

"Information Technology and its Role in Community Developing"

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Abstract:

This study is considered a part of the scientific attempts to identify and comprehend the role of Information Technology(IT), its significance, its various tools and how we can deepen the role of this new technology in light of the concept of knowledge society and how to use (IT) for community development. The most important finding of this study is that the use of IT has a fundamental role in universities and schools; it provides new systematic principles for community development.

Keywords: Information technology, community development tools, information and communications technology.

1. Introduction:

Computer is considered the most important aspect of technological development of this century; it's being used in many fields of our lives, particularly IT. Its importance in universities and schools has emerged just after the discovery of e-mail network and Internet. Therefore, many universities and schools in many countries around the world are being connected with each other and with information centers via this developed network. It turns to be an integral part of the common school culture and it becomes an important source of teaching and learning inside the class due to the capability of this technique to provide information from all over the world and make it accessible for both of the teacher and the learner through the computer screen. The modern technology has brought about a revolution in how education works. In the future, both teaching and learning processes is going to depend mainly on the computer. It allows self-study and personal training, contrary to the past era where education was limited to rich people⁽¹⁾.

Information Technology means to use the modern technological devices such as computer hardware, data show, internet, networks, and software for educational purposes. It's worth mentioning that the past few years have witness an explosive development in modern technology

and its various appliances in several fields that affects the lives of people and communities. For many technical devices and their applications have the biggest and the widest influenced on them.

As Arabs, no one can deny our need to the best use of this technology in building information community. As well as devoting the knowledge capacity, information technology and communications to help, namely in development for fulfilling the developmental and stumbled targets in some Arabic countries and to connect undeveloped areas with communication networks. Also, to establish community permeation regions, connecting universities, colleges, schools, and scientific research centers with information communication networks. Furthermore, establishing electronic connection between museums, libraries, and cultural centers and networking all central and local governmental administrations with integral information networks; ensuring the people access to this modern technological service.

The Arabic world is convoying with a small part in the information explosion. Yet, it is still at the beginning; either in terms of the nature of its usage and its fields, in terms of its best use, which varies within the same country and among the Arab counties in serving their cases and matching the real needs of the community, or in terms of the misuse of technology. The later has led to emerging inappropriate instances for developing and acquiring modern technological knowledge. The worst is that some people believe that the solution lies only in possessing technology.

2. Previous Studies:

Many scientific studies and researches discussed the role of information technology in community development. Some of which are shown below:

1. A study by (Salamah, 2006) which aimed at identifying the technical reality of the teaching staff at the Faculty of Teachers in Al-Riyadh and he proposed a technical model for developing. The results indicate weakness of the current reality in the information and education technology of the teaching staff. According to these results and other studies, an appropriate technical model specified for the teaching staff at the Teachers College in Al-Riyadh in particular, and for the Teachers College in Saudi Arabia in general was suggested.

) It was on a program consisting of eight teaching units, ٢٠١٠2. A study made by (Al-Jandi, concerning about the cognitive economy, its importance, its methodologies, its various tools and how to deepen students' comprehension to this new kind of economic knowledge in light of the concept of knowledge society and the use of Information and Communications Technology (ICT) for economy growth.

3. A study carried out by (Mohammed, ٢٠٠٩) the study based on analytical descriptive method to deal with its various axis in order to achieve its principle goals. The study concluded by remodeling a vision exploring the theoretical delimitations and the appropriate applicable mechanisms for gaining effective returns from the international information technology and Internet in the Arab societies.

4. The Researcher (Al-Jaboury, 2007) discussed the purposes and findings of the concrete changings in the information system's structure based on the usage of IT. These evolving attempts lead to the development of technological data processing and to the break out of a new deviation that matches the revolution's methods, styles and qualities at designing an accounting information system. The intensive usage of IT in accounting information system has led also to the birth of new processing styles, models and untraditional communicating channels to conduct accounting information. There is a range of logical reasons that lie behind the consideration of IT as unqualified designed coefficient for building modern accounting information system. One of the most important reasons to be mentioned is the competitive advantages that are used as qualified usages of IT especially in cost discounting, as well as increasing the business organizations' incomes. In addition, this research covers the changes in accounting information system's structure especially in accounting data array's skills, culture and education.

