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Information Explosion and the 21st Century Youth:

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Prospects and Challenges



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Role of Ict in Sports

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ABSTRACT

As we all know that in today's world, Technology has its impact on many areas of life. Sports is also an exception to this. In this paper we will be discussing about the role of ICT (Information and Communications Technology) in sports. ICT helps in data management, data analysis and data accuracy, completeness and availability. The use of digital and social media in sports. ICT in sports broadcasting, instant replay, sports video games, smart sportswear, on-field cameras, smart devices. Thus in recent years technology has had a gigantic impact in sports.

1. Introduction

Sports is becoming popular day by day. It has a wide viewership all over the world. For the credit goes to ICT. People are emotionally attached to various popular sports. So fair and decision making is very important. Due to popularity of sports, many people are taking sports as a career. The popularity of sports has increased in the past few decades because of ICT. Now ICT has become almost inseparable from sports. It has become an inevitable part of sports. State-of-the-art technologies are used to optimize performance in sports¹.

ICT in Sports

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 game². ICT plays a major role in managing huge data related to sports. ICT also ensures the completeness and accuracy of data. It helps in data analysis and decision supporting. The media channels that broadcast sporting events are now using technology to share information at a pace quicker than ever before³. Coverage is available everywhere all the time.

If someone wants to learn about a particular sports, many online tutorials are also available which can be easily accessed. Various mobile apps related sports are also available. Sports have become a source of entertainment. People can watch sports on television or other such media at home or any other place. Through technology people can share their views on a sports event through chat lines, newsgroups, discussions etc. Various games can also be played on the computer. Sports has become a leisure activity for many. Online coaching related to sports is also available. Learners of sports can avail that also.

ICT can be used for data management and Analysis. Also used for statistical purposes. Sports statistics can also be maintained like individual, records/landmarks, Today's events etc. Information about potential players can also be fetched any moment like recent performances. Various data like outcome, team scores, player timing can be made with the help of ICT. Technology can improve accuracy by Umpires (runouts, fouls, timing) and replays (Human errors, what-if). For players, teams, officials or supporters, technology has become a crucial part of the way we watch and consume sports⁴.

ICT plays a major role in sports broadcasting. It helps to build graphics, statistics, etc.

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angles and Provide broadcasters with real time data. ICT aids in instant replay. Sports video games are also made with the use of ICT. Smart wearables are becoming popular in sports world like smart watches and headphones. Soon smart shirts and other types of smart fabrics will be widely used. On-field cameras and tracking devices embedded into players shoes, helmets and other gears track players and their statistics in real time⁵. Multimedia technology can be used in the teaching of physical education colleges and universities. Virtual sports training technology can be used. students can be fully trained on a computer for sports without the need of a huge training site⁶.

Technology also plays a crucial role in Sports Training. Virtual build situational training can be for training purpose. modern bio-mechanics build a virtual context. For example the use of VFW and digital image technology in shooting training. Smart sports equipment are also in trend now such as smart tennis racket, smart basketball, smart running shoes, smart watches and others.

Feedback technical equipments are also being used. During the practice, the natural (inherent) information is provided internally through human sense organs. In many sports disciplines *Eye and optical tracking are classical methods for providing augmented feedback information*

and analysis and terminal feedback.
Assisting the umpires / Referees

ICT plays a great role in assisting umpires/referees to make right decisions with the help of replays and high-tech aids. Hawk-eye technology is being used in international cricket and Hawk-eye is the name of a computer and camera system which traces a ball's trajectory⁸.

And the Olympic Games

Since the Olympic Games, there has been a dramatic increase in the use of technology around the world. A few technologies that have been used in Olympic games are namely Photography and Timing Systems, Scoring systems, gaining an advantage and it goes on.

Fitness and Nutrition Software

Fitness and nutrition goes hand in hand with sports. Various fitness and nutrition softwares are available now-a-days like Fat Calculator, Body Tracker, Team Beep Test, FitnessAge, Beep Test, BodyByte.

Sports Apps

There are many apps for mobile phones or tablets that are useful for the field of sport science and particular sports. Some such apps are namely Fitness Testing Apps and Golf Apps. A few Fitness Testing Apps are Fitness Meter (iphone / ipad), Beep Test App, Yo-Yo Test App, Heart Rate Measurement, VERT Vertical Jump Measurement, Step Test, Speed / Radar etc.

And Professional Sports

There is a strong connection between professional sports and data analytics. physical objects (like shoes, gloves, balls or even the floor) are increasingly enriched with sensors that collect data and provide insights to players, coaches, fans and regulators⁹. Some of the Analytical applications are Statistical Analytics, Strategic Analytics, Regulation, Fans insights and experience. Various technologies are used in professional sports. A few such technologies are Digital scoreboards, Virtual Wagon Wheel, Heat Map, Replay Vision, Video Referee, Accusport, Goal Line Technology, Hot Spot, Snickometer, Sports Photography, Kick Off etc.

Conclusion

Looking at the crucial role that ICT plays in sports, Sports and ICT have now become almost

Many sports activities are managed with such an ease with the help of ICT. In the future many technologies will be coming that is going to further ease out many day to day activities related to

become an integral part of sports and it's going to continue further in the future.

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