

2023

The Convergence of Traditional Media to the Digital Communicative Environment- The Reality and Gap

H. A. Albadri

TV and Radio Department, Faculty of Media, Middle East University, Amman, Hashemite Kingdom of Jordan, hanibadri@gmail.com

Follow this and additional works at: <https://digitalcommons.aaru.edu.jo/isl>

Recommended Citation

A. Albadri, H. (2023) "The Convergence of Traditional Media to the Digital Communicative Environment- The Reality and Gap," *Information Sciences Letters*: Vol. 12 : Iss. 4 , PP -. Available at: <https://digitalcommons.aaru.edu.jo/isl/vol12/iss4/8>

This Article is brought to you for free and open access by Arab Journals Platform. It has been accepted for inclusion in *Information Sciences Letters* by an authorized editor. The journal is hosted on [Digital Commons](#), an Elsevier platform. For more information, please contact rakan@aar.edu.jo, marah@aar.edu.jo, u.murad@aar.edu.jo.

The Convergence of Traditional Media to the Digital Communicative Environment- The Reality and Gap

H. A. Albadri

TV and Radio Department, Faculty of Media, Middle East University, Amman, Hashemite Kingdom of Jordan

Received: 2 Nov. 2022, Revised: 21 Dec. 2022, Accepted: 3 Jan. 2023.

Published online: 1 Apr. 2023.

Abstract: The article aimed to reveal the developments that affected the traditional media in response to the digital communication environment, to identify the aspects of employing digital communication, and to address the gap created by the new digital environment compared to the traditional media performance. The qualitative approach was used in addressing the problem of the paper, through the in-depth interviews tool with (8) executives and technicians of six Jordanian media outlets: Radio of the Hashemite Kingdom of Jordan, Rotana Radio, Jordan TV, Amman TV, Al-Rai newspaper, and Al-Ghad newspaper. The article concluded that the most prominent aspects of employing communication digitization in Jordanian media are the preservation of the archive digitally, the creation of a unique application, an earlier manifestation is the creation of a website, and then the opening of accounts on social networks. The results also showed that one of the most essential motivations of digital transformation is reaching ease to the audience with the highest quality, which mobile technology and its applications have enhanced. The form of media sharing of its content on digital platforms and social networks has varied, most notably live broadcasts, publishing news and programs, urgent news, short news stories, video clips, links, infographics, or interviews.

Keywords: The Convergence, digital transformation, traditional media; digital communication environment.

1 Introduction

With the expansion of the use of electronic applications, there is a somewhat decline and dwindling of traditional media such as television, radio and newspapers in particular, nothing remains the same and technological development invades the world, for example, paper books, that many have tended to, were replaced with electronic books to save thousands of them in a portable, light and easy-to-use electronic device, in addition to replacing manual mail operations with electronic messages, social media has now become more popular than traditional newspapers and television.

Today, traditional media is facing a new development and a major challenge in the field of influence, public address, and representation of public opinion, as it was met with unprecedented competition with social media and communication applications with a wide audience. Indeed, the digital communication environment almost did not exclude an institution or a person from the world without entering within its interests or uses. This led to the creation of a large gap in the level of influence of traditional media such as television, radio, and paper newspapers, compared to the impact of social media applications and networks. Thus, the media faced a powerful and influential actor in the audience. In a way, the public has left those traditional means, because the new digital environment has met its requirements for obtaining information quickly and choosing the appropriate viewing time.

This change prompted the traditional media to converge with the digital environment, and to integrate through its platforms. The digital communication environment has added many characteristics to traditional media that have entered digitization, such as interaction and comments. In addition to the skills requirements that digital journalists need such as being good at writing, and how to make text work with audio, graphics, images, and video. And digital journalism cannot be limited to old formats and channels. Therefore, digital journalists must be adept at navigating and using social media as a tool for research, engagement, and dissemination. This stage was marked by the discovery of algorithms that are used in the field of artificial intelligence to track or write specific stories.

Problem statements

After years of radio, television, and paper newspapers steadfast in their status quo, in exchange for an advanced digital communication environment, this matter has become unacceptable with the spread of social media platforms and applications to the public. This stagnation has weakened the influence and presence of television, radio, and paper

*Corresponding author e-mail: hanibadri@gmail.com

newspapers in society, prompting these media to keep pace with this development and to enter this new communication world. Through the observed reality, there is an endeavor by most of the traditional media to be present on social networks and to create special applications for them that allow the public to follow them, watch and listen to their programs through mobile devices through those applications that were placed on well-known stores.

In his study, in which he focused on explaining the relationship between traditional and new media in the context of the expansion of social media and its networks, Zarn [1] pointed to what the new media situation requires in terms of a new understanding of journalism, stressing that the digital environment attracted television to it in the form of a response to the inevitability of the action of social networks as a means of communication. Zarn also explained that the design of television programs is based on interaction and commentary by the pioneers of these networks. In addition, the digital environment, with its immediacy, allows for a matching and simultaneous communication process and contributes to framing events from several angles.

Moreover, the element of the audience is no longer as it was previously an audience that receives information only, or it is that audience that watches news broadcasts on television, radio, or newspaper. Rather, the public has changed into a producer of information, and its sources have become many, or even close to his hands, as they have been made available by applications and digital communication platforms. This what the UNESCO study indicated in that “cyberspace unleashed a flood of competition in content and turned major technology companies into new gatekeepers; As the number of Internet users reached 4.8 billion, the number of (social media) users doubled from 2.3 billion in 2016 to 4.2 billion in 2021, that is, almost half of population or more[2], which increased the access to content. The study also indicated that “Google” and “Meta” (formerly “Facebook”) alone get half of the advertising spending in the world

The main question of article is: what are the most prominent aspects of the employment of communication digitization in traditional media? To answer this question, I will begin to answer the following sub questions: (1) what are the most manifests of employing communication digitization in traditional media? (2) What are the motives behind the transition of traditional media to the digital media environment? (3) How could be described the current communication gap for traditional media after its introduction to digitization? How had traditional media been presented in the digital media environment? All these questions constitute the main problem of the article, and we try to answer them by discourse analysis tools.

