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Use of Physical Education in (AI) Artifical Intelligence and Sport

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Abstract: ***The recent curriculum reform in china puts. Forward higher education requirement for the development of Physical Education. In order to further improve student's Physical quality and motor skills, the traditional model was improved to address the lack of accuracy in motion recognition and detection of Physical Education condition so as to assist teacher to improve students. Physical quality artificial intelligence (AI) is gradually influencing every aspect of everyday life. Including education. AI can also provide special support to learners through academic sustainability or discontinuation predictions. While AI research remains in its early stages, we must examine how it evolves and exerts its potential over time. By utilizing. The modern alternative is the use of technology meant to modern technology in physical education and sports. The use of technology for teaching and learning has video analysis/conferencing, chatting and challenges. It is concluded that technology use enormously improve teaching and learning of physical education and sport and AI applications relevance to PE technology, based on existing research; it proposes that the implications of AI for PE may apply to other educational domains; and finally, it contributes to existing literature and also shares future research prospects regarding AI applications in education and sports.***
Keywords: Sport development mode, Artificial intelligence, wearable devices. Physical Education and Teaching and learning. Digital revolution technology

I. INTRODUCTION

In recent years, artificial intelligence (AI) industry in china has developed rapidly, which has also promoted the crazy growth of the AI market and enterprises. AI technology has been applied to about 20 industries such as business center, hotels, art galleries, hospitals, and education and suitable for all fields of future society. At present, smart bracelets, smart sports, shoes smart glasses, indispensable sports products for residents. They can monitor the health data of users in real time so that residents can correctly understand their own health status of students. The pace, calories speed and heart rate are monitored to formulate the most suitable fitness management service plan for the exercise intensity. These smart products will. Based on the basic theory of framework, visual Studio 2008 development environment and structured query language (SQL) Server 200 Counter 5 are adopted in this study to realize the intelligent exercise prescription system and promote the health of citizens with the support of deep learning. This study, therefore, aimed to determine AI's principles and applications for PE, based on the conceptualization and research areas of AI. The study aimed to answer the following research question what are the basic concepts and principles of AI, and how can AI be applied to PE using these basic principles? discusses the application of AI in PE, based on the previously derived principles of AI Specifically, the study considers AI-related customized PE classes, knowledge provision, learner evaluation, and learner counselling methods, along with the expertise with expertise required for future PE teachers in their application.

AI is used in sport for boosting performance and health thanks to predictive analysis. With the advent of wearable's that gather information about strain and tear levels, athletes can avoid serious injuries. But that's just the beginning. AI can help terms shape strategies, tactics, and maximize their strength. The way player performance is analyzed is now more sophisticated than ever before thanks to the AI. Using data and visuals, coaches are able to gain insights into their terms strengths and weaknesses on any current day, allowing them to make changes to tactics and strategy, thereby exploiting any weaknesses of their opponent.

II. EXPLAINS THE METHODS AND STUDY

The emergence of AI technology is expected to bring about changes in various aspects of human life. Numerous changes are expected to take place in the field of PE, and as computer AI-equipped are more adept at organizing and delivering information than humans, the role PE teachers who deviate from the information role may be emphasized. Otherwise, the high ability level offered by an AI PE teacher may result in PE teaching as a human profession disappear. In addition to education for creating and modifying computer algorithms. That focusing on the most human content and activities is likely to be emphasized in the AI age.

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Thereby defining the role and expertise of teacher Therefore, a PE teacher utilize as their "the essence of sportsmanship and the lessons of sports and explore the direction, the role of teachers who help students learn and create physical activities on their own will become more important.

