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## RESEARCH ARTICLE

# COMMUNICATION TECHNOLOGY AND ITS MODERN TECHNIQUES, AND THE POSSIBILITY OF UTILIZING THEM IN THE DEVELOPMENT OF CONTINUING EDUCATION PROGRAMS

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### ABSTRACT

The study aims to identify the impact of scientific and technical advancements made possible by two essential components: clear visions and plans. Educational plans for developing education, whether at the national or self-education level, are crucial for human resource development, establishing information and communications infrastructure, and integrating communication technology in education stages, particularly in continuing education. This integration aims to achieve economic, social, and cultural development, as well as to address the challenges and developments brought about by communication technology in the face of a new international system. The significance of this study lies in the advancement of communication technology, which has revolutionized the processing, transfer, and transformation of information globally, breaking down geographical and temporal barriers. The study emphasizes the need for advanced information systems that can effectively utilize modern communication technology. This is particularly important due to the increasing diversity of publishing platforms, information types, languages, fields of knowledge, and beneficiary needs, as well as the limitations of traditional information collection, organization, and dissemination methods in addressing these evolving needs within the context of technical advancements in continuing education.

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## INTRODUCTION

The challenges faced by individuals in their daily lives over the last three decades have prompted both developing and advanced societies to focus on developing institutions and educational programs. These efforts aim to prepare individuals to adapt to the changes of the current era and to address the problems arising from these changes. Studies and research have emphasized the importance of integrating technology into various aspects of society, as it plays a crucial role in social, economic, cultural, and political fields. The increasing reliance on technology has led to the development of electronic means and digital processing of information. This has heightened the significance of communication and information technologies, making it essential for institutions to keep up with the latest advancements in this field to remain competitive on an international level. The possession of modern communication and information technology is now seen as a competitive advantage, and institutions must demonstrate their ability to adapt to its developments and utilize it effectively. This is crucial for the development of continuing education programs, infrastructure, and the skills of employees, allowing them to confront and overcome the challenges they encounter in daily life. Given the potential of communication and information technology in continuous education, institutions are encouraged to train their members in its effective use. This includes coordinating with other institutions globally to exchange information and experiences for mutual advancement and distinction. The optimal use of communication and information technology is crucial for achieving the goals outlined in educational and media policies.

It also serves community issues through the development of continuous educational and training programs. Furthermore, the interest in information and communication technology at national and international levels has increased awareness of its importance in developing communication and technical programs. As a result, many public and private institutions have implemented strategies to expand the use of modern technology. These strategies aim to create an environment conducive to communication and information technology, fostering interaction between various parties involved in the development of continuing education programs at national and regional levels Programs.

## METHODOLOGY

Books, documents, and recent studies approved in the field of communications technology were utilized to gather information on the subject, and a descriptive approach was employed to elucidate the close relationship to the subject.

**First: let's Discuss the Concept of Communication Technology :** The advancement of communication and information technology has given rise to new forms and applications of communication, often referred to as "new information and communication technology." This term essentially pertains to technology connected to computers and has wide-ranging effects across different fields and applications. These effects include knowledge dissemination, advancements in sciences and educational programs, as well as the efficient organization of institutions (Ibrahim Bhakti, 2018). The concept of

information and communication technology (ICT) is closely linked, as these technologies are not new in themselves. Most of them have been around for years, but what is new is the expanded use of these technologies in managing institutions across various social, service, educational, and other fields. Information and communication technology encompasses the use of computers, communication networks, and wired and wireless information exchange devices, such as telephones, faxes, and the Internet. These technologies are used to perform various tasks aimed at achieving the goals of the institution. Therefore, information and communication technology for the institution refers to the tools used to build information systems that help management utilize information to support decision-making and carry out operational processes within the institution. This is achieved by converting, storing, and processing all types of information (texts, images, sound, etc.) into unified digital data, which can be transmitted worldwide at the speed of light using the Internet. Additionally, it can translate future information and convert it into the desired format (texts, images, sound, etc.), as well as change communication methods within departments (Jamal Lamara, 2017). It's important to note that the term Information and Communication Technology (ICT) is more comprehensive and accurate than the commonly used translation. ICT encompasses two fields: Information and Communication. "Communication" is plural, indicating a different meaning from the Latin word. There's a clear difference between the terms "media" and "information." Information is considered the raw material of media, while media involves activities such as the transfer and circulation of information. Although media includes information, not all media topics are encompassed by information. New media and communication technology can be divided into two main branches: (Souad Boumaiel, 2014). First, the Information Operations branch deals with the automatic processing and distribution of information to support decision-making within institutions. This branch focuses on the use of automated or electronic media in various forms. Secondly, the Transfer and Delivery of Information branch involves the process of transferring and delivering processed information between distant computers or between computers and their remote terminal units using telecommunications facilities. Accordingly, information and communication technology can be defined as: "A mixture of electronic computers and various means of communication such as optical fibers, satellites, microfilm technologies, etc." That is the various types of discoveries, innovations, inventions, and products that deal and deal with various types of information in terms of collecting, analyzing, organizing, documenting, storing, and retrieving it at the appropriate time and place and in the appropriate and available manner. Information and communication technology is defined as "the sum of different techniques, tools, means or systems that are employed to process the content or substance that is intended to be communicated through the process of mass, personal or organizational communication, through which information and data are collected, whether audible, written, photographed, drawn, audio-visual, printed or digital (through computers), then this data and information are stored, then retrieved at the appropriate time, then the process of publishing these communication materials or messages or contents, whether audible, audio-visual, printed or digital, and transferring them from one place to another, and exchanging them. This technology may be manual, mechanical, electronic, or electrical, depending on the stage of the historical development of the means of communication and the areas covered by this development. Through all of this, we can say that the basic characteristic of modern information and communication technology is the association of automated or electronic information technology with wired and wireless communications technology and combining them through text, image, and sound (Al-Labban, 2010).

