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Chandan Singh
Research Scholar, Department of
Physical Education, BHU.,
Varanasi, Uttar Pradesh, India

Anurag Kumar Giri
Research Scholar, Department of
Physical Education, MGKVP,
Varanasi, Uttar Pradesh, India

Dr. T Onima Reddy
Supervisor, Associate Professor,
Dept. of Physical Education,
BHU., Varanasi, Uttar Pradesh,
India

Important role of information technology in the field physical education and sports

Chandan Singh, Anurag Kumar Giri and Dr. T Onima Reddy

Abstract

Information Technology in Sports has established scientific discipline, Research activities, improve Learning and coaching, Bio-mechanical analysis and field research have evolved. In future very soon the way computer will be applicable in sports with good quality and best results. The modern alternative is the use of technology meant to increase accessibility to information and teaching process effectiveness. This paper highlights the use of modern technology in physical education and sports. The use of technology for teaching and learning has been summarized, in the following aspects: the needs for technology, computer-motion analysis, internet, video analysis/conferencing, chatting and challenges. It is concluded that technology use enormously improve teaching and learning of physical education and sport. The field of physical education and sports can make a significant contribution to the role that technologies play in our lives by carefully considering the benefits and liabilities of new information technologies on the whole person, body as well as mind. Information technology play vital role in the human being in particularly in field of sports and games.

Keywords: Information technology, sports technology and physical education

Introduction

India's IT Services industry was born in Mumbai in 1967 with the establishment of the Tata Group in partnership with Burroughs. The first software export zone, SEEPZ – the precursor to the modern-day IT park – was established in Mumbai in 1973. More than 80 percent of the country's software exports were from SEEPZ in the 1980s. The National Association for Sport and Physical Education (NASPE) believes that technology can be an effective tool for supplementing instruction when used appropriately. Therefore, the primary purpose of this document, developed by a task force of NASPE's Physical Education Steering Committee, is to provide guidelines for using technology to help students achieve the Standards for Physical Education. Teachers now face a generation of students who have never known life without a computer, video game console, cellular phone or Internet access; and that is changing the scope of education dramatically. Technology tools can provide objective data on activity levels and creative methods for individuals to engage in physical activity. Studies have indicated that active gaming can promote higher levels of energy expenditure compared to seated video games, as well as increasing heart rate and oxygen consumption. National School Health Policies and Programs Study indicated that 42% of physical education teachers receive staff-development training on using physical activity monitoring devices; 37% on using technology overall. Also, between 17% and 49% of the teachers studied received additional training for administering fitness tests, assessing student performance, and developing portfolios and individual physical activity plans: areas in which technology can supplement instruction and help in managing data. Those statistics in addition to the recent release of updated National Educational Technology Standards for Teachers underscore the importance of developing guidelines for proper technology use in physical education. Information Technology has become an important inter-disciplinary partner for sports, this way physical education has its branches of Sports psychology, Sports Statistics, Biochemistry, Sports Medicine, Kinesiology and Bio-mechanics etc. Taking into consideration its association with other disciplines and its various aspects, computer can be used and are being used in physical education and sports. Human play, as embodied in sports, is one of most important in expressions of human culture.

Correspondence
Chandan Singh
Research Scholar, Department of
Physical Education, BHU.,
Varanasi, Uttar Pradesh, India

The games in which people in the society it's reflects their society and culture as a whole. It is said that communication is one dominant contribution to the human being on the planets. The Olympic movement is one of the social movements on human society. The countries from all over the world gathering in one place during summer Olympic games for peaceful is the epitome of intersection of sports and communication. This fact underscores the importance of the media and the Olympics. The presentation will briefly explain the relationship between information technology and sports.

Information Technology in PE and Sport

The information age was 1970's. The change was brought to the society with the creation of world web (the web). As change in technology, changes channels of communication and message content. The early 1960's, the computer technology establish protocols which become as the internet in 1969. And later development of Hypertext Mark-up Language (HTML) in 1989 that became the basic for the development of web in 1993. The web was introduced to the public at large. During the formative days of the web lot of things was include such as email, blog, face book, twitter, lot of website, journals, you tube etc.,. Another important fact of information technologies being used in sports is seen in the trend analysis done by administrators in sports, franchises and leagues while the most basic functions are storing data used to determine statistics, disclosing the score of a game or uploading pictures for fans to view thorough out a game. In the past, task such as developing rosters (name list) of athletes, managers, officials, timekeepers, drivers and medical staff was took much time to done the work with hand. but the institution of IT in sports, team administration was now able to not only create detailed rosters of these individuals but can schedule them for work. Also, most profession sports venues have very modern scoreboards that are programmed to update statistics and information directly to a computer system. So with the use of such modern technology, almost every area of sports has become dependent of automation due to relevance that it implies to the lives of spectators all over the world. Through the help of the internet and other web services, live feeds of sports events have become so accessible anywhere in the planet. Most of the professional sports in the world have long used instant replay and other high tech aid to help the referees to make a right call. Video replay systems to check referees call for many years. Basketball referees use replay system to make sure players is shooting wishing the time allotted by the shot clock. In international cricket, the third umpire has been used for certain situation. The umpires who are out of field can communicate via wireless technology. The third umpire is asked to adjudicate on run out decision. In Football/Soccer the replays could be used to decide off-side decisions, whether a ball passes over the goal line or not.

