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مجلة اليرموك تصدرها كلية اليرموك الجامعة

Information and Communication Technology (ICT)

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الملخص

في هذا البحث المقدم تناول الباحثان موضوع تكنولوجيا الاعلام والاتصالات واهميتها خصوصا بعد الجائحة ولما لها من اهمية في تحديد الاستراتيجيات الخاصة بالبلدان وسياساتها السياسية والاقتصادية بعد الثورة التكنولوجية واهميتها في الوصول الى الاهداف المدروسة والمخصصة لها في إنتاج المزيد في وقت أقل، مما يجعل تكنولوجيا المعلومات والاعلام وسيلة مهمة وضرورية للوصول إلى هذا الهدف، بعد الحاجة الملحة لأداء العديد من المهام في وقت قصير لتلبية الاحتياجات التي تطلبها الأسواق العالمية والمحلية من الخدمات والسلع كما تناول البحث تاريخ تكنولوجيا الاعلام بالعهد البابلي وتطور الخوارزميات ونشاتها في ذلك الوقت ومن ثم الايجابيات والسلبيات لتكنولوجيا الاعلام واخيرا الاستنتاجات.

Abstract

Information and communication technology is a set of technological tools and resources for the transfer, recording, creation, sharing or exchange of information, including computers. Before the pandemic, the importance of ICTs was growing in the world day by day, specifically in major industrialized countries. It is considered the cornerstone of industrial and political strategies aimed at strengthening the national economy, uniting the country and better positioning itself in the global economic system. Since the technological revolution, man has been in a race against time. This race is increasing with every evolution in technology. Thus, companies and institutions (public or private) seek to produce more in less time, which makes information technology an important and necessary means to reach this goal, after the urgent need to perform many tasks in a short time to meet the needs required by the global and local markets of services and goods. Just as railways were seen as the physical link connecting regions and countries, technologies and communication networks are now seen as a means of promoting economic development and dialogue, and facilitating the dissemination of shared views and knowledge within and between countries.

Introduction

ICT The saying "the world is in your hands" is the positive face of the use of ICT. But the continuation of the saying "while you are in the hands of the world" is its negative side. A large part of the research and development of information and communication technologies is within the military budgets of the great powers. The origin of the idea of information and communication technology "information is power". This is the principle on which information and communication technologies were founded and for which advanced communication technologies offer economic, political, military and, above all, enormous intelligence. Much of ICT-focused R&D has been funded from the military budgets of great powers, which continue to invest in this area., the Internet (websites, blogs, e-mail), technologies and devices for direct broadcasting (radio, television, webcasting), indirect (audio broadcasting, audio and video players, recording media), telephony (fixed or mobile, satellite, video conferencing, etc.)The concept of "new information and communication technologies" is often used as synonymous with the Internet with all that is supposed to be used by computers

and various networks for telecommunications, making it possible for users to communicate with each other and connect them to information.Experts credit the invention of communications networks to the inventor and engineer of the American network Paul Baran, the British computer scientist Donald Davies, and the American engineer and computer scientist Leonard Klein rock. Who worked on the invention of the parcel transfer network, which is the backbone of the Internet. But France has a different opinion on this issue.Buzyn invented the data chart, the world's only invention, which enabled the invention and launch of Internet networks as we know them today. Luis Buzyn had really invented the design of data transmission networks.
France abandoned the Cyclades network but the Internet was not developed in France, and the Cyclades network was abandoned, for reasons related to the interests of the representatives of the "telecommunications establishment" of the time, which is at the origin of the invention of the Minitel, as well as the conflict between the two industrialists, between the former president of CGE Ambroise Roux and the former president of Thomson Paul Richard. Thomson wanted to compete with the CGE and prevent it from gaining too much power. Ambroise Rowe advised (late) President Valéry Giscard d'Estaing to abandon research on the datagram and focus on democratizingAmericans Vint Cerf and Bob Kahn confiscated the invention of the data diagram, which Louis Buzyn shared with European and American scientists with the aim of developing a common international standard. Cerf and Kan set out to create their own network, after slightly modifying Buzyn's chart so that they could register it in their own names.