**Second: Importance of Communication Technology and Its Characteristics:** Scientific and technological development has contributed to achieving the well-being of individuals, and among the developments that are constantly occurring are those related to information and communication technology, and its importance in terms of providing communication services of various types, education, and culture services, and the necessary information for individuals and organizations, as it has made the world a small village

whose members can communicate with each other easily and exchange information at any time and in any place. This importance of information and communication technology is due to the characteristics that distinguish the latter, including widespread and capacity, whether in terms of the number of people participating or communicating, or in terms of the volume of information transmitted, as it is characterized by speed of performance, ease of use, and diversity of services (Abdul Wahab & Zainab, 2010).

1. Information and communication technology provides a powerful tool to overcome the development divide between rich and poor countries and accelerate efforts to eradicate poverty, hunger, disease, illiteracy, and environmental degradation. Information and communication technology can deliver the benefits of literacy, education, and training to the most isolated areas. Through ICT, schools, universities, and hospitals can connect to the best information and knowledge available, and ICT can spread messages to solve many problems related to individuals, organizations, and others.
2. ICT contributes to economic development: The digital revolution leads to the emergence of completely new forms of social and economic interaction and the emergence of new societies. Unlike the industrial revolution that witnessed the last century, the ICT revolution is likely to spread rapidly and affect the vitality of everyone. This revolution revolves around the power of ICT that allows people to access information and knowledge that exists anywhere in the world almost at the same time.
3. Increasing the ability of people to communicate and share information and knowledge increases the opportunity for the world to become a more peaceful and prosperous place for all its inhabitants. This is if all people can participate and benefit from this technology.
4. ICT, in addition to traditional and new media, enables marginalized and isolated people to have their say in the global community, regardless of their gender or place of residence. It helps to level the playing field between power and decision-making relations at the local and international levels. It can enable individuals, communities, and countries to improve their lives in ways that were not possible before. It can also help improve the efficiency of the basic tools of the economy through access to information and transparency.

From this, it is clear that information and communication technology has an important role in promoting human, economic, social, and cultural development, due to the latter's distinct characteristics and being more efficient than traditional means of communication. The widespread information and communication technology thus transcends the geographical and political borders of countries to reach any point in the world that old means of communication could not get. It is also characterized by the abundance and diversity of information and cultural and educational programs for all different segments of people, available anywhere and at any time, and at a low cost. It is an important source of information for individuals or organizations of various types or governments, and it also plays an important role in developing the human element through the programs presented through it, such as training programs, educational programs, and others. Therefore, it is necessary to pay attention to this technology and develop its effective use, while training and educating individuals on its use, and raising their awareness of its importance in development and progress, by highlighting its importance at the micro and macro levels (Fadil Dalio, 2013).

**Third: The role of communication technology in serving education and facing contemporary challenges:** Educational technology plays a crucial role in addressing the challenges that hinder the achievement of educational goals. It helps education adapt to rapid social and scientific changes. Some of the problems it addresses include: (Malek Alawi, 2016)

- A. Population Density:** The rapid growth of the population has led to a significant increase in the number of students in different classes. This challenge is being tackled through the

development of modern educational systems and new forms of education, such as distance education and open education. The role of the teacher has also evolved from being the primary source of knowledge to an organizer and guide for the educational process.

- B. Cognitive Increase:** The continuous expansion of knowledge vertically and horizontally necessitates the absorption of new theories and research. Educational technology plays a vital role in accessing the latest knowledge, organizing it, and determining the most effective ways to present it to students.
- C. Problem of Illiteracy:** Many Arab countries still struggle with high illiteracy rates, which hinders development and progress. Educational technology addresses this issue through modern technologies such as educational television, satellites, and cinema films. Adult education programs and literacy initiatives are also being promoted to overcome the barriers of illiteracy.
- D. Multiple sources of knowledge:** Scientific progress is no longer limited to one country, but rather new knowledge is found every day in many countries, and the need arose to identify its location and ways to disseminate it, and from here new roles were found for educational technology and its modern techniques that do not depend on the school book only in transferring scientific material, but there are many sources to provide knowledge to students in their places, such as what is broadcast by satellite for open and linear television programs, in addition to laser discs, computer disks, and various audio and visual recordings.
- E. Decline in the efficiency of the educational process:** There were many complaints about the poor level of graduates, and that the school graduates were half-educated, and to confront this, we began to see closed-circuit television in universities and greater reliance on self-learning and the use of recording and video capabilities, in addition to multi-purpose laboratories and watching television programs that contribute to enriching the educational process.