Computer

Computer is an electronic devise that has the capacity to store, retrieve and process both qualitative and Quantitative information fast and accurately. Computers-we used to produce documents, lesson plans, to convert scores management. It also involves video units PC heart rate monitor, remedy heart rate monitor and educational software. Computer also aid learning experiences when they are used for motion analysis. This involves using computer to examine the way learner moves and then determine ways in which this movement can be improved in a practical physical education class. This devise stresses how human motor abilities can be

perfected and controlled. For example if you ask a softball pitcher how he/she throws a fastball, they may not be able to tell you. Motion analysis visually shows the rudiments and sequence of actions involved in arm, leg movements to enhance performance of skills. Video tape images are also transferred into computers. Special application software analyzes the images. It measures the exact angle at which the player s holding his or her arms and lags. The speed and efficiency of each movement is measured. When using images, the teachers, advantage consist in his possibility of making corrections as soon as pupils exercise is completed, which him to quickly progress and improves his learning. Other computer software such as the programmers Professional Evolution Soccer (PES) is used to play games. Learners play, identify appreciate the skills, rules and evaluate officiating of the game.

Video Conference

It allows two or more people at different locations to see and hear each other at the sometime. The communication technology offers new possibilities for sport colleges, libraries including formal instruction to share strategies for coaching sport skills. A very attractive multimedia tool determining students' enthusiastic participation in physical education lessons is represented by the audio aids. Direct or indirect aids such as drums, piano respectively. Radio cassette recorder equipped with CD/DVD can be used to reline the movement pace and get students familiarized, with some sonorous competitive conditions. The digital camera use in the instructive educative process allows a quick verification of students' placement and posture, being at the same time a very good mean to stress body segment positions when performing sonic motor elements. These are the potentials used to enhance teaching and learning of physical education.

Chat through the Internet

Interactive chat improves communication with experts and colleagues and community members. Chat allows fellow physical educators to simultaneously communicate publicly on your website, internet, extranet. Team members, class and course mates from different locations can easily conduct on line meetings. Colleagues gather together to intimate groups and discuss issues related to physical educations. They could gather in large online events to interact with expert's celebrities, instructors, coaches and teachers can assess chat groups on particular academic issues in physical education and sports.

Application in Sports and physical education

The field of physical education and sports can make a significant contribution to the role that technologies play in our lives by carefully considering the benefits and liabilities of new information technologies on the whole person, body as well as mind. Nowadays in schools, colleges and other institutions, students are given more organized and disciplined education through I.T. and computers, because it is more authentic innovation and convincing. A variety of programmes are available which help in track-grading, conducting health assessment, monitoring research projects, and analyzing sports performances.

Benefits of Information Technology

Here are some of the ways technology can provide or facilitate most of the types of support that someone trying to

become or stay physically active needs. Now a day's computer is widely used as a teaching aid. In this era of globalization black board is quit away. Power point presentations, Video clips, Animation, Graphics, and Sound have become much more effective and needful, CD, DVD, MP3, is more useful in teaching. IN some way computer is applied in sports sciences, scoring systems, computerized test all evaluation can be largely followed. A coach keeps monitoring on the players. A computer helps us if any deficiency is found. Records of the player can be maintained for future plan Selection of players for various game and sports is an important for this multiple regression helps in many ways. Hence computer plays a significant role in storing research data and its analysis. Treatments in sports medicine involve Cardio-Vascular, Flexibility and strength building programme. Sports Medicine is the study, prevention and treatments of sports and fitness related injuries.

Conclusion

Information technology play vital role in the human being in particularly in field of sports and games. It helps to avoid mistake in organization and administration of various sports and games at world level. Information Technology in Sports has established scientific discipline, Research activities, improve Learning and coaching, Bio-mechanical analysis and field research have evolved. In future very soon the way computer with be applicable in sports with good quality and best results. Technology provides access to information, compresses information, motivate learners, and connect learners to teachers and teacher to the colleagues. There are nowadays many available technological innovations that could be inserted into the physical education lesson. The visual physical education lesson is essentially based on the connected learning environment which uses technology that are networked in structure. Physical education should avail themselves of these technology opportunities to make their lesson more real and dynamic.

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