Information Technology: Its Impact on Teaching and Learning in the Educational Sector

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Abstract
ICT has become an integral aspect of human existence, allowing people to do more in less time and money. The rapid speed of change brought about by new technology has had a tremendous impact on how people live, work, and play throughout the world. New and developing technologies are challenging the traditional teaching and learning processes, as well as the way education is handled. While Information Technology (IT) is an essential subject of study in its own right, it has a significant influence on all curricular areas. Easy global connection allows for immediate access to a huge diversity of data, demanding knowledge and assessment skills. Rapid communication, along with expanded access to IT at home, work, and in schools, may result in learning becoming a genuinely lifelong activity, one in which the rate of technological change necessitates regular examination of the learning process itself.

Keywords: Information Technology, Information Management, Learning and Teaching

Introduction

The 21st century is a century of information and knowledge revolution. It denotes the transformation of industrial civilization into information society, and today's richest countries and human societies are those with the most knowledge, awareness, and information. IT will undoubtedly seize leadership in future education. Technology will play a major role in the twenty-first century (Alinston, 2002). As a result, employing IT is increasingly crucial for every firm (Kurupparachchi, Ross &Purne, 2002). Modern firms have expanded their investment in Technology over the previous half-century because they feel it improves organizational performance (Muata, Bryson & Ko, 2003).In organizations, data networks have surpassed social networks in importance, and they are increasingly being integrated. Finally, it should be mentioned that IT application is now a frequent feature of enterprises and has been proven to be a critical component in the success of many firms (McClea&Yen, 2005).

By incorporating IT into teaching and curricular programmes, classroom management was widely revolved and is conducted by a research-based and student-based process. The role of the educators is no longer gathering and transmitting information, but he/she accepts many duties and should be a multi-skilled person. Closed, restricted, and concentrated patterns of educational materials and traditional learning are also converted into open, non-concentrated, and unlimited patterns devoid of time and space limitations and present very procedural results for teaching and learning system. Curricular subjects obtained from technology have multi-dimensional and motional nature and its designers have process-based policy rather than context-based policy.

It is obvious that unilateral material-based systems are indeed being abolished, and educational techniques based on utilizing bilateral values of learning according to new communication systems and video-audio frameworks have been produced. The ineffectiveness of conventional teaching techniques non the modern day is widely acknowledged, and the use of information and computer technology to improve the quantitative and qualitative aspects of the teaching process is unavoidable. Education and technology have long been seen as the primary drivers of human development. Education feeds technology, which in turn feeds education. It is clear that IT has influenced changes in the methodology, purpose, and perceived potential of education. In recent years, the use of IT, which primarily refers to computers and related equipment, has witnessed enormous expansion in service sectors (Berger, 2003). The rising relevance of IT in societal development necessitates an active response to the information society's difficulties.

Technology will undoubtedly rule our present and future. This is an unavoidable truth that we must confront. It has reigned over various aspects of our lives and shaped how we live. Computers, and particularly Internet technology, have unquestionably transformed the world of education. It has an essential but precarious position in this sector. Since the introduction of technology-based class structures, the student-teacher interaction has shifted dramatically. The teacher is no longer the monarch of the classroom, but rather a go-between for information and students. Instead of being a passive sponge, the student is now an active informational architect, acquiring, organizing, and displaying information. At the turn of the century, two-thirds of instructors polled said they were not comfortable utilizing computers, leaving tech-savvy pupils in a position to help the teacher with technology-based lesson plans. For kids, the

Internet has opened them a world of possibilities. Information and ideas that were previously unavailable are now just a click away.

On a worldwide scale, students of all ages may connect, share, and learn. Success in tough technological tasks, as well as social networking sites like Facebook, can contribute to an increase in self-esteem. The most persuasive argument is the environmental impact of e-mail and online drop boxes. Classrooms have changed dramatically in the last century. The influence of technology is clear; the computer has replaced the traditional classroom. Traditional classrooms were transformed into virtual ones, and traditional professors were transformed into virtual instructors. What was long thought to be an insurmountable task of teaching. Thanks to the introduction of computers and the internet, it is now feasible to communicate with someone at a remote location without physically traveling there.Traditional chalk board settings have given way to digital projectors, interactive boards, and even the transformation of a physical library into a virtual library. Books that were formerly a burden due to their size and weight can now be digitally compressed into a convenient storage device. Finding and retrieving information has never been easier.