**Concept of Continuing Education:** The concept of continuous education is not a new idea brought about by modern education, but rather an age-old concept as old as civilizations. It is also inherent in heavenly religions, as they advocate for continuous education to ensure its spread among successive generations and its survival in successive ages. Continuous education goes by several terms, including training for change and enhancing self-learning at both the individual and group levels. The term "continuous" does not imply that it has no limit, as it may pause but soon resume due to emerging needs, such as environmental and societal conditions, civilization developments, and especially technological advancements (Mas'i, 2019). Continuing education is closely related to distance learning, as both are part of open education and complement each other. They also intersect in the variety of media used to acquire knowledge and science, such as printed material, audio-visual resources, and other channels. The primary goal of continuing education is to develop an educational model based on the student's personal experience, making the student a teacher (Mounir, Naima, Al-Hajj, 2020).

To achieve this, new methods for evaluating information and students' energies need to be developed, along with flexible and adaptable programs. Continuing education extends beyond offering courses and training programs; it enables learners to obtain various academic certificates and provides complementary training to individuals in the workforce who wish to enhance their skills and knowledge or improve their career prospects. Therefore, continuing education should take on a new meaning that aligns with its characteristic of continuity and the ever-changing reality of life. It needs to be open to new dimensions and freed from rigid frameworks to parallel the freedom of life itself. This requires rethinking previous definitions to achieve better results in the journey towards comprehensive development and contribute effectively to the progress of world civilization. In essence, "life itself is a major source of learning, and individuals primarily learn from life through the process of living."

The relationship between inputs and outputs is based on integration. It's not permissible to separate them and consider them as two different things. They are like cause and effect, reason and result, death and life. "Preparing for a rapidly changing future, the shape of which is largely determined by scientific and technological developments, has become an educational goal at present." This means that continuous education, one of the goals, must be undertaken by the agencies responsible for education and planning for progress and social welfare. They should seek to apply it starting from the early stages of study to achieve scientific interconnection between science and technology. This should be subjected to experimentation, training, and application, integrating various factors with the daily experiences of learners and the concepts they have built themselves for natural phenomena and aspects of life they practice outside school, including embarking on work. If this type of continuous training, which involves providing people with the latest knowledge and techniques in their field of specialization or profession, is not achieved, the line of communication will be cut off. A gap will thus be formed that will expand hour by hour and may become more serious and widespread in reality (Al-Rawi, 2021).

**Second: Characteristics of Continuing Education:** Continuing education is characterized by several key aspects that have made it extremely important, setting it apart and enhancing its role in addressing the challenges faced by societies. These characteristics revolve around five main pillars:

1. **Totality:** This means that it encompasses all stages of a person's life, from childhood to old age, and all forms of formal and informal learning. It includes education at all stages and in all forms.
2. **Integration:** This refers to the integration of all sources of knowledge and education, including the home, society, schools, training centers, and other entities that contribute to the learning and education process.
3. **Flexibility:** Continuing education is adaptable to the changing needs and requirements of the era in terms of what is taught, how it is taught, and why certain topics are not taught. It recognizes the necessity of change for its survival.
4. **Democracy of Education:** It emphasizes the right of all individuals to learn, irrespective of economic, social, cultural, and cognitive differences. It promotes education for all.
5. **Self-fulfillment:** This form of education and development aims to help individuals achieve self-fulfillment and self-development, enabling them to live in harmony with the demands of society and the times while adapting to their surroundings and fostering creativity. Ultimately, this contributes to the advancement and development of society in line with the progress and development of its individuals.

We can add a new dimension to the advanced characteristics of continuous education. This dimension distinguishes continuous education as continuous learning, involving acquired curricula and knowledge that is generated day after day, even hour after hour. This is made possible thanks to the accelerating interactions in social and economic life, as well as in the world of technology. This doubles the burden on educators and those who guide the social process, especially if they are keen on bridging the gap between our societies and developed countries. Every day, the world of knowledge and technology witnesses the birth of more than forty new terms, each reflecting new scientific dimensions. This demonstrates our need for focused efforts and insistence on catching up. We will discuss this topic in more detail later. The goals of continuing education are not final, but rather they are constantly renewed and changed to align with human aspirations, capabilities, and surrounding circumstances. Some goals are immediate while others are long-term, and they are interconnected, as achieving the long-term goals depends on achieving the short-term ones. However, we can outline these goals broadly, and they are directly related to the variables of the current era. Individuals need to keep up with progress and stay within the current of rapid development. The main goal of continuing education is to serve society and bring it to the level of advanced societies that

