



New media and its role in achieving sustainable development

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Abstract:

The topic of new media is considered one of the most important contemporary issues in the modern world, due to its increasing significance, this subject attracts the attention of researchers and practitioners, as it is a relatively modern concept that can be studied from various research perspectives.

From this standpoint, this research paper aims to shed light on the role of new media in achieving sustainable development, through conducting an analytical study about the conceptual perspective of the new media, and exploring the various tools and platforms underpinning new media, and their role in contributing to the sustainable development of nations over the world.

Keywords: New media; Sustainable development.

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1. INTRODUCTION

The New Media field expresses one of the most crucial technological and social transformations experienced by the world in recent era, it has exceeded its traditional function as a simple source of information and opinions to become an active tool in shaping public opinion, enhancing community engagement, promoting political participation and supporting development processes.

The term "New media" refers to the digital forms of communication that emerged with the appearance of internet, mobile technologies, and other interactive platforms that are different from the traditional forms of media such as print, television, and radio. This innovative version of digital communication is characterized by distinct features such as: rapidity, wide dissemination, availability, and direct interaction between the parties involved in communication.

In a world that suffers from countless crisis in health, poverty, education, and environment, new media plays a central role in the development of both societies and nations, it is considered as an economic asset for developing countries, representing an important investment for these nations, which are still striving to establish themselves and prove their strength. New media is not merely about creating contents and providing information; rather, it is a vital economic force that helps countries achieving progress, growth, and sustainable development.

The recent decades have witnessed a remarkable connection between the terms "New media" and "Sustainable development" as countries have concentrated on exploring methods to implement the digital platforms underlying new media, in order to advance sustainable development objectives. This is related to the vital role played by new media in enhancing awareness, educating communities, and encouraging positive practices that aim to achieve sustainable development.

From this perspective, this study aims to highlight the role played by new media to reach sustainable development, which can be achieved by examining how new media, with its various forms and digital platforms, can lead to support the foundations of sustainable development in countries, while highlighting also the challenges that might be encountered by new media in achieving its developmental objectives.

Based on the above, we can formulate the central question of the study as follows: **How does new media contribute to achieve sustainable development?**

This question gives rise to a set of sub-questions, which are:

1. What do the terms "New media" and "sustainable development" mean?
2. What are the key factors upon which new media is based?
3. What challenges limit the ability of new media to sustainable development goals?



1.2 Research significance:

-The importance of this study lies in addressing one of the significant topics that connects two important variables: "New media" and "sustainable development", by highlighting the contribution of new media as an economic power in achieving sustainable development goals.
-This study contributes to revealing the challenges encountered by nations while implementing new media as a mechanism for supporting sustainable development objectives.

1.3 Research objectives:

This study aims to achieve a set of objectives, which are :

1. -The precise definition of the concepts of New media and sustainable development.
2. -Identifying the key factors upon which new media is based.
3. -Revealing the main challenges faced by countries in utilizing new media to achieve sustainable development.

2. Conceptual Framework of New media.

2.1 Definition of new media.

The term new media has initiated an epistemological revolution in the field of media and communication, as it established a set of innovative concepts and foundational principles that didn't exist in traditional media, such as: interactivity, dissemination, and numerous other notions. The field of new media has obtained a remarkable attention from theorists and scholars, being considered as a rich area of research. It has offered researchers a significant opportunity to explore new ideas and principles within the domain of media and communication. As a result, the task of conceptualizing new media has become a central focus of academic inquiry, gathering substantial scholarly focus, aimed at reaching a precise and comprehensive definition of the term.

New media is derived from the term "medium", a Latin origin that refers to the meaning "means" and spatial connections. It expresses an impersonal, method for the widespread and collective distribution of information and opinions, regardless of the links employed. In a traditional manner, media enables communication with a large audience without personalizing the message. Thus, it represents the term that carries a practical connection in relation to its connection with the medium and a communicative implication, as it encompasses the process of interaction and communication with others. In other words, new media refers to the media content that is spread over communication channels that have experienced an important development due to modern technologies, which have allowed going beyond traditional forms of media. (Abbas, 2020, p 807)



The popular understanding of new media identifies it with the use of a computer for distribution and exhibition rather than production. Accordingly, texts distributed on a computer (websites and electronic books) are considered to be new media, whereas texts distributed on paper are not. Similarly, photographs that are put on CD-ROM and require a computer to be viewed are considered new media, the same photographs printed in a book are not. (Hassan and Thomas, 2006, p 10)

The concept of new media has been related to several terms that refer to the same meaning, such as: electronic media, alternative media, networked media, digital media, citizen journalism, and open-source media. All of these terms refer to the process of spreading media content over a modern technological channel, initially relying on internet and social media platforms. These networks have completely transformed the concept of traditional media, providing it by new characteristics and features that align with the nature of the digital environment, while preserving the media and information essence of the media channels.

