

The Impact of Internet on African Education and Culture

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Abstract

Technology has amongst several criticisms, evolved from function-limited to feature-rich and exciting computerized systems. Most notably, the advent of the Internet in the late 1960s appears to be the greatest development in the chronology thereof. Technological advancement has witnessed multifarious exploits which are debatable topics in very recent times. Today, the Internet is a global phenomenon having instantaneous capability of providing immense online amount of information relating education, sports, commerce, entertainment, and all walks of life. Using three theoretical perspectives germane to information and communication technology, this paper examines the positive and negative impacts the Internet presents to education and culture in Africa; ranging from economic benefits derived from online business solutions and social networking, through detrimental results of cyber-crime, to astonishingly declined craving for academic distinction in colleges and universities. Certainly, the Internet has moved the world forward; also, as a result of using the Internet, a lot has gone wrong, quite a lot is going wrong, and a lot more could go wrong. Therefore, it is crucial to develop a balance on how to manage the deployment and efficient use of the Internet so that it can be fit for purpose.

Keywords: Technology, Internet, Culture, Education, Africa

1. Introduction

The advent of the early 1990s was characterized by a new era of possibilities vis-à-vis information and communication technologies (ICTs) in developing countries. Modern-day Satellite technology which permits a nearly seamless transmission of data has helped in moving developing nations onto international information circuits. A quick and honest retrospection reminds us of the myriads of novelties experienced globally from the invention of the first telephone by Alexander Graham bell in 1876 and the worldwide web (www) by Sir Tim Berners-Lee in 1990.

These respective epochal innovations heralded the level of telecommunications and Internetworking experienced in the world today and more importantly, delivered the blue print of the so-called “Internet and social media” of contemporary times.

According to Dion Hinchcliffe (2011) in an online article, current trends in information communication technology and telecommunication sectors depict that social media or social networking service (SNS) is one of the big five feats of the next half decade. Collin P. *et al* (2011) summarizing Boyd and Ellison (2007) documentation, gave a concise definition for the acronym SNS; as the varying nomenclature of websites or web-based services having dedicated lists of users and created primarily for the purpose of enabling them build and flexibly share information.

Even though enthusiasts of the Internet technology across the globe ceaselessly broadcast its benefits, the birth of the Internet has been faced with massive condemnations quite often in history. Several institutions, government and religious entities keep developing new norms to aid the efficient and proper use of the Internet. However, not all these attempts are successful at achieving their desired objectives. An example of such norm developed to aid the proper use of the Internet is the “Fair Use Guidelines for Educators (Ross and Kinsley, available online) which prohibits downloading copyrighted material from the Internet and using it in a way that violates the rights of the copyright owner”. Although this policy has to some extent curtailed plagiarism in most educational institutions, recent research reveals that there are still no sufficient policies that address copyright and use of Internet materials especially in developing countries.

As much as technological advancements bring smiles to the faces of millions or billions inhabiting the world, we must neither underestimate nor neglect the impacts and challenges associated with them. While written press reports and articles continuously echo the continuous growth of Internet and social media in developing countries, critics like Andrew Keen warned that: “The consequences of Internet and social media revolution are much more profound; the Internet and majority of its social platforms are revolutionizing our cultural habits, our ways of entertaining ourselves and our ways of defining who we are; thus, requires a holistic approach to eliminate most of its adverse effects if at all it should be accorded any kind of credibility (Keen 2010)”.

Irrespective of the various positive and negative appraisals which the modern day Internet media has been subjected to, most commentators still opine that social networking and the Internet will not only integrate the region into a single community but also, help to improve its education and cultural aptitudes. More than ever, social media and Internetworking concept relative to the discrepancies and similarities in peoples’ perceptions towards them demand adequate attention. It is therefore important to investigate how technological evolution impacts our world; particularly in developing nations which apparently have meagre amount of documented information regarding the effects of social media and Internet exposure amongst various age groups ranging from children to youths and mature individuals. With the developing nations in the continent of Africa as case study, this paper analytically elaborates both positive and negative impacts of Internet and social media including but not limited to any of the following:

- Cyber-crime, hacking and Internet fraud
- Economic, social and cultural Impact
- Diminished passion for academic excellence

2. Theoretical Framework

It is clear that the Internet has manifested itself in multifarious folds. It has equally become crucial to initiate and sustain critical reflections on how the use of the Internet explains the diversities in the way people react as well as interact within their local environments. The fact that the Internet is dynamic, active, and ever expanding makes it difficult to provide a general approach that will reflect different sets of beliefs and perceptions. While trying to offer a conventional approach to facilitate a stand-alone knowledge that explains the impact that the Internet has brought upon education and culture in Africa, social scientists and various academic scholars have offered mixed pictures of collaborative theories built upon general concepts that are critical to equalize various perspectives, opinions and beliefs. Individual philosophical orientation often dictates how different people perceive the effects of the Internet. Although some theories appear to be more convincing than others, no singular idea has completely accounted for the way Internet has affected African education and tradition.

