New Media Investment In Teaching And Learning: Opportunities And Challenges

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Abstract:

Technological advances in America and Western Europe, primarily the development of satellites, computers and digitalization of space bands are fueling globalization thus raising fresh challenges for public and private sector managers who include mass media in their communication strategies. Therefore, New Media or Internet-based social media such as Twitter, Facebook, and YouTube play a visible role in many of Learning and Teaching manners, especially for foreign audiences experiencing the global digital wave vicariously through real-time Twitter feeds or YouTube videos posted to Facebook pages.. Some major questions may rise from that issue like: How could we surpass the digital divide separating the two-sides of the world? What impact could new media have on our tutors and learners? What about knowledge electronic safety and hacking? What opportunities or challenges may tutors and learners face to transpose and acquire knowledge through New Media? Are they promoting or harming scientific research investment?

الملخص:

أوقدت التطورات التكنلوجية الحاصلة في الولايات المتحدة الأمريكية وأوروبا الغربية، خاصة تطور الساتل و الحواسيب والرقمنة نار العولمة مفرزة انبثاق تحديات جديدة لمسيري كل من القطاع العام والخاص بما فيها مجموع وسائل الإعلام في استراتيجيات التولصل بينها. وبهذا، يلعب الإعلام الجديد أو مايعرف بالإعلام الإجتماعي بالإنترنت مثل تويتر وفايسبوك ويوتيوب دورا هاما في عديد أساليب التعلّم والتعليم، خاصة بالنسبة للجمهور الأجنبي عنها الذي يختبر الموجة الرقمية الكونية بشراسة عبر آراء تويتر الآنية أو فيديوهات يوتيوب التي يتم تداولها عبر صفحات الفايسبوك.ومن هذا المنطلق تنبثق مجموعة من الأسئلة الهامة مثل: كيف يمكننا تجاوز الفجوة القمية التي دفتي العالم؟ وما تأثير الإعلام الجديد على معلّمينا ومتعلّمينا؟ وهل لهذا الإعلام الجديد سلبيات على السلامة الإلكترونية للمعلومات والمعارف المتنقلة كالقرصنة مثلا؟ وماهي فرص وتحديات المعلّم والمتعلّم لنقل واكتساب العلوم والمعارف باستخدام الإعلام الجديد؟ وهل تساهم في ترقية البحث العلمي والإستثمار فيه أم أنها تهدّد صيرورته ونموّه؟

Introduction *:*

In the new millennium, new media must be understood as part of a wider information arena in which new and old media form complex interrelationships. For both Arab youth and globalization, the mass media is a major force that deserves deeper analysis because it plays two simultaneous and profound roles: it, at once, is an instrument of change and a reflection of realities.

It also significantly influences the values, aspirations and lifestyles of some young Arabs. While some Arabs see media as an uncontrollable monster that bombards their society with foreign ideas and values; others view it as the best opportunity the Arab world has had in centuries to interact on an equal footing with the rest of the world.

The world is therefore experiencing monumental changes in information and communications technologies (ICTs). Mobile communications networks are creating a new platform for the exchange of information and knowledge in both developed and developing countries. If leveraged across education and throughout sectors, ICTs, including Internet, wireless networks, mobile phones, and other communication media, can catalyze development and educational and social change, improve wellbeing and expand knowledge and science. In other words, promoting extensive and intensive use of ICTs is a high-powered multiplier and accelerator of development.

Hence, the educational field is not far away from these changes as teachers, trainers, educators and students are moving gradually towards the use of new media in their environment. From middle schools to universities, the use of new media such as Facebook Twitter, YouTube and so forth constitutes an important factor for improving teaching and learning activities so as delivering the information from educators to students and even among students themselves, and many other activities. Meanwhile, as they can be supporting development instruments; they may also constitute daunting ones for the preservation of information and the safety of that transmission via internet.

Internet is used by millions to check emails, to get news and weather information, to look up movie times, to check flight schedules, to update online profiles, and to perform thousands of other activities. In the world of academia, scientists, researchers and students alike all turn to the Internet to solve their educational inquiries.

I. NEW MEDIA, KNOWLEDGE AND THE DIGITAL DIVIDE:

I. 1. New Media and Knowledge Transmission:

Since its creation over forty years ago, Internet has revolutionized the way information is accessed. Communications that seemed impossible not so long ago are now occurring every second with just the touch of a button. One can access websites posted by education institutes around the world or talk with someone from

another country simply by entering a chat room. The amazing possibilities unleashed by this technology seem endless. At the same time, it is not surprising that with the exponential spread of this revolutionary technology in the last twenty years, the world has not had the time or the capability to fully comprehend the many ethical dilemmas that arise with such advancement.