The Importance

The article deals with an issue that it is a real challenge for the media, especially the traditional ones, which are subject to intense competition as a result of the spread and dominance of the digital world over the media and the major changes in the audience's viewing culture. The importance of the article is also highlighted in its search for the digital divide experienced by these means, and thus revealing the motives, reasons and challenges that guide them in achieving greater degrees in the digital environment at the level of mass communication. On the other hand, the results of the research will contribute to providing objective information for the benefit of radio and television media in Jordan and the Arab region. On the scientific level, research is a new addition in the field of radio and television, which urges researchers and academics to do more modern scientific research.

The aims

The article aims to identify the most prominent aspects of the employment of communication digitization in traditional media, and to identify the level of communication gap for traditional media after its introduction to digitization. It also aims to reveal the level of digital employment of the media.

Terminology of the research

* The Convergence: refers to the processes of technological and communication transformation that affected traditional media; Television, radio, and print media, and keeping pace with digital communication platforms and social networks.

Traditional media: means television, radio, print or paper press.

* Digital communication environment: It is a set of technologies, applications and social networks that allow communication, interaction, and follow-up.

* Digitization Challenges: The set of challenges and opportunities offered by the renewable technological environment, including its interaction, competitiveness, feedback, audience diversity, and wide reach.

* The digital gap: This term refers to the description of the current reality of the media compared to others that have made strides in employing the innovations of the digital and communication environment, and the level of their application and investment of these innovations, networks and new communication mechanisms.

2 Review of the Literature

This article is theoretically based on the Diffusion of Innovation Theory, which is concerned with exploring worlds that motivate individuals to adopt innovations or new ideas, through communication channels and cultures. The purpose of this theory is to provide constructive insight into who adopts an innovation, and how that process plays out over time. Rogers defines the diffusion of innovations as “the process by which new channels of innovation are communicated among the members of a social system over time periods.” He divided the users of innovation into five categories: innovators, early adopters, early majority, late majority, and laggards. People react in different ways, some tend to quickly accept new ideas or products, while others are reluctant to adopt innovations. It is due to the existence of versatility of viewpoints among different types of people. Rogers classifies the stages through which adoption goes through: knowledge, persuasion, decision, implementation, and confirmation[3].

The innovation-decision process involves time in the sense that the five steps usually occur in a time-ordered sequence of (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. Exceptions to the usual sequence of these five stages may occur for some individuals under some conditions, such as when the decision stage precedes the persuasion stage (perhaps an individual was ordered to adopt by some authority figure).

In the first step (knowledge): despite the lack of information about innovations or new ideas, something innovative or new is presented to individuals. In the second step (persuasion): individuals are likely to be interested in innovations, information about innovations or new ideas, and tend to profit. In the third step (decision): individuals perceive innovations carefully and cautiously. In return, they may either approve or reject the innovation. In the fourth step (implementation): the individuals rely on their diverse viewpoints. The last step (confirmation): individuals finally confirm whether they will continue to use the innovation for its additional benefits. It has been confirmed that individuals do not adopt innovation equally, and most likely, there are diverse types of people who tend to accept and use innovations, based on their awareness, interest, need, situation, and knowledge of innovation. Rogers indicated that the best approach to adopting innovation is represented by the S curve; where innovation is adopted by a slow increase at the beginning, but rapid growth occurs after that, then it continues for a stable period, and finally it decreases. He also described the distinctive characteristics of innovations that affect individuals; To determine the adoption or rejection, which is the comparative advantage, compatibility, complexity, usefulness, ease, and prominence[4].

Media convergence

Technological transformations have included wide convergence processes between old technologies, the media in particular, and advanced modern technologies. This means the disappearance of the boundaries between the two generations, and the creation of new cases of effort represented by the digitization of content, the integration between components, the combination of more than one tool in one multi-tasking device, and the integration of the ground locations of bodies, institutions, and personalities into the digital communication environment[5]. The concept of media convergence refers to the blending of technologies, products, and staff between print and electronic media. This will affect both journalistic practices and news content[6], [7].

The interconnection of information and communication technologies, computer networks, and media content is a phenomenon. It combines the "three C's"—computing, communication, and content—and is a direct result of media content digitization and Internet popularity. Convergence of media transforms established industries, services, and work practises, allowing for the emergence of entirely new forms of content. It erodes long-standing media industry and content "silos" and increasingly decouples content from specific devices, posing significant challenges for public policy and regulation. The five major components of media convergence are technological, industrial, social, textual, and political[8]. Also, Media convergence refers to the merging of previously distinct media technologies and platforms through digitization and computer networking. This is also known as technological convergence. Media convergence is also a business strategy whereby communications companies integrate their ownership of different media properties. This is also called media consolidation, media concentration or economic convergence[9]

New & Old Media

The common types of traditional media are Newspapers and magazines, TV, Radio and Billboards. Newspapers and magazines (readers of these publications often find them extremely credible, and advertising there can help build brand trust and legitimacy. And generally, they are more engaged when consuming this type of media. Television has come a long way since the inception of the Internet has changed drastically[10].

While traditional media refers to outlets that existed before the Internet, digital media encompasses all online platforms, including email, social media, websites, and video streaming. The number of people using social media continues to increase significantly, making it an effective place to implement marketing techniques. On social media, companies can talk directly to their followers. Organic content, which includes any written, graphic, or video posts created on social

media without paid advertising, has the potential to reach a significant number of people. Businesses can also use paid advertising to target audiences based on several characteristics, such as location, gender, interests, or even job title[10].

Media digital transformation

Traditional media has continued its quest to reach the “airwaves.” In the late 1980s, the European Broadcasting Union (EBU) developed the DAB (Digital Audio Broadcasting) standard to increase the ability of broadcasters to deliver broadband local radio services (national and regional) over digital terrestrial transmission networks. DAB digital radio has remained the standard of choice in many European and Asian markets. With the development of the technological digital environment, the Internet has become an important additional delivery platform for radio stations, through which digital broadcast programs are presented. In addition to standard terrestrial broadcasting, terrestrial radio and the Internet became accessible, and web radio began to be received on portable devices, such as car radios. And just as quickly. New uses of radio have complemented traditional reception patterns, especially with the increasing role of Internet radio consumption, the development of broadcast and Internet radio receivers, and not least the acceleration of the mobile phone as a media receiver[11].