Algorithms

A computational method known 4,000 years ago to the scientists of Babylon as for the algorithms on which the factors of building and designing programs and computer operations are based, the American computer scientist and mathematician Donald Knuth says that it was a computational method known to the scientists of Babylon. In 1972, Knoth published his book The Old Babylonian Algorithms, where he provided the first English translations of cuneiform mathematical tablets. The history of the tablets he studied ranged from 1800-1600 BC. "Computer science is not a recent phenomenon but deeply rooted in history. So, it's natural to go back to the oldest remaining ancient documents dealing with arithmetic, and examine how they approached this topic almost 4,000 years ago.He says of "Babylonian programming" in his book that "the work of Babylonian mathematicians was not limited to addition, subtraction, multiplication and division; they were adept at solving many types of algebraic equations. They made use of their eloquent astronomical sciences in their automated algorithms using clay and wood, as a quick form of calculations in large commercial operations in markets and between caravans, and in the architecture that characterized the city of Babylon, from hanging gardens to irrigation systems that revolutionized the agricultural development of Mesopotamia, the cradle of human civilization.He shed light on the algorithms used in the Iraqi city of Babylon 4,000 years ago, and their importance in combining ease and accuracy that were scientifically and early established for computer science. Knuth said those disks "contain materials that are of great mathematical importance in determining root 6 for calculations. The unit of time of 60 minutes and 60 seconds is a relic of the living Babylonian influence on today's world.

Pros and cons of ICT

New technologies are often presented as solutions to economic and social problems, with the potential for financial gains and greater freedom at work and in society. However, not all of the effects that new technologies can have been unpredictable, and when the advantages of new technologies are promoted competitively, the disadvantages and adaptation problems they can cause are often overlooked and sometimes even hidden.

Pros of ICT:

1- Gaining time and increasing production.
2. Preserving and protecting information and making it accessible to you.
3- Helps expand the scope of administrative controls and in some cases improves the efficiency of large organizations.
4- Ease of communication between employees, companies, customers, supervisors and others.
5- Work remotely, employees can work from home remotely through IT systems.
6- Reducing the cultural gap between groups of society

Disadvantages of information and communication technology:

1- Lack of need for manpower in the labor sector, which causes a reduction in available job opportunities.
2. Sharp decline in privacy protections.

3. The stored information is exposed to security breaches.
4- The widening cultural gap between those who have access to a large amount of information, and those who do not.
5- High cost of implementation and maintenance.
6- Loss of traditional communication language
7- Excessive commercial exploitation of the Internet.
8- The shift in work and wages, towards models that harm the most vulnerable groups in society, due to the way of working imposed by these technologies.

Conclusion

In this research paper, we dealt with the subject of information and communication technology and its relationship to the media and its development, as we touched on the emergence of media technology, its pros and cons, and we concluded the following:

-Workflow Stream: Provide a set of tools, processes and methodologies that facilitate the business process and achieve the organization's objectives such as coding, programming, data transfer, storage, retrieval, systems analysis, design and control, as well as associated equipment used to collect, process and present information.

- Stores and protects: Electronic storage, protection of various records of institutions. Provide the necessary information and communication to decision-makers. Safe maintenance of customer files, ensuring the vitality and integrity of the work. Protect electronic information from hacking or eliminate it during any technological defect or malfunction. Facilitate the work of employees in the performance of their tasks, and the ability to track projects and monitor financial statements easily. Control access to, modify, transfer and delete information and data stored in databases. The ability to access the electronic network for remote work, so that employees can work from home or anywhere else.

- Facilitates communication Facilitate communication between employees and customers and facilitate the process of promotion in the business world through e-mail, video conferencing, and internal chat rooms.

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