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A maximum use of Computer Technology is helpful to correct Judgement in Sports Tournament.

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Abstract: Maximum uses of computer applications and technology are helpful to enhance the performance of every field. World is so compact and fast due to communication by using computer technology and mobile facilities. Sports and Games play very important role in the development of human personality. Sports field are also one of the vast knowledge & sports activity sector. In the field of Sports & Games every player taking maximum efforts with hard work to achieve their skill performances for secured medal. In this modern era skill performances of players are very high due perfect coaching of skills with the help of effective practice schedule, science, technology and nutritional diet. In the competition referees & judges some time facing a problems for correct judgement of player's skill. At that time computer technology is very useful to give correct judgement of player's skill. As per the previous research and latest information related computer technology a maximum use of Computer Technology is helpful to correct Judgement in Sports Tournament and also very helpful to developed the confidence of player about his sports skill performance.

Key words: Computer Technology, Correct Judgement, Sports Tournaments.

Introduction: Sports are the basic lifestyle & culture of human being. We are not aware about the history of sports activity. Men always use sports activity for physical fitness, self defence and spare leisure in positive healthy activity. All type of sports activities develop our positive attitude and all round development of life. Now in modern era so many types of sports activities organised for the betterment of life. International Tournaments, Olympics Games, National Tournaments, State Tournaments, University & School levels Games are organised regularly. No a day's players are performing high level skills of different sports in tournaments. Speed, Stamina, Endurance, Flexibility, Strength and Agility based high level sports skills are very difficult for taking judgement in tournaments. This is referee or judge's responsibility to give correct judgement of player's skill in every type of sports tournaments. Maximum use of latest modern technology related to computer field is most useful for correct judgement of player's sports skills.

Purpose: To find out latest information about how can maximum uses of Computer Technology is helpful to correct judgement in Sports Tournament.

Computer Technology : In sports history, computers in sports were used for the first time in 1960s, when the main purpose was to accumulate sports information. Sports activities related databases were created and expanded in order to launch documentation and dissemination of publications like articles or books that contain any kind of knowledge related to sports science. In the mid-1970s the first organization in this area called IASI (International Association for Sports Information) was formally established. At that time sports area was obviously less computer-oriented, specialists talk about sports information rather than sports informatics.

Based on the progress of computer science or technology and the invention of more powerful computer hardware in the 1970s, also the real history of computer science in sport began. This was as well the first time when this term was officially used and the initiation of a very important evolution in sports science. In the early stages of this area statistics on biomechanical data, like different kinds of forces or rates, played a major role.

Scientists started to analyze sports games by collecting and looking at such values and features in order to interpret them. Later on, with the continuous improvement of computer hardware - in particular microprocessor speed - many new scientific and computing paradigms were introduced, which were also integrated in computer science in sport. Specific examples are modelling as well as simulation, but also pattern recognition, design, and (sports) data mining. As another result of this development, the term 'computer science in sport' has been added in the encyclopaedia of sports science in 2004.

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Uses of Computer Technology in Sports Field: Video replay technology : Video replay technology has proven controversial in examples such as golf, wrestling, rugby, American football and sculling. However, the use of such systems (either in real time or after the sport has concluded) does not ensure a clear decision or outcome.

Line judgement technology : In football there has been some controversial decisions made by a human referee with respect to awarding a free kick (Svantesson 2014), giving a penalty (Svantesson 2014) or knowing whether the ball has crossed the goal line (Svantesson 2014; Singh 2012). It is argued that such controversies could have been averted using line judgement technology. In cricket, controversy has surrounded bowling an illegal delivery of the ball or detecting a 'leg before wicket' infringement. This has been attempted to be resolved using line judgement technology such as the 'Hawkeye' system.

'Re-skilling' a sport through the use of new technology : Re-skilling has been proposed to be an increased level of skill required to perform a given task or a substantive change to the skill set .

'De-skilling' a sport through the use of new technology : De-skilling insinuates that a sport is made easier to undertake as a result of the introduction of a technology or product.

Hawk-Eye – Hawk-Eye is a complex computer system used officially in numerous sports such as cricket, tennis, badminton, football and volleyball, to visually track the trajectory of the ball and display a record of its statistically most likely path as a moving image.

Tennis - it is now standard at the major tennis tournaments for a line review system to be in place, with players given power to review contentious line calls. It is powered by the Hawk-Eye ball tracking system.

Soccer / Football - Soccer is looking at joining the 21st century, looking at various technologies for the goal line to determine if the pass passes over the line or not.

Basketball - the NBA uses replay vision to review 'last touch' decisions in the final two minutes of games, and also to determine whether players release the ball before the shot clock expires.