The multi-source media environment has prompted fierce competition to take advantage of social media platforms, and to employ them for the benefit of journalistic institutions. There are conditions for that, including openness, correct and effective presence on these platforms, and learning the tools and language of each platform, as each platform has its own rules that differ from the other, which requires diversifying forms of content to suit different platforms[12].

As Pew points out, more and more citizens are consuming traditional media on popular social, mobile, and digital (non-traditional) platforms. However, this is not a mutually exclusive phenomenon, especially in older generations. Additionally, major social media platforms leverage traditional media to repost popular content. Major local newspapers are also part of the digital transformation. A good example is the venerable New Orleans Times-Picayune, which has transitioned to an online presence and continues to offer an award-winning print edition [13].

Most media analysts argue that the printing press still plays an important role, despite the predominance of the information age. Older media still account for a large portion of news consumption among seniors. This is especially true in underdeveloped parts of the world where the adoption of mobile and digital technologies has not come full circle. In short, as mass communication evolved in tandem with the technological advances the world is experiencing, the old media are slowly dissolving, and the new media are poised to take their place as the primary means of mass communication [14].

Traditional media and social networks

Since its inception, the Internet has been a driver of new and innovative ways to communicate, gather information, and entertain. Internet entertainment, as an inherent competitor to traditional media, has led to a steady decline in viewership of traditional live television. At the same time, Twitter has emerged as one of the best social networks worldwide, bringing together millions of users and providing them with a communicative environment to share ideas. Twitter has fundamentally changed the public discourse in society, setting trends and influencing behaviour. Instead of considering it as a threat created by the Internet, major media companies are now embracing and exploring a mutually beneficial relationship[15].

Twitter is the preferred social medium for TV media companies. In February 2013, Twitter spent \$90 million to buy startup Bluefin Labs, which combines TV viewership data with measures of Twitter users' behavior[16].

The digital environment has established a new relationship between television in its traditional form and television as it converges with social networks. Television must adapt itself to the advantages of instant publishing. The strategic connection of television at the level of content with social networks as a means of communication, and not just ordinary media, has also become unignorable. The design of television programs has come to take place on the basis of interaction and commenting on them by users of these networks, whether on Twitter, on Facebook, or otherwise. The value and popularity of the program has become apparent in the level of interaction within social networks through links or "hashtags" of the program. Instead of questions over the phone, which has become a technology that the recipient has bypassed, direct interaction with television programs has become an indicator of the success of the program, by which we measure viewership rates, which have recently appeared extensively on smart mobile phones[1].

Digitization and radio

With the digitization of radio through the introduction of digital audio broadcasting (DAB) service, as an example of broadcasting radio programs along with still or moving pictures, radio became similar to television in its forms of expression, and then developed into the employment of broadband web services that provide video contents, and the integration of personal computers and televisions into one multifunctional screen to present digital television programs[17].

According to Kuyucu [18], the digitization has radically changed the interaction between the radio and the listener, as the listener used to interact with the radio through letters, faxes, and telephones, while after digitization, new interactive forms of communication such as social media posts, emails, and chats have emerged....etc. The increase in digital media's share of advertising spending has forced radio stations to adapt to that media to receive more advertising. In 2009, the share of digital media was 6.58% of advertising spending, of which 13.8% was the share of radio. While by the end of 2018, the share of digital media was 28.9%, of which 3.3% were radio station advertising expenses. This paved the way for radio to transition to compulsory digitization. In addition, digital technology has contributed to the emergence of different forms of radio broadcasting, such as Internet radio in both forms, terrestrial radio broadcasting from the internet, and internet broadcasting only. This contributed to the reluctance of institutions to traditional broadcasting. For example, public relations in universities rarely resort to old radio because of the large impact of digital communication platforms. So [19] showed that interviews on media and broadcasting are rarely used for communicating with society by public relations of Arab universities.

Broadcast Strategies to Adapt to Audience Change

Many television programs and networks employ Internet technology designed to bring program producers closer to coveted audiences. They do so know that many viewers are watching TV on one of her screens while talking on another. "The true power of social media lies in the information it provides. Millions of users who generate thousands of messages every minute share their valuable insights on public forums, and if the post helps promote the program, peer-to-peer promotion is usually more compelling than the message the program developer can provide. It is more pervasive than ever, as super fans become influencers shaping broader television behavior and, in some cases, the content of television shows themselves. Radio programmers are also looking for ways to encourage audience interaction through social media[20].

Today it is often hard to distinguish between social media and broadcast entities and that will likely be more confusing in the future. The viewing models developing from the introduction of YouTube and Netflix, coupled with the peer-to-peer promotion of new, independent, and free programming services, pose as much a dramatic threat to traditional broadcast models as the advent of Napster and other peer-to-peer file-sharing programs altered the model of music sales and distribution in the late 1990s[21]

Media Digitization Motives

Fang (2016) [22] referred to the six revolutions of communication which are (The Invention of Writing), (The Printing), (Mass Media), Entertainment, The Home Toolshed, The Highway. Loos & Ivan [23] analyzed changes in older adults' use of traditional (television, radio, and print newspapers/magazines) and new digital (internet-based) media in six countries: Austria, Canada, Israel, the Netherlands, Romania, and Spain for the years (2016, 2018, 2021) and the way in which the three technological generations were used: 'mechanical' (for the generation born in 1938 or earlier), and 'household revolution' (for the generation born in 1939 to 1948), and 'technology spread' (for the generation born in 1949 to 1963). The results indicated that the generation of "mechanical" technology in all six countries it is most affected by individual lag: media use in this generation is much lower compared to the other two (younger) generations. Changes in the type of use of new media, particularly when comparing an old new media form (e-mail) with newer media forms that have emerged in recent years (chat and SNS), show that in some cases both media and their audiences are aging. The results also showed significant differences in the use of email, chat and SNS between the three technology generations, i.e., the "technology" generation uses more email, chat and SNS, compared to the other two generations.

