Impact of the Access to Information Technology-Mediated Potentials(IT-Mp) on the Socio-Educational Practices of Nigeria Citizens

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ABSTRACT

The rapidly growing rate of Information and Communication Technology (ICT) in the world today has made it to become a very important factor of our everyday life. All along in Nigeria case and some other developing countries, there are avalanche of avenues in which Information Technology-Mediated Potentials (IT-MP) are being presented for peoples' awareness and usage. The quest for speedy progress in scientific and technological nations largely depends on the potentials of information and communication technology this study therefore examined the impact of the access to Information Technology-Mediated Potentials (ITMP) on the socio-educational practices of Nigerian citizens. The study is a descriptive survey research. Three research questions were raised and answered in the study. A sample of 400 including lecturers, undergraduate students, computer operators and literate community people were sampled. The questionnaire used is named Information Technology-Potentials and Socio-Educational Practices Questionnaire (ITPSEPQ), with a reliability value of 0.87. The finding revealed that IT-MP have brought great gain to Nigeria socio-educational practices to a large extent in some identified areas while some other potentials of IT-MP are still strange to a large percentage of people in Nigeria. Still, the positive impact of the potentials has not been adequately felt by the community people. Also the curses of IT-MP in term of crime and much reliance on artificial intelligence are concerns for the Nigeria populace. The authors recommended the need to increase socio-educational awareness of Nigerians in some of the areas of IT-MP identified in the study, and device the means of checking the reliability of artificial intelligence in IT-MP rather than undisputable reliance on such potentials at all times.

Key words: Access, Information-Technology Mediated Potential, Information Technology, Educational Practices, Nigeria.
Word Counts: 270

INTRODUCTION

The continuous desire for socio-educational improvement at the world level has ushered in different discoveries, strategies and approaches to information and technology interconnectivity at various times. Alternative delivery systems of information and communication within a typical society and the mode of transacting the content of curricula in the educational practices at all levels and various countries of the world through technology is fast growing. The challenges posed by Technology-Mediated Potentials thus become an urgent issue to examine in Nigeria environment.

> Where people are serious with their development and education…
> they determine where they want to get to… as well as new
> patterns of life to adopt… So, taking account of their strengths and
> weaknesses …, they take appropriate steps to improve their
> general life (Onwuka, 1994:11).

From a socio-cultural point of view, it is always ideal to find out the social patterns and group behaviour in the community in respect of emerging developments and challenges. Similarly, it is not out of place to do a situation analysis of whatever carries the potential of introducing significant changes in the society we live in and the education of those that belongs to the society. What is significant therefore in this paper is the impact of the advances in Information Technology (IT) on Nigeria citizens.

In a technical sense, information technology is the convergence of computer systems with telecommunication network to acquire, process, store, retrieve, and transmit data and information (Omekwu, 2004). He added that both education and information technology share a common phenomenon. They impact men's experience. The acquisition of knowledge, new skills and habits catalytic to man's capacity to contribute productively and progressively to the society through education has been seen to be a function of technology-mediated potentials in literature. This is in the form of e-learning (electronic or technology-mediated learning).

Some researchers suggest that e-learning also known as technology-mediated learning, virtual or online learning may improve learners' achievement, attitude towards learning and the quality of their learning experience (Oakes, 2000; Rosenberg, 2001). In addition, proponents of e-learning suggest that it can potentially eliminate geographic barriers while providing increased convenience, flexibility, currency of material, individualized learning and feedback over traditional classrooms (Piccoli et al, 2001). E-learning thus find basis in information technology education. Information technology has become a potent force in transforming social, economic and political life globally (Hafkin and Taggart, 2001). Its incorporation in the information era is progressive and fast in bringing more access to available studies even in research. By implication, it is creating jobs and increase in societal productivity.

Significantly, Information technology has enormous potential to link remote communities to global markets, to democratized decision- making and to support distance learning. For instance, Omekwu (2004) asserts that:

> Information technology has far-reaching implications in the
> realization of the social functions of education. These functions
> deal with the transmission of culture, skills, and preparation for
> working life, the care taking of youths and the promotion of peer-
> group relations (P. 159).

In the views of Beebe, et al (2003), Information and Communication Technology (ICT) holds the promise of transforming learning in new and powerful ways. For instance, with ICT, the information base has improved in Africa by making available digital libraries via the Internet and CD-ROMs, they added.

However in Nigeria, how far technology-mediated potentials have impacted on health, water, food, education, decision-making, trafficking gender, literacy, time, cost of materials, skills, family, workforce, economic activities, teleworking, teleservices, manufacturing, commerce, governance, indigenous knowledge, interlinking technologies, wireless and satellite connectivity,

communication, banking, entertainment, teacher preparation, research, learning process, care-taking of youths, working life, peer-group relations, handicapped learners, industry, crime and job creation among others is a current issue.