In other to avoid oversimplification; work done in this paper has been built largely on three relevant information and communication technology theories which either lend credence and support or contest positions. They include: *Technological Determinism*, *Media Equation* and *Coordinated Management of Meaning Theories*. These theories are put forward to help understand how the Internet has impacted peoples' innate or inculcated cultural values and education in Africa.

2.1 Technological Determinism

Technological determinism theory (also known as medium theory), a McLuhan theory, posit that Internet technology has in one way or another affected the lives of those who have come in contact with it (McLuhan, 1995). While it can be argued that some changes are more pronounced than others, technology has radically altered the way every individual perceives things. To a wider perspective, technology has not only changed people's lives, it has also transformed the way people feel and react to things within a society (Griffin, 2000). As sensational as some of these changes may be, it has drawn different sentiments from all and sundry; most people view technology as a principal initiator of cultural transformation. In McLuhan (1995) words, "Technological innovations result into cultural change i.e. human beings invent concepts which bring about innovations; these innovations ends up changing our lives, the way we reason and the way we do things. Thus, technology in some way shapes our cultural values. Information and communication technologies leave no aspect of the human life unaffected. Ranging from workplace to schools and from recreation to politics; technology has in one way or another shaped people's life". Going by McLuhan's assumption, it is obvious that the African community is in a midst of a cultural revolution and most people still find it difficult to accept that some things will never remain the same.

Examining Africa today vis-à-vis McLuhan's theory of technological determinism, a lot of things has changed. People who have access to the Internet and other communication media have adopted the western kind of life either directly or indirectly. With the Internet swiftly cutting across continents, it is definite that cultures would be transferred onto others; globalization through technology will continue to integrate the world into a single universal village where the Internet instils retribalization to humanity. This depicts that the expansion of Internet technology across the globe will continue to influence the lives of individuals within the African community; and it would extensively be reflective in overall Africa's culture, education and thought processes. Already in the modern era of incessant technological advancement, we are experiencing situation(s) where everyone is in touch everywhere, all at once, and in real-time.

2.2 Media Equation

This theory simply put forward that the media is exactly the same as real life and it predicts why people respond instinctively and spontaneously to communication media as if it were human. Reeves and Nass (1996) who are proponents of this theory, claim that human beings react to the media (Internet) as real social actors. To these theorists, the media create basis for our shared understanding of the society. This theory further explains that the media constructs our reality in various ways. People tend to respond naturally to the media even though they believe it is not realistic to do so (Griffin, 2000). Various individuals have been noticed to respond involuntarily to the media; reacting in such a way that suggests the media is alive. For example, some individuals would evaluate their success or failure primarily based on what information they read about and accrue on the Internet. A child who desires to be an artiste may be influenced by Michael Jackson's album he or she finds on the Internet, while another child aspiring to become a renowned politician may inadvertently start behaving like President Obama due some political debates watched online. This clearly shows that the media is real and isn't just affecting people's sense of reality.

Akin to McLuhan's theory, Reeves and Nass agree that Internet technology has in some ways affected the human lives positively and vice versa. Some media platforms like the Internet, televisions (TVs) and other types of multimedia gadgets prompt some responses that human beings have developed over a long period of time (Griffin, 2000). For example, our initial reactions to cinema, and when watching live sports on TV are in line with the media equation theory. For the simple fact that we unwillingly express our emotions in response to the media portrays that the media is both active and real. According to these two theorists, the media has got a full and active presence in our virtual and real worlds thereby showing a tendency to affect lives and induce a change within the society as corroborated by the theory of technological determinism.

If people react in reflex and real manner to media broadcast (media equation), then it can be argued that the influence of the Internet media can be consequential to African education and culture whether in an agreeable or obnoxious manner.