5. Another study by (Al-Oroud & Shakar, 2009) aimed at exploring the effects of IT quality in internal efficient auditing in the public industrial, service and contributive Jordanian companies. The study recommends improving the information features as a dimension to the quality of IT and the important need to develop the skills of the IT sector workers through using modern technology.

6. Both (Hamdi & Al-Balawi, 2001) aimed at identifying Jordanian teachers' willingness of getting along with future challenges in using ICT in the educational field. The study came out with the following results:

Teachers have high willingness to get along with future challenges of using ICT in educational field.

Teachers, in spite of their different academic levels, have high willingness to accept their future roles as provided by ICT; In contrast, there are variation in degree of willingness for different genders and experiences for males and those with short-term experience.

7. The researcher (al-jedah, 2008) studied the role of ICTs. The purpose of this study was to identify the level of ICTs tools used in Jordanian industrial companies and analyzing the relationship between these tools and the organizational performance. The FAX was ranked (number one) for being used in the Jordanian industrial companies dealings with their suppliers. Whereas, the phone possessed the first rank in the information exchanges among the working teams and their administration, exchanging special information about manufacturing operations, exchanging strategic information, company dealings with customers and communications between circuits and departments. It was proved that there were positive relations between the use of ICTs tools and the entire performance of business. There was also a correlative positive relation between Internet use and working as one team.

8. (Salam's, 2006) research aimed at proposing a model for an electronic learning environment of mobile learning in the universities of King Saud. The researcher used Delphi's style for achieving these goals. The study community and the sample of the research are a group of IT experts and education technological experts from the Saudi Arabia Universities and the Jordanian Universities. An analytical descriptive method was used for being the appropriate method for such a study. The study came out with several findings; the most important are as follows:

1. Identifying the educational standards in mobile learning environment.
2. Identifying the technical standards in mobile environment science.
3. Identifying features proposed for the model of mobile learning environment to The University of King Saud. According to the findings, the researcher recommended the followings:
 1. The University of King Saud has to authorize this proposed environment of mobile learning model for its appropriate social status to the woman in the Kingdom.
 2. The administration of the university has to look after several things before applying this model, such as: transforming current courses to digital courses; Spreading out the e-learning educational culture among the teaching stuff and students; Monitoring the budget required to apply this model.
 3. The administration of the university has to conduct studies including: the application calendar of this model, attract the trends of faculty members and students toward it, and obstacles faced in applying it.

9- The study of the researchers (AL-Dajani & Wahbh, ٢٠٠١) aimed to find the difficulties and problems that limit teachers of using internet for teaching and learning proposes. The researchers used interview method to collect data from teachers. The results of the study indicate that the difficulties facing teachers are: lack of training and technical support, cost of computer and high

communication, concerns and fears of using Internet, negative tends to Internet usage, fear of students' access to non-educational sites, information dispersion on the Internet, and the inadequate knowledge of English. The study ended by significant group of recommendations related to the subject.

10- The study of the researchers (Salhieh & Abu-Doleh, 2007) focuses on the investigation of the Psychometric balance of “IT usage” tool and “IT Satisfaction” tools (The Pativia's and Palivia's (1999), when applied to the Jordanian user. This study also used legal analytical method to investigate the causation relation proposed by success model. The results of the study showed the reliable measurement of the two tools, which enhance their generality. From another point of view, the legal analysis has shown a causal relationship between using IT and level of satisfaction to the Information Technology, and the results illustrate some differences between the useful and unuseful variants in both two tools.

3. Research Methodology:

Descriptive analytical methodology is used in this study for being the appropriate method to use for studying a phenomenon as in this research. Moreover, the descriptive method is a way of interpreting and analyzing scientifically and systematically for the proposes of accessing specific purposes of social or human problem. The adopted description expresses the phenomenon as well as its features; On the other hand, the quantitative description provides it with digital description and illustrating the quantity and size of this phenomenon as well as its degree of association with other phenomena. Secondary sources are used in this research such as books, specialized scientific magazines and network. While special questionnaire which was designed for this research as primary sources.

4. Field of Study:

This research determines the importance for teachers to use IT represented by modern technological tools such as computer hardware and data show during teaching process in all departments at the University of Science and Technology / Taiz.

Research Questionnaire:

The research aims to identify the importance of using information technology by the teaching staff at the University of Science and Technology (UST) / Taiz. A technical model is proposed for developing and achieving these goals, and questionnaires are distributed to the teaching staff with different departments at UST. More specifically, the study tries to answer the following questions:

What is the importance of using IT by the teaching staff at the university? To which extension does the teacher's inclination reaches in using educational technology innovations at UST / Taiz?