In the light of the foregoing debatable areas, about the impact of information technology potentials in Nigeria environment, this paper emerged.

Statement of the Problem:

The advances in information technology have influenced both the developed countries and the developing countries of the world. However, there is so much concern in the world in recent times about the potentials of technology-mediated information and communication in the society and their application in education that one begins to wonder whether information technology is really a blessing or a curse to mankind. In Nigeria context, there is no enough research evidence which has comprehensively looked into social and education impact of information and communication technology.

This present study therefore, examined the impact of information technology-mediated potentials on the socio-educational practices of Nigeria citizens.

Research questions:

The three fundamental research questions raised and answered in this study are:

(1)   What is the extent of people's awareness of information technology-mediated potentials in Nigeria?
(2)   What is the impact of information technology-mediated potentials on the social-educational practices of Nigerian citizens?
(3)   What are the major curses that information technology -mediated potentials have brought to mankind in Nigeria environment.

METHODOLOGY:

Research Design

The study is a descriptive survey research design in which the existing information was collected from the participants relevant to the study. Also, that no variable was manipulation since the available data had occurred already.

Target Population:

The target population comprises a mixture of all the undergraduate students, lecturers, computer operators and the community people within a university city in Nigeria. It is assumed that people in the city where the University is located have IT-MP at their finger tips. The University City is a community which consists of academic, non-academic working class and self employed individuals who trade in one business or the other.

Sample and Sampling Techniques:

The sample for the study is four hundred (400) in the following order: (300 and 100 level students).

Undergraduate Students (300 and 400 level Students)	-	100
Lecturers	-	80
Computer Operators	-	150
Community People	-	70
Total	-	400

Purposive and simple random sampling was used for the sample selection. In this regard, the researchers selected the respondents on the fact that they are in the best position to supply the appropriate information/ data relevant to the study.

Instrumentation:

The questionnaire used is named Information Technology-Potentials and Socio-Educational Practices Questionnaire (ITPSEPQ) developed by the researchers. It contains three sections. Section A is on the personal information of the participants while section B and C contain 30 items altogether in line with the three research questions raised in the study. The

questionnaire was validated through expert review for content validity and test of both internal and external consistency of the items. Cronbach Alpha coefficient of reliability was used to determine the reliability value of 0.87, which was taken as appropriate for this study.

Data Collection:
The questionnaire was administered among the four categories of the participants identified for this study by the researchers and some postgraduate students in the University City used for this study. It took about one month before 400 completed questionnaires could be collected from the participants sampled. The entire questionnaires administered were returned because some research assistants helped in the monitoring questionnaire administration and collection.

Method of Data Analysis:
In this survey research, descriptive statistics of frequency count and percentages were used for data analysis.

RESULTS:
The tables below present the results of the data gathered for the study in order to provide answers to the three research questions raised in this study.

Table 1: Extent of peoples Awareness of Information Technology-Mediated Potentials (IT-MP) for Social Practices in Nigeria

S/N	Information Technology-Mediated Potentials and Social Practices in Nigeria	Highly Aware	Fairly Aware	Hardly Aware
1.	IT-MP and Cultural Transmission (IT-MP improves Cultural Transmission)	50 (12.5)	91 (25.2)	251 (62.3)
2	IT-MP and Preparation for Working Life (IT-MP helps in preparing people for working life)	200 (50.0)	190 (47.5)	10 (2.5)
3.	IT-MP and Care-taking of Youths (IT-MP helps in youth care)	60 (16.0)	180 (45.0)	160 (40.0)
4.	IT-MP and Promotion of Peer-Group Relations (IT-MP promote peer group relation)	100 (25.0)	180 (45.0)	120 (30.0)
5.	IT-MP and Transformation of Industrial World (IT-MP transforms industrial world)	250 (62.5)	101 (25.3)	49 (2.2)
6.	IT-MP and Globalization (IT-MP aids globalization)	277 (69.3)	10 (2.5)	113 (8.2)
7.	IT-MP and Electronic-Governance (T-MP aids Electronic-Governance)	48 (12.0)	102 (25.4)	250 (62.6)
8.	IT-MP and Health Delivery (T-MP helps in health in delivery)	99 (24.8)	79 (19.8)	222 (44.6)
9.	IT-MP and Industrial Sector (T-MP assists in Industrial Sector)	264 (66.0)	87 (21.8)	49 (12.2)
10.	IT-MP and Entertainment (IT-MP influences Entertainment)	109 27.2	207 (51.8)	84 (21.0)
11	IT-MP and Shopping/Electronic-Commerce IT-MP aids Shopping/Electronic-Commerce	150 (37.5)	91 (25.2)	159 (37.3)
12.	IT-MP and Communication (IT-MP improves Communication)	370 (92.5)	30 (7.5)	-
13.	IT-MP and Economic Empowerment IT-MP improves Economic Empowerment	20 (5.0)	180 (45.0)	200 (50.0)
14.	IT-MP and Indigenous Knowledge IT-MP improves Indigenous Knowledge	09 (2.2)	92 (23.0)	299 (74.8)
15.	IT-MP and Gender Empowerment (IT-MP helps in Gender Empowerment)	41 (10.2)	92 (23.0)	267 (66.8)
	Total Average	(12.3%)	(28.9%)	58.8%)
	Extent of Awareness (Overall Average)	41.2%		58.8%