keep pace with development in various fields. This involves re-evaluating prevailing ideas and behaviors in society, addressing new problems, narrowing the cultural gap resulting from differences in material and civilizational growth, reconciling old values with the requirements of the new era, and dealing with problems arising from rapid social change, especially in terms of economic development and enhancing society's income resources. It also involves understanding local and global issues to avoid repeating past mistakes. The objectives mentioned above generally focus on serving society by developing its individuals, which is the underlying philosophy of continuous education. This philosophy is reflected in the evolution of society from a standalone entity to cultural, economic, and informational groups in the context of globalization, a prominent feature of our era. We see various blocs such as economic, cultural, and political groups, which require adaptability to rapid changes to protect and strengthen themselves and avoid potential threats resulting from lagging. This necessitates continuous education and upbringing to keep pace with the ongoing development. Continuous education is based on the belief that learning is a lifelong process, aimed at developing individuals to in turn develop society. It allows individuals the freedom to explore their abilities and talents to the fullest and encourages the continuous renewal of their knowledge and experiences. Ultimately, everyone is responsible for their self-development through continuous education, whether individually or within dedicated social institutions. This approach leads to the creation of a society that is in sync with its era and able to keep up with ongoing changes. (Conference in Tunis, 2015)

**Third: The Reality of Using Communication Technology and Continuous Education:** Learning and education are part of the same process, but they have different focuses. The learning process is self-directed and acquired unintentionally through one's environment and behaviors. On the other hand, the educational process is directed towards others and requires a standard that is constantly evolving to be effective. This necessitates continuous training for educators to stay updated with developments and adapt curricula and methods to reflect these changes. Teachers play a crucial role in transmitting practical and technical information, so they need to be aware of social and cultural changes and be open to new information and technology. Educators need to embrace progress and stay current to effectively support each other and their students. Regarding open education, it is essential for those responsible for it to develop their methods, conduct studies and research to ensure successful development, and plan education by connecting it with preceding and subsequent education. They should provide real continuity based on coordination and integration, and encourage spontaneous self-training for themselves and their employees through individual efforts. Despite the progress anticipated from increasing research and the close interplay between innovation and research, this type of training will always remain relevant due to the complex nature of the educational situation. To maximize its effectiveness, continuous exchange between the teacher and the researcher, who makes this practice a priority, is necessary. This approach, known as continuous education, requires concerted efforts, integrated visions, and insight into the educational learning process in both directions. Taylor argues that the four challenges facing humanity - change, awareness, necessity, and adventure - demand a focused approach across all levels of formal education. These challenges necessitate collective efforts and an understanding of the educational learning process in both directions. Cultural adaptation to new developments and changes is crucial to characterize a society as educated and to keep pace with the era in which it exists. Continuous education/learning differs from the current educational system in terms of its philosophy, objectives, content, and justifications for its existence, as it is rooted in the needs of students, young and old alike. It seeks to meet the needs of society and its developmental requirements, making it essential for both individuals and society. (16) Human knowledge is constantly evolving, leading to changes in how we acquire and share knowledge. As interaction deepens and new patterns emerge, previous methods must be reconsidered. Without adaptation, individuals may fall behind, leading to frustration and a sense of being left behind. Continuous education can be likened to a spiral circle, with each stage leading to

the next, building momentum and increasing both quality and quantity of knowledge. Both educators and learners need to embrace a constantly evolving approach to education. To adapt to the rapid changes in society, it is essential to view the entire society as an open university, embracing continuous learning and education. Formal education should be seen as complementary to continuous education, with the use of all available media to achieve its objectives. Continuous education requires a new type of intervention, and traditional teachers should be assigned new roles in this new system. Educational leadership should also adapt to the changing times, embracing technology and continuously renewing strategies to meet the needs of society. (Khalil, 2024). The media and communication technologies have been essential throughout history. They have evolved alongside societal progress and have expanded to meet the growing needs of society. They have created competitive fields that require continuous innovation and strategies that align with the current requirements. This involves self-improvement, acquiring new knowledge, and applying it to benefit society. This service begins at the individual level and ultimately benefits the individual by developing educational programs that continue to progress through the use of technology. These programs are employed in various fields:"

**First: Continuing Education and Multimedia Technology (Distance Education):** Investing in education is highly profitable, especially in the information age where the human industry has become the most important. To support the educational process, it's crucial to create an environment that embraces modern technologies such as distance learning, multimedia tools, virtual laboratories, and digital libraries. This will help improve the education system and prepare individuals to adapt to the ever-changing times. Distance education is a key component of the technology revolution, facilitating the transfer and utilization of knowledge to enhance human capabilities. The International Network for Distance Education, managed by the World Bank for Reconstruction and Development, aims to develop human resources compatible with the era's advancements and provide modern methods of education, training, and study. This network allows direct communication between learners and educators, offering access to information, recordings, meetings, lectures, and live conferences. It also enables real-time interaction between teachers and students, fostering continuous engagement throughout the education and training process.