In terms of communication, new media has been recognized as having deeply altered "the information landscape".(1) Studies have revealed that new technology has granted the inhabitants of the Arab world access to novel sources of information.(2) The modern world is undergoing a fundamental transformation as the industrial society of the twentieth century rapidly gives way to the information society of the twenty-first century. This dynamic process promises a fundamental change in all aspects of our lives, including knowledge dissemination, social interaction, political engagement, education, health, leisure, …etc.

The speed of global technological and economic transformation demands urgent action to turn the present digital divide into digital opportunities for all. New information Technology (IT) is almost everywhere and has dramatically altered the way we live. Consequently, the role of IT in our daily life is growing rapidly to the degree that many of us, especially youngsters, have become dependent on, if not addicted to, our mobile phones and personal computers (PCs), which now constitute the principal tools for our interaction,

research, and learning. Although these tools and the related programs they provide have had a rather late start in the Arab region, almost Arab States allow public access to them.

Historically the humanity depends on the information, and new technologies, only change the means and ways of its circulation. It's still very early in the dawn of the digital age in the Arab world. Just as Arab satellite channels helped revolutionize broadcast news; new media is arguably changing the nature of news and community engagement, which continues to evolve with increased convergence of new media and satellite broadcasts, as seen in Tunisia, Egypt, and other countries of the region. Social networking has changed expectations of freedom of expression and association to the degree that individual and collective capacities to communicate, mobilize, and gain technical knowledge are expected to lead to even greater voice, political influence, and participation over the next 10 to 20 years.

The impact of new media technologies will likely be best measured in terms of the emergence of such new kinds of citizens and networks over the next decades, not in terms of institutional political changes over months or years[(3)] ."

I. 2. Globalization and the Digital Divide:

Globalization is therefore considered to be the movement of people, information, goods and service from one country to another, which has led to the spread of cultures around the world and has

greatly influenced them. Through globalization, "selected people, groups, nations and regions of the world get more and better products and services while others receive fewer and poorer ones. Changes within the basic arrangements of relationships between nations typically mean that the privileged become more privileged, while the underprivileged become less so"(4).

Because of this, wealthier countries continue to advance in their technological capabilities, telecommunicative services and digital products, while poorer countries continue without these advantages.

The distinction between the predominantly industrialized, rich North and the traditionally less developed, poor South is gradually fading as more developing countries are joining the ranks of developed countries, and globalization is blurring the boundaries. Needless to say, this unevenness of globalization has important implications for social power relations. People with connections to supra-territorial spaces have access to important resources and influence that are denied to those who are left outside. In this regard, some commentators have deployed "global apartheid", as manifested in the so-called 'digital divide' and other inequalities. It is the Industrial Revolution that created the Industrial Divide, which is translated into Rich and Poor Nations, and the Information Revolution without any fear of contradiction created the 'Digital Divide'.

I. 2. 1. The Globalization of Media:

The globalized media is ultimately a mirror of our own societies, the world at large, and the many ways in which Arab youth engage their own societies and the wider world around them. Like all mirrors, it reflects and can distort reality, and shows us things we like and things we do not like about ourselves and our societies. The impact of the globalized mass media on Arab youth is already significant and promises to expand in the coming yearsIt covers almost all dimensions of life: news, culture, the global economy, politics, entertainment, education, professional life, training, religion, and radical militancy and terrorism, to mention only the most obvious. According to the United Nations, "the world's core countries, which contain about five percent of the world's population, make up ninety percent of the Internet users" (5).

An important aspect of media globalization is the 'digital divide' which occurs between the developed and developing countries.

Because of this, wealthy countries such as the United States and those in Europe and Asia are more connected and have by far more technological communication services and products. On the global scale, the globalization of media has made the gap between the plugged in and the shut out larger through reinforcing technological inequalities rather than reducing them.

"The millions who struggle daily for enough food, clothing, housing and transportation are unable to afford the hardware, software and service charges associated with information [(6)] and communications technology. Ironically, in most developing countries there are the privileged wealthy ones who have even more technology than the average American" [(7)]. Because the wealthy are few in developing countries, the difference between the haves and the have-nots is actually a larger gap than those in developed, industrialized countries.

I.2.2. The Significance of the Digital Divide:

In the modern world, humans are increasingly reliant on technology which widens the already existing social, economic, financial and educational gaps between those who have access to it and those who do not; this gap is called the Digital Divide. Thus, "Digital divide" is a term increasingly used to describe the social implications of unequal access by some sectors of the community to information and communications technology and to the acquisition of necessary skills. The 'digital divide' is the "inequality of access to information and telecommunications technology, particularly the Internet"[(8)].