2.3 Coordinated Management of Meaning

Remarkably developed by Vernon Cronen and Barnett Pearce in the 1970s, the coordinated management of meaning theory basically postulates that same messages on any Internet platform has the ability to create different impacts on different sets of people because of their different sets of backgrounds (Pearce, 1989). According to (Pearce and Pearce, 2000), “Communication Management of Meaning theory is a communication theory that has most often been used as an interpretive heuristic in interpersonal communication contexts”. This theory does not undermine the assumptions of the previous theories elaborated above, it distinctively and explicitly underlines that the impact of Internet on various cultures differs depending on three fundamental courses of human interactions viz: coherence, coordination and mystery. For example, the same media message broadcasted in Ghana could have different impact on the people in South Africa due to discrepancies in most especially ethnicities or cultures, educational backgrounds, self-concept and religious beliefs. This theory is proposed to help understand how meanings, ideas and philosophies are coordinated as well as managed in the virtual space. In this manner, it can be deduced that the way people perceive the world (including information read and garnered from the Internet) depends entirely on their own vibration i.e. their background, beliefs, education, ethos and way of life.

While technological determinism theory posits that the Internet has changed people, the media equation theory on the other hand holds the view that the media (Internet) is exactly the same as real life; and coordinated management of meaning theory in its own notion, continuously preaches that the same Internet messages could be understood differently in different places depending on culture and level of enlightenment. To summarize, these theories are not designed to evaluate and tell which gives accurate overview of the crux of the matter in this writing; however, they will help provide better interpretation and proffer ideal approach in understanding different positions that would be elaborated in subsequent sections of this paper.

3. Cyber-Crime, Hacking and Internet Fraud

The terms cyber-crime, hacking and Internet fraud are sometimes used interchangeably. Quite a lot has been written, analysed and deliberated by individuals, societies and governments about cyber-crime. Excerpts from the Council of Europe Convention on Cyber-crime (2001) defined cyber-crime as any criminal offence committed against or with the aid of a computer network in such a manner that confidentiality, integrity and availability of data are breached. In other words, the use of a computer is a prerequisite for cyber-crime. From a logical perspective, it is arguable that when there is no means for an attacker to gain unauthorized access into a system (cash in on vulnerability), hacking or cyber-crime seems unfeasible and risk of damage is nearly, if not totally eliminated.

Mohammad M. K. *et al* (2012) opined that there is no such nation in the world immune to Internet fraud owing to the modern-day advancement in technology. There has never been a greater need for financial security and control in online business activities than currently because of the rapid increase in Internet fraud. The significant development in real time transactions through Internet technology has indeed led to transformation in all aspects of life. It has brought about striking positive and negative changes not only to the western world, but also to the striving economy of developing nations such as Nigeria. While constantly increasing the standard of life, making transactions almost painless and continually confirming the progression in technology, the Internet has negatively impacted on the vulnerable aspects of the African societies.

According to Longe O. *et al* (2009): “The proliferation of Internet technology in Sub-Saharan Africa has brought with it tremendous positive changes in socio-economic growth and development within the region. Paradoxically, the Internet has also evolved to become a sophisticated instrument in the hand of criminals for perpetrating different forms of cyber-crime”. Although not uncontested, developing and poverty-labelled societies especially within the African continent represent a risk to global Internet activities. Simply put, Internet frauds are more pronounced in developing countries. There have been several arguments as regards the high rate of frauds in Africa with some scholars claiming that the birth of Internet has caused more harm than good within the region; others are calling for a basic rethink of its impact as they believe that it also has some valuable use.

While Internet fraudsters have been spotted all over the universe, it is obvious that developing countries have created the more breeding place for crimes to thrive and hide. As critics would argue, a nation with a high and prevalent crime rate will continue to struggle hence, making growth stagnant. No wonder Sylvester (2001) said: "Crime is the direct contrast of development; we cannot continue to believe that African community will prosper while still harbouring individuals who exploit the virtual space to fulfil their illicit activities". In lieu of promoting the cultural values of the continent, the Internet has created a scenario where technology is used for purposes other than what it was originally developed to achieve". For example, Nigeria is a well-known country that has one of the most admirable cultures in the African continent. Formerly known has a breeding ground for hardworking and honest individuals during its colonial days; the movement of Internet technology into the country in the early 90s has radically changed the country's cultural legacy of people with dignity into a place for individuals who now see the Internet as a viable means to carryout fraudulent activities. Shockingly, Internet fraud is now seen as a norm, people no longer take pride in dignified labour; rather "criminals take great pride in how much they can exploit victims (usually from the western world) and make a fortune from the greed of some individuals that want to "make quick money"(NCC, 2007). As a means of justifying these duplicitous acts, some even posit that it is a customary way of life; the Internet technology has thus presented a perfect opportunity to developing countries to claim back the returns that its colonial masters exploited within the last century. Without mincing words, it is glaring that Internet fraud has manifested itself in the rise of Internet technology.