All these transformations led to the emergence of a new media scene that can be described as an inverted media pyramid due to a new distribution of roles within the journalistic scene. The Internet preceded the written press, and we do not need evidence today to prove that, but what we must care about is that the Internet is progressing rapidly to leave television behind as a source of news. Who ever said: Television, in which live and direct broadcasts are combined, with sound, image and color, and can be watched everywhere, will one day become a decorative box in salons, nothing more or less? Yes, this is how television has become in more than one western country and in North America. In an American study on the use of media by the public, it showed that an intense migration has been carried out by American society for decades towards the Internet, as 53% of the time an American spends using the Internet is devoted to viewing content, 7% to e-mail, and 23% to for social networks.[1].

When digital publishing appeared on the Internet, newspaper owners and employees saw that their institutions were heading towards recession. In the past, publishing newspapers required preparing pages, giant printing machines, and a fleet of cars and planes used in distributing paper newspapers, but today it has become easier than just a computer screen or a smartphone to install a news page and publish it with a click of a button. With this reality, newsroom officials thought of several formulas to catch up with digitization and reduce the losses resulting from this information revolution. They imposed the subscription for those who wish to read what they publish in full on their sites. Others

resorted to commercial advertisements to cover some of the costs. A third team resorted to specializing in preparing in-depth articles that give the reader details and analyzes that social media owners are unable to provide.[24].

According to the Hootsuite 2022, the number of mobile phone users in 2022 exceeded 5.34 billion, which represents 66.9% of people, 5.03 billion people use the Internet, 4.70 billion of them are active on social media, 82% of users follow online channels to get news, and that 61% watch TV broadcasts, while 57% get news through social media messages, compared to 23% who get it from paper newspapers, and 26% resort to radio. The percentages of users on social media to get news were distributed as follows[25]:

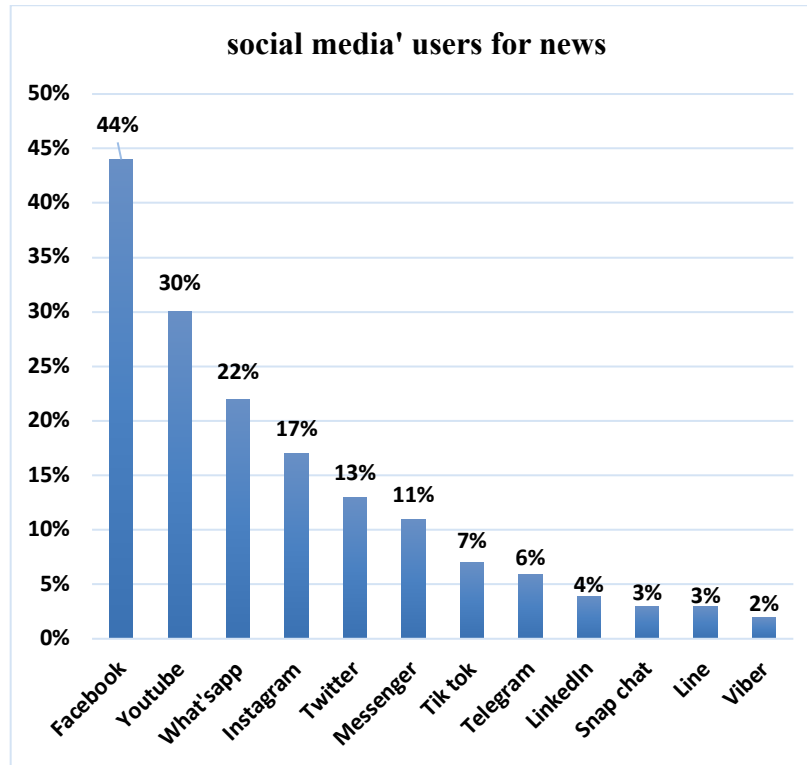


Figure 1. shows social media' users for news

Source: <https://datareportal.com/reports/digital-2022-july-global-statshot> [25]

As a result of the digital transformation, and the expansion of the communication environment in light of the widespread momentum of social media, the traditional paper press is no longer the source of information. Today, the user finds what he wants from the news in his hands through his mobile phone, which is connected to the Internet, and through that he can browse hundreds of websites and sources. This prompted the owners of media organizations to adapt to these challenges, train journalists on digitization, and keep pace with the digital transition[24].

Mayada suggested in her study about the websites of Karnaval Radio and TRT Dinle platforms, that 60% of radio listeners prefer digital radio platforms, as it contains very rich content such as live radio broadcasts, audio broadcasts, allows creating a list of favorites, and provides a library of broadcasts, audiobooks, and Radio Theater. TRT DINLE as a public digital radio platform implements a broadcasting policy that appeals to different audience groups, so radio broadcasting in the virtual environment becomes more efficient. So, radios are no longer just a means of listening, but also a communication tool that can be viewed and interacted with. It is noted that radio through web technology reaches the audience through screens, and thus the digital communication environment allowed the user to access content that was saved via the Internet whenever he wanted, whether from his smartphone or computer. At the same time, he can access the same content from a smartwatch or any device over the Internet. This situation causes radio as a media tool to move to a different position in the eyes of consumers[26].

Jordanian media

The Hashemite Kingdom of Jordan Radio: It was established on May 15, 1948, in Ramallah. In 1950, its name became Radio of the Hashemite Kingdom of Jordan, and in 1985 AD, the Radio and Television Corporation Law was passed, according to which radio and television were merged into one institution, and it was named the Jordan Radio and Television Corporation[27].

Rotana FM: (Private) Rotana FM was launched in Jordan on the 1st of May 2005. The first radio station in the world to capitalize on the pan-Arab Rotana brand.

Jordan Television: It is a public (governmental) satellite and terrestrial channel affiliated with the Jordanian government and the Jordan Radio and Television Corporation. Television was launched on April 27, 1968, and the Jordanian satellite channel was established in light of the technical revolution in the early nineties.

Oman TV: One of the private channels of the Arab Group for Satellite Broadcasting, which was launched in 2017. It is available on the Nilesat satellite, frequency: 11957 horizontals. It contains various social, entertainment and religious content, in addition to distinctive Arabic series.

Al-Rai Newspaper: A daily (governmental) Arab political newspaper issued by the Jordanian Press Foundation. It is distributed to all governorates of the Hashemite Kingdom of Jordan. Its headquarters is in the Jordanian capital, Amman. Its first issue was published on June 2, 1971, during the reign of the government of Wasfi Al-Tal, one of the newspaper's founders.