The existence of a technological gap presents an opportunity to leverage IT-supported education technologies for improved education delivery, simpler access to a variety of information sources, network sharing, and quality remote learning in higher education. The purpose of this study is to examine the good and bad effects that the IT has on teaching and learning, particularly how it may be utilized by experts in IT sectors, inspiring, and leading. Also noticed are the future consequences we may expect from the usage of the Internet and IT in the mentioned subject, as well as the management and exploitation options for the inevitable upcoming changes.

Significance of IT in Educational Sector

In this day and age, IT provides a wealth of resources to improve teaching and learning skills. It is now possible to deliver audiovisual education using IT. With this colorful and wide technique now included IT curriculum, students are encouraged to view computers as instruments to usein every area of their studies. They must, in particular, employ new multimedia tools to express ideas, define projects, and organize information in their job. In this day and age of computers and online networks, the pace of imparting knowledge is extremely

rapid, and one may be taught at any time and from any location. New IT is frequently brought into well-established habits of working and living without fundamentally affecting them.

For example, despite the fact that typewriters have been replaced by personal computers, the conventional office, with secretaries working at keyboards and notes written on paper and physically exchanged, has remained relatively stable. IT has now made it possible to study and teach in groups or clusters. Efficient postal networks, the telephone (fixed and mobile), and different computer-based recording and playback technologies all play a role in educational broadcasting in the new century. Audio-Visual Education is the planning, preparation, and use of technologies and materials for educational objectives that incorporate sight, sound, or both. television, Still and motion images, filmstrips, audiotapes, records, transparencies, teaching machines, computers, and videodiscs are among the devices employed. The expansion of audiovisual education has mirrored advancements in both technology and learning philosophy.

According to some studies in learning psychology, the use of audio-visuals in teaching offers various advantages. Perception, the process through which the senses gather information from their surroundings, underpins all learning. The higher processes of memory and idea creation are unable to do without preceding perception. People can only attend to a certain quantity of information at once; their choice and interpretation of information is impacted by previous experiences. Other things being equal, it was discovered that receiving information concurrently in two modalities (vision and hearing, for example) is more effective than receiving it in a single mode.

Furthermore, learning is facilitated when content is arranged and visible to the pupil. These findings point to the importance of audio-visual aids in the instructional process. They can aid the most significant aspects, be meticulously arranged, and force the learner to employ more than one modality. The Internet supports hundreds of operational and experimental services like an online library. This internet library has a wealth of information. Learners are encouraged to view computers as instruments needed in every facet of their studies and as part of the IT curriculum. They must, in particular, employ new multimedia tools to express ideas, define projects, and organize information in their job. This enables students to choose the optimal media for delivering their message, organize information in a hierarchical fashion, and connect information together to create a multidimensional document. The impact of IT on the lives of impaired children has been dramatic. IT provides a variety of products and techniques to

educate these underprivileged individuals. People who are severely deaf from birth are unable to learn to talk unless they receive specific instruction at a young age. Deafness from birth results in extreme sensory deprivation, which can have a substantial impact on a person's intellectual capability or ability to learn.

A youngster who develops a hearing loss early in life may not receive the same verbal stimulation as children who can hear. Up until the age of seven, the essential era for brain plasticity exists. Failure of auditory sensory input at this stage leads to failure of synaptic connection development and, perhaps, an irreversible predicament for the infant. A deaf child's academic development may be slower than that of hearing youngsters due to a delay in acquiring language. Scholastic lag accumulates over time thus a deaf teenager may be four or more academic years behind his or her hearing peers. Deaf children who get early linguistic stimulation through sign language, on the other hand, perform academically on par with their hearing classmates. IT usage in classroom is critical to guaranteeing excellence in the educational system. Two essential reasons for using IT in classroom are that learners get familiar with what being taught quickly and it increases the quality and effectiveness of education.

Most individuals nowadays recognize that computers have had and will continue to have a big effect on their lives. Most schools communicate knowledge and information using teaching devices such as slide projectors, overhead projectors, and LCD projectors. However, in the distance mode of learning, other tools such as audio-visual tapes, radio and television broadcasts, teleconferencing via satellite, floppy diskettes and CD-ROMS, and networking via EARNET and the Internet are being used or may be used extensively to impart management education in remote areas. With internet access, learners can access an unrestricted pool of knowledge via Web TV while operating from home. As a result, homes will come to house the Virtual classroom. The best available experts, emeritus professors, and functional specialists can connect directly with a huge number of learners through broadcast television.