Optimists like Ess and Sudweeks (2001) argue that: "The Internet can encourage a better understanding between cultures and cultural identities by enabling people from different cultural backgrounds and with different social and cultural identities to come together and communicate with each other under conditions that are conducive to cultural exchange". In light of this argument, it is also crucial not to forget how the Internet has changed peoples' lives for the better. Truly, the Internet has not been the best thing that ever happened to the African culture; however, one can argue that it is a major advancement the region witnessed in recent times. We have seen testimonies of people concerning how the Internet helped them build a more sustainable future with better education and culture. Though a good amount of individuals have unanimously stated that the Internet has improved their lives, many others have unceasingly echoed the negative impact the Internet has brought on their local culture. Quite debatably, many Africans believe that Internet and Internet fraud originated from the Western world; hence, people will adopt such elements which will impact negatively on the culture of the continent. Similar to many new things introduced into the region, Internet fraud has unfortunately altered the intrinsic African cultural concept as different people now possess different values, beliefs and motives.

4. Economic, Social and Cultural Impact

The Internet has certainly improved economic activities and helped facilitate better international relations among people of different ethnic backgrounds. In as much as dubious individuals employ the Internet to fulfil their self-centred and illegal intents, by inventing sly techniques to rip people off their fortunes; many businesses have on the other hand benefited from the use of the Internet. Online marketing business actions have created avenue for entrepreneurs to carry out commercial activities not just within the continent but also, on a global scale. There are no more the days when tycoons have to be in the same location with their clients in order to perform business transactions. The Internet has not only made it possible for businesses to be executed on real-time basis in different locations all over the world, but also, enabled better inter-cultural understanding and improved ethical relations.

Recently, Ghana's Ministry of Commerce commissioned an online business website to enhance the activities of micro-, small- and medium-scale enterprises within the country. The ministry also launched an "Innovation Ghana" initiative with the well-known Google; this initiative was made to recognize Ghanaians who engage in Internet activities employ to provide smart high-tech solutions to existing issues (Kaplan 2013). These and many more are benefits derived from the use and deployment of Internet in the region. It is therefore fair to assert that growing Small and Medium Scale businesses in the region have benefited from opportunities provided by the Internet. The Dalberg survey makes it clear that the Internet has helped to improve a lot of businesses in Africa by increasing market and sales through amplified competence in information management. Both the Entrepreneurs and the clients have benefited from this added advantage made possible by the Internet. Businesses have been made more transparent due to the healthy competitions with other businesses carried out on the Internet; thereby granting clients the opportunity to choose from a variety of services (Kaplan, 2013).

Ohiagu (2010) in his empirical findings asserted that ICT has both positive and negative impacts on the Nigerian populace. Negative in the sense that globalization and widespread utilization of Internet gradually erodes characteristic cultural values and behavioural norms. Surely, interaction between people of different backgrounds typically comes with exchange of values, norms, and ideologies. With exposure to the other parts of the world via the Internet and other social media, shift in peoples' mode of dressing, style of walking and even way of life are liable to occur. Whether the latter will be beneficial or detrimental depends on the individuals concerned. Quality time is devoted on the Internet to unprofitable chats, unnecessary playing of games, surfing pornographic sites or engagement in online sexual promiscuity amongst others by the Nigerian youths of today. These unethical mannerisms are borne out of excessive exposure to the western world via the Internet. Nevertheless, Internetwork communication with its positivity, grants the Nigerian youth increased access to global information, news and happenings. Very quick accesses to research materials online and overall social development are also added advantages Ohiagu (2010).

Furthermore, considering the trio of dressing style, parlance and gait exhibited in African countries, juxtaposed with corresponding manifestations in the Western world, a lot can be reported. Culture by definition varies from place to place; what is ethnically acceptable in a place may be perceived as aberration elsewhere and could trigger the sense of disagreeability among people. Many may have expressed diversified opinions relating to modest style of dressing, walking and speaking manners; however, more importantly most people view modern dressing as a serious source of concern because it has caused many ironical and curious twists of fate. Globalization seems to be shrinking the world into a single community with Internet technology nearly at the disposal of everyone. In Nigeria for instance, in the past, indecent or somewhat nude dressing was considered obnoxious in the society but in recent times, it has become commonplace especially amongst young people. We now see people walk through the boulevards in shocking and offensive attires deliberately exposing parts of their body which normally should be covered.