**Second: Continuing Education and Information Technology :** We are currently experiencing several intertwined revolutions, including the information, communication, and knowledge revolutions. These are accompanied by an economic revolution that has transformed international dealings and is associated with economic openness and intense competition, known as the forces of globalization. We are entering a new era where the quality of the labor market will be different, focusing on mental abilities and intellectual skills to align with the shift towards a knowledge-based economy, thus changing the concept of jobs. Therefore, educational and research programs in Arab countries should prioritize the development of electronic and computer industries, the utilization of information technology and new materials with superior properties, genetic engineering, biotechnology, quality assurance, enhancing competitiveness, and space technology and its applications.

**Third: Continuing Education and Employment:** We need to have a discussion about the connection between education and employment to identify the specific skills needed for future jobs and to understand the job requirements in different industries. It's no longer enough to focus on classroom capacity in schools or university enrollment; we need to align education with the needs of the job market, both within each country and for opportunities in other Arab countries. The issue of unemployment is largely due to a lack of understanding of how education and employment are related. The global information and technology revolution requires us to quickly and effectively adapt to these changes. Failing to keep up with this revolution will put individuals at a disadvantage. Therefore, we must think globally and act locally. We need to tackle this challenge and equip our children

with the language, concepts, and skills of the new era so that they can effectively navigate the demands of the modern world, manage their time well, and adapt to changing circumstances. The hindrances to utilizing communication technology in developing continuing education programs in institutions are worth studying to comprehend, particularly when implementing programs aimed at enhancing the skills and qualifications of workers in various institutions. Therefore, the factors contributing to the failure of communication and information technology projects encompass several elements, including the following: (Aqili, 2016)

1. **Weakness of the ICT strategy:** The weakness stems from the lack of support for the institution's units' continuing education and information technology program, as well as neglecting the preparation of its infrastructure.
2. **Lack of focus and organization of continuing education program ideas:** This is primarily due to the absence of comprehensive planning at the unit level. The planning is carried out by individuals at a lower level than the department manager. As a result, the program may seem to meet the unit's requirements, but in reality, it fulfills unnecessary desires.
3. **Failure to define and understand the objectives of the continuing education and information technology program or disagreement on them:** This leads to conflicts between the program objectives, the institutional organization, and the ICT strategy.
4. **Lack of clarity of the function or unit of the educational program:** There is a failure to define the functions assigned to these programs, or they are assumed to be known. This results in difficulty for the individuals in this unit to define or know the work that must be implemented. Conversely, when responsibilities are defined, it becomes easier to implement a successful program.
5. **Lack of definition of the scope of information technology:** There is no clear definition of the boundaries of the educational program and the units it includes. This lack of clarity hurts performance in terms of implementation time, cost, and requirements.
6. **Difficulty in following up on a set of educational programs:** The challenge lies in the fact that the programs differ in their activities, planning, description, and various sources for their implementation. Consequently, it is difficult to develop a set of schedules for the plans to be implemented.
7. **Lack of sufficient support from department managers to determine the requirements necessary for implementation for each department.**
8. **Lack of clarity of the future vision for educational programs:** This is due to the Public Relations and Media Manager's inability to determine them in institutions with different fields.
9. **Program size:** The smaller the program size, the easier it is to plan and determine the resources necessary for its implementation.

We understand that education is a significant investment for humanity, involving various inputs, processes, and objectives. In recent years, there has been increasing interest in the role of technology in continuing education. There has been much debate about the importance of technology, its various types, its feasibility in the field, and the best methods to utilize it in addressing educational challenges and improving individual performance at different levels of education. Education plays a crucial role in nation-building, advancing society, and promoting individual and societal well-being. In today's technology-driven world, educational technology aims to apply organized knowledge to solve teaching-related problems. It's important to note that while educational tools are a part of information and communication technology and its techniques, the role of information and communication technology in education is more comprehensible. Information and communication technology plays a vital role in achieving training and rehabilitation goals through modern technologies.

Accordingly, its role in achieving training and rehabilitation objectives using modern technologies comes in helping with the following: (Ghanem, 2007)

- a. **Sensory Perception:** Illustrations and figures play an important role in clarifying the written message to the reader.
- b. **Comprehension:** Information and communication technology in education helps individuals at different educational levels to easily understand and distinguish things.
- c. **Skills:** Information and communication technology in education is important in teaching individual's certain skills such as correct pronunciation.
- d. **Thinking:** Information and communication technology in education plays a major role in training individuals to think systematically and solve problems. It also helps in diversifying experiences, growing linguistic abilities, building strong concepts, developing the ability to analyze, and using various evaluation methods to address individual differences. This fosters cooperation and the long-term impact of training and learning efforts, developing positive attitudes towards achieving institutional missions and goals to serve the community.