They can contain a large amount of information, data, figures, pictorials, papers, and images, as well as audio and video effects. Furthermore, internet communication is a highly beneficial medium for information transfer since classroom scenarios may be replicated at home with access to E-mail and online surfing on the World Wide Web, which is now widely available thanks to the emergence of web television. Computers are useful in the creation of learning

materials. By integrating multiple sorts of information such as clip art, animation visuals, music, speech, and live interaction, a symbiosis benefit may be gained through multimedia. A selected show can be seen at the viewer's leisure rather than when it is broadcast. A multimedia computer may be used for one-on-one teaching with a learner. When compared to television, multimedia systems are seen to be more learner friendly. since it allows them to manage the response of the instruction transmission process based on the learner's grasping ability and preferences, allowing them to purposefully and situationally interface with the available information resources. This simulates a classroom environment on a computer display without the need for an instructor, and the provided package can be perused by the student several times to meet his or her personal learning process.

It is increasingly recognized that IT technologies offer certain relative advantages over traditional methods of information dissemination. This necessitates the use of a computer, which not only facilitates knowledge exchange but also instills skills necessary of a future manager, such as conceptual, behavioral, analytical, and administrative abilities. It is clear that IT has had an impact on the methodology, purpose, and perceived potential of education. While different writers disagree on the extent, acceptability, and ultimate fate of these changes, almost all agree that they have occurred. While education used to be focused on teaching and learning, advancements in IT have caused changes in the goals of education, and education is now increasingly seen as the process of producing, maintaining, integrating, disseminating, and using knowledge.

Knowledge perceptions have also changed; whereas knowledge was once thought to be unchanging, it is now thought to be "revisionary, creative, personal, and pluralistic." Modern IT does not decide the future of education; rather, this "future will rest significantly on how we design the position of technology" in the educational process. IT is used extensively in higher education. Web pages and other information-gathering gadgets have become a vital part of our everyday lives in order to develop a functioning document for educators, since they supply substantial information on all elements of our society. This is paralleled in education, where a variety of tools are accessible, IT adds value to conventional teaching techniques, and examples are presented. Despite the ongoing debate about the usefulness of e-learning apps for learning, students choose such approaches as an alternative to traditional methods of delivering learning materials.

In essence, basic technology can overcome many learning hurdles. IT will always be intriguing because it is always evolving, and users, whether students or educators, adapt like chameleons to the ever-changing world. Within the previous two decades, the Internet has become one of the most popular and sought-after technical developments, with billions of people worldwide now using it. It is difficult to dispute that the Internet has had a significant impact on our lives, but should its influence be viewed as more beneficial than detrimental, or vice versa? To find an answer to that question, let us examine the function of the Internet in modern life.

First and foremost, it is crucial to emphasize that the Internet's most significant purpose is as a unique source of knowledge. Every Internet user has free access to various sophisticated search engines, such as Google, MSN, and Yahoo, which can help them discover any specific information or data in a matter of seconds. Furthermore, today's Internet allows users to view videos and TV shows online, read newspapers and books, and download a large number of movies, PC games, music, and software. Without a doubt, the Internet has a significant beneficial impact since visiting numerous educational or amusing websites. For today's pupils, the Internet is a great source of information. It enables access to electronic libraries, e-book catalogues and databases, scientific documents and academic works, news, educational websites, and so on, and may be quite useful while doing academic research and producing course work. The introduction of the Internet into classrooms significantly expands the potential for contemporary education by allowing teachers to use online resources, educational films, programs, visual aids, and so on. Furthermore, the Internet has become an indispensable instrument for distance education, allowing millions of students to obtain their academic degrees regardless of where they are physically located.

The Internet has opened up whole new dimensions for interpersonal and intercultural communication, allowing individuals from all over the world to contact with one another via IM tools, e-mails, online chat rooms, and so on. Furthermore, audio and video chat are now possible, so users can hear each other's voices and see each other's reactions and emotions when conversing. As a consequence, the Internet should be seen as an ideal instrument for finding individuals with similar interests, establishing friends with people of various nations, and learning more about diverse cultures throughout the world. This draws people closer together, which is another extremely essential good effect of Internet technology.