2.2 Characteristics of new media.

There exists a set of distinctive characteristics of new media that derived from its digital and participatory nature, these includes: interactivity, asynchrony, universality, decentralization, immediacy, and other features that define new media in its digital version. In the following, we will discuss the three main characteristics, in our opinion, align with those examined by researchers "Frederick William", "Everett Rogers" and "Ronald E.Rice".

The researchers identified the key characteristics of new media in the following three points: (William, Rogers, and E.Rice, 1988 , p11)

1. **Interactivity:** it refers to the degree to which participants in a communication process have control over, and can exchange roles in this mutual discourse is called interactivity. By mutual discourse, it is meant the degree to which a given communication act is based on a prior series of communication acts. Bretz (1983) propose that a high degree of interactivity implies a third-order dependency: A's response to B depends on B's. It is meant by exchanging roles the ability of individual A to take the position of individual B and thus to perform B's communication acts, and vice versa.
2. **De-massification:** to the degree that a special message can be obtained by each individual in a large audience, the new media are also de-massifying . Such individualization likens the new media to face-to-face interpersonal communication. The potential de-massification of new media means that they are, in this aspect at least, unlike mass media. De -massification means that a certain degree of the control of mass communication system moves from the message producer to the media consumer. The reader of a newspaper like New York Times also has a type of control in choosing to read certain news items and ignoring others.
3. The new communication technologies are also asynchronous, meaning they allow sending and receiving messages at a time convenient to the individual user rather than requiring all participants to use the system at the same time.



2.3 The key factors that manage new media.

New media is shaped by three essential factors, which, according to many theorists and practitioners, are represented by the technological factor, the economic factor, and the political factor. These elements are explained as follows:

1. **The technological factor:** it refers to the huge advancement in computer technologies, software, and communication systems based on satellites and fiber optics. These components have merged into various forms of communication, culminating in the creation of the internet, a medium that encompasses all other forms of communication, including print, audio, visual, in addition to mass and interpersonal media. This factor embodies the foundational basis for the existence and evolution of new media. As a result, countries over the world are increasingly competing to obtain control over technology, as much dominance equate to influence throughout all sectors of life, encompassing media and communication. (Ben Abbou, 2021, p33)
2. **The economic factor:** this dimension is profoundly linked to globalization of markets and the increasing mutual dependence of national economies. The liberalization of trade, the rise of multinational corporations, and the growth of online commerce have triggered a crucial need for the rapid spread of information across borders. Within this context, new media serves as a strategic infrastructure for real-time exchange of market data, commercial transactions, and consumer engagement. Additionally, media corporations play an important economic role, influencing not only the public opinion but also the international economic policies. The commercialization of information and the capitalization of user data further underscore the economic significance of new media platforms, which are now crucial to advertising, and e-commerce. Therefore, the implementation of new media into the economy is not merely an indicator of technological advancement but also an essential factor of economic competitiveness.
3. **The political factor:** this factor refers to the strategic use of media by major global forces in order to shape and influence the international opinion. In this context, new media platforms have become essential tools for soft power and international public relations. Political leaders and governments increasingly rely on media in order to control public perception, and promote national interests. Moreover, the political economy of media ownership explains how control over content production can reinforce power structures.

2.4 Significance of New Media.

The existence of new media has completely redefined the patterns of communication and social interaction, making it a fundamental element of the modern society. In contrast to traditional media, which are characterized by one-way communication and limited participators, new media are innately interactive, decentralized, and participatory. The importance of this innovative kind of communication lies in the socio-cultural, political, and economic transformations they allow.