**Potential Use of Communication Technology in Developing Continuing Education Programs:** It is undeniable that the development of educational programs is crucial for all countries, especially Arab nations, which are grappling with technical illiteracy. They understand the need to incorporate communication and information technology into continuing education programs to overcome this challenge. Embracing technological educational development is essential for their progress, and they aim to catch up with the West's advancements in a shorter time frame. Communication and information technology play a significant role in education, training, and overall social and economic development. By utilizing technological resources, such as satellite channels and electronic networks, and producing advanced educational programs, societies can achieve educational prosperity and societal advancement. Information and communication technology contributes to raising the local educational standards by defining educational materials, exploring new uses of available information, and continuously improving educational programs. Additionally, it plays a crucial role in the spread of new educational methods through various media channels. As a result of modern technical advancements, global media and communication technologies are shaping new forms of competition. This necessitates that Arab countries update their curricula and educational programs to keep pace with the global village that the communications and technology revolution has created. Modern information and communication technology plays a crucial role in the development and future of continuing education. It aims to find better ways for institutions to conduct continuing education, identify more effective methods for developing individuals, and solve issues related to time, effort, communication, and speed. This is essential for improving digital education resulting from continuing education, benefiting both institutions and the state as a whole. Modern education requires the integration of advancements in information, communication, and technology with digital educational programming in various sectors such as industry, agriculture, trade, banking, finance, health, and international educational institutions. Information and communication technology assists in understanding the impact of education on society, identifying educational problems, and proposing practical solutions. It also enables the production of modern and diverse media programs to meet specific needs, including technologies for capture, transmission, storage, feedback, services, entertainment, and learning: (Al-Hailat, 2015)

1. **Economic Motive:** The media and communication industry is the main driver of the knowledge economy and provides most of the means for increasing the productivity of continuing education programs.
2. **Social Motive:** The rapid movement towards the desired learning society will lead to an explosion of information and

educational content. It is a society based on collective intelligence and collective memory, and it also has its collective consciousness represented in its knowledge and experiences. The information society is characterized by its rapid response and adaptation, its great appetite for consuming knowledge, and its superior ability to produce it.

3. **Cultural Motive:** As a social system based on values, beliefs, knowledge, arts, customs, social practices, and lifestyles, all of which are dense with information and communication content. As a motive for belonging, it expresses the heritage, identity, and daily life of the cultural group, and the information and communication technology industry is an effective means of preserving this heritage. As a means of communication through the transfer of patterns of relationships, meanings, and experiences between generations.

Given our grasp of information and communication technology and the continuous evolution of educational programs, along with the substantial challenges in this field, it is crucial to set a future vision for continuing education. This vision should concentrate on the primary areas where continuing education can be used and leveraged effectively.

**First: Developing the philosophy of continuing education through participation in media activities and programs:** It is crucial to enhance individuals' and societies' ability to keep up with modern developments in various fields. This philosophy is based on the idea that learning is an ongoing process that requires continuous participation in educational, cultural, and community activities. These activities include: (Abu Al-Ela, 2013).

#### 1. Promoting general culture:

- Media programs contribute to raising individuals' awareness about various scientific and cultural issues.
- Visual, audio, and electronic media can provide simplified educational content, making learning accessible to all age groups.

#### 2. Integrating learning with daily activities:

- By integrating education with daily activities, such as practical workshops or sports and cultural activities, individuals can develop their skills informally.
- Group or community activities provide an interactive environment that enhances the learning process.

#### 3. Interactive media programs:

- Television or radio programs, and digital platforms that allow interaction with the audience, contribute to enhancing continuous education by providing opportunities for discussion and asking questions.
- Educational media programs may include mini-training courses, interviews with experts, or providing new educational experiences.

#### 4. Employing modern technology:

- The Internet and electronic educational platforms provide a vast amount of content available to everyone, which supports continuous education.
- Social media plays a role in spreading knowledge and educational experiences through educational videos, podcasts, and articles.

#### 5. Encouraging community participation:

- Promoting community participation through media activities, such as volunteering and awareness campaigns, enhances the concept of lifelong learning. Engaging in these activities allows individuals to apply their knowledge and acquire new experiences.
- Furthermore, media can advocate for community values like cooperation, collaborative learning, and involvement in educational community initiatives.

#### 6. Developing critical thinking skills:

- Continuing education necessitates the cultivation of critical and creative thinking skills. Media programs that concentrate

on analyzing societal and scientific issues aid in the development of these skills.

- By broadcasting discussions and debates through the media, individuals can enhance their capacity to think in new and innovative ways.

#### The media plays a crucial role in supporting continuing education by

- Sustainably disseminating knowledge: By regularly airing educational and documentary programs, the media helps improve general knowledge.
- Targeting different groups: The media can reach diverse segments of society, including different age groups, educational levels, and interests.
- Providing new educational opportunities: Some media channels and electronic platforms offer specialized educational programs, such as language learning, programming, and arts.

