

Technology in Sports Event Delivery and Consumption

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Introduction

Innovations in modern technology and its developmental progression have affected every walk of life. Undoubtedly, the sports industry is one such area where technological developments have left numerous long-lasting effects compared to conventional ways. These developments have revolutionized the delivery and consumption of sports events in the modern world (Chanaron, 2014, p. 9). Due to these advancements, sports events have acquired diversified types of games in alliance with remarkably high quality. Indeed, the overall landscape of sports events has been dramatically changed due to the influx of technological developments. Hence, technology plays a vital role in the delivery and consumption of sports events. It allows practical training of athletes, précised coaching and management of events and tournaments on a larger scale, i.e., regional, national, and international levels. Mills (2017, p. 189) opined that technological advancements also contribute to accurate results, clash-less umpiring, and an increased crowd of spectators. Similarly, these advancements have posed enormous effects on the administrative and legal aspects of sports events with the safety and rehabilitation of athletes. At the same time, they allow financial management of sports events to grab large slots of viewers along with funding and sponsorship from multiple agencies and corporate sectors. In fact, wider technological developments have impacted the delivery and consumption of sports events by leading all the concerned stakeholders towards positive growth, with a bit of exception for negative contributions.

Impacts of Wider Technological Developments

In modern sports events, technological advancements play an essential role in some games and also in improving some of them. Indeed, it is very difficult to think about sports events without modern technology and its advancements. The following manifestation reveals some peculiar impacts of wider technological developments on the delivery and consumption of sports events.

Enriched Sports Performance & Coaching:

The most charming aspect of modern technology regarding sports events is enhancing the sports performance manifold. Technological developments have helped players and athletes improve their scientific performance. So, the utility of modern sport-specific equipment according to body mass index (BMI), weathering conditions, and set goals has enhanced performance. Similarly, using

software like Body Byte has eased the players' training and nutrition routines by devising nutrition and diet plans. Following health planners, such as taking adequate sleep turns and having good training sessions in the practice fields, are gifts of these technological advancements.

Similarly, Seshadri et al. (2017) concluded that coaching had gained perfection in extracting the maximum from athletes' bodies. The application of wider technological advancement has improved their substantial athletic potential. In this way, the lack of communication between trainee and coach has been improved by using multiple coaching apps these days. For example, "earpiece technology" can communicate and even deliver instructional data to the athlete during play. Similarly, video technology has paved the way for distance coaching, where a coach can train many trainees and scientifically assess them. In this way, the technological implementation leads to the personal polishing of players and well-established coaching. Ultimately, it makes sports events more productive, organized, healthy, and enjoyable for the masses. Thus, the organizers of such sports events owe their performance and success to applications of modern technology.

Exactitude Judging, Umpiring, and Refereeing:

Over the years, the sports world has been under continuous change to ensure betterment. This constant change has bred multiple situations where decision-making personnel come under immense pressure. In many sports, decision-makers have to face high pressure to make exact and accurate decisions. To fulfil such a hectic duty, these persons must have a firm grip on the rules and regulations applied to respective games. To ensure accurate results and decisions, multiple governing bodies devised and implemented modern technologies in sports.

Moreover, these technologies have improved the refereeing standards in multiple games to acquire the required accuracy and transparency (Beckingsale et al., 2018). For example, the most popular technology is the hawk-eye system. It is a computer vision system and is enormously used in various games like tennis, football, badminton, hurling, and cricket. Similarly, the Umpire Information System is used in Baseball, while the Microchip Balls System is used in Soccer. As far as cricket is concerned, umpires use various technological advancements like The Spider Cam, Stump Cam, and Umpire camera to ensure accuracy and precision in decision-making. Ultimately, sports events have achieved remarkable value in addition to the use of the above-mentioned technological developments. Hence, modern technology ensures fair gaming under the umbrella of sports events around the globe.

Safety and Quick Rehabilitation of Athletes:

Berkowitz and Moll (2017) argued that the adoption of modern technology in the physical education and medical system had lessened players' chances of getting injuries. At the same time, the technology has improved the healthcare system to ensure easy accessibility of treatment for injured athletes. Health IT allows researchers and experts to devise such mechanisms to ensure effective healthcare facilities for players. In this way, sports events have become secure and safe concerning

health problems. There are fewer chances of players getting injured compared to the past.