III. CONCEPT OF AI

Artificial Intelligence is a field of computer science focused on creating algorithms that mimic human learning, reasoning, perception, and natural language understanding it enables computers to learn, think, and develop skills previously exclusive to human intelligence. According to Russell and Nerving, AI involves machine or computer intelligence that imitates human behaviour and can perform specific tasks like playing chess or diagnosing diseases Nilsson defined AI as the algorithmic composition that replicates human intelligence theory, emphasizing the construction of information processing intelligence theory In essence, AI filters raw data to create meaning and processes it to meet user needs

IV. DISCUSSES THE APPLICATION OF AI IN PE

AI's application, initially in games and mathematical principles, has expanded to various fields, including modern Physical Education (PE) AI applications are increasingly relevant in PE, integrating new concepts and theories from AI advancements in related areas Developing a suitable theoretical system and converging with other fields could support AI's continued growth in PE Research into AI's basic theoretical system is seen as foundational for the future of modern PE. The application of AI in PE involves customized classes, knowledge provision, learner evaluation and counselling, and considering the evolving roles of PE teachers in the context of AI

The rise of AI is anticipated to transform many aspects of life, including PE. As AI-equipped computers excel at organizing and delivering information, the role of PE teachers may shift away from being primary informants if not, the high capabilities of AI PE teachers could potentially lead to the obsolescence of human PE teaching. Education may emphasize creating and modifying computer algorithms, but also focus on the most human-centric content and activities that define the teacher's role and expertise. Future PE teachers will likely use essential human activities that AI cannot replicate as core learning content, engaging students in discussions about a "healthy life with sports," "the essence of sportsmanship," "the lessons of sports," and sports' societal impact . They will need to interact emotionally with students and manage the technology while the role of teachers as knowledge messengers may diminish, their role in helping students learn and create physical activities independently will become more crucial

Utilizing AI in PE classes is expected to benefit both teachers and students. AI could handle mechanical iterative learning, formalized discussions, and standardized evaluations

V. CONCLUSION AND SUGGESTIONS

PE is an important part of comprehensive human development. Technology use in modern PE can theoretically enrich educational content, promote perception of PE and changes in traditional educational concepts, professional ethical effects, restructuring PE and promoting continuous development. Along the lines of the education model, visualization, and repetition, PE will have a brighter future due to AI application in an accurate understanding of AI, it is first necessary to consider the opportunities and challenges technology brings to PE and scientific and technological innovation's dynamic role. AI can not only be a just product of modern PE innovation but must also be a complex of human comprehensive ability and imagination. Treated as such, AI promotes human creative thinking and ability and reflects it more prominently. The application of these technologies will doubtlessly impact modern PE empowering development.AI is needed in physical education for several key reasons. Firstly, advancements in technologies like AR, VR, and the Internet of Things have expanded the possibilities for PE beyond traditional settings, allowing students to access a wider range of classes without physical limitations. Secondly, AI can facilitate individualized learning and customized education, improving student performance by identifying athletic abilities, compiling data, and providing real-time feedback for optimal results. Finally, AI offers various learning tools that can increase student interest and maintain motivation. Therefore, developing and implementing AI services are crucial to enhance learning outcomes for both students and educators. Engineering development AI is considered necessary for physical education (PE) for several key reasons. Firstly, PE is no longer confined to traditional settings due to advancements in technologies like augmented reality (AR), virtual reality (VR), and the Internet of Things allowing students choicer and flexibility in their classes Secondly, AI facilitates individualized learning by analysing each student's athletic abilities in real-time, providing feedback to optimize performance Thirdly, AI offers diverse learning tools to engage students and maintain their motivation The development and adoption of AI services are crucial for both students and educators to achieve satisfactory learning outcomes .