Also, bearing in mind the level of civilization in today's world, it may be difficult to appropriately justify what is acceptable as decent dressing by every individual as proper or decent dressing could mean different things to different people. Irrespective of differing perspectives about dress styles, a decent dressing standard is generally welcomed in every society. In one way or another, a significant population of African youth having being amply exposed to the Internet now tends to try out what's being observed overseas. Dressing is no longer a fashion trend but a cultural somersault; in fact, dressing cultures of both good and unpleasant sights perused all over the Internet are quickly transmitted and copied by developing countries. Anyways, it will always remain reasonable to assert that wearing of clothes is a unique and exclusive phenomenon of the human race therefore; just as a decent dress sense will attract good moral judgements, indecent dressing on the other hand majority of the times might attract rape, prostitution and other sexually related crimes (Edeh, 2013). Arguably, the remote causes of most of the sexually related criminal acts prevalent in the continent today appear connected to the ugly trend of offensive dressing. Historically, when people are clothed and adorned in their various native attires, they showcase their characteristic native cultures; but nowadays, the idea is steadily fading away and sadly the highly esteemed moral rectitude in the African society is seriously waning.

5. Diminished Passion for Academic Excellence

About 20 years ago when Internet facility was never ubiquitous and accessible by all and sundry particularly in developing nations, young and aspiring people had such a wonderful and enviable reading ethos. Those days, seeking information pertaining to different subject matters from various books and encyclopaedias in the available libraries to solve academic problems were commonplace. There was not only the perseverance attitude, but also incurable optimism and drive for excellence exhibited by many individuals. No matter how time-consuming, unexciting, or difficult it was to access information, you could feel the intense desire to garner knowledge against all odds and attain excellent grades. Friendly and healthy competitions amongst pupils or students in different educational levels were always fun to observe and point out.

As time passes by and technology evolved over and over again, changes in peoples' perceptions at studying effectively and achieving commendable results became unavoidable. Sadly and perhaps somewhat unsurprisingly, abysmal failure is prevalent in the Internet age of today compared with stellar performances of the yester years. Unquestionably, the Internet is the fastest means to access and acquire information with millions of sources from different websites available online and there have been series of never-ending arguments amongst all education stakeholders worldwide on the need for the implementation of e-learning in every academic institution owing to its cost-effectiveness, faster mode of delivery and other exciting benefits it promises to offer. The crucial question is: when people start up their computers, tablets or androids and other smart devices to surf the Internet, what websites are most or least frequently visited? In December 2012, the Nigeria Minister of Education while speaking at the National Conference on Examinations in Abuja, Nigeria lamented the decline in students' overall performance in the annual West African Senior School Certificate Examination (WASSCE). The Minister stated: "a close look at students' results over the years showed that there had been steady decline in the number of candidates, who obtained five credits and above including English Language and Mathematics. This is worrisome considering the fact that the subjects were basic entry requirements for transition to higher education in the country. Only 30.9 % of candidates obtained the five credits and above in WAEC in 2011". Here comes something to ponder on: who or what do we ascribe the decline in performance to?

In recent years, meeting a young lad on the streets of West Africa and asking about life goals and aspirations, bulk of the response is typically fun and entertainment happenings. If you go any further asking about school grades, you might be embarrassed. You probably have to walk a thousand miles to meet a teenager or young science student who tells you he or she wants to be involved in proffering solutions to critical challenges in the world. It has now become a rarity to have young people aspiring to be better than the likes of Albert Einstein, Thomas Edison, Nelson Mandela or other great achievers in their chosen career path. Facebook, Twitter, and YouTube have become the order of the day in the contemporary age of Internet and social media. In fact, when you encourage some people to study well so as to attain outstanding results, you realize they are unwilling to go any further than high school. The best you get from such conversations is sheer display of the traits and attitudes of happy-go-lucky individuals who continually fail to realize that the hallmark of success dwells significantly on perseverance, commitment and incessant diligence.

On the contrary, it is stale that the Internet has the potential to make up for the gap existing between the western world and the developing countries. Access to information for academic purposes and other personal developments is much easier as the Internet provides the avenue for scholars to search for resources without having to excessively rely on the under-equipped libraries mostly seen in developing countries. Although one cannot completely disregard the dwindling academic zeal demonstrated by most scholars since the Internet became available in the African communities, some people continuously preach that the Internet has helped to improve their learning and cognitive processes.