As presented in table 1a, the extent of peoples awareness of Information Technology-Mediated Potentials (IT-MP) available for social practices in Nigeria is above average in items 2, 3, 4, 5, 6, 9, 10, 11, 12 and 13 considering their responses in term of both the Highly Aware and Fairly Aware spread of opinions. On the whole average as shown in table 1, the extent of the peoples' awareness of IT-MP for social practices in Nigeria is still below average (41.2%) compared with 58.8% of the respondents who declared that they are hardly aware. It is obvious from table 1a that the awareness of Nigerian populace on IT-MP is still growing. This awareness will continue to improve the socio-educational practices of the citizens in the specific areas identified in the study.

Table 1b: Extent of Peoples Awareness of Information technology-Mediated Potentials (IT-MP) for Educational Practices in Nigeria

S/N	Information Technology-Mediated Potentials and Social Practices in Nigeria	Highly Aware	Fairly Aware	Hardly Aware
1.	IT-MP and Curriculum Development (IT-MP enhance Curriculum Development)	14 (3.5)	99 (24.8)	287 (71.7)
2.`	IT-MP and Research (IT-MP improves quality of Research)	345 (86.2)	55 (13.8)	-
3.	IT-MP and Education/Teaching and Learning (IT-MP promotes Education/Teaching and Learning)	394 (98.5)	06 (1.5)	-
4.	IT-MP and Skill Development/Acquisition (IT-MP improves Skill Development/Acquisition)	50 (12.5)	201 (50.3)	149 (37.2)
5.	IT-MP and Literacy (IT-MP promote Literacy)	89 (24.8)	179 (44.8)	132 (20.4)
6.	IT-MP and Distance Learning/Online (IT-MP fosters for Distance Learning/Online)	10 (2.5)	09 (2.3)	381 (95.2)
7.	IT-MP and Teacher Preparation (IT-MP helps in Teacher Preparation)	06 (1.5)	11 (2.8)	383 (95.7)
8.	IT-MP and Policy formulation/Decision Making (IT-MP helps in Policy formulation/Decision Making)	12 (3.0)	09 (2.2)	379 (94.8)
9.	IT-MP and Educational Administration (Educational Administration improves with IT-MP)	80 (20.0)	77 (19.2)	243 (61.8)
10.	IT-MP and Educational records-Keeping (IT-MP helps Educational records-Keeping)	209 (52.2)	104 (26.0)	87 (21.8)
	Total (Average)	(30.5%)	18.8%	50.7%
	Extent of Awareness (Overall Average)	49.3%		50.7%

In the data presented in table 1b, it is observed that the peoples awareness of Information Technology-Mediated Potentials (IT-MP) for educational practices are obvious in item 2, 3, 4, 5, and 10 because of their responses which are above 50.0% in term of highly aware and fairly aware altogether. The extent of their awareness of IT-MP for educational practices summarily is 49.3% compared with 50.7% of the respondents who are yet to be convinced of the availability of IT-MP in some areas of educational practices in Nigeria. IT-MP as revealed in table 1b has gained ground in Nigeria educational activities compared with peoples' awareness and usage in social practices in table 1a.

Table 2: Impact of Information Technology-Mediated Potentials (IT-MP) on the Socio-educational Practices of Nigeria Citizens

S/N	Respondents	Social Practices		Educational Practices	
		Positive Impact	Negative Impact	Positive Impact	Negative Impact
1.	Lecturers	61 (76.3)	19 (23.7)	65 (81.9)	15 (18.1)
2	Undergraduate Students	86 (86.0)	14 (14.0)	89 (89.0)	11 (11.0)

3.	Computer Operates	140 (93.3)	10 (6.7)	121 (86.7)	29 (13.7)
	Community People	21 (30.0)	49 (70.0)	52 (74.3)	18 (25.7)

In table 2, it is obvious that the positive impact of Information Technology-Mediated Potentials (IT-MP) is highly felt in social practices as responded by the lecturers, undergraduate students and computer operators sampled with percentage scores of 76.3, 86.0 and 93.3 in that order, whereas the community people (people who are self employed other than the computer operators) have a contrary opinion with a percentage of 70.0 for the negative impact of IT-MP. This is an indication that the community people are yet to enjoy the possible benefits of IT-MP as expected, and that probably the exposure of the other categories of the respondents sampled to IT-MP has adverse effect on community people in one way or the other.