At the social scale, new media platforms have equalized the production and distribution of information, this has enabled individuals to become proactive figures in the public sphere, as a



result, the flow of information has become shaped by networks users who influence and guide the social evolution.

Economically, new media platforms have become an essential tool of digital marketing and e-commerce, offering the opportunity to the different businesses to grow and reach the global markets. Politically, new media have always been essential to actions encouraging transparency, accountability. From a cultural standpoint, new media facilitates multicultural discourse and customs exchanges and it enables users to discover the diversified cultural heritage of the civilizations across the world.

2.5 The key platforms of New Media.

The key platforms that shape new media field are established as follows:

-Internet: internet represents the essential framework of new media, facilitating the rapid access to information and news for individuals, it also supports online platforms, online commerce, and virtual communities. The growth of internet as a communication medium has increased the opportunities for data collection of social network data.(Gane and Beer, 2008, p67)

Many media institutions nowadays are adopting internet, and precisely digital platforms, in order to support their real presence with a virtual one, through which they interact with users and information that interest them. With regard to the developmental role of internet, this network promotes sustainable development by spreading awareness on environmental issues and fostering worldwide partnerships.

-Social media platforms: platforms such as Instagram, Facebook, Twitter, and Tiktok have revolutionized interpersonal communication between individuals. This has led to the emergence of new concepts associated with new media including: content creation, influencers, engagement...etc. Social media platforms make a major contribution to raise awareness about sustainable development, it possesses the ability to target every dimension of sustainable process by spreading maximum content that serves to achieve sustainable development goals.

-Podcasting and broadcasting tools: podcasting tools to content creators to produce and deliver audio content about countless domains, while broadcasting tools enable instantaneous communication and interaction with public. These two forms of new media represent a significant tool to achieve sustainable development, this can be accomplished through the creation of continuous and specialized content that focuses on addressing topics related to sustainable development at all levels and work to raise awareness among individuals about the significance of making valuable contribution to enhancing the economy and driving sustainability.

-Artificial intelligence and automation tools: artificial intelligence and automation tools are pioneering content creation, transmission and involvement in new media. Artificial intelligence is used in personalized guidance, chatbots, information filtering, and content management. On the other hand, automation tools help in managing repetitive tasks such as posting content on digital platforms, email marketing, and customer relationship management. These tools can be utilized to



support sustainable development by maximizing resource efficiency and enhancing sustainable monitoring technologies.

3. Theoretical framework of Sustainable development.

3.1 Definition of sustainable development.

Sustainable Development can be defined as the process of strategic changes in our social systems and institutions needed in order to achieve sustainability. The term "Development" was criticized by some researchers as connoting growth. Unfettered growth of the ecological footprint of the human population, defined as the portion of the biosphere used to support human production, consumption and waste, is, of course not sustainable. Others interpret "Development" to mean progress in social well-being or improvement in the quality of life. Sustainable development is therefore a contentious and thought provoking concept. To respond to the challenge of finding ways in which all members of the human family can live satisfying lives within the means of nature, would require collaborative efforts from a multiplicity of talents: thinkers about society, scientists and practitioners, business leaders, farmers, governments, and citizens.(Bell and Cheung, 2009, p4)

This definition is one of the most comprehensive definitions of the concept of sustainable development, as it addresses the concept by dividing it into two separate words: development and sustainability. It indicates that development refers to progress and prosperity in all areas of life, while sustainability refers to the ability to maintain this progress and prevent its waste. It also points out that sustainable development is a complex process, with many partners, such as governments and individuals, working together to achieve it.

Sustainable Development was also defined by Medhat Mohamed as "a series of policies that facilitate the community's transition from its current state to a superior one by employing environmentally appropriate technologies ". On the other hand Abu El-Maati conceives sustainable development at a social and human level as " The endeavor to stabilize population growth and reduce the influx of individuals to urban areas by developing health and educational services. " (Hamdi and Ben Yahia ,2024 , p300)

Based on the above, we can define sustainable development as a strategic process aimed at the responsible consumption of resources and avoiding their waste, ensuring their continued availability for as long as possible, while working on finding ways to renew and provide resources. Sustainable development aims to achieve economic, social, and environmental balance to meet the needs of individuals without compromising them. The concept of sustainable development revolves around three main aspects, which are:



- **Economic aspect:** It includes promoting economic growth by improving living standards, providing job opportunities, supporting small projects, and combating poverty and unemployment.
- **Social aspect:** It focuses on the fair distribution of wealth and opportunities among individuals, as well as improving social and healthcare services.
- **Environmental aspect:** This aspect focuses on preserving environmental resources and protecting them from depletion, ensuring their availability for future generations.