Are IT tools available at UST / Taiz?

What is the degree of IT usage by teaching staff at UST / Taiz?

Do you support the idea of obligating teachers for using both computer and data show during teaching process at UST- Taiz?

What are the best proposed methods of generalizing the aim of involving information technology in education by the teaching staff?

Questionnaire Results:

After distributing the questionnaire among the teaching staff at UST / Taiz, the analysis of the questionnaire shows that: -

- 1- Different age groups apply information technology differently and there is no relationship between age and information technology usage.
- 2- It's been found that 60% males are used IT tools comparing with 70% of females.
- 3- The research results divide the departments according to the use of IT tools such as follows: Only 55% of IT teaching staff are used IT tools, comparing with administration sciences department's teaching staff reaches about 45%, while in medical department it's up to 80%, in contrast to English department's teaching staff that makes only 66%.
- 4- It's been noticed that Ph.D. owners use IT tools by 37% while master degree holders use IT tools by 60% whereas Bachelor make up 72%.
- 5- 40% of teachers are concerned with using IT tools by 100% while 55% of teachers are interested on using IT tools by 75% however, 5% of teachers are attentive to the importance of using IT tools by 5%.
- 6- It was found that 40% of teachers would like to use IT tools by 100%, and 55% of teachers who want to use IT tools by 75% where 5% of teachers want to use IT tools by 50%.
- 7- Its worth mentioning that 20% of teachers provide this research with information about the availability of IT tools by 100% while 30% of teachers said that IT tools are available by 50%, where 20% of the teachers state that IT tools are available by 25%.
- 8- 10% of the teachers declare their use of IT tools by 100% while 60% of teachers assure the use of IT tools by 75% where 10% of teachers who use IT tools by 50% and 10% of teachers assure their use of IT tools by 25%.
- 9- 36% of teachers admit the importance of obliging teachers to involve IT tools by 100% as a duty, 36% of teachers describe the importance of obliging teachers of including IT tools by 75%, while 15% of teachers admit the importance of obliging teachers to involve IT tools by 25%.
- 10- 31.8% of teachers determine the importance of obligating teachers to involve IT tools by while 27% think of using IT tools is potential to the teacher. Where 31.8% of teachers encourage teachers to use IT tools. 10% teachers assure the presence of understanding among teachers for the use or IT tools

11- The most important difficulties in use of information is in the absence of tools, where 27% of teachers assure that unavailability of information technology. 41% teachers described that IT tools are not appropriate using with some courses. 18% of teachers declare that IT tools need large time to be prepared, while 14% of teachers believe that there are no difficulties in using IT tools.

7. Conclusion:

This study is a scientific purposive attempt to observe and assimilate the role of information technology represented by using data projector and Power Point program for teaching proposes at universities. The study shows that there is a huge number of teachers who use IT for teaching while another percentage shows the opposite here comes the importance of availing IT tools; Therefore, the unavailability of these tools is considered as a main reason of non-use. This clarifies the essential need of encouraging IT tools application for teaching. A huge number of teachers obligate the use of information technology in teaching while another ratio has been inspiring and encouraging the use of IT for teaching, and how to deepen the understanding of the role of this type of new technology in the concept light of the society knowledge and the development of society. One of the most important result reached in this research is that use of information technology in universities and schools, which builds the true methodology rules of the society development.

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" دور تكنولوجيا المعلومات في تنمية المجتمع "

ملخص البحث:

تدرج هذه الدراسة ضمن المحاولات العلمية الهادفة لرصد واستيعاب دور تكنولوجيا المعلومات وأهميته وأساليبه وأدواته المختلفة وكيفية تعميق فهم دور هذا النوع من التكنولوجيا الجديدة في ضوء مفهوم مجتمع المعرفة واستخدام تكنولوجيا المعلومات في تنمية المجتمع. ولعل من أهم النتائج التي تم التوصل إليها في هذا البحث، أن استخدام تكنولوجيا المعلومات له دور أساسي كبير في الجامعات والمدارس والذي أرسى قواعد منهجية جديدة في تنمية المجتمع.

كلمات مفتاحية: تكنولوجيا المعلومات، أدوات تطوير المجتمع، تقنية الاتصالات والمعلومات.