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## **Promoting Peace and Education – from ICT's Perspective**

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## ABSTRACT

In the modern time Information Technology is the vital power of a country and the development of a country depends on the strength of its Information Technology's level. But the development actually depends on the two major factors that are Peace and Education. If there is a peaceful environment in a country only then the education can be provided to its society and only then the doors of others advancements open. It is true because more the peace more than people's mind is calm more they can contribute to their society and country. The information technology is playing a major role in creating peaceful environment and promoting education. In this paper I have put my effort to highlight the main areas where Information Technology is vital in these two sectors.

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## INTRODUCTION

Peace and Education are not created with one-time act but true peace and education are built over time with many processes and approaches that move conflicts into lasting, peaceful relationships and uneducated society into literate society. Information and Communication Technologies ICTs whether hardware or software helps to the people to communicate understand data and learn with tools like computers and PDAs has proven a tremendous help in implementing peace and education promoting methods. In the first section the role of Information Technology in promoting peace are discussed and in the second section the role of Information Technology in promoting education are discussed.

## 1) Information Technology in Creating Peace

The Information Technology is contributing in creating peace by helping the human in a number of ways. Some of the fields in which Information Technology is playing vital role are described:

## 1.1) Disaster Management

Man is always disturbed with natural disasters. Any country whether it is developed or developing, if it has lack of potential to cope with natural disasters it will never develop in future. Information technology has developed a number of tools and software for environment analysis to get, store, analysis and visualize data which is used for observation and the create prediction about environmental changes. With the help of Remote Sensing, Geographic Information System GIS man is able to get data and further knowledge concerning the global environment as it is used for mapping and monitoring various natural resources. Recently Ministry of Environment and Forest and Indian Government have created Environment Information Svstem (ENVIS) for collection of information that is used to boost the relationship between trade and environment. Information Technology is also used for analysis and prediction of environment changes that save man and money. The Information Technology has the power to manage natural as well as manmade disasters as it is used to study the earth sciences, earthquakes, floods etc [4]. The ICT is used in almost all phases of the disaster management process, to create early warning systems with the help of SMS, cell broadcasting, Internet etc. In short ICT plays an important role in Disaster Mitigation, Preparedness, Response and Recovery.

# 1.2) SNS (Social Networking Sites)

The social networking sites like Facebook, Twitter, Google + etc. also plays an important role in building relationship, speedy communications in society. These sites open the world and make it a smaller place that it has ever been before. Family members that live



abroad can share their latest happenings. In the time of a natural or man-made these social networking sites are playing a very positive role in broadcasting the message to the whole world in a very short time to aware the world about the disasters or miss happening. Then people and governments from the world come forward to help the victim country [5].

## **Information Provider**

Information can be the greatest bliss in peace building operations by empowering the ties between individuals and communities and improving their ability to share, learn and interact with one another [1]. The more the information means better understanding situations and then better action accordingly. Information Technology has created sea of information with the help of following:

# 1.3)The internet

Today Internet is the bliss for information sharing. A number of telecommunication organizations provide easy way to connect to the internet with the help of PDAs, cell phones etc. in the northern provinces of Uganda, connected relief organizations and greatly improved the efficiency and effectiveness of their work [1].

## 1.4) Modern smart phones/PDAs

These modern devices have dramatically increased the flow of information. For example in South Africa the UmNyango Project is using SMS technology to allow those with cell phones to access information and report violence against women and children etc. [1].

## 1.5) Geographic Information Systems

GIS are the Information Technology software that are used to capture, store and analyzes data of geographic locations. This data can be used to help in maintaining observation of borders or tracking refugee movements etc. [3].

## 1.6)E-Mail Discussion Lists and Forums

Information Technology has opened a path of connecting communities with e-mail lists and forums so that in case of any conflicts the conversations can improve the quality and quantity of information and the conflict can be resolved.

## 1.7) Internet Relay Chat

This is a reliable method of managing anonymous group discussions over the net. It has proven a very effective method that allows discussing sensitive issues. Skype and MSN Messenger are some of the examples of these kinds of tools.

## 1.8)Radio

This tradition media has been modernized with Information Technology. Today Radio stations are broadcasting via the Internet. In some of the areas the Radio is the only way to connect the outer world. For example Search for Common Ground has launched Radio for Peace building Africa, which aims to develop, spread and encourage the use of radio broadcasting techniques and content for peace building.

#### 1.9) Empowering People to Process Information

Information Technology has empowered the peoples to process information on their own behalf with the help of websites and information portals, Data visualization tools like GoogleMap, online dispute resolution tools (Synanin [1]) and virtual command centers. These tools are used to resolve conflicts peacefully using online debates, negotiation etc.

## 1.10) Improving Decision Making

It is true that the state of peace or conflicts is often greatly influenced by a single handed decision. Information Technology is helpful in improving the decision making skills. The ability to see the critical information and likely result of decision and the environment in which decisions are made. The decision making can be improved with help of Simulation and Computer Gaming (A Force More Powerful) and Online Dispute Resolution tools (SpaceDebate.org) [1]. These games and tools are able to teach the skills required for in nonviolent conflict and allows users to publicly discuss the many aspect of space weaponization.