Al-Ghad newspaper: an independent (private) daily Arabic newspaper published in Amman - Jordan by the United Press Company. It is the first independent national daily newspaper in Jordan. The first issue was published in August 2004

3 Methodologies

The Method

The article adopted a qualitative methodology that classified as a type of long-term first-hand observation performed near to the phenomenon under study. Participant observation, interviews, focus groups and case studies are primary methods of conducting qualitative studies[28]. I consider the main options for the collection of qualitative data, which include discourse analysis, and in-depth interviews.

The study population included the executive directors of the Jordanian media institutions, and for the purpose of the research, the directors of (6) Jordanian media institutions were selected, which are the Hashemite Kingdom of Jordan Radio (official), Rotana Radio (private), Jordan Television (official), Amman Television (private), Al-Rai (semi-official) newspaper and Al-Ghad newspaper (private).

In-depth Interviews

To supplement the above data, I used interviews with selected Jordanian elite persons. The in-depth interviews follow the “qualitative research” method. This entails conducting in-depth personal interviews with a limited group of interviewees to learn about their viewpoints on a certain idea, program or problem[29]. The basic research question might function as the opening interview question, but between five and ten more detailed questions are typically established to investigate different elements of the research problem[30]. The answers obtained will be used to address the results of the study and promote the theoretical trends related to the subject.[31] There are seven distinctive phases outlined to in-depth undertaking interviews: topic identification, design, interviews, script writing, analysis, verification and reporting.

Data Analysis

The data was collected through an interview with (8) executives of the Jordanian media. The interview consisted of basic axes, in which the researcher focused on the level of digital employment, and the amount of the current gap in the communication environment of traditional media compared to digital. After the researcher obtained the interviewees' responses, the researcher began sorting the answers, comments, and discussions, then putting the answers according to the research questions.

4 The Results

The manifests of traditional media digitization

The transitional stage of the media towards digitization witnessed a package of changes, which varied between digital archiving, creating an application, creating a website, and having a presence on digital platforms. According to Zaal (Director of the Programs Directorate at the Jordanian Radio), the most prominent aspect of the employment of digitization in the Jordanian radio is the application of the Jordan Radio and Television Corporation, which includes the Jordanian TV, the sports channel, and the Jordanian radio. Zaal added that the application serves employees more than other categories[32].

Ghaith Al-Tarawneh (Chairman of the Council of the Radio and Television Corporation) referred to the application of the Radio and Television Corporation, stressing that this application uses ott technology, which is the technology currently used in digital media. As indicated by Lara Janab, project manager of the digital broadcasting platform ott, this application enables live broadcasting[33]. Tarawneh added that Jordan TV has special pages on various social networking sites (Facebook, Twitter, Instagram), and there is publishing news and short reports on "stories" on Instagram, Facebook, TikTok, and Twitter, dealing with people's issues on Instagram and Twitter. In addition to graphic development[33], [34].

As for Alexei Abdo (Director of Rotana Radio Jordan), he believes that the beginning of the digital transformation and integration of Rotana Radio was through a website in 2008. The transformation had been developed in 2009 to "creating a radio application that works on all smart phones, through which the live broadcast service (audio+ photo) was provided. He added that Radio Rotana is the first radio station in Jordan to broadcast audio and video through its own application[35]. While Khaled Alshoqran (editor-in-chief of Al-Rai newspaper) indicated that the digital transformation of the newspaper started from converting the archive from paper to digital, then creating the website, then creating accounts on social networking sites, and then producing digital content. Al-Rai newspaper's page on Twitter had been considered one of the most followed Jordanian pages, as well as Instagram, Facebook, TikTok, and YouTube[36].

In the same context, Makram Al-Tarawneh (editor-in-chief of Al-Ghad newspaper) said that the most prominent aspect of employing digitization is that the newspaper had a website since 2011, and it has pages on social networking sites in all its forms, and we have an application for Al-Ghad. Furthermore, the newspaper has invested in a group of applications that are a little far from the media, such as the "scholars" application. In addition, we have a private studio in Al-Ghad newspaper, in which we broadcast a group of programs on social media, whether recorded or live[37].

Qais Elias (Director of Oman TV) said that the idea of digitization was established due to the importance of digitization or social networking sites. When the channel started on the screen in a traditional way, we immediately started creating pages for the channel on all social networking sites (Facebook, Instagram, and Twitter), then the website, and we worked on an application for the station. He added that Oman TV uses live broadcasting technology via Facebook and YouTube[38].

The motives behind the digital transition

According to Al-Kiswani, the first motive for the transition to the digital communication environment is an engineering starting point in order to reach the audience in the fastest time and with the best quality in keeping with the technological development in the world. The transition took place smoothly and this led to excellent repercussions on the economic viability, as manpower and money were saved, better sound quality, and faster control of devices[39].

Zaal and Alexei explained that resorting to the application had been keeping pace with technological development[32], [35], and competition with local and Arab television stations. Today, everyone has a mobile phone that has all the systems that provide downloading the applications, which means that applications facilitate access and interaction with the public[34].

Digital archiving also represents a safety that preserves the legacy of the past generation for present and future generations[32]. In the same context, Lara Janab said that one of the motives for digitization is "giving ease and flexibility to the viewer's access to the media, ... as well as increasing the number of followers. Today we are in an era of speed and fierce competition, and everyone works on digitization platforms, therefore this helps to reach the content that you work on it faster. Social media gives you a greater space of freedom, as official media may be somewhat restricted on the screen, but your pages on social networking sites can communicate other things and details to you[33].

Khaled Al-Shoqran emphasized that the first goal of digital transformation was to keep pace with the audience's needs, desires, and nature, which had become inclined to digital media[36]. Makram Al-Tarawneh pointed to other motives, such as "editorial motives and targeting the audience as well as marketing and advertising, with regard to the audience. "We know that 65% of Jordanian society is a youth group, and young people use technology, and we have, according to official figures, 7 million accounts for social networking sites in Jordan, and therefore we must be influential"[37]. While Elias focused on the marketing motive, explaining that "social networking sites took up a large area of the size of the media market, and this was at the expense of the volume of advertisements in newspapers, and this affects the permanence of the work", as Elias highlighted its importance to communicate with all the public because the family had not longer gathered on TV in the evening. Also, the audience had somewhat new interests and had become "More bored than waiting[38].