**Second: Studying educational issues:** The vision is based on developing the study of educational issues through media and communication means through media and advertising messages via local and satellite radio and television, which are useful in helping society at different educational levels to understand the elements of the issue, the reasons for its emergence, and the methods of preservation that must be taken. Educational issues do not only include problems, but also address useful procedures, such as training, developing skills, or following educational study programs, etc. The study of educational issues requires considering three things:

1. Selecting important issues related to the daily lives of individuals or society and what the media publishes about them continuously.
2. Following the discussion method in addressing the selected issue because discussion helps the learner understand himself and bring about a positive change in his behavior, and helps to express himself in a correct language and to think logically and respect others.
3. Presenting the content of the media material about the issue in a specific organization so that the recipient or learner can understand the diversity of its status and realize the mutual relationships between them.

**Third: Role Exchange:** This strategy focuses on using role exchange between media and continuing education programs to address educational problems. The approach involves testing a specific problem, identifying groups of individuals with intersecting interests, assigning roles to them, representing these roles through media and communication, evaluating performance, and analyzing the results. The philosophy behind role exchange recognizes the complex and interconnected nature of issues related to media technology and educational programs. It acknowledges the conflicts between individual and societal interests, as well as conflicts within educational institutions and among stakeholders. The goal is to balance personal freedom with the common good and to address challenges such as the abundance of media and communication means and educational institutions.

**Fourth: Decision-making Philosophy:** Empowering community members to make informed decisions about educational issues is a key objective of educational programs. Achieving this goal requires engaging individuals and communities in discussing realistic educational problems and proposing solutions. Methods such as open and directed group discussions, role-playing, games and simulations, and realistic programs and projects can be used to facilitate problem-solving. These discussions aim to enhance participants' understanding of educational challenges, the responsible use of communication and information technology, and the role of media technology in developing the capabilities of community members.

**Fifth: Programs, pictures, and cartoons (caricatures):** convey messages and allow the reader or viewer to interpret them freely. These drawings can sometimes communicate messages more effectively than entire articles. Cartoons are important for developing thinking skills, encouraging acceptance of others' opinions, shaping trends, enhancing educational values, and upholding the value of education.

## CONCLUSION

Modern communication technology and its techniques play a significant role in reshaping the concept of continuous education. They provide individuals with flexible and customized lifelong learning opportunities. This technology not only offers diverse educational content but also provides tools that encourage interaction and collaboration. This enhances learners' ability to keep up with the rapid changes in knowledge and skills required in the labor market and society.

### Internet and E-Learning Platforms:

- **Distance Learning Platforms:** Platforms like Coursera, UdeMy, and EdX offer a wide range of educational content in various fields, allowing individuals to follow training courses at their own pace.
- **Web 3.0:** As the Internet evolves into the third generation (Web 3.0), the ability to customize educational programs based on the learner's needs will increase. This means that each learner will receive a unique learning experience tailored to their level and interests.
- **Interactive Content:** The Internet provides the ability to publish interactive content, such as educational videos, e-books, and self-tests, enhancing understanding and making learning more engaging.

### Mobile Learning

- **Educational Applications via Smartphones:** With the widespread use of smartphones, integrated educational programs are accessible anytime and anywhere. Examples include language learning apps like Duo lingo and programming learning apps like Solo Learn.
- **Smart Notifications:** Notification technology is used to remind learners of important activities and appointments, ensuring continued follow-up and motivation for continuous learning.

### Artificial Intelligence (AI) and Machine Learning:

- **Intelligent Adaptive Systems:** These systems use AI to analyze learner performance and provide personalized content that matches the individual's level of progress. AI can analyze patterns and make recommendations for individual learning based on the learner's actual needs.
- **Smart Assistants:** Robots or intelligent systems like Chabot's provide immediate support to learners, answer their queries, and direct them to appropriate resources.

### Blended Learning

- Combines traditional education with online education, allowing learners to combine in-person classroom attendance with reliance on technology to complete what they have learned.
- Uses tools such as video lectures and virtual classrooms that can be attended online.

### Virtual Reality and Augmented Reality

- **Learning via Virtual Reality:** Virtual reality technology provides immersive learning environments where learners can

interact with content in three dimensions, particularly useful in fields that require practical applications such as medicine and engineering.

- **Augmented Reality:** Virtual elements can be combined with physical reality to enhance the learning experience. For example, learners in classrooms can interact with 3D models through their phones or tablets.

### Social learning through social media

- **Social networks:** Platforms such as Facebook, Twitter, and LinkedIn are used as tools to support continuous learning through discussion groups and educational forums that allow the exchange of ideas and resources among learners.
- **Community-based learning:** Social media provides a fertile environment for collaborative learning, where learners can share content and resources, and participate in joint projects.

### Gamification

- Some modern educational programs use game elements such as points and rewards to encourage learners to interact with the content and continue learning. This type of learning motivates individuals to interact and achieve, making continuous learning more fun and effective.

