

Influence Of Intelligent And Multimedia Systems Combined Artificial Intelligence In Digital Media To Reach Potential Customers

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ABSTRACT

Artificial intelligence (AI) has become one of the professional technologies driving the development of digital media. Artificial intelligence not only plays an important role in improving user experience, but also opens up many new opportunities for creative applications in the media field. The article has analyzed and discussed in depth. Discussing the application of intelligent systems and intelligent multimedia artificial intelligence in digital communication. The article interviews and discusses business groups in the information technology industry and students majoring in information technology to find common applications of information technology that result in artificial intelligence. However, the application of artificial intelligence in digital media also raises a number of approaches, including issues of privacy, ethics and information security. To ensure the sustainable and positive development of this sector, careful consideration is needed regarding the application and management of artificial intelligence technology in digital media. The article also provides recommendations for business managers and state management agencies in the field of information technology to help Vietnamese information technology businesses well develop.

KEYWORDS: Smart system, multimedia, AI.

INTRODUCTION

RESEARCH OVERVIEW

Digital media has become an inseparable part of modern life, especially in the era of information technology and the internet. The adoption of smart and multimedia systems not only opens up new opportunities but also drives progress and innovation in the field.

Artificial intelligence (AI) has changed the way the world interacts and accesses information in today's digital world. In the field of digital communication and multimedia, AI plays an important role in creating, analyzing and distributing content

This article will delve into the applications of smart and multimedia systems that combine AI applications in digital communications.

Artificial intelligence (AI) has become one of the key technologies driving the development of digital media. Artificial intelligence not only plays an important role in improving user experience, but also opens up many new opportunities for creative applications in the field of communication.

Using machine learning, natural language processing and computer vision techniques, artificial intelligence has helped increase interactivity and personalization in digital media. Projects such as content recommendation systems, virtual assistants, and data analytics tools have demonstrated the ability of artificial intelligence to provide accurate, fast, and effective information.

In addition, artificial intelligence also plays an important role in detecting and preventing inappropriate, fake and harmful content on digital media platforms. Using algorithms and machine learning models, developers can build automated systems to control and manage content, ensuring a safe and quality media environment

for users. use.

However, applying artificial intelligence in digital media also poses a number of challenges, including issues of privacy, ethics and information security. To ensure the sustainable and positive development of this sector, careful consideration is needed regarding the application and management of artificial intelligence technology in digital media.

In the future, the combination of artificial intelligence and digital media will continue to bring new opportunities and create profound changes in the way we interact and access information and entertainment online. This research article analyzes "The impact of smart and multimedia systems combining artificial intelligence in digital media to reach potential customers" to find out the development of digital media, the development of digital media, and applications. , discuss and draw conclusions and future directions of digital media, and make policy recommendations from management agencies.

THEORETICAL BASIS AND RESEARCH METHODOLOGY

Theoretical basis

Russell & Norvig (2009) [1] study the field of Artificial Intelligence (AI), including its history, methods, and applications in many different fields. The research paper focuses on problem solving through the use of AI techniques, including intelligent systems and multimedia.

Havaldar, Parag, & Gerard Medioni (2011) [2] researched algorithms, standards and practices in the field of multimedia systems. Research covers topics such as image processing, video processing, audio processing, encoding and decoding, data compression, communication protocols, and many other aspects related to multimedia.

Goodfellow, Ian, Yoshua Bengio, et al [3] provide AI theory and practical applications. The researchers are leading experts in the field and have created a comprehensive resource on how deep learning works, along with key AI methods and techniques.

Zeliski, Richard [4] is an important research text in the field of computer vision, providing an overview of algorithms and applications in image processing and computer vision. From basic concepts such as image processing and information filtering, to advanced topics such as feature analysis, object recognition, and deep learning, this book covers a wide range of issues and techniques in computer vision field.

Smith, Neil, Dave Chaffey [5] research information technology applications in the field of digital marketing, including online marketing planning, optimization and integration strategies. The study covers important aspects of online marketing such as strategy creation, online advertising, online customer relationship management, and results analysis. The study is an important read for those working in the field of digital marketing, including marketing professionals, managers, and those interested in developing online marketing skills.

Evans, Dave, Jake McKee [6] focus on the role of social media in marketing and how businesses can leverage social media to engage with customers and build relationships with them. It includes marketing strategies on popular social media platforms like Facebook, Twitter, LinkedIn, and more. This research provides an insight into how social media can be used to create business value and create customer engagement. It is an important read for marketers, entrepreneurs, and those interested in customer relationships in today's digital environment.

Charlene, Josh Bernoff [7] introduce the power of "digital platforms", the movement of attention, energy and power from media organizations to online communities. The authors analyze how businesses can leverage and engage with the platform to create business value and build customer relationships. This book provides an in-depth look at how to use it. social technologies to create change and business success. It is an important read

for managers, entrepreneurs and those interested in reaching and interacting with customers through social platforms.