The communication gap for traditional media

Compared to private stations, Zaal confirms that working in a private station is characterized by the speed and ease of obtaining an application, device, or technology, and there is no gap except for the bureaucratic aspect and routine that

limit the completion of the requirements of the digital opening. Nevertheless, the station is in a good stage with the presence of the application[32].

Lara Janab believes that the communication gap in the official institutions for radio and television is small, but "it is not something we aspire to." That is why we created an application and pages on social networking sites in order to reach them faster, and for sure the gap has decreased, and for sure the Jordanian television viewers will return, especially since the Radio and Television Corporation contains an archive that is not easy to access[33].

Alexey confirmed that "the gap has decreased and has become limited and very small, because there has been communication with the world, and the interaction rate has become greater, and the listener has become more interactive, whether it is through SMS messages on communication sites or the application" [35]. Elias added that when a media organization moves to a digital environment and allows you to interact instantly with its audience, it means that the communication gap has shrunk and the distance to the audience has shrunk, "because when a program is on the air, you can immediately interact with your audience and take feedback from it, and you take from it suggestions or problems[38].

While Al-Shoqran describes that the gap is not large because journalists are constantly developing themselves, we need more training and modernization of the electronic systems that we are working on. This has already started, and we are working on it, and it has now become an application for Al-Rai newspaper. which gives us a clear indication of narrowing this gap, and we are trying to keep pace with the capabilities available to us[36]. In the same context, Tarawneh stresses that the gap has narrowed, especially with the possibility of "reaching the public and public opinion through new tools that suit it," and digitization has enabled the expansion of the public base[37].

Presentation of traditional media in the digital media environment

Some media only publish news and programs; sometimes they also publish news, videos, and photos independently[39]. Zaal explained that what is published on the radio's social media pages is more programmatic than news material, ... "Today we broadcast live on the radio's page and download recorded programs"[32]. This means that the dissemination of programs is more than the dissemination of news, this, according to Tarawneh, is due to the nature of the media outlet. For example, Jordanian TV is not a news station; it is a variety station that offers various types and forms of programs, including drama, songs, talk shows, and morning programs, and this diversity was certainly reflected in the content on social networking sites[34].

As for the media pages on social networking sites where everything is posted—videos, news, urgent, and pictures—there are pages dedicated to news for the sports channel, as well as kitchen programs because there is a large segment of women interested in the kitchen. Wherever there is an audience, live broadcasting has become an essential thing, and now "we are working on activating Tik Tok because it has become competitive with Facebook in the current period. It has more than one page for the "Foundation for Sports, Archives, and Drama" [33]. While Alex pointed out that attendance is often for technical news, not political news, in addition to clips from programs, links, and graphics as well. [35]. in the sense of employing all traditional and advanced journalistic arts in line with the development of digital media, "Certainly we are working on quick news that the public needs, as well as interviews and news stories"[36] [37]. As for Elias, he indicated that attendance is achieved by publishing short news on social media as well as links on the website[38].

5 The Discussion

The manifests of traditional media digitization

According to the study's findings, the most important aspect of using communication digitization in Jordanian media is saving the archive digitally through large-sized and high-capacity memories on computers rather than keeping it on paper or in tapes and videocassettes, which are prone to being damaged or losing their data. It appeared from the results that most of the Jordanian media outlets created their own applications (such as the application of the Jordan Radio and Television Corporation) that can be downloaded on the mobile phone from the Google Play Store and the Apple Store, using OTT technology, which is the technology currently used in digital media to serve the live broadcast, which made it possible to follow its broadcast programs across applications broadly. This means dissolving the boundaries separating the two generations and creating new cases of effort through the digitization of content, as Abdul-Fattah mentioned[5].

The results also indicated that the first launch of most of these media institutions was through the creation of a website, which is the digital beginning of most institutions in the world, publishing episodes and programs through it, and making the broadcast program available to followers. As for digital platforms and social networking sites, all media outlets have pages on these networks, most notably Facebook, Twitter, Instagram, TikTok, YouTube, etc., and some

institutions use text publishing, video, links, and infographics, as well as publishing via Reels and Stories. This development enhanced the development of content construction in line with the nature of digital publishing on those platforms and networks. The matter also prompted some media outlets to allocate an advanced studio for broadcasting through digital media, or for broadcasting previous recordings.

This result is consistent with what was confirmed by the diffusion of innovation theory about innovations or new ideas, through communication channels, and the adoption process that Rogers referred to within the stages of dealing with innovations and developments, which referred to individuals interacting with them in different ways: some tend to quickly accept new ideas or products. While others are reluctant to adopt innovations[3], in the last stage (confirmation), individuals decide to accept and use digital transformation based on their awareness, and may be slow in doing so according to some features related to development and its tools; such as comparative advantage, compatibility, complexity, usefulness, ease, and prominence[4].

The interdependence between information and communication technologies, computer networks, and media content is a phenomenon imposed by the digital environment and the Internet, and this contributed to the emergence of new forms and media for content. In other words, this means a threat to the existence of traditional media if they remain away from the digital environment, as Flew pointed out[8].

The motives of the digital transition

One of the motives for digital transformation in the transition to digitization and communication platforms started from an engineering standpoint, i.e., developing the technical aspect of the devices and tools that operate the media with the aim of delivering the media material to the audience as quickly as possible and with the best quality in image and sound.

In the sense that the media found themselves facing a technological development that provided them with better quality, so they kept pace with this development, in order to survive, otherwise, they would lose the elements of survival and permanence. The competition in the media world means that standing at the minimum means withdrawal, decay, loss of audience and influence, as well as high material costs without compensation. This also means that one of the other motives that motivated the media to enter the digital communication environment is the saving of money and employees.