The 'digital divide' is pushing the wealthier, developed countries farther along the technology path, while leaving the poorer, developing countries in the dust. "The larger the economic gap between nations, the larger the distance between their abilities to

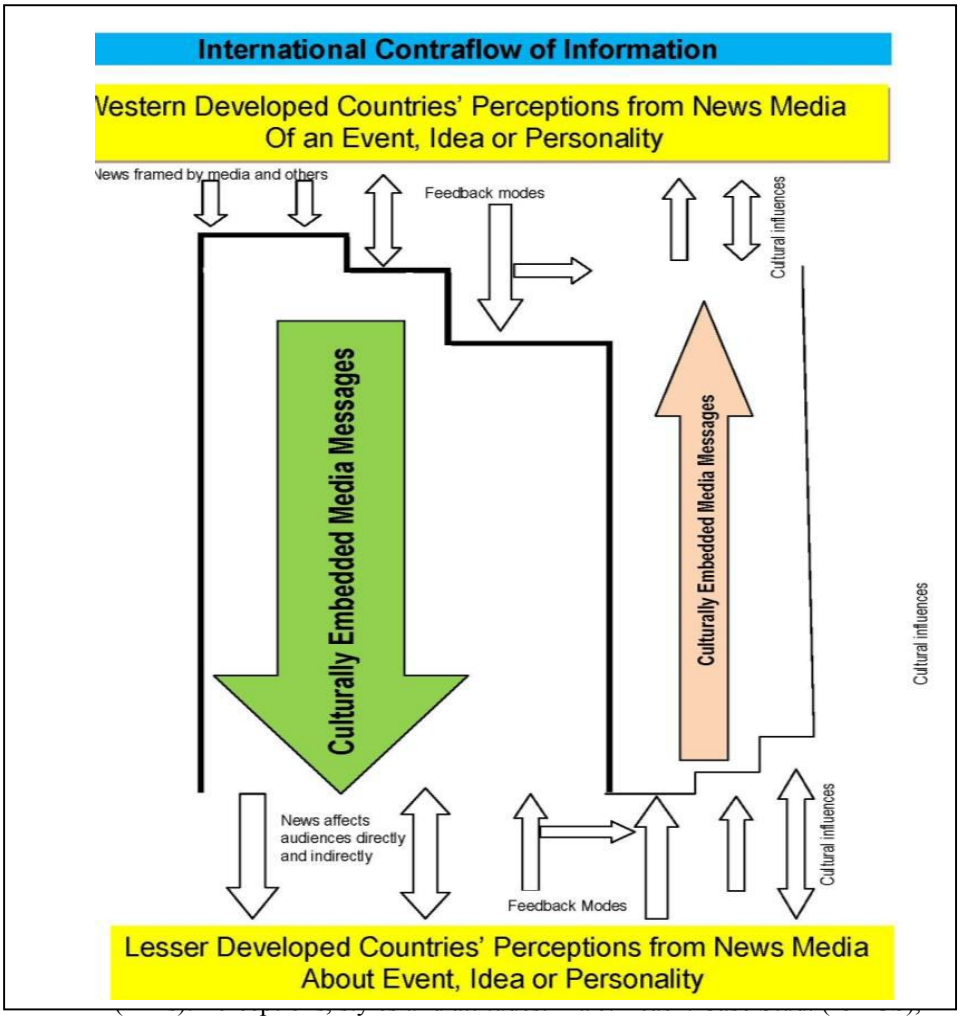
access telecommunications products and services, and in consequence, participate in the worldwide whirlwind of communication[9]".

Although there is a general consensus that some divide exists across nations, scholars have differing views with respect to the significance of that divide which is an important issue. In the words of one scholar, "As the networks and the equipment attached to them become the preferred mode of political participation, lifelong learning, employment and commerce, as well as personal expression, non-access and non-connection could become tantamount to 'nonexistence.'"[10].

