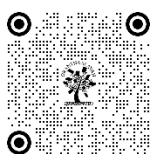


# RECENT TECHNOLOGICAL ADVANCES IN WORLD OF SPORTS: DEVELOPING SPORTS ERA

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## ABSTRACT

Today, the application of various technologies requires new skills from students and teachers. The student must demonstrate motor skills and use technology primarily through self-learning. It is necessary to learn to manage the organization of activities through the use of various devices. Physical education curricula and health programs are being developed to provide students with better opportunities instead of traditional gym classes. Technology has the potential to facilitate more effective high school teaching and provide high school teachers with key information that can be used to influence their work. Teachers can also conduct video interviews to document student impressions of exercise and motor learning. The rapid development of electrical technology has had a major impact on the education systems of the world. Thanks to technology, especially mobile technology, physical education teachers now have a variety of tools to explore and improve their students' physical skills. The list includes video analytics, wearable technology, fitness apps, gaming systems, virtual classrooms and monitors and tracking devices. Sports technology has come to the fore in recent years due to the rise of indoor sports (eg table tennis, chess, etc.) and outdoor sports (eg athletics, rugby, cricket and tennis). The growing adoption of apparel among athletes in various countries is likely to boost the growth graph of the sports technology market upwards. In addition, the widespread adoption of the Internet of Things in the sports sector has played an important role in the engagement of fans and the physical growth of players.

**Keywords:** Technology, Physical Education, Tools, Devices, Sports, Growth

## 1. INTRODUCTION

The use of technology is an important mediating influence between the discipline and the student, helping to transform learning methods by developing intrinsic motivation and sustaining thinking. The main technologies used in schools (video recording and personal computers) determined the repositioning of knowledge and highlighted new areas of intervention in each field in relation to the core subjects of the discipline [1]. Modern educational technology in the field of physical education has achieved outstanding achievements after several years of development, to which sports teachers and researchers have given unprecedented attention, and an agreement has been reached that not only design, development will benefit from the full use of educational technology. . , the usability, evaluation and management of the physical education training process and learning materials, which help colleges to form their own characteristics, but also help to solve the problematic problems of physical education and thereby achieve the optimization of the combination of theory and practice in physical education. the educational process of colleges and universities.

A great challenge in education is to achieve a real methodological impact in the development of curricula, which breaks the prejudice that information and communication technology (ICT) is an external element, especially in the field of physical education. This requires special training, including empowerment, to fully exploit the potential of information and communication technologies in teaching, professional development and lifelong learning management [3]. Health

and physical education apps are available and can be used to enrich and enhance curricula at most colleges. Many technological applications are available to promote physical activity and fitness.

## 2. REVIEW OF LITERATURE

Human-Centered Computing (HCC) puts customers at the center of organization and improvement. HCC is an interdisciplinary subject that intersects with laptop technology expertise, psychology and cognitive technology expertise. HCC specializes in the arrangement and implementation of computer structures that promote human sport and human development. It is the technical know-how to design computations and computer artifacts to aid human endeavors (Jaimes, Sebe, & Gatica-Perez, 2006).

The National Science Foundation (NSF) defines the development of HCC research as "a three-dimensional field that includes the human, the laptop, and the environment." NSF describes human measurement as research that helps individual needs through groups through purposeful groups to society as an unstructured series of interconnected people (NSF, 2016) HCC focuses on knowledge, how computing technology affects society and how to make it usable (University of Florida, 2016). This description of human measurement is similar to the reading improvement of athletes described by the Laboratory of Athletes and Athletic Development and Research (LAADR) in the areas of general leisure, duration of athletic activity and post-athletic lifestyle. activity Putting the athletes in the middle of the arrangement allows developing technical solutions specifically for the athlete.

## 3. AIM OF THE STUDY

The specific aim of this scholarly qualitative study was to explore the impact of modern technology on sports performance.

## 4. METHODOLOGY

A thorough on-line and offline search procedure was applied for the acquisition of evidence in this systematic qualitative study. An analysis of the paper was systematically done through online databases: PubMed, Google Scholar, and Google Advance Search.