Chikanta and Mweetwa (2007) argued that "There is great need to have Internet at every institution to improve on teacher's output and expose pupils to Internet at the early stages of their education". Today, we have seen one of the many benefits of the Internet in educational systems. A lot of people have benefited from distant learning and online studies. A notable Zimbabwean analyst once said: "Even if certain groups of people in Africa cannot read and write, information sourced on the Internet can also be passed by those who can read and write to the illiterate, hence everyone in the community benefits from it".

However, as enticing as the benefit of Internet in education may seem, it is pretty disturbing that a hundred per cent integrity maybe missing from academic works as individuals are able to outsource home works and projects. Regrettably, this is flourishing and the skill of analyzing, evaluating, thinking and producing constructive thoughts is gradually fading away. We are getting to an era where the Internet is hindering the independent thought process and originality is being taken over by what cannot be easily validated. In as much as the Internet appear to be a subtle way out of face-to-face dialogue and paper resources, one thing is certain; it can never be a replacement for a comprehensive masterpiece in arts, sciences and philosophy (Abhy 2010).

6. Potential Solutions and Recommendations

Based on the foregoing discourse, the following bulleted points have been identified as potential solutions and recommendations regarding the use of the Internet in Africa:

- Adequate awareness about the Internet is crucial. People must be made to understand that the Internet can be a very enlightening platform, fun to surf, as well as damaging to character if inappropriately utilized.
- Restrictions or filtering of what people can access on the Internet should be in place for young people especially teenagers. We must always remember two popular maxims: *Catch them young*; and *old habits die hard*.
- The subject of ethics being a part of college and university curricula should be embraced in African universities. This should include all disciplines ranging from scientific to medical, legal, engineering ethics and so on.

7. Conclusion

Employing three highly relevant theoretical perspectives, this paper has highlighted positive and negative consequences the Internet has brought to Africa. Ranging from the exciting benefits of online businesses to the damaging effects of Internet frauds, the Internet has had some effect in one way or another. Irrespective of the constant debate on the impact of the Internet, it is certain that the progression in technology will never cease to be consequential either in a positive or negative way. It is obvious that the developments in Internet and associated technologies will continue to flourish making globalization even more solidly entrenched in every society. Socio-economic and cultural systems will continue to emerge and international integration of diverse views, values, ideas and tenets may not cease proliferating locally from coast to coast.

It is true that the Internet has moved the continent forward by improving its businesses, educational and cultural sections; nevertheless, the halting effects have proven to be detrimental to the region's educational and cultural aspects. If the region decides to stick to its old norms, then it will lose the benefits that the Internet age has brought. If it also decides to give up its intrinsic norms, it will expose the region to new vulnerabilities that come with technological advancement. Technological innovation is often expected to bring about great positivity to all and sundry. All the same, there always exists a damaging effect(s) alongside the good tidings no matter how small. In order to preserve norms and core cultural values or principles in the contemporary age of nearly ubiquitous Internet facilities, it is greatly essential to find the right balance and adequately manage the trade-off between the sides.

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Key Terms and Definitions

Culture:

Culture denotes the way of life and idiosyncrasies of, or belonging to a particular group of people within a society. It incorporates what and how we speak, our style of dressing and gait, religion, social habits, morality, thought patterns and ideologies, attitudes, core values, ethos, and so on.

Education:

Education means the acquisition of knowledge, skill and information. It is the art of teaching and learning about desired subject matters whether in a school, college or university or by day-to-day experience.

Internet:

The Internet implies a series of globally interconnected computer networks designed to foster communication and exchange of information between two or more locations. It is a platform which holds cornucopia of information and instantaneously provides them upon access through numerous search mechanisms such as Google.

Technology:

The process of systematically exploring science and engineering so as to solve a particular problem, improve upon an existing design, or develop a novel solution can be referred to as technology.

Vulnerability:

Vulnerability in a computer system is a frailty that an attacker might grasp so as to gain unauthorized access into the system. Vulnerable users on the Internet might suffer from hacking or cyber-crime.

Exploit:

This is the act or deed of taking advantage of a recognized vulnerability.

Risk:

Risk refers to the variation in probability that an attacker will use a recognized vulnerability to cause damage in forms such as Internet fraud or identity theft.