These scholars have suggested that the Internet has the potential to level the playing field between nations and post-industrial societies for various reasons. For instance, the introduction of Internet led to dramatic improvements in education because it "allows a teacher . . . in Ghana or Calcutta access to the same database information as one in London or New York," [11] and "distance learning can widen access to training and education, via open universities in India, Africa, and Thailand, and language websites for schools." [12] The digital divide in higher education refers to the division of society into haves and have-nots in terms of access to ICTs and information resources[13] 1. A commonsense approach to overcoming this gap is to develop sustaining partnerships among

1 Baumeister H (2006). Networked Learning in the Knowledge Economy - A Systemic Challenge for Universities. *European Journal of Open, Distance and E-Learning*, Retrieved March 12, 2011, from http://www.eurodl.org/.

students, faculty, academic computing staff, and administrators. Users with positive perceptions quickly learn to command new technologies but those who dislike it stay away and thus increase digital divide[(14)]2. Hereafter, a chart below mentions the international contraflow of information.



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trickles like a brook stream from LDC's to developed countries. This model, however, is gradually changing as more and more global media from Less Developed Countries reach the developed countries over Internet and through satellite distribution systems.

I. 3. Challenges Facing the Digital Divide Overcoming:

However, there is still a big digital divide between developed and developing countries. In the African region, penetration rates of mobile networks were only estimated at 41% at the end of 2010(15) compared to 90% worldwide. Also, in Internet technology, developed countries are a decade ahead of the rest of the world, with developing countries reaching an Internet user penetration rate in 2011 that developed countries reached in 2001. In 2012, internet penetration in Africa only reached 16%, far behind the world average (34%) and Asia's average (27%) (16). In other words, developing countries are lacking or underutilizing a potential enabler for development.

In many cases, developing countries do not have the infrastructure needed to support the technological advances and globalization of media and information. Several remote, small villages are not located close enough to larger metropolises to be able to connect to media and technology. In many instances, these small villages do not even have electricity in their homes, and in this case having access to technology is virtually impossible.

Not only does the location impact the accessibility of information, but "illiteracy, the lack of awareness and need for

information, poverty and underdevelopment" are other obstacles that need to be conquered(17).

These are not problems in developed countries because those nations have the capacities and the infrastructure to handle information and make it accessible. Poor communication and transportation facilities in developing countries constrain the transfer of information on both a local and global scale. By having "poor infrastructure, transportation and postal systems, and telecommunication services greatly impede the free flow of information" (18) Many of the South Algerian population live in numerous towns scattered all over the countryside with great distances between them.

Because of this, the free flow of information among these communities requires stable infrastructures such as regular electricity supply, good roads, vehicles, trains, airplanes, and steady postal and telecommunications services. While some of these facilities are present in developing countries, the quality and quantity of these facilities are typically poor.

If there is no prior use of technology and media services in a developing country, the general level of technological literacy tends to be very low. It becomes a problem to find people with the knowledge required to set up the machines, repair the machines when problems occur and that have the knowledge as to how to operate the system to access information via the Internet. Without the knowledge of how to

work the equipment or how to integrate the information into the curriculum, the technology is useless. While the use of technology can greatly improve the educational opportunities in a developing country, it is important that "the efforts be carefully planned, realistically targeted to the appropriate clientele and managed in a cost effective manner[19]".

Providing the ability to have access to online media is still quite costly in the developing world. While in some locations it is possible, the costs are just way too high for it to be practical. In an effort to end this problem, many organizations have developed "tele-centers" where people in the community can come and be connected to the Internet, use telephones, access to a fax machine, printer and a copier. These "Multi-purpose Community Tele-centers" are available to anybody in the community and are used by local professionals to "share expertise in addressing local problems, communicate with colleagues, and help with research in a variety of fields including health, agriculture, manufacturing, and education[20]".

Since the tele-centers want to be accessible by the most number of people, the fees they charge are minimal. This is a problem because most tele-centers are not self supporting and require outside financial assistance to operate. Typically when funding runs out, these tele-centers are forced to shut down, leaving the people of the area cut off from information and media. Because of funding problems, the 'digital divide' has a 'catch-22' associated with it.

"How do you provide technology for poor people to help them catch up with the developed world when information and communication technology is so expensive?"[21]. If the problem of funding was solved for the tele-centers, they could easily close the large gap between the haves and have-nots. To end the problems with the 'digital divide' and access to media, "the worst possible approach would be to completely ignore the situation because it is likely to just get worse[22]".

II. IMPLEMENTING NEW MEDIA TOOLS IN EDUCATION AND TEACHING:

II.1. Technology in the Classroom:

New communication technologies, particularly Internet, appear to offer exciting possibilities for overcoming geographical access and cost barriers to learning. Yet it is hard to imagine that these technologies can have a positive influence on the education of children and adults who lack basic living resources and live with an underdeveloped educational infrastructure in an environment of social and political instability. Given the realities of globalization, knowledge work, and accelerating societal change, it's obvious that *what* students learn as well as *how* and *when* they learn is changing.