3.2 Objectives of sustainable development:

The Sustainable Development Goals are a set of 17 goals established by the United Nations in 2015, as part of the **2030 Agenda for Sustainable Development**. These goals aim to address global issues and achieve sustainable development worldwide. The goals are : (SDGS.UN.org, 2024)

1. **No Poverty:** Ensure that all individuals have a dignified life and access to basic resources.
2. **Zero Hunger:** Ensure that everyone has access to sufficient and nutritious food.
3. **Good Health and Well-being:** Ensure healthy lives and promote well-being for all ages.
4. **Quality Education:** Ensure inclusive and equitable education and lifelong learning opportunities for all.
5. **Gender Equality:** Achieve gender equality and empower all women and girls.
6. **Clean Water and Sanitation:** Ensure availability and sustainable management of water and sanitation for all.
7. **Affordable and Clean Energy:** Ensure access to affordable, reliable, and modern energy for everyone.
8. **Decent Work and Economic Growth:** Promote inclusive and sustainable economic growth, employment, and decent work for all.
9. **Industry, Innovation, and Infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
10. **Reduced Inequality:** Reduce inequality within and among countries.
11. **Sustainable Cities and Communities:** Make cities and human settlements inclusive, safe, resilient, and sustainable.
12. **Responsible Consumption and Production:** Ensure sustainable consumption and production patterns.
13. **Climate Action:** Take urgent action to combat climate change and its impacts.
14. **Life below Water:** Conserve and sustainably use the oceans, seas, and marine resources.
15. **Life on Land:** Protect, restore, and promote the sustainable use of terrestrial ecosystems, manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.



16. **Peace, Justice, and Strong Institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable institutions at all levels.
17. **Partnerships for the Goals:** Strengthen the means of implementation and revitalize the global partnership for sustainable development.

By reviewing these goals, it is noticeable that they are diverse and align with the life areas targeted by sustainable development, namely the economic, social, and environmental sectors. This is due to the cooperation between these three areas and the unification of efforts among them leads to an increase in the wealth size, not only preserving it and ensuring its sustainability. This, in turn, positively impacts national security in all its forms.

3.3 Sustainable development indicators:

Sustainable development indicators are tools used to measure the progress made in achieving the Sustainable Development Goals, which were globally agreed upon within the framework of the 2030 Agenda for Sustainable Development by the United Nations. These indicators aim to track changes across various social, economic, and environmental areas to ensure improving the quality of life for both current and future generations in a way that considers the sustainability of resources and the environment.

We demonstrate in the table below the key sustainable development indicators that align with the main areas targeted by this activity:

Table 01: sustainable development indicators.

Economic indicators	Social indicators	Environmental indicators
-The fair distribution of wealth. - The annual per capita income rate. -The size of financial investment in sustainability sectors. - Financing small and medium-sized enterprises (SMEs). - The volume of exports and imports	-The poverty and unemployment rate. -education rate. -The quality of life. -The well-being of citizens. - Protection of the rights of vulnerable groups in society, such as women, children, and refugees.	- The rate of natural resource usage. - The rate of pollution in its various forms. - The extent of reliance on recycling technologies. - The rate of agricultural sustainability.

Source : by the researcher.



4. The role of new media in achieving sustainable development.

4.1 Mechanisms of supporting sustainable development through new media.

New media with its different platforms including social media networks, mobile technologies, and online communication devices, play a crucial role in promoting the United Nations' sustainable development goals. New media's contribution in achieving and supporting sustainable development can be reached over the following mechanisms:

