignment with ethical, professional, and cultural values. In this context, the future roles of Arab media regulatory institutions are expected to evolve to encompass the following aspects:

1. Enhancing the use of artificial intelligence to ensure internet security and user protection: This includes monitoring media websites that promote content conflicting with religious and ethical values or that disseminate false or misleading news.
2. Establishing regulatory frameworks and guiding principles for the use of artificial intelligence: These frameworks should provide guidance for journalists and media institutions on AI usage, taking into account the varying functions and specific technological applications of each institution.
3. Defining core values that must be upheld when using artificial intelligence: These include respect for heavenly religions, state symbols, cultural and civilizational heritage, national identity, and prevailing societal values, alongside core journalistic principles such as truthfulness, accuracy, neutrality, independence, and non-discrimination.
4. Forming technical committees to evaluate AI systems and AI-generated content: These committees aim to verify the credibility of news and prevent the spread of rumors, misleading content, or incitement.
5. Establishing strict rules for blocking non-compliant content: Such rules should cover content that contradicts the public interest, public morals, public order, national security, or religious teachings.¹¹
6. Creating institutional and ethical mechanisms for reviewing media content: These mechanisms include internal ethics committees within each media institution to review AI-supported decisions and ensure their compliance with national professional standards.
7. Ensuring that AI applications align with national frameworks and media strategies: These frameworks should support innovation, promote press freedom, meet the needs of various media stakeholders, and contribute to building effective national media leadership.
8. Proposing amendments to national media laws and policies: Such amendments must be consistent with current technological developments and the anticipated future expansion of artificial intelligence use in media institutions.¹²

8 Mustafa, Thabit. 2025. "Artificial Intelligence and the Challenges of Media and Journalistic Practice in the Digital Age." *Al-Hikma Journal for Media and Communication Studies* 13, no. 2: .65

9 Ibid., 66.

10 Taqroot, Muhammad, Hassan Taher Sharif, and Muhammad Lakhali. 2020. "Requirements for Reducing the Digital Divide in Arab Countries: The Case of Algeria." *Journal of Development and Applied Economics* 4, no. 2 .38–39.

11 "The Role of Media Regulatory Institutions in the Age of Artificial Intelligence: Opportunities and Challenges," Trends Research and Advisory, November 2024, 31.

12 Ibid., 32.

2. CONCLUSION

In conclusion, this paper affirms that digital transformation constitutes both a challenge and a strategic opportunity for the re-engineering of media education. Successful international experiences provide adaptable models for the Arab context. These experiences have highlighted the importance of integrating digital and media skills into curricula, strengthening media literacy to cultivate critical awareness among students, and connecting theoretical knowledge with practical application within a supportive educational environment. The study has also emphasized the necessity of academic and institutional adaptation to technological advancements in order to narrow the gap between academic training and the demands of digital professional practice. This, in turn, contributes to preparing qualified graduates who are capable of confronting the challenges of the modern media job market and making meaningful contributions to the digital society.

3. RECOMMENDATIONS

Drawing upon the analysis presented in this paper, the following recommendations are proposed:

1. Updating curricula and educational programs: Systematically integrate digital and media competencies, with a strong focus on practical learning and interaction with modern digital media tools and technologies.
2. Strengthening media literacy: Offer educational programs that emphasize critical thinking, analysis of media messages, and understanding the social and digital impacts of technological transformations on media practice.
3. Creating a supportive learning environment: Invest in digital infrastructure and provide diverse educational resources to ensure equal opportunities and reduce technological and knowledge gaps among students.
4. Collaborating with media and technology institutions: Build partnerships with both public and private sectors to enhance students' practical experience and bridge academic knowledge with professional expertise.
5. Developing evaluation and monitoring tools: Adopt effective assessment criteria for digital and practical competencies to ensure the quality and sustainability of media education.
6. Encouraging research and innovation: Support applied research in digital media and develop innovative teaching strategies that align with market requirements and technological progress.

REFERENCES

- Al-Abdullah, M. (2022, May 29). *A critical vision of research methodologies in media and communication sciences*. Al Jazeera Center for Studies. <http://studies.aljazeera.net/ar/article/5384>
- Ammariya, A. H., & Sebti, R. (2018). Information and communication technologies and the imperative of electronic transformation of institutions. *Journal of the Researcher in Humanities and Social Sciences*, 10(3), 969–982. <https://asjp.cerist.dz/en/article/133253>
- Gómez Galán, J. (2018). Media education as theoretical and practical paradigm for digital literacy: An interdisciplinary analysis. *arXiv*. <https://arxiv.org/abs/1803.01677>
- Hussein, D. K., & Shabani, S. (2024). Students' knowledge, beliefs, and practices regarding the ethics of artificial intelligence. *Mu'ashshir Journal for Survey Studies*, 3(13), 13–14.
- Masoudi, S., & Eshtawi, I. S. (2025). The historical process of using artificial intelligence in Algerian media. *Journal of Communication Research – Faculty of Media – Al-Zaytuna University, Tripoli*, 17, 523–532. <https://azu-journals.ly/index.php/LJ/issue/archive>
- Mustafa, T. (2025). Artificial intelligence and the challenges of media and journalistic practice in the digital age. *Al-Hikma Journal for Media and Communication Studies*, 13(2), 57–76. <https://asjp.cerist.dz/en/article/273129>
- Qashi, L. A. (2024). Challenges of updating education and training in media and communication sciences: Toward a competency model in media and communication. *Al-Zuhayr Journal for Communication and Media Studies*, 4(1), 11–30. <https://asjp.cerist.dz/en/article/248116>
- Taqroot, M., Sharif, H. T., & Lakhal, M. (2020). Requirements for reducing the digital divide in Arab countries: The case of Algeria. *Journal of Development and Applied Economics*, 4(2), 23–40. <https://asjp.cerist.dz/en/article/134180>
- Trends Research and Advisory. (2024, November). *The role of media regulatory institutions in the age of artificial intelligence: Opportunities and challenges*. Trends Research & Advisory.