

ICT (INFORMATION AND COMMUNICATIONS TECHNOLOGIES) FOR SPORTS : SMART GAME

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ABSTRACT

Innovations in Information and Communications Technologies (ICT) have changed the way sports are organized, played and viewed nowadays. ICT has also enhanced the experience of sports fans and vast television and online viewing audience. There is no doubt regarding the importance of data analysis in sports. ICT is now an integral part of sports and winning is not just about being the best in chosen sporting disciplines or team sports but also being smartest and having all the latest gadgets and technologically advanced sports equipment in your kit. Some of the examples are Cricket21 and 22yards for analyzing cricket matches, drag flick for analyzing hockey matches etc. The emergence of demanding vast online audiences, well versed conversant with consumer ICT technologies for sports has also detected the implementation of ICT technologies by sports administrators and leagues commissioners. Improved decision making and in real-time has cut out the many human-lead errors of the past decades and has raised the sanctity of sports. Sports analytics is here to stay.

Keywords: Hawk-Eye, Inevitable, sanctity, conversant & troves.

1. INTRODUCTION

The paper shows the use of sensors, lasers to capture data and transmitting data to smart phones and tablets so that it can be analyzed used for making decisions and performance important.

2. RESEARCH METHODOLOGY

- **Tennis rackets:** Sensors embedded or hardwired in tennis rackets have literally changed the name of the game in one of most highly competitive individual games. These sensors are generally embedded in the handle and are able to track all aspects of game played by the players; wielding them or playing with them. The data generated and collected can be uploaded to smart-phones or other computing platforms such as computers, laptops and detailed aspects of all levels of play can be reviewed. Top ten tennis players and one of the greatest exponents of the clay-court game. Rafael Nadal used babolat PLAY and data generated from Rafael's games was utilized by his coach to make adjustments or refinements to Rafael's games.
- **Boxing gloves:** Embedded sensors in boxing gloves aim to give insights on data captured about various aspects about a boxing session or a boxing bout. Data pertaining to speed of punches, calories burnt during training sessions or actual games are all recorded or analyzed. Such data captured can be stored in the cloud. One of the leading technologies which are revolutionizing the real time data-capture of embedded sensors is Strike Tec boxing technology.
- **Intelligent and app-enabled soccer ball:** Soccer is the most popular universal game and is played in almost all countries of the world. Sensors embedded in soccer balls help understand ball impact, ball drift, impact points on playing surface as well as players' boots and heads and flight trajectories. Sensor packages are generally suspended in the middle of the ball and can transmit data to tablets and smart-phones in real-time.

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3. DATA ANALYSIS AND INTERPRETATION

Apart from revolutionizing viewers' pleasure, they have significantly improved decision making systems. Referees, umpires and other designated officials and authorities can make quick, informed decisions and avoid conflicts.

- *Video referee:* The introduction of video referees have changed the dynamics of decision making and also raised the drama of sports watching for captive television and online audiences. Now-a-days, video referees are able to make decisions faster and more accurately. With the availability of relevant angles of play and enhanced and high –tech video review technology, average time taken for decision making is coming down. Live explanation of decisions to fans ensures fair-play and transparency and also cuts out human errors and transforms the experience of fans of all sports.
- *Goal-line Technology:* The most high profile global sports soccer has benefited a lot from decision making. FIFA started using goal-line technology during the last World Cup held in Brazil. Such goal line technologies in a suite of electronic devices placed near goal –lines are precision –driven and speedily determine whether the whole ball has crossed goal line or not.
- *Hawk-Eye:* This technology is used in tennis, snookers and cricket .It was also used in the high –profile Premier League season in the U.K in 2003-2014. Hawk –eye technology used in cricket has raised the spectacle of cricket watching for fans.

4. PREDICTION

In the current era, all major sports teams in professional as well as semi-professional leagues will have analytics departments. Prediction is the key when it comes to making sense of the mass and troves of data generated from the use and application of sophisticated ICT technologies and analytics.

5. CONCLUSION

The use of ICT applications and technologies in sports was almost inevitable after the mainstream use of such technologies in so many spheres of life and also business and commerce activities .The usage of ICT applications by the athletes and sports persons themselves has raised the bar for excellence in performance.

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