However, the injured athletes have maximum opportunities to recover in a short time. In this way, the virtual environment ensures that patients are at ease and relieved by using multiple exercises with various instruments. These exercises are fun, and the patient gets rehabilitated. Furthermore, multiple tools and devices are being used to recover the injured players. For example, a circulation booster is an electronic device that is used to recover the lower leg and knee. After minor injuries, this device accelerates recovery in a speedy manner by giving periodical movement to muscles.

Incredible Stadiums and Better Sports Equipment:

The adoption of technological advancements has enabled the respective quarters and authorities to construct incredible stadiums for sports events. The facilities and construction patterns have encouraged the organizers to conduct sports events without any breaks. The capacity for hosting spectators in huge numbers is worth noting in this regard. In this manner, due to modern technology, guest profiles are built using the spectators' collected data. The organizers use this data to facilitate the personnel through their staff at respective sitting places.

Furthermore, modern technology has revolutionized sports equipment in almost all games. The said improvements have been achieved through continuous research and development efforts by the respective stakeholders. Conventional methods and equipment have changed to modern ones that have much more durability, ease, and safety (YOKESH & KUMAR, 2018). For example, racing cycles and rowing shells are made to cherish lightweight material. Similarly, the swimwear is made of polyurethane to ease the swimmers in swimming competitions. Likewise, safety helmets ensure more safety for athletes during sporting events. Like these innovations, all the other games like cricket, football, tennis, soccer, and hockey have advanced wearing and equipment to ensure the safety and ease of the players.

Beneficial Financial Management and Sponsorships:

The technological developments enable organizers to make efficient financial management of the sports events according to their budget. It starts by using multiple finance tools and techniques regarding financial quantifications. Likewise, the overall estimates of expenses and turnouts can easily be handled by using various finance software. The main purpose of financial management is to discover ways to enhance profit up to maximum limits. Modern technology helps organizers earn maximum profit without wasting a single penny (Ratten & Jones, 2020, p. 961). The revenue generation comprises various strategies that the organizers adapt to meet their goals. The main strategy is getting some sponsorship from multiple agencies and the corporate sector.

However, to get some sponsorship, organizers have to adopt various techniques. For example, the first technique is to publicize the sponsor's signage. The sponsor's signage must be placed where

visibility is high. It can also be placed on organizers' websites or promoted through social media. The other way is to utilize your own magazine or newsletter to publicize the sponsor's product or services. Similarly, advertising the sponsor's logo on clothing screen-printed brochures or pamphlets is also a technique. By using all of the above methods, the technology helps organizers grab maximum revenue.

Young Athlete Development:

Sports events need young blood from time to time to fill the place of old athletes. Modern technologies have bestowed sports events by developing young athletes. In this aspect, modern technology works in a dual dimension. Firstly, it creates lavishing interests in the hearts of youth who want to become athletes. Secondly, modern technology paves the way for youth to trace various platforms and coaches to fulfil their desires. In this way, the public tends towards sports at an early age, and more refined stuff is available for sports events. Digital technologies have urged school-going lads to step into the world of sports as professional as well as amateur athletes (Girginov et al., 2020).

Ensuring the Security of Crowd:

Since 9/11, the present age is considered as the age of extremism and terrorism in the long run. To handle such a massive crowd in sports events with surety of their security is a considerable challenge. The main concern of the organizers is to make such arrangements so that such a terrorist incident of mass destruction cannot happen. Meanwhile, technological developments have a huge storage of modern security equipment and devices, which help the respective authorities and stakeholders to secure the crowd as their priority. CCTV cameras and communication devices have played a vital role in curbing terrorist incidents before they happen. Modern security agencies and personnel are equipped with modern counter-terrorism tools to ensure the security and safety of the masses.

Furthermore, modern technology has enabled counter-terrorism departments, law enforcement, and intelligence agencies to detect and defuse explosives. The bomb disposal squads have special instruments to detect and defuse the bombs and mass destruction materials. Modern technology can break the nexus of such terrorist attacks and terrorist groups by using artificial intelligence (Shortland & Forest, 2020, p. 57). So, the threats of terrorist attacks and killings are there in such sports incidents, but the authorities are trained to nip the evil in the bud. The main concern of organizers should be to cooperate with the state agencies if they will organize any sports event as a private entity without involving the respective govt. It is necessary to make appropriate arrangements and provide total confidence to the participants as well as spectators.