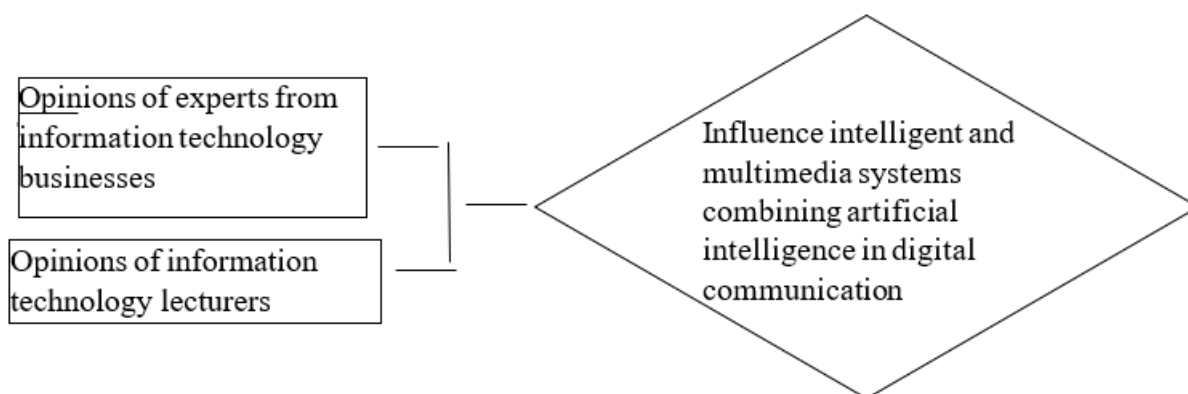
Ryan, Calvin [8] provide an overview of digital marketing and marketing strategies to engage with the digital generation. The researcher explains how to use digital technologies such as the internet, mobile and social media to build customer relationships and create business value. This book is an important source of information for marketers, entrepreneurs, and those interested in digital marketing and how to leverage new technologies to enhance their marketing performance.

Nigel, Jenny's research [9] provides a comprehensive view of the technical and creative aspects of digital multimedia. The author covers basic and advanced concepts in the field of multimedia, including image processing, sound, video, and computer graphics. This book is an important reference for students, researchers, and professionals working in the field of digital multimedia. The study provides detailed and practical knowledge on how to work with different digital media and build multimedia applications.

The work of Goodfellow, Yoshua, et al [10] is an important resource on deep learning, including its theory and applications in the field of artificial intelligence. The author covers fundamental and advanced concepts in deep learning, including deep neural networks, reinforcement learning, and practical applications in natural language processing, computer vision, and more. other fields. This study is an important reference for students, researchers, and professionals working in the field of deep learning and artificial intelligence. It provides extensive knowledge of the field and provides a basis for the research and application of deep learning methods.

The study by Manning, Christopher, et al [11] is a fundamental and important document in the field of natural language processing (NLP), focusing on statistical and probabilistic methods in language processing. nature. The author explains basic and advanced concepts in NLP such as vocabulary processing, grammar, and semantics, as well as their applications in tasks such as machine translation, text classification, and many other fields. other area. This book is an important reference for students, researchers, and professionals working in the field of natural language processing. The authors provide a theoretical and practical basis for the research and development of effective natural language processing systems.

Research model



Research question

- Professionals and students can use smart and multimedia systems
- Experts and students think about combining artificial intelligence in smart systems
- Comment on the pros/cons after using current smart system applications
- According to experts' opinions, what kind of information technology businesses need support from

government policymakers?

Research methods

The article uses qualitative research method.

Qualitative research method: includes research based on a review of research documents and group discussions of experts applying smart and multimedia systems combining artificial intelligence in digital communication.

Group discussion: The main goal of the group discussion is to explore the popularity of applications of intelligent and multimedia systems combining artificial intelligence in digital communications.

Implementation process: First, the subjects of focused discussion are on the access list according to a convenient sampling plan. The person invited to discuss must be cognitively and behaviorally normal. They willingly accept the invitation to participate in a free and voluntary status, and have the right to leave the discussion at any time as well as the right to ask questions, the right to request to stop the discussion and the right to keep the discussion. private information confidential.

The people discussed will be divided into 2 groups: experts from businesses in the Information Technology industry (10 experts) and lecturers in the Information Technology industry from Universities in Ho Chi Minh City (10 lecturers)

RESULTS AND DISCUSSION

100% of expert groups from information technology businesses and 60% of lecturers in the information technology industry agree on the positive effects of applying smart and multimedia systems combined with artificial intelligence. created in digital media. The two groups presented some typical projects and applications of smart and multimedia systems in digital communications:

- Netflix

Netflix uses an intelligent system to recommend movie and TV show content based on users' viewing history, viewing habits, and other personal information.

The system automatically categorizes and labels content to improve user experience.

- YouTube

YouTube uses machine learning to recommend videos to users based on their viewing history, feedback, and behavioral patterns.

The system detects and removes content that is inappropriate or violates community policies.