Access to information is especially important for educational institutions, not only in developed countries but all around the world. Due to the high costs of hardware and software and since this cost is usually burdened on limited school budgets, many educational

institutions in developing countries will not have any computers for teachers or students to use.

Before an institution can begin to look for inexpensive machines or build a partnership with a corporation, they are required to have an established and permanent infrastructure for information and communications technology. In remote areas, which are still lacking the electrification and telecommunications services, this presents the biggest problem for the institution.

Meanwhile, in areas where an infrastructure is in existence, typically it is not as secure and reliable as those in developed countries. These infrastructures are usually prone to serious problems such as "surges in electrical lines that can damage hardware, slow telecommunications rates that make Internet access extremely time consuming, or the cost may be prohibitively expensive for users[(23)]".

If there is access to the Internet and some of the newest media technologies, they can greatly impact the educational process. With the use of videos on programs such as Windows Media Player and Real Player, students that might not have even ventured outside of their own villages can be exposed to real footage from around the world. The use of encyclopedia CD ROMs can "hold more information on a few discs than can be found in the small school libraries in developing countries and its multimedia materials can help arouse interest in topics[(24)]".

II. 2. Teaching Via New Media Implementation:

Technology provides a platform for more informed educators using timely, meaningful data to shape learning opportunities. This situation would be translated into more personalized learning based on continuous feedback available to students, teachers, and parents. The challenge lies in building such accountability systems on the foundation of the right indicators that lead to high academic standards and 21st century skills. It is only this foundation that will enable true Digital Age readiness. Hence, new media – YouTube, Twitter, Facebook – along with online bloggers and mobile telephony, all play an important role in communicating, coordinating and channeling this rising tide of development in teaching and learning strategies to bypass the multiple challenges to learn and teach effectively.

Expository teaching is the most frequently used method, particularly where the primary objective in the curriculum is the mastery of standardized facts, concepts and procedures. Computers are being used to support such expository teaching especially in large classes. Educators often have a shortage of learning and teaching resources, and use ICT as a new information delivery tool that presents information in vivid attractive ways. They would also like it to deliver drill and practice with immediate feedback. This expectation leads to a tendency towards software that can aid their expositive teaching. Teachers prefer content-bound and curriculum-compliant courseware and resources, including tutorials, drills-and-practices,

computer-assisted tests, and Web gateways that sort learning resources in line with the national curriculum.

There is a strong need of digital projectors or LCD[25] display boards to help deliver lectures in large classes without requiring significant changes in the teacher's role. When it comes to using new media specifically for skill-building and education, new media has repeatedly shown the advantage of creating a collaborative and creative learning environment that is conducive to fostering innovation and educational skills. Therefore, almost young people are 'digital natives' and are equally comfortable using new media and other communication technologies, or have ready access to it.

This is not always the case, especially in developing countries, and can require additional training, which should be taken into consideration in educational reform, as well as the provision of hardware/ infrastructure/ web services. Educators have no choice as the times require that schools change or become obsolete. They must stay current with practices that optimize student learning. While this practice may be happening in some schools and districts, almost schools need to become organizations that formally and systematically use research results to drive system-wide change.

Thus, teachers and administrators themselves need to become knowledge workers with 21st century skill sets. School leaders need to drive change, taking on new, collaborative roles and using inventive thinking to integrate the emerging "science of learning" into their

school systems. All students should have the opportunity to attend dynamic, high-quality schools designed to meet the challenges of the Digital Age. The implications for pedagogy, teacher and student roles, curriculum, assessment, infrastructure, and the community are significant. In short, the 21st century skills should form a major part of the foundation of improvement processes in educational institutions.

Mobile or internet-based networks provide a critical impetus for teachers and mentors to use computers in a creative and thoughtful mode, to try new approaches, and to communicate their successes and challenges. These networks have the dual advantage of:

1) Promoting information exchange among teachers and mentors that is interactive and tailored to individuals' needs, and

2) Stimulating the use of ICT by teachers for purposes that go beyond simple cookbook applications.

Nevertheless, teacher networking increases significantly the interest in and use of new technology and other pedagogical approaches. To foster learning through the use of technology, it is useful to examine the pedagogical principles behind teaching and learning with ICT. Technology is a powerful and effective tool, but if teachers use it only as a delivery vehicle, the outcomes will be less than its potential. The challenge is to make full use of technology so that it doesn't become simply a substitute teacher. Indeed, instructional content can be embedded in the technology and then delivered.