## 1.11) Helping in Reducing Scarcity of Resources

A number of times scarcity of resources like food, water and money are the major contributing factors to create a conflict. Information Technology is also contributing in such kind of situations to create peaceful environment with the help of Mobile communication. Actually with the help of modern smart phones, PDAs and the availability of the Internet the communications has become very cheap and easy and the affected areas can be helped with the government and non-government agencies in a very short span of time. Here are some live examples, local water management boards are relying heavily on handhelds to help those better monitor water resources to ensure upstream consumers do not overuse or pollute water before downstream users can benefit.

## 1.2) Helping People in Understating Each Other

It is a fact that increase understanding of different cultures, languages can build the mile stones of reducing conflicts and Information Technologies like Internet is helping to make distant situations more understandable and other people seem more like us.

With the help of translation software people belong to one language can understand the feelings of people belonging to another language. The United States Department of Defense has invested in the development of handheld translation devices to help soldiers. The reading from the informal accounts on a blog is the powerful way to understand different cultures and lifestyle [1]. Finally the SNS and Multimedia is also contributing in the same concern.

## 1.3) Medical Facilities

Information Technology has changed the way of medical equipment. In the modern times Information technology is used for medical consultation, diagnosis, treatment, testing DNA and medical education. Information Technology helps in awaking the people about local and epidemic and communicable diseases. The image processing and robotics have improved the traditional medical equipment to such an extent that in the modern times most of the treatment is done automatically. These medical contributions of Information Technology are very helpful in creating peace inside country.

## 1.4) Tracing Missing Persons

Every country today is facing this crisis. A number of people are missing every day. The Information Technology helps in finding a person with GPS. It also helps to many investigating agencies to identifying the missing persons and criminals also. The speed of searching records is very fast with the help of modern high speed processors [4].

# 2) Information Technology in Promoting the Education

The collaboration of Information Technology in the Education sector is the greatest bliss for the society. No subject today is that is not using the Information Technology in one way or another. In the modern times eBooks, E Libraries and becoming very popular to get the books free of cost that are otherwise very hard to purchase for everyone. The following sections are highlights of some of the points that make us clear that how Information and Communication Technology has been contributing every subject of Education:

# 2.1) Medical Sciences

A lot of research in the Medical Sciences is occurring every hour and the tools that are used to make experiment the data and then finally analyze the data are boons of Information Technologies. With the help of very high end servers the lab experiment can be done within an hours that take many weeks before theses systems. And with the help of Internet the institutions that do not have enough lab equipment can use equipment from far located Universities equipment. That saves a lot of money and efforts

## 2.2) Core Sciences

The core sciences subjects like Physics, Chemistry and Botany etc. are now become very easy to teach with the help of multimedia. Now these days' teachers are provided very user friendly software that makes the lecture very interesting and innovative. The concept of Virtual Labs is very popular these days in which the virtual lab is created with virtual lab materials. All the chemical reactions can be experimented without physical chemicals that save a lot of money.

## 2.3) Geography and Earth Sciences

With the advancement of Internet and high speed networking devices the teachers of these subjects in Universities are now able to connect with the very high tech labs like NASA and can get the sample images of the geographical movements of the planets etc.

## 2.4) Banking Education

Banking is now computerized for example; the transactions can be done online by the mobile phones, PDAs, ATMs. The staff of banking industry is trained with the help of multimedia slides to give then perfect knowledge of the software related to banking industry.

## 2.5) Economics and Statistics Education

The Economics and Statistics subjects are taught with the help of very advanced software like SPSS, MATLAB and MS EXCEL. This software is very easy to use and save a lot of time and effort of the teacher as well as the students. Although this software are from different vendors but are compatible with each other's so that data files can be imported from and exported to another software without any changes.

## 2.6) Business Education

Business education is very highly dependent on the multimedia presentations, charts, graphs etc. These are very easy to design and use with the help of a number of paid and free software like MS OFFICE, LIBER OFFICE, FLASH, MACROMDEIA DIRECTOR etc.

## 2.7) Social Sciences

The entire Social Sciences subject like Hindi, Punjabi, History, Political Science, English etc. can be taught by making the lecture very interesting with the help of multimedia presentation and videos. Even in the Primary education smart classes are introduced in India to teach these subjects to the pupils.

## 2.8) Mathematics

With the advancement in Computer Graphics software this subject is very easy to teach and learn. A number of computer software is present that are helpful in leaning this typical subject in a very easy way.

## 2.9) Civil Engineering

This subject demands the video library so that student can see what is constructed in the outer world so that they can also motivate. With help of Internet it is now become very easy. The live constructions can be

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visualized by the students that help a lot to the teacher also.

#### 2.10) Automobile and Mechanical Engineering

These are the manufacturing subjects that need the Information Technology the most. A number of software available to educate the students of these subjects to create mechanical parts of very big in size or very small in size. An AutoCAD, CAD/CAM technologies are used to teach the students of these subjects .The MATLAB, FLASH and Macromedia are also used for visualize the parts in working order without actually creating them.

## 2.11) Training of Driving

With the help of simulation software now train a person to drive any vehicle has become very easy. Pilots are trained in the same way. It saves a lot of money and physical damage of a person.

## 3) Conclusion

Information Technology has become part of the human life. It is contributing to make a perfect society. Although no technology is without cons, but it

is up to the human that how to use this Information Technology to create peace and promoting education so that becomes a bliss for the humans.

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