The basic inventions that moved the world of communication from one level to a completely different level was the mobile phone, especially modern smart products, which combined all the advantages of the computer in addition to communication. Mobile was the change that could not be ignored. He turned the scales and created a new pattern in the strategies and plans of institutions and individuals. According to the Hootsuite report in 2022, the number of mobile phone users exceeded 5.34 billion, which represents 66.9% of humanity, and that 57% of them get news through social networking messages, compared to 23% who get it from paper newspapers, and 26% who resort to radio[25]. Media officials also noticed that social media interactions between radio listeners increased their loyalty to a radio station, which drove them to visit the station's website to listen to more songs[20].

As a result of the expansion of the communication environment, the citizen no longer resorts to the traditional paper press to obtain information, especially since he finds a faster way than that [24]. There is also a new feature in digital transformation that was not available before. Digital archiving and the transition from paper and tapes to digital storage represent security for preserving the legacy of previous generations for current and future generations, as well as allowing easy access to that archive.

Managers in the media attribute some of the reasons for the digital transformation to editorial motives, i.e., facilitating editing techniques and the post-editing of the edited material. There is a very important change that is no less important than the digital transformation itself, which is marketing and advertising, which has become a large and important world and one of the most important contemporary sciences, and social media pages have become the first incubator for its executive side.

As indicated by Team[10], in addition to some TV media companies, Twitter is the preferred social method for knowing the activity of TV viewers. This is very valuable information for advertisers and TV programmers[16]. Thus, the digital environment made television fuse with social networks as a means of communication, marketing, and analysis that cannot be ignored. The value and popularity of the program have come from the extent to which it has achieved a high degree of interaction within social networks, as Zarn[1].

The digital gap of traditional Media

Despite all the above motives, there is still a distance between the technological development and the current reality of the digital transformation of the Jordanian media, most notably the bureaucratic aspect and the stage of routine and censorship that limit the completion of the requirements of the digital opening, but all officials in the media agreed that

the gap has narrowed. Reducing the digital gap had been accomplished by developing an application, obtaining a device, developing new technology, and quickly extracting material from the TV archive.

On the other hand, the level of interaction with the external audience has increased, and the viewer or follower is now able to express his opinion directly and immediately about the media material that is presented through the pages of the digital platforms, or through the application. Most of the managers interpreted the "gap" as the distance between the media outlet and the audience, which was actually reduced with the digital transformation.

This is what El-Dakhakhny referred to, as he emphasized that digital openness requires effective openness to these platforms, and learning the tools and language of each platform, which requires diversifying the forms of content to suit different platforms[12]. and this reality called on officials of media organizations to catch up on the cusp of digitization and specialization in preparing content suitable for the new reader, as indicated by Gibran and Jamal on the pages of social networks.[24].

The digital presentation of traditional media

The form in which media outlets share their content on digital platforms and social networks has varied. Some of these media only publish news and programs. Some of them only publish urgent news, quick news, and short news stories that the public needs. Some of them accompany the news with pictures, video clips, and links, and some of them adopt policies for publishing independent publications with one type of content, such as clips from programs, links, infographics, or interviews. The content is often more programmatic than informative. Some of these media broadcast their programs, newsletters, or urgent news directly through our page. This is due to the nature of the medium, which is reflected in the type, nature, and form of content on social networking sites. It turns out that live broadcasting has become an essential thing, and now some institutions are seeking to activate Tik Tok, as it has become a competitor to Facebook and the rest of the networks. In this context, Dewerth-Palmeyer[40] stated that programs and media products are being created and distributed on an increasing number of platforms and programs, where some simply share the material with their friends and followers for entertainment and self-expression or for financial gain.

Therefore, the use of social media platforms has evolved, as it is no longer limited to research and promotion but also to build and promote a personal and institutional brand. Branding is often discussed in connection with marketing, yet the process remains an increasingly necessary practice for content producers of all descriptions. Thus, it is necessary to know the platforms used, the advantages of each platform, and the platforms that the audience is likely to use in order to identify through them the needs of the target audience and thus publish materials that meet those needs and meet their desires and directions[16].

6 Conclusion

Digital transformation has affected the interactive environment of traditional media. The most prominent manifestations of the transformation were in digital archiving, an application for the media outlet, a website, and pages on digital platforms, especially (Facebook, Twitter, Instagram...). Through these transformations, digital content has been developed, live broadcasting service activated, news and short reports published, as well as the development of the radio broadcasting studio to suit live broadcasting services via social media. Various motives are behind this transformation, the most prominent of which are: An engineering starting point in order to reach the audience in the fastest time and with the best quality, providing manpower, controlling devices in a faster way, the urgent need for digital archiving, and increasing the number of followers on digital communication platforms, as well as the effectiveness of marketing and advertising in its publications.

All of this has reduced the digital communication gap between traditional media and the modern digital environment, and thus these traditional means have entered the world of digital communication platforms (Facebook, Twitter, Instagram, Tik Tok, YouTube...) strongly and effectively. It also appeared that the journalist today must possess a set of skills that are suitable for the digital communication environment. Such as: Appropriate knowledge of language grammar and content formulation, communication tact and good behavior, proficiency in broadcasting, photography, directing and editing skills, and knowledge of the effectiveness of publishing on social media. Although the level of publishing via digital platforms differs from one media outlet to another, there is a consensus on the existence of a live broadcast service, the publication of news and short reports, some video clips of programs, as well as electronic links, so that the follower can find the full episodes on the Foundation's YouTube website.

Recommendations

The researcher recommends the following:

- 1) Making more sponsorship and promotion for the radio program pages on social media.

2) Conducting more studies on the relationship between radio programs and digital developing.

Funding

Middle East University provided financial support for the conduct of the research, but had no such involvement in the writing in the article

Acknowledgement

I would like to thank Middle East University for funding this project.

Also, I would like to thank all managers and journalists for their fruitful discussions and comments that have led to the improvement of this paper.

Conflict of interest:

The author declares that there is no conflict regarding the publication of this paper.