Cricket - technology in cricket has been driven by advances in the TV coverage. Things that were once extra information provided by the TV networks are now being incorporated into the decision referral system (DRS), such as hawk-eye and hot spot, and maybe even the old favourite snicko.

Aussie Rules Football - umpire review system has also been implemented in AFL, with an off field umpire in certain circumstances adjudicating on whether the ball passes over the goal line or is touched, using video evidence via multiple camera angles.

Baseball - In 2014 a challenge system was put in place for the MLB to use replays to challenge certain umpiring decisions.

Rugby Union - In 2015, Hawkeye technology was used by rugby officials at the 2015 Rugby World Cup. The video review technology with synchronised camera views was used to improve decision-making by the television match official (TMO) and also used by medical staff to assist with player safety by identifying possible concussion instances and behind play incidents.

Rugby League - The NRL was an early implementer of using the video referee to help adjudicate questionable tries.

Latest Technological innovations used in Rio 2016 Olympics Games :

Volleyball and beach volleyball - Rio 2016 will be the first Olympic Games in which volleyball teams will be able to use video reviews to challenge a referee's call. A second referee will use television footage to verify any challenged points. Replays will be shown on the big screen in the arena while the second referee reviews the challenge, adding to the drama.

Swimming – It is not unknown for distance swimmers to lose track of their lap count, even in elite competitions. At Rio 2016, help will be at hand in the shape of digital lap counters from Omega. The devices will be used in the 800m and 1500m freestyle events. The digital lap



counters sit at the bottom of each lane, near the turning point. They automatically update the lap count when a swimmer hits the touchpad on the wall. "It means that athletes can focus more on their own performance," "As soon as they turn they can see how much they have swum.

Archery - In this most traditional of events, an electronic scoring system is replacing the referee's judgment. While the classic paper targets may look the same, in reality they are now only the visible face of a high-technology sensor system that will transform the spectator experience of the sport. "When the arrow hits the target, the system shows the score on the big screen immediately". "It is extremely accurate and much faster." The new system identifies the exact point of the arrow in the target within an accuracy of 0.2mm, much more precise than the human eye is capable of. The score is displayed on the screen just one second after the arrow hits the target. To add to the tension, spectators in Rio will also be able to monitor athletes' heart rates in real time.

Canoe sprint and rowing - GPS technology will help fans follow the canoe sprint and rowing events in Rio in more detail than ever before and watch the races in real time on big screens. Thanks to GPS devices attached to every vessel, spectators will be able to see key data such as speed and direction.

Shooting - Shooting has used electronic targets since Beijing 2008. At Rio 2016, the scoring system has been upgraded to incorporate laser technology, replacing the previous acoustic system. "We can calculate the score with millimetric precision"

Weightlifting- Weightlifting is one of the most dramatic of Olympic sports, a simple but compelling test of the limits of human strength. Adding to the spectator experience at Rio 2016 will be a camera dolly that will follow a competitor's every movement on the platform.

Virtual Reality- Virtual reality is arriving in the mainstream and the Olympic Games are no exception. For the first time, Olympic Broadcasting Services (OBS) will be broadcasting high-definition images of the opening and closing ceremony in virtual reality, as well as one event per day. In the run-up to the Games, Samsung has released a 360-degree virtual reality film, Vanuatu Dreams, which can be experienced using the Korean company's VR glasses.

Increased technology to help officials make the correct decision has improved the sporting event.

1. Ensure correct decisions are made/fair competition/less controversy/players more Confident in decisions;
2. Helps officials communicate with each other;
3. Less pressure on official to make the final judgment/less post-match criticism;
4. Timing/measurement accurate;
5. Creates excitement in crowd waiting for decision/allows players to officially Challenge decision

Conclusion: As per the previous research and latest information related computer technology a maximum use of Computer Technology is helpful to correct judgement in Sports Tournament and also very helpful to develop the confidence of player about his sports skill performance.

Reference:

1. <http://alevelphysicaleducation.co.uk/technology-in-sport/>
2. Bahadorreza Ofoghi; John Zeleznikow; Clare MacMahon; Markus Raab (2013). "Data mining in elite sports: A review and a framework". *Measurement in Physical Education and Exercise Science*. 17 (3): 171-186. doi:10.1080/1091367X.2013.805137.
3. Jürgen Perl (2006). "Computer science in sport: an overview of history, present Fields and future applications (part II)". IJCSS Special Edition 2/2006, 36-46.
4. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4575312/>
5. <http://www.ocr.org.uk/images/221108-modern-technology-in-sport-teacher-pack.pdf>
6. <http://www.ocr.org.uk/images/77532-ibytes-support-update-issue-05.pdf>
7. <https://www.rio2016.com/en/news/rio-2016-olympics-technological-innovations>
8. <http://www.topendsports.com/resources/technology.htm>