Handling of Legal Issues:

Technological advancements have also helped sports administration on legal grounds. The application of modern technology urged the respective authorities and stakeholders to efficiently handle legal matters and legal issues. The same technology ensures justice and fair play among parties in sports events. For example, technology warrants transparency in disciplinary hearings and conflict resolutions regarding different contracts, certifies consumer protection, and protects intellectual property. The adoption of modern technology in these matters gives fruitful results and mainly guarantees the resilience of sports events in the long run (Losavio et al., 2018).

Vast Promotion of Events and Facilitating Spectators:

The developments in modern technology have eased the event organizers concerning its promotion and publicity. Digital media is so advanced in this aspect that the promotion of specific events worldwide is not a problem. The public gets information and updated news at home in no time. So, communication through social media is like addressing the globe and addressing one's stance. Similarly, multiple audio-visual instruments are the product of modern technology. These instruments have allowed spectators to enjoy sports and competitions even at far-away event venues. The worldwide live streaming and live transmissions of sports events owe their existence to wider technological advancements (Mademlis et al., 2019).

Negative Contribution of Wider Technological Developments

The wider technological developments also pose some negative impacts on the delivery and consumption of sports events. Undoubtedly, the negative consequences are far less than the benefits, but negative contributions are strenuous in nature. Various negative impacts in this regard go on as:

High Expenses of Sports Events:

The adoption of technological developments has increased the manifold expenses of sports events. The budget allocated for sports events has to bear a cut of the lion's share in the name of modern technology applications. Likewise, contemporary technology enhances competition among organizers, and the expenses of sports events reach sky heights. Similarly, modern sports equipment has high prices, including wearing apparel for athletes and players. Meanwhile, the rate of taxation by respective governments has also become enormous. So, collectively, the expenses for sports events have become higher due to modern technology (Storm & Jakobsen, 2020, p. 163).

Boosted Doping in Sports:

Technological advancements have urged players and athletes to use illegal substances to enhance their performance in sports events. In competitive sports events, this usage of unlawful drugs is termed doping. Usually, breaking previously set records in a specific sport is the dream of every new player. To break the said specific record, athletes use these drugs to increase stamina and performance, which is illegal and unethical (Horcajo et al., 2020, p. 2242). For example, the Tour de France has a tarnished reputation when athletes use illegal drugs during a bicycle race. The usages of illegal drugs vary from sport to sport, but the health risk of athletes increases manifold.

Technological advancements have made easy availability of illegal substances to athletes. The gamblers have strong ties with owners of various clubs, athletes, and organizers of sports events. They tend to urge athletes to use these illegal substances for their own sake. The health risks are high in this regard, and anti-doping tests are also applied to discourage this practice. But still, this evil prevails in the world of sports, and technology has become a source to enhance this hideous practice.

Gambling and Match Fixing:

Technological developments have opened the doors of various hideous practices regarding sports events around the globe. In this regard, the main illegal practice is gambling in multiple games like cricket, football, tennis, badminton, golf, and polo competitions. The online availability and access to sports competitions have energized gamblers to gamble according to their choice and wish. Indeed, digital technologies have left no difference in gambling and sports betting in modern times. Gamblers cherish online betting in multiple games and various sports events, and the amount of betting depends upon the magnitude of the vents. Online gambling has prevailed in almost all regions of the world due to the advancement of digital technologies. The worst aspect of sports betting and gambling is that it leads towards match-fixing in various games (Gainsbury & Blaszczynski, 2017, p. 482).

Undoubtedly, online gambling has paved the road to match-fixing, and the respective authorities and institutions are struggling to eradicate it. Various agencies are affiliated with different games and are responsible for handling and holding competitions in an organized way. They have made rules and regulations to diminish this corruption from sports, but their struggle has not successfully eradicated this disguise. For example, ICC is one such organization that is trying hard to cope with this hideous practice. ICC has heavily punished many cricketers belonging to different countries in the past, but this evil still exists. On the other hand, it has prevailed with time due to modern technologies (Forrest, 2018, p. 91).