II. 3. An Introduction to Distance Learning:

Distance Learning has existed in the United States for more than 120 years. It is not surprising that many in the profession considered it as a new phenomenon due largely to the emergence of the Internet. The resulting explosion in online learning was quickly embraced throughout the education and training communities encompassing K-12, higher education, and the corporate and government sectors(26). Just as new technologies have given rise to new distance learning applications and environments, they have given rise to new terms that basically refer to the same thing such as: *e-learning*, *online learning*, and *web-based training*. Even in the higher education community, where distance education was born, there have been revisions to the definition, to include the science of *distance teaching* and the resultant product, *distance learning*.

The definition of *distance education* in the academic community, however, has gained general consensus through its presence in leading course texts and peer-reviewed journals. As defined by *American Journal of Distance Education (1987),* distance education is "*institutionally based formal education where the learning group is separated and where interactive communications systems are used to connect instructors, learners, and resources*"(27).

Alternatively, the *United States Distance Learning Association*, has adopted the term *distance learning*, and defined it as *the acquisition of knowledge and skills through mediated information*

and instruction. The definition that emerged from the *First Annual Conference on Distance Learning in* 1989 was more elegant in its simplicity; distance learning was defined as "*structured learning that takes place without the physical presence of the instruction*[28] ".

One can follow the evolution of distance learning in the United States from the late 19th century, where it was rooted in correspondence, to the adaptation of communication media (radio and TV) in the mid-20th Century, and the application of computer-mediated instruction, and the emergence of the Internet in the latter part of the century.

In the early years of distance learning in the United States, the choice of instruction media to deliver education was limited. However, as the country grew and evolved from an agrarian society into an industrialized nation, the demand for education increased significantly. With the ensuing emergence of radio and TV, education community quickly realized the potential of these new media and adopted them to distribute educational programs to a geographically dispersed workforce. Then, as the technology evolved, more delivery tools emerged to where the instructional designer now has a plethora of choices of media that can be used singularly or integrated to create a blended learning solution.

With the introduction of computer, learning communities quickly realized the potential of this powerful new technology and adopted it as another delivery tool. As the computer continued to

evolve, a new generation of the computer-mediated instruction arrived, and with the emergence of the Internet, new collaborative tools and delivery media also appeared.

Through distance learning, people in developing countries have access to educational resources and materials that would not exist without the help of "mega-universities" modeled after the British Open University(29).

These universities connect with their students through "mailed materials, broadcasts, and now over the Internet to hundreds of thousands, thereby significantly expanding the higher education systems of many developing countries(30)". Unfortunately, even though this technology exists, it tends to benefit the wealthy few in the Third World because they have access to the technology to take the classes. Because of this, the average person in the Third World is more likely to take online courses from local companies, which in many instances have no accreditation and no guarantee on the quality of the education.

Countries in both developed and developing worlds have expressed visions of participating in and shaping the global information society. Education is therefore the primary way for Information and Communications Technologies (ICTs) to produce competent, suitably qualified and skilled learners to contribute in the development process. Moreover, ICTs are a fact, a way of life and societies, countries and individuals need to be familiar and work with,

in order to avoid being left out. This means that in education, it is translated into a call for all learners to be familiar with ICTs, and the failure to achieve this is understood as leaving learners ill-equipped in a modern world of technological advancement.

ICT plays a prominent role in the education developmental role as it holds the promise of transforming learning in new and powerful ways with the internet playing a very prominent role. Also, ICT is the infrastructure that brings people together in different places and time zones, with multimedia tools for data, information, communication and knowledge management in order to expand the range of human capabilities. Various studies have shown that there is a global trend towards quality education for all. The growth of ICTs in education is a global phenomenon.

II. 4. Analysis of E-Learning:

It is important to note that the advent of information and communication technologies (ICTs) has indeed led to technological revolution across the globe and it continues to change the global milieu of countries. Developed countries have become knowledge societies because of this technological revolution; while most developing countries are still putting strategies in place to bridge the digital divide by encouraging the use of ICTs. Interestingly, most people in these developing and most especially under-developed countries still do not have access to ICTs. This is probably due to the

fact that ICT facilities are not available in the area where they reside or because they cannot afford the use of such ICTs.