For the impact of IT-MP on educational practices of Nigeria citizens, the categories of the respondents applauded the positive impact/influence of IT-MP with 81.9% for lecturers, 89.0% for undergraduate students, 86.7% for computer operators and 74.3% for community people. The 74.3% positive response of the community people in this case makes it evidently clear that they are enjoying IT-MP directly or indirectly through education in Nigeria environment.

Table 3: Causes of Information Technology-Mediated Potentials (IT-MP) on Mankind in Nigeria.

S/N	Curses of Information Technology-Mediated Potentials (IT-MP)	Highly Aware	Fairly Aware	Hardly Aware
1	Dehumanization	60 (15.0)	81 (20.2)	251 62.8)
2.	Loss of Jobs	30 (7.5)	80 (20.0)	290 (72.5)
3.	Invasion of Individual Privacy	40 (10.0)	70 (17.5)	290 (72.5)
4.	Crime Aid	150 (37.5)	101 25.7)	49 (14.8)
5.	Changing the Job and Home Environmental	35 (8.8)	84 (21.0)	281 (70.2)
6.	Increased Laziness	19 (4.8)	31 (7.8)	350 (87.4)
7.	Much Reliance on Artificial Intelligence	80 (20.0)	200 (50.0)	120 (30.0)
	Total (Average)	14.9%	23.1%	62.0%

The concerns of the respondents on the curses of Information Technology-Mediated Potentials (IT-MP) on human life in the society are made evidently clear in table 3.

In the area of crime aid (item 4, table 3) in the society, 37.5% raised a very high alarm of the use of IT-MP as an avenue for crimes. Also 25.7% of the respondents attested to the fact that IT-MP could aid crime or foul up things to a moderate extent. Added to this is the fact that the use of IT-MP has encouraged human reliance on artificial intelligence (20.0% - High Extent and 50.0% - Moderate Extent) – tem 7). Only 30.0% had a low extent response to this fact. The average value of 62.0% recorded for the low extent of the curses that IT-MP brings to socio-educational practices in Nigeria is evidence that Information Technology-Mediated Potentials have brought more good than evils. It is more of blessings than curses.

APPRAISAL OF THE FINDINGS AND CONCLUSION:

Advances in information technology-mediated potentials in the world today have brought great grain to socio-educational practices in the area of preparation for working life, care-taking of youths, promotion of peer-group relations, transformation of industrial world, globalization, industrial sector, entertainment, shopping/electronic-commerce, communication/information

dissemination and economic empowerment (table 1a). Added to these are the landmark influence of Information Technology-Mediated Potentials in research, education/teaching/learning, skill development, literacy programmes and educational records-keeping (table 1b).

In addition, the findings of this study has equally discovered that in spite of the social impact of IT-MP accorded by lecturers, undergraduate students and computer operators, community people, at least the literate are yet to appreciably enjoy the usage of IT-MP in Nigeria environment (table 2) possibly because the level of awareness of IT-MP is yet to go-round Nigeria environment as expected. However in educational practices in Nigeria, IT-MP holds a prime of place as an instrument to improve and enhance the educational activities of the Nigerian populace.

The usage of IT-MP has not in any way recorded much damages to mankind in Nigeria, except that the rate at which IT-MP aids crime when it does it, and the reliance on IT-MP to solve problems that require human intelligence, judgment, insight and experience create fears on the future of its applications in a socio-educational context.

Nonetheless, Information Technology-Mediated Potentials have become a very important factor of our everyday life in Nigeria, an integral part of education; IT-MP is a big asset in the provision of convenience living and a speedy way to progress if handled with care and caution. The application of IT-MP in socio-educational practices, no doubt is being felt, but it is high time to increasingly rise up to meet the challenges on the areas of IT-MP which are yet unpopular in Nigeria case**.**

RECOMMENDATIONS:
1.   There is the need to increase socio-educational awareness of Nigerians in the following areas of information technology-mediated potentials:
    (a)   IT-MP for Cultural Transmission
    (b)   IT-MP and Electronic-Governance
    (c)   IT-MP and Indigenous Knowledge
    (d)   IT-MP and Gender Empowerment
    (e)   IT-MP and Curriculum development
    (f)   IT-MP and Teacher Preparation
    (g)   IT-MP and Policy Formulation/Making
    (h)   IT-MP and Educational Administration.
2.   The practical applications of the IT-MP in the identified areas in 1 above would bring blessings to Nigeria socio-educational practices and other developing countries that fall within the range of these weak areas.
3.   There is the need to map means of checking the reliability of even the artificial intelligence of IT-MP rather than undisputable reliance on the source at all times at the expense of human intelligence, insight and experience.

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