Conclusion

Finally, it can be concluded that modern technology has left long-lasting impacts on the delivery and consumption of sports events. Technological developments have emancipated positive and beneficial effects on sports events along with fewer negative ones. Undoubtedly, technological developments improved the performance, health, nutrition, and practices of athletes. Technology has enabled coaches, trainers, judges, referees, and umpires to fulfil their pious duties with complete devotion, transparency, and accuracy. It has made a strong bond and nexus between trainer and trainee from a sports point of view. Meanwhile, it has bestowed administrative, managerial, financial, and social benefits to sports event organizers. Technological advancements have encouraged youth to be professional athletes and also opened a new global world for them. The legal or financial issues, advertisement or equipment preparation issues, and security or safety issues all pay their gratitude for solutions to modern technological developments. On the contrary, it also has enhanced harmful influences like gambling, match-fixing, and drug use. However, it bestows new life to the whole sports industry. The need of the hour is to cherish its beneficial aspects and bury its harmful impacts into soil depths.

References

- Beckingsale, D.A., Mcfadden, M. and Hornung, R.D., 2018. *Umpire: Integration with Other Software Technologies* (No. LLNL-TR-764330). Lawrence Livermore National Lab. (LLNL), Livermore, CA (United States).
- Berkowitz, J.N. and Moll, S., 2017. Athletes and blood clots: individualized, intermittent anticoagulation management. *Journal of Thrombosis and Haemostasis*, 15(6), pp.1051-1054.
- Chanaron, J.J., 2014. Technology and economic impacts of mega-sports events: A key issue? Exploratory insights from literature. *Megatrend revija*, 11(4), pp.9-30.
- Forrest, D., 2018. Match-fixing. In *The Palgrave Handbook on the Economics of Manipulation in Sport* (pp. 91-114). Palgrave Macmillan, Cham.
- Gainsbury, S.M. and Blaszczyński, A., 2017. How blockchain and cryptocurrency technology could revolutionize online gambling. *Gaming Law Review*, 21(7), pp.482-492.
- Girginov, V., Moore, P., Olsen, N., Godfrey, T. and Cooke, F., 2020. Wearable technology-stimulated social interaction for promoting physical activity: A systematic review. *Cogent Social Sciences*, 6(1), p.1742517.
- Horcajo, J., Santos, D., Guyer, J.J. and Mateos, R., 2020. A meta-cognitive approach to doping in sports: The effects of thought validation on attitudes related to doping. *Journal of Sports Sciences*, 38(19), pp.2242-2252.

Losavio, M.M., Chow, K.P., Koltay, A. and James, J., 2018. The Internet of Things and the Smart City: Legal challenges with digital forensics, privacy, and security. *Security and Privacy*, 1(3), p.e23.

Mademlis, I., Mygdalis, V., Nikolaidis, N., Montagnuolo, M., Negro, F., Messina, A. and Pitas, I., 2019. High-level multiple-UAV cinematography tools for covering outdoor events. *IEEE Transactions on Broadcasting*, 65(3), pp.627-635.

Mills, B.M., 2017. Technological innovations in monitoring and evaluation: Evidence of performance impacts among Major League Baseball umpires. *Labour Economics*, 46, pp.189-199.

Ratten, V. and Jones, P., 2020. New challenges in sport entrepreneurship for value creation. *International Entrepreneurship and Management Journal*, 16(3), pp.961-980

Seshadri, D.R., Drummond, C., Craker, J., Rowbottom, J.R. and Voos, J.E., 2017. Wearable devices for sports: new integrated technologies allow coaches, physicians, and trainers to better understand the physical demands of athletes in real time. *IEEE Pulse*, 8(1), pp.38-43.

Shortland, N. and Forest, J.J., 2020. Tracking Terrorism: The Role of Technology in Risk Assessment and Monitoring of Terrorist Offenders. In *Science Informed Policing* (pp. 57-76). Springer, Cham.

Storm, R.K. and Jakobsen, T.G., 2020. National pride, sporting success and event hosting: An analysis of intangible effects related to major athletic tournaments. *International Journal of Sport Policy and Politics*, 12(1), pp.163-178.

YOKESH, T. and KUMAR, A.S., 2018. IMPACT OF SPORTS ENGINEERING AND VARIOUS TYPES OF ADVANCED TECHNOLOGIES IN SPORTS. *GANESAR COLLEGE OF ARTS AND SCIENCE*, p.349.