Modern use of internet in educational sector

With the proliferation of unmetered high-speed connections and online applications, the Internet is providing for greater flexibility in working hours and location (Gopal &Gagnol 1995). The Internet may now be accessed practically anywhere via a variety of methods, including mobile Internet devices. Users can connect to the Internet using mobile phones, data cards, portable gaming consoles, and cellular routers from anyplace there is a wireless network that supports that device's technology. Within the constraints imposed by small displays and other restricted capabilities of such pocket-sized devices, Internet services such as email and the web may be offered.

Websites provide educational materials ranging from pre-school to postgraduate levels. It has never been simpler for people to access educational material at any level from anywhere, whether through remote education, help with homework and other tasks, self-guided learning, whiling away spare time, or simply searching up additional detail on an intriguing fact. The Internet, and particularly the World Wide Web, are major facilitators of both official and informal education. Messages may be transmitted much faster and more conveniently than via email. Extensions to these systems may allow for the exchange of data, the sharing of "whiteboard" drawings, or audio and video interaction between team members.

Objective of study

The purpose of this study is to demonstrate how IT has a beneficial influence on the performance of learners in the educational sector, as well as the changes brought about by IT in teaching and learning and in allowing new methods of working. It also promotes free access to e-learning materials, platforms, and programmers.

Research questions

1. What impact has IT on learners in the educational sector?
2. Has IT improved the performance of learners in educational sector?
3. Do learners need to be motivated to acquire IT skills?

Research hypotheses

Ho1: IT has no impact on learners' motivation in educational sector.

Ho2: IT has no effect on learners' improvement in educational sector.

Research Methodology

The descriptive survey research method was used in this study to address the stated purpose and hypotheses. The statistical population in this study included 200 instructors and students from schools in Delta State's Ughelli North Local Government Area. For data collection in this investigation, a questionnaire having 24 items realized using Likert spectrum and assembled proportionally with the hypotheses is employed.

Findings and results

All 200 respondents provided responses to the appropriate questions. The research reveals that the independent variable, IT, and the dependent variable, performance, both provide good effects. As a result, the use of IT has an effect on the educational motivation of learners in the educational sector. As a result, with 99 percent certainty, it may be stated that there is a substantial difference between the observed and predicted frequencies. And this finding implies that the use of information and communication technology has a significant influence on the educational motivation of students. It was also revealed that IT influences student educational performance in the educational sector. As a result, with 99 percent certainty, it may be stated that there is a substantial difference between the observed and predicted frequencies. And this finding implies that IT has an impact on learner educational achievement in the educational sector.

Conclusion

Based on our findings, we believe that IT may significantly improve the performance of students in the educational sector. In this article, we address some of the changes brought about by IT in teaching and learning, as well as in allowing new ways of working. IT tools have several advantages over traditional methods of information sharing. Education and technology have long been seen as the primary drivers of human development. Education feeds technology, which in turn feeds education. As a result, it is clear that it has had an impact on the methods, purpose, andperceived potential of education. The future of education will not be dictated by current information technologies, but rather by how we design the position of technology. This paper advocates for free access to e-learning materials, platforms, and programmers. Traditional examination methods and assessment processes can be enhanced by IT in the present day. Computer technologies expand educational possibilities and help people improve their perspectives. For today's student and human resource worker, the internet is a wonderful source of knowledge. It enables access to electronic libraries, e-books, catalogues, and

databases, among other things. Thus, introducing the internet into classrooms and administrative areas significantly expands the prospects for contemporary education and allows human resources to access online databases/resources.

Recommendations

Based on the foregoing discussion, we offer the following recommendations:

1. In order to compete in today's dynamic and competitive world, schools should utilize IT as a method for imparting knowledge to students.
2. It is critical to launch the internet in classrooms and administrative sectors.
3. It was discovered that schools require assistance in order to properly employ technology to benefit their pupils. The government should grant this assistance.
4. Qualified teachers are suggested to operate the IT equipment required for learning.
5. The government should supply adequate electricity to promote seamless teaching and learning.
6. There should be a strategy in place to identify an e-learning advocate with strong interpersonal skills to promote and encourage IT learning.
7. Schools and government should make available the IT tools required for top performance.

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