### Cloud computing technologies

- **Access to educational resources:** Thanks to cloud computing, learners can access their educational resources anytime, anywhere, making it easier for them to continue learning without time or space restrictions.
- **Storage and sharing:** Cloud technologies make it easy and quick to store and share study files with colleagues or teachers.

### Live Streaming and Educational Videos

- **Webinars:** Webinars and video content provide opportunities for live, interactive learning, where learners can participate in discussions and ask questions to experts.
- **Educational video platforms:** Platforms such as YouTube and TED provide easily accessible educational visual resources.

### Personalized Learning

- Through technologies such as artificial intelligence and data analytics, educational programs can be designed to suit the learner's level and interests. This encourages continuous learning because it more accurately targets individual needs.

The fundamental feature of modern information and communication technology is the integration of information technology with wireless communications technology, as well as audiovisual elements, combining text, sound, and image. It's evident that today's society has become increasingly reliant on various forms of communication, making it an urgent necessity of our time. The ongoing technological revolution has significantly impacted the lives of individuals and societies, with the educational field being the most affected. This has led to the widespread adoption of continuous digital education, highlighting the extensive integration of modern technology into educational and institutional activities at various levels. This new educational environment has not only transformed institutional behaviors and relationships but has also influenced the development of skills and preferences, such as the use of more advanced multimedia devices and rapid communication methods. The significance of communication, particularly remote communication, has become prominent, necessitating the continuous development of communication and information technologies. Today, we no longer refer to mere means of communication and information, but rather to

their modern technologies, which have effectively achieved practical goals for educational institutions across different fields and levels. In this context, continuous education is crucial for national survival, enabling resilience. As some philosophers have said "I doubt, therefore I am" or "I think, therefore I am", Edgar Foer's statement "I learn, therefore I am" resonates deeply. He expressed this idea in his report to the World Educational, Scientific and Cultural Organization in 1972, encapsulating it with "Learning to be".

## REFERENCES

- Abdul Wahab Bin Brika and Zainab Bin Turki, The Impact of Information and Communication Technology in Driving the Wheel of Development, (Baksra: Al-Baheth Magazine, Issue Seven, 2010)
- FadilDalio, Communication: Its Concepts, Theories and Means, (Cairo: Dar Al-Fajr for Publishing and Distribution, 2013),
- Ibrahim Bakhti, Information and Communications Technology Industry and its Relationship to Performance Development and Enhancement (International Scientific Conference on Performance and Excellence of Organizations and Governments, University of Ouargla, Faculty of Law and Economics, March 2018.
- Jamal Lamara and Malek Alawi, The Impact of Using Information and Communication Technology on the Management of Human Resources in Small and Medium Enterprises, (The Second International Conference: The Impact of the North/South Digital Fraction on the Management of Small and Medium Enterprises, Algeria, April 2017).
- Khalil Mohammed Abdullah, The Effect of Using the Self-Regulated Learning Strategy in Teaching the Arabic Language on Developing Creative Reading Skills for the Third Intermediate Grade, *International Journal of Research and Studies Publishing*, June 2024.
- Malek Alawi, The Impact of Using New Information and Communication Technologies on the Management of Human Resources in the Public Sector, Master's Thesis, University of Mohamed Khider - Algeria, 2016.
- Masari' Al-Rawi, Integration between the Fields of Literacy and Formal Education within the Framework of Lifelong Education (Baghdad: Conference on Compulsory Literacy, 2021).
- Mohamed Ali Abu Al-Ela, International Media for Communication Technology, Dar Al-Ilm for Publishing and Distribution, 2013
- Muhi Muhammad Mas'i, The Phenomenon of Globalization: Illusions and Realities (Cairo: Al-Sha'aa Printing and Library, 2019).
- Musa Muhammad Aqili, Self-regulated learning strategies to develop reading skills and raise academic self-efficacy, 2016
- Mustafa Qasim Al-Hailat, Self-Regulated Learning Strategies: A Comparative Study, The Second International Conference for the Gifted, United Arab Emirates University, 2015
- Nasser GhanemKhamis The effect of the training program on self-regulated learning based on the theory of social cognitive learning and self-efficacy, 2007
- Nouri Mounir, Barak Naima, and MadahAraibi Al-Hajj, Information and Communication Technology and its Importance in the Economies of Arab Countries to Keep Up with the Challenges of the New Global Economy (Algeria: Hassiba Ben Bouali University, 2020).
- Sharif Darwish Al-Labban, Communication Technology: Risks, Challenges and Social Impacts (Cairo: Dar Al-Masryah Al-Banania, 2010)
- Souad Boumaiel and Faris Boubakoura, The Impact of Modern Information and Communication Technology on the Economic Institution (University of Tlemcen, *Journal of Economics and Mines*, Issue 3, March 2014)
- Working Paper on the Media Society, a working document proposed by the Organization of the Islamic Conference to the World Summit (Tunis, 2015)

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