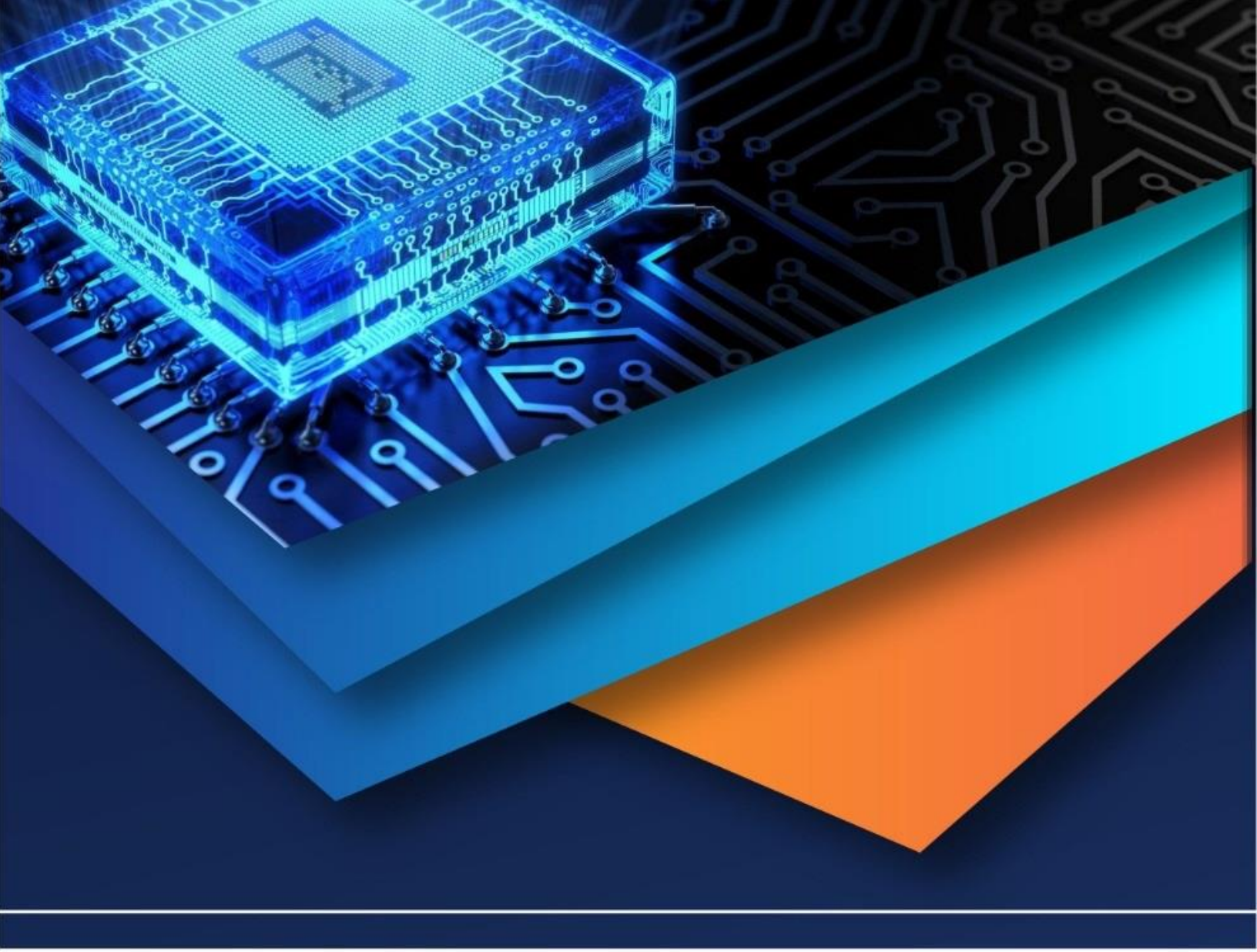
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AI-based PE benefits learners, educators, and the educational process. For learners, AI assists in data collection, basic analysis, and visualization, enabling them to focus on higher-level physical activities and practical experiences, as well as interactions with educators Educators benefit from AI through real-time class status reports, decision-making support, alternative problem-solving suggestions, and effective assistance with evaluation and learning management AI also helps teachers by streamlining administrative tasks, allowing them to dedicate more time to improving teaching and learning quality .Information service education allows PE teachers to select technology based on multimedia and network communication and create optimized PE by developing and applying information resources . In this environment, PE teachers need both modern technology and new concepts to re-examine teaching methods. Utilizing technology is crucial for modernizing sports education, requiring shifts in attitudes towards knowledge, talent, teaching perspectives, research, class concepts, evaluation, and educational philosophy to develop skilled individuals in the information age The current understanding of AI use in PE has considered only some available AI technologies, highlighting the need to develop classes using other technologies like search engines and operational support As specific application methods have been presented, quantitative verification is needed to confirm that AI algorithms align with empirical results . Experimental studies comparing traditional PE with AI-integrated PE are necessary to provide quantitative comparisons and validations

The use of AI in PE is a crucial topic given AI's impact across various fields [2]. Research has highlighted the relevance of AI applications in physical educational technology, and the implications for PE may extend to other educational domains, warranting further exploration [2].

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