References

- [1] J. Zarn, *Traditional and new media in the context of the expansion of social media and its networks*. Al Jazeera Center for Studies, Qatar, 2017.
- [2] Statusbrew, *100 Social Media Statistics You Must Know In 2022 [+Infographic]*, 2021. <https://statusbrew.com/insights/social-media-statistics/#social-media-usage-statistics> (accessed Nov. 06, 2022).
- [3] E. M. Rogers, *Diffusion of Innovations*, 5th ed. Free Press, 2003.
- [4] E. M. Rogers, A. Singhal, and M. M. Quinlan, *Diffusion of innovations*, in *An Integrated Approach to Communication Theory and Research*, Third Edition, 2019.
- [5] F. A. Z. Abdul-Fattah, *The Media Convergence and News Producing*. Al Arabi for Publishing and Distributing, Cairo, 2016.
- [6] J. B. Singer, "Strange bedfellows? The diffusion of convergence in four news organizations," *Journal. Stud.*, 5(1), 3–18, 2004, doi: 10.1080/1461670032000174701.
- [7] J. V. Pavlik, "A sea-change in journalism: Convergence, journalists, their audiences and sources," *Convergence*, 10(4), 21–29, 2004, doi: 10.1177/135485650401000404.
- [8] T. Flew, *Media convergence*, *Encyclopedia Britannica*, 2017. <https://www.britannica.com/topic/media-convergence> (accessed Oct. 31, 2022).
- [9] M. Gasher, *Media Convergence*, *The Canadian Encyclopedia*, 2019. www.thecanadianencyclopedia.ca/en/article/media-convergence (accessed Oct. 31, 2022).
- [10] I. E. Team, *Traditional Media vs. Digital Media in Marketing*, Indeed, 2021. <https://www.indeed.com/career-advice/career-development/traditional-media-vs-digital-media> (accessed Oct. 21, 2022).
- [11] L. Hallett and A. Hintz, "Digital broadcasting – Challenges and opportunities for European community radio broadcasters," *Telemat. Informatics*, 27(2), 151–161, 2010, doi: 10.1016/j.tele.2009.06.005.
- [12] F. El-Dakhkhny, *Traditional media and digital platforms... Problems that raise questions*, Asharq Al-Awsat Newspaper, 2022.
- [13] D. B. Grinberg, *Why Traditional Media Still Matters in Today's Digital Age*, 2018.
- [14] U. M. KDU, *How Traditional Media is Facing Off While the Digital Media Era is Moving in*, UOW Malaysia KDU, 2020. <https://www.uowmkdu.edu.my/blog/how-traditional-media-is-facing-off-while-the-digital-media-era-is-moving-in/> (accessed Oct. 21, 2022).
- [15] M. Brouder and R. A. Brookey, *Twitter and television: Broadcast ratings in the web 2.0 era*, in *Digital Technology and the Future of Broadcasting: Global Perspectives*, 2015, 45–59.
- [16] J. D. Thompson and J. Weldon, *Digital Journalism*, in *Content Production for Digital Media*, Singapore: Springer Singapore, 2022, pp. 21–34.

- [17] A. Rangone and A. Turconi, "The television (r)evolution within the multimedia convergence: A strategic reference framework," *Manag. Decis.* 41(1), 48–71, 2003, doi: 10.1108/00251740310452916.
- [18] M. Kuyucu, *Digital Convergence of Radio: Effects of Digitilization on Radio Media*, 2019.
- [19] S. Makanai, K. K. Murad, and N. A. K. Aleessawi, "The Excellence of Public Relations of Universities in Promoting the Social Responsibility," *Inf. Sci. Lett.*, 11(3), 359–970, 2022.
- [20] J. P. Benedict, *Embracing the power of social media for broadcast business insight*, Cognizant, 2013.
- [21] F. Venturini, C. Marshall, and E. Di Alberto, *The Future of Broadcasting Issue III: Strategy delivers.*, 2013. [Online]. Available: https://www.accenture.com/t20150523T054033_w_/fi-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Technology_1/Accenture-Future-of-Broadcasting-III-Strategy-Delivers.pdf.
- [22] I. Fang, *A History of Mass Communication Six Information Revolutions*. Routledge, London & New York, 2016.
- [23] E. Loos and L. Ivan, "Not only people are getting old, the new media are too: Technology generations and the changes in new media use," *New Media Soc.*, p. 146, Jun. 2022, doi: 10.1177/14614448221101783.
- [24] A. Jubran and A. Jamal, *Arab traditional media facing the challenge of renewal in the digital age*, Alarab, 2021. <https://alarab.co.uk/> (accessed Oct. 20, 2022).
- [25] S. Kemp, *Digital 2022: July Global Statshot Report*, We Are Social and Hootsuite, 2022. <https://datareportal.com/reports/digital-2022-july-global-statshot> (accessed Nov. 07, 2022).
- [26] M. Mayada, "Design Empathy on Digital Radio Platforms," *OPUS J. Soc. Res.*, Jul. 2022, doi: 10.26466/opusjr.1099181.
- [27] A. F. Jarrar, *Radio and television in Jordan*. Publications of the Jordan History Committee, Jordan, 1997.
- [28] N. W. Jankowski and K. B. Jensen, *A Handbook of Qualitative Methodologies for Mass Communication Research*. 2002.
- [29] C. Boyce and P. Neale, "Conducting In-Depth Interviews: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input," *Pathfind. Int.*, 2, May, 1–16, 2006.
- [30] J. M. Johnson, *In-Depth Interviewing*, in *Handbook of Interview Research*, J. F. Gubrium and J. A. Holstein, Eds. SAGE Publications, Inc., California, United States of America, 103–119, 2002.
- [31] S. Kvale, *Doing Interviews*. 2011.
- [32] F. M. Zaal, "Personal Communication(26 Oct. 2022)." 2022.
- [33] L. E. Janab, "Personal Communicaion (26 Oct. 2022)." 2022.
- [34] G. F. Al-Tarawneh, "Personal Communication(25 Oc. 2022)." 2022.
- [35] A. Abdo, "Personal Communication (26 Oct. 2022)." 2022.
- [36] K. Alshogran, "Personal Communication (25 Oct. 2022)." 2022.
- [37] M. A. S. Al-Tarawneh, "Personal Communication (26 Oct. 2022)." 2022.
- [38] Q. S. Elias, "Personal Communication(25 Oct. 2022)." 2022.
- [39] A. Al-Kiswani, "Personal Communication (26 Oct. 2022)." 2022.
- [40] D. Dewerth-Pallmeyer, *Assessing the role audience plays in digital broadcasting today and tomorrow*, in *Digital Technology and the Future of Broadcasting: Global Perspectives*, 143–156, 2015.