1. **Enhancing understanding and education:** new media represents a powerful factor for raising awareness about the importance of education as a basic component of sustainable development. It also serves through its digital platforms to afford multiple learning sources to individuals in order to develop their skills and learn new fields, which contributes to enhancing the quality of education for people.
2. **Fostering economic growth and innovation:** new media with its digital platforms can lead to aware individuals about the importance of their participation in enhancing economy and driving the development process by encouraging entrepreneurship and freelance work, and providing access to information sources through all digital platforms.
3. **Uplifting health and wellness:** new media contributes in enhancing wellness, which is a vital dimension of sustainable development, through multiple options such as mobile health apps, telemedicine platforms, medical content sharing...etc.
4. **Strengthening civic engagement and governance quality:** through its interactive platforms, new media supports transparency, accountability, and citizen participation in governance by allowing individuals to engage with governments and interact with them. Through what is known by two-ways communication, audiences get the opportunity to express their opinions freely and without any external pressure, either through comments or by sharing videos and images that reflect their perspectives.
5. **Improving ecological sustainability:** new media serve to enhance public awareness about environmental crisis and threats including biodiversity loss, deforestation, pollution...ect, it also contributes to promote the spread of environmental data and climate changes. Moreover, the digital platforms can lead to more effective outcomes, such as supporting conscious behavior towards the ecosystem.

4.2 challenges encountered by new media in promoting sustainable development.

Through our theoretical reading of various literatures related to the variables of "new media" and "sustainable development", it became evident that there are several challenges hindering the process of development and restricting the effectiveness of implementing technologies to serve economic and developmental progress of nations. The first barrier is what we call "**technology gap**", this term refers to the unequal access to the different technology sources between communities, groups, or nations, this gap can lead to unequal opportunities for economic and social development. In the context of the study, the **digital inequality** where limited access to networks and technology in rural



areas hinders individuals from contributing in sustainability and limits benefiting from energy and creative abilities. Secondly, **misinformation** comes as another challenge that manifests in the field, targeting to limit the exploitation of new media in supporting sustainable development for countries. Especially regarding environmental issues such as climate changes or pollution, where false information can lead to unconscious collective actions. As well, **the lack of digital competence** presents difficulties to certain users to thoughtfully evaluate and examine contents, especially on complex issues like sustainable development. **The political barriers** may also prevent public discourse about strategic subjects like sustainability, which limits media treatment of development issues in new media platforms. **Regulatory and moral** issues also appear as an important challenge, the lack of coherent policies and continuous regulatory framework for digital platforms can lead to inconsistencies in managing sustainability content, while matters such as users' privacy and accountability in algorithmic decision might undermine public confidence.

All of these challenges can be overcome by nations through serious economic and political will, along with persistent effort to benefit from technology's outputs, such as new media, in order to enhance civilizational and economic development.

5.CONCLUSION

This research paper explored the role of new media in achieving sustainable development, and examining its contributions to respond to the United Nations'2030 Agenda, it also targeted to reveal the main challenges faced by new media while attempting to achieve sustainable development objectives.

New media with its essential technological, economic, and political factors has arisen as a powerful tool in promoting global communication and supporting active civic participation. Through digital platforms such as social media, podcasts, blogs, individuals became able to raise awareness and spread knowledge on key sustainability matters, new media has also fostered connectivity and allowed engagement about contemporary issues related to environment, society, and economy, which represent the main dimensions of sustainable development of countries.

Sustainable development aims to meet the needs of present without damaging the ability of future generations to meet their own needs. It includes various dimensions such as economic development, community integration, and ecological preservation. New media's role in promoting these aspects is evident in its capacity to enhance education, support economic development, foster improved health conditions, and support effective governance. Moreover, new media has a crucial impact on raising ecological consciousness and enabling the spread of knowledge about environmental crisis and nature preservation.

Regardless of the vast amount of positive contributions of new media in order to achieve and enhance sustainable development, new media encounter significant challenges that limit its capacity to provide full contribution to sustainable development. The digital divide, widely known as the technological gap, restricts certain individuals from contributing to the digital landscape. In the



same way, misinformation and the transmission of inaccurate information undermines public comprehension of critical sustainability matters such as climate changes...etc. On top of that, the lack of digital competence regulatory inconsistencies and political barriers represents a serious barrier that prevents new media from effective contribution to achieve sustainability. Dealing with these challenges requires a comprehensive approach, incorporating policy changes, strengthening digital skills, and the creation of strong regulatory framework, that ensures principled and accountable use of technology.

In conclusion, new media possesses high potential to drive sustainable development, but its contribution will be maximized only when these obstacles are overcome.

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