### 4.1. RECENT TECHNOLOGICAL TRENDS

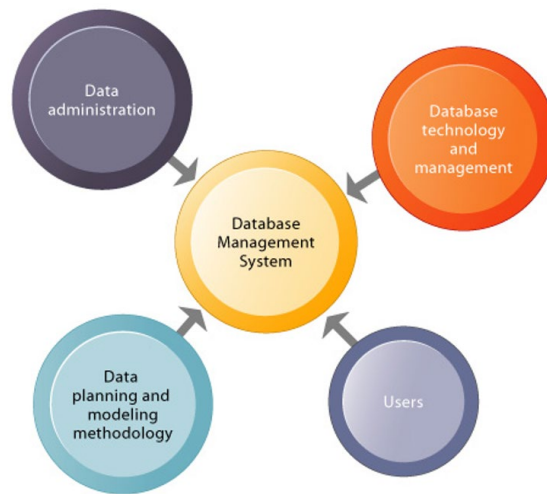
Almost everyone has a smartphone, and physical education teachers can use such devices to their advantage to encourage their students to practice and exercise. Although they probably don't like having students glued to their cell phones during class, the use of cell phones and phone apps should be encouraged if the educational benefits are obvious. There are many apps available, some for exercise tracking and nutritional support, while others help improve sports activities such as basketball. Applications with video and image analysis can be used to study sports movements and ultimately improve physical skills.

Video games can change the way students think and feel about physical activity and competitiveness. They appeal to their love of video games and spark their interest In their application to physical education. They are even a great solution to keep kids active in bad weather.

Video analysis is included among quality assessment tools. It is an effective means of monitoring the level of learning and promotes the student's understanding of competence. In this way, we look for psychological factors and connections with motor skills: it is possible to analyze motor tasks, compare the development of learning in different seasons through different teaching styles, compare the performance of different students, disassemble and reassemble motor sequences, discover mistakes and valuable learning results; complex combinations of motor sequences.

The competitive level of modern sports, especially high sports performance, has been close to the limit of the natural conditions of humanity, the idea of using the advantages of nature, original training methods to limit human movement has been dreamed of for a long time. time Sports fields have widely used information technology, biological technology, new materials and energy technology, information technology and the theory of modern science and technology, which makes the face of the sports and sports training environment significantly changed and improved, for training. methods

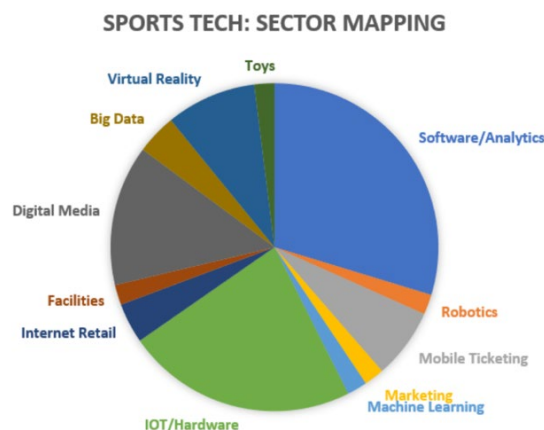
updated, site equipment improved, the level of competitive sports has greatly improved, the multifaceted functions and effects of sports are therefore fully revealed.



**Figure1** Database system

## 5. LANDSCAPE TECHNOLOGIES

This technology is used in the sports environment, which includes how spectators watch sports events. Spectacular landscape technology is the proliferation of modern multipurpose sports complexes with JumboTron screens in retractable domes, hovering cameras, world tracks and artificial turf. Bates (1996) argues that modern athletes are closely related to technical sports landscapes. Sports athletes are using a new tactic because they can watch their competitors at home on JumboTrons. Some discus and javelin throwers even throw. The high-tech stadium is interesting because it often tries to imitate the atmosphere of other traditional stadiums. Technological development has significantly affected sports and exercise science, like most areas of life (Wintler, 1996). In fact, it is difficult to imagine modern sports and the various disciplines of exercise science without the technologies that are now considered. Can you imagine biomechanical analysis without computers, VO<sub>2</sub>max testing without underwater weighing, or training for Olympic-level athletics without modern training techniques and assessment methods? How about watching sports on TV with only one or two camera angles? Global Positioning System and GPS uses 2 satellites and ground stations as reference points to calculate geographic locations and accurately track specific activity. For example, using a handheld GPS device provides information about elevation, distance, time, and average speed while hiking. There is also a diagram that describes the ups and downs of the terrain. Global positioning systems can be used in conjunction with accelerometers to assess and monitor physical activity (Schutz and Herren 2000; Rodriguez, Brown, and Troped 2005; Troped et al. 2008). As small receivers become more affordable and available to the general public (in laptops and cell phones), GPS can be more widely used to assess and promote physical activity.



## 6. CONCLUSION

Overall, technology has positively reshaped physical education classes. With video analytics, apps, online videos, monitors, smart watches and trackers, physical education teachers can create personalized and reasonable goals for their students. In the process, students felt more engaged and committed to physical activity, which is essential for developing healthy habits. As a physical education teacher, teachers use and use technology support to improve student knowledge in the classroom. In the current situation, physical education needs much more influence on the availability of the latest technology to enrich the classroom teaching and field work.

## CONFLICT OF INTERESTS

None.

## ACKNOWLEDGMENTS

None.

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