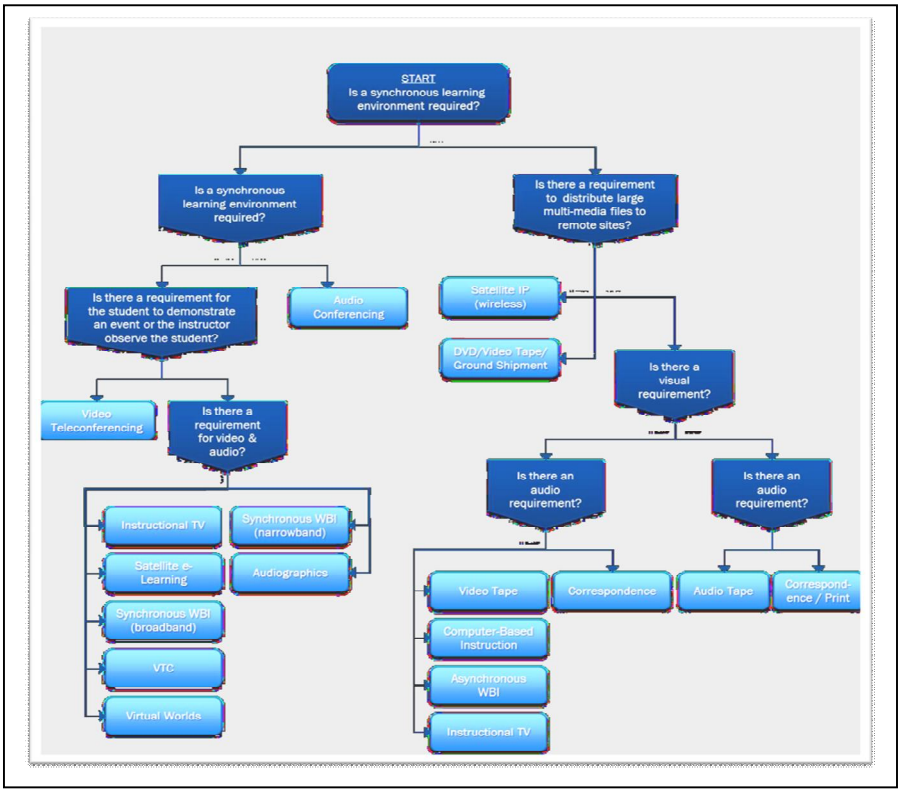
There will be changes in what students learn, but it's just as important to recognize the ongoing shifts in how and when they learn. So, the differentiation between traditional learning methods and new-media based education lead us to prepare the following chart, The degree to which these potential benefits can be realised depends on how effectively barriers can be bridged or removed. The Chart below summarizes the barriers identified most commonly by researchers within the framework of Connectivity, Content and Capability. As can be seen the most frequently identified barriers relate to capability, which of course, influences content.

Table 1. Traditional and New Learning Environments.

Traditional Learning Environments	New Learning Environments
• Teacher centered instruction • Single sense stimulation • Single path progression • Single media	• Student centered instruction • Multisensory stimulation • Multipath progression • Multimedia
• Isolated work • Information delivery • Passive learning • Factual, knowledge-based • Reactive response • Isolated, artificial context	• Collaborative work • Information Exchange • Active/exploratory/inquiry based learning • Critical thinking and informed decisions • Proactive / planned action • Authentic, real-world

The relationship between technology and pedagogy leads to an understanding of how teaching can change as a result of using a particular technology. As such, new technologies encourage teachers to confront basic educational issues in new ways. Therefore, technology influences learning in three significant ways. A synthesis of recent research and national skill sets show that technology can be a driver of change, a bridge to academic excellence, and a platform for informed decision making and accountability:

Figure 2: Distance Learning Instructional Media Selection Matrix



Note: The level of required interactivity will lead the designer to choose a medium or set of media with appropriate symmetry to effectively and efficiently deliver instructions.

III. NEW MEDIA AND SCIENTIFIC RESEARCH DEVELOPMENT:

New media serves as a bridge to more engaged, relevant, meaningful, and personalized scientific research, all of which can lead to higher academic achievement. When technology is used appropriately in scientific research, students learn more, even as measured by conventional tests. It is important to encourage tutors to incorporate technology into the mainstream of student research methodology learning. New media can also be a strong motivator for students to learn other languages, by providing learning material such as textbooks for students, which could be available on hand-held devices such as e-readers or mobile phones or smart-tabs. As well, interactive features such as quizzes or games could improve the level of learning and understanding.

In addition, it improves the quality of research by providing improved informational research content and approaches. Interactive, communicative e-learning may promote the development of skills in students (so called “21st Century Skills”) such as critical thinking and problem solving, communication, collaboration and creativity. It also provides students information and communications technology skills. Therefore, the more our students use new media to find information

about an issue that they want to tackle, the more general and specific knowledge they get. Consequently, they widen their intellectual skills and master the domain they are searching in, which leads to the emergence of new creative solutions to the main problematic of their research. Whenever our students use new media to look for information, they save their time and effort from being wasted when they, in vain, try hard to find information from written data-bases that are not always available especially when dealing with developing countries, and if available how and where they may find the written data bases cannot always be found easily.

