

TECHNOLOGY TO IMPROVE SPORTS PERFORMANCE

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Abstract:

In 21st Century and modern life style technology is greatly helped in building life easy and well used. New Technological research advances have greatly changes sports science and other all aspects of life. As the Sports industry's market has enlarged alongside popularity, technological study request has increased. This academic qualitative research primarily aimed to investigate the effect of new technologies on sports performance. The chat of different technological devices also focuses on the role of certain games and sports. Nearby researcher finds a number of technological devices now being implemented in the field of sports. Scientist agreed that these technological gadget increases the performance score and makes the game simple wide range of systematic reviews could more accurately pick the technological devices on sports performance.

Keywords: Games, Sports. Technology, Devices

Introduction:

Technological change is one of the most important sources to avoid mistake in organization and administration of various sports and games at world level. Technological innovation has practically changed sport itself. The way technology has impacted sport is incredible. In today's connected world, the use of wearable technology, big data analytics, social media and sensor technology have revolutionized the way sports are played, Information technology in sports has established scientific discipline, Research



activities, improve learning and coaching, Bio-mechanical analysis and field research have involved.

Aim of the study:

The particular aim of this intellectual qualitative study was to search the impact of modern technology on sports performance.

Methodology:

A complete online search procedure was applied for the addition of evidence in this orderly subjective study. An analytical analysis of the composition was orderly finding through online databases. Google search.

Technology in sports:

Athletics race timing in 1964 Seiko launches its new electronic automated timing system with a photo-finishing mechanism, improving



accuracy to 1/100th of a second.

In 1980 Transponder or RFID (Radio Frequency Identification)

timing is designed using radio frequency via a chip Placed on the athlete to record times at antenna points. The RFID chip is very similar to a bar code label as it also typically works with a scanner or reader, In 2008 Photo finish equipment captures 3000 photos per second to track winners in race.

Athletics Clothing 1950s on words lighter and flatter track shoes are designed to find the perfect balance of optimal grip and comfort.

2012 athletic apparel starts to measure heart rate, respiratory activity, posture, speed, and weight distribution.

2016 New clothing is being designed to wick sweat away from the body by evaporation instead of absorbing it.

Neuroscience in 2017 Halo headband was first released to the public. The technology prepares the brains of athletes for training and a big race by delivering pulses that help neurons fire together.

2019 The Halo 2 is released. Putting the headband on 20 minutes before a race can improve the brains ability to make new circuits making athletic perform better and faster.

In Tokyo Olympics 2021 games vision of staging the most innovative games in history and bringing positive legacy to future generation. Tokyo 2021 Games capture the world’s attention, they will promote robots for social good.



Technology Most commonly used in tennis, cricket, rugby and volleyball, Hawk-Eye Technology has been

in use since 2006 in tennis and is more accurate than a judge’s eye. Benefits of this technology: Hawk-Eye technology helps to take an error-free decision in cricket, lawn tennis, rugby league, football, and baseball.

Field Support Robot:

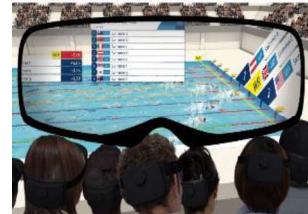
The Field Event Support Robot is equipped with autonomous functions which will allow it to assist at throwing events at the Olympic Stadium Tokyo 2021. The robots will determine the optimal path to follow when



retrieving items such as hammers or javelins thrown by athletes, while guiding staff along paths to avoid obstacles. It will help reduce the amount of time needed to

retrieve items and the amount of human support required at events. Toyota and Tokyo 2021 will be working with the International Association of Athletics Federations (IAAF).

AR experience that takes advantage of 5G’s low latency. These facilities will be at the respective venues for sailing, swimming and golf. These unique offerings are the result of



support by NHK and the Japan Commercial Broadcasters Association, and technology

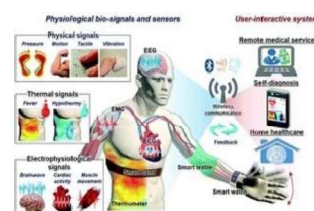
provided by Intel Corporation, NTT and NTT DOCOMO.

Sporting equipment continually undergoing research and development to improve sporting performance. Some of the best examples include:

Fully body swim wear, made of polyurethane, and made a huge impact in the 2008 Olympics only to be banned a year later because it was too obviously making a difference to sporting performance.

Kevlar fibre (5 times stronger than steel yet lighter, used in the manufacture of sails, bicycle tires, football boots, tennis rackets, helmets, body armour and more. Raving cycles and rowing shells made of lightweight but strong materials, and minimise drag though the air or water.

Wearable Hydration Tracker that helps athletes



to optimize their hydration levels. Getting level right during physical activity is essential. Too

much water will cause you to feel sick and bloated. while not enough leads to dehydration. Harvard has produced the product called Nix. This is a wearable hydration tracker that lets athletes know when, what and how much to drink.

Respiratory Monitoring track heart rate during exercise. But strados technology its takes things

a step further, this technology uses a microphone and a specialized mechanical coupler to monitor every wheeze, cough or irregularity in breathing. this result is records combine heart rate, respiratory rate, and activity levels. Athletes can then use the data to improve their performance.

Drone Technology used in sports:

The Drone technology with an implant camera helps to take high-quality images and videos from sky height. A drone is only, in simple



terms, a flying robot. This aircraft is usually controlled from a specialized remote control, and with

the help of intelligent software can track all things in the air. In many Sports player like athletics, football, basketball, skiers, climbers etc are using drone to monitor their preparation to see faults and findings changes. Drone will capture and evaluate a clearly seen practice session in different athletic activities after the session finished.

Some key players operating in the sports technology market include Apple Inc.; Cisco Systems, Inc.; Telefonaktiebolaget LM Ericsson; Fitbit, Inc.; Fujitsu; Garmin Ltd.; IBM Corporation; Modern Times Group MTG; Panasonic Corporation; Samsung; SAP SE; and Sony Corporation.

How technology is bad for sports the negatives of technology for performance chances of injury are increased as equipment is lightweight. Skill level may have decreased as the equipment has more margin for error. Expensive and unaffordable for some athletes.

Conclusion:

In modern life technology is greatly helped in making life easy and well used. The advantage of technology is a time saver, there is a greater

wealth of information available, Automation has improved manufacturing practices, and Technology can help to increase a sport's participation and profile. For example: wearable technology encourages participants to log their levels of activity, count the calories they burn and log their personal best times. Information technology play vital role in the human being in particularly in field of sports and games. Information technology in sports has established scientific discipline, Research activities; improve Learning & coaching Bio-mechanical analysis and field research have evolved.

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