Henceforth, the impact of new media on student achievement is complex and mediated by the effectiveness of the research that is closely related to how the technology is used as fruitful research informational tool. Students learn best with new media when interactively engaged in the content, which will motivate students, particularly under-achieving students, to learn new information and to master the domain they are searching in, as well to use the acquired information in their research in an essay to find solutions to the problematic of their research. Thus, our students, thanks to new media, are not obliged to move across the globe to find the information they are looking for, saving their time, effort and money.

IV. NEW MEDIA AND ELECTRONIC SAFETY

As its history indicates, "hacking" refers to multiple activities. It includes, for instance, breaking passwords, creating "logic bombs,"

e-mail bombs, denial of service attacks, writing and releasing viruses and worms, copying/adulterating/stealing software or program files owned by others, viewing restricted, electronically-stored information owned by others, URL[31] redirection, adulterating Web sites, or any other behavior that involves accessing a computing system without appropriate authorization.

Furthermore, although for the most parts hacking is restricted to computers, it need not be and may be extended to fraudulent activities relating to telephones (e.g., tricking phones into authorizing free long distance calls, so-called "phreaking"), credit cards (for instance, creating gadgets to "steal" the magnetic code stored on credit cards and copy it on to others), subway passes (for example, adulterating passes or pass readers to enable unlimited free rides), parking meters (rigging parking meters to allow unlimited free parking) or virtually any other item with electronic components.

Education, training and awareness, although important, are not sufficient conditions for managing information security. A focus on developing a security culture goes a long way in developing and sustaining a secure environment. Although education, training and awareness are important in managing the security of enterprises, unless or until an effort to inculcate a security culture exists, complete organizational integrity will be a far-fetched idea.

A mismatch between the needs and goals of the organization could potentially be detrimental to the health of an organization and to

the information systems in place…. organizational processes such as communications, decision making, change and power are culturally ingrained and failure to comprehend these could lead to problems in the security of information systems. While discussing issues in disaster recovery planning, although managers are aware of the potential problems related with a disaster, they tend to be rather complacent in taking any proactive steps. Such an attitude could be a consequence of the relative degree of importance placed on revenue generation. As a consequence, while automating business processes and in a quest for optimal solutions, back-up and recovery issues are often over looked.

Responsibility, integrity, trust and ethicality are the cornerstones for maintaining a secure environment. Earlier on, we noted that given the nature of organizations has evolved from a predominantly hierarchical organization to a more networked form, traditional security models and approaches fall short of developing secure environments. Dhillon, G., and Backhouse, J.[32] have argued that traditional "information security principles of Confidentiality, Integrity and Availability are fine as far as they go, but they are very restricted".

In response to the changing organizational contexts they suggest the **RITE** (responsibility, integrity, trust and ethicality) principles. The **RITE** principles hark back to an earlier time period when extensive reliance on technology for close supervision and

control of dispersed activities was virtually non-existent. The extensive reliance on information technologies today questions the nature and scope of individual responsibilities and many times challenges the integrity of individuals. Trust is also broken especially when technology is considered as an alternative supervisor, that is why **We Should Never Trust Media!**

CONCLUSION:

Developing countries must develop mechanisms and instructional arrangement for creating awareness and understanding of the nature, pace, consequences and implications of the changes resulting from globalization. Special focused teams involving representatives of the government, academia and the private sector must be formed to monitor, analyze and disseminate information on the trends, structure, consequences, and implications of globalization and recommend policy actions to all concerned. The diffusion of ICT into Africa has been at a snail speed, such that the gap between the information-rich developed countries and Africa continues to increase every day. It is disheartening to note that Africa has 13% of the world population, but only 2% of world telephone lines and 1% of Internet connectivity measured in terms of number of Internet hosts and Internet users.

It is necessary for the developing countries to raise their level of preparedness in order to minimize the risks and take advantage of the vast opportunities that the globalized environment confers. They

should use all sources of information, especially the Internet to educate the youths and children to ensure that they do not miss the train of this global trend. Also governments must make the management of information a central focus of their policy. In addition, they must put in place policies that enable their people to get on-line, both in terms of infrastructure and individual devices for access. Computer access for all levels of the education system must be pivotal if Algeria and other developing countries are not to be left out of the knowledge revolution that drives competiveness in globalization.

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