- Spotify

Spotify uses machine learning to customize playlists for users based on music preferences, listening history and personal information.

The system detects new music trends and suggests them to users.

- Facebook

Facebook uses machine learning to customize user experiences, including post suggestions, ads, and community groups based on previous behavior and personal interests.

The system detects and removes violative or inappropriate content.

- Amazon

Amazon uses an intelligent system to suggest products to users based on purchase history, product reviews and search behavior.

A system for classifying and labeling goods to improve the online shopping experience.

- Google News

Google News uses machine learning to automatically customize news experiences for users based on interests, favorite news sources, and news reading history.

News classification system and fake news detection.

The above projects and applications demonstrate the power of smart and multimedia systems in improving user experience and optimizing automated processes in digital media.

In addition, the two groups also commented on the integration of smart systems and multimedia in digital communications, which has created many successful projects and influential applications in many fields.

Below are some typical projects and applications:

- DeepMind's AlphaGo project

AlphaGo is an artificial intelligence program developed by DeepMind, a subsidiary of Google, to play Go. AlphaGo triumphed over the world's top athletes in this game, showing the power of machine learning and artificial intelligence in complex games.

- Apple's Siri voice recognition system

Siri is a virtual assistant integrated on Apple devices, capable of recognizing and understanding user speech. The system uses voice recognition and machine learning technologies to provide customized answers and services based on user requests.

- Netflix content suggestion tool

Netflix uses a machine learning-based recommendation system to recommend movies and TV shows to users based on personal preferences and viewing history.

This system has helped Netflix increase user experience and increase viewing rates.

- Facebook's facial recognition technology

Facebook uses facial recognition technology to suggest user tags as friends in photos, as well as to protect user privacy and security.

This system has helped Facebook improve user experience and increase safety on its platform.

- Google's smart search engine

Google uses intelligent systems to improve its search services, providing search results that are accurate and relevant to user needs.

This system has helped Google become the leading search engine in the world.

The above projects and applications demonstrate the power of intelligent and multimedia systems in digital media, helping to improve user experience, optimize processes and create value in many different fields.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The combination of smart systems and multimedia has shaped a bright future for digital media. However, the application of this technology also poses many challenges for information management, ensuring transparency and reliability. At the same time, it also opens up new opportunities for creativity and progress in this field.

Furthermore, the combination of artificial intelligence and digital media offers great potential for creating, distributing and reaching diverse and engaging content. However, AI adoption also poses challenges to information management and privacy protection. However, with continued development, AI will continue to play an important role in the future of digital communication and multimedia.

Recommendation

For information technology businesses:

In the context of Vietnam increasingly integrating deeply with the region and the world, more and more foreign investors are investing in Vietnam's information technology sector. Foreign investors tend to cooperate with Vietnamese information technology enterprises. Vietnamese information technology businesses can combine cooperation, outsourcing, and partnerships with international information technology corporations to integrate Vietnamese and Vietnamese applications into international applications. In addition, this cooperation helps increase the value of information technology businesses to stay ahead of the digitalization trend according to the government's policy. Businesses need to consider increasing company size and choosing a form. Invest in

software and hardware segments that use AI artificial intelligence accordingly.

For state management agencies:

First, continue to research and improve the system of policy mechanisms and legal documents on information technology and software and hardware markets; Build a system of tools to manage and control the development of the information technology market in a stable, sustainable, complete and synchronous structure, interconnected with other markets of the economy; proactively build scenarios and solutions to develop, control, and stabilize the market to promote the information technology market and increase the reputation of Vietnam's information technology enterprises.

Second, continue to promote the information technology market associated with the implementation of the national information technology development strategy, promote the development of software produced by Vietnam, and limit outsourcing. software for other countries to increase the creativity of Vietnamese intelligence.

Third, it is recommended that competent authorities soon consider and arrange adequate loan plans to support information technology businesses. Information technology businesses can take advantage of this capital source to expand their business scale Fourth, the Government needs to drastically implement fiscal and monetary policy packages to support and develop socio-economic development approved by the National Assembly, with a large focus on public investment and digitalization. Government and information technology businesses can benefit from government policies.

Fifth, maximizing socio-economic development on the basis of AI technology needs to be based on the specific circumstances of each country, including Vietnam. According to recent studies, the entrepreneurial spirit will have a positive impact on job development, increasing labor productivity, opening up opportunities for innovation and growth in a period of technological development. like now. To promote this spirit, Vietnamese policymakers need to pay attention to building simple, specific policies, using taxes and other incentives to promote the formation and development of businesses. medium, small and super small.

Sixth, the issue of converting and training human resources to serve socio-economic development in the era of AI and automation application will need a synchronous solution between the state - businesses - universities. When AI and automation develop and are widely applied in the fields of life, economy and society, it will create many new jobs but also change and even replace a series of old jobs, especially especially simple, repetitive unskilled labor. In Vietnam, the government through policies to support and invest in human resource training in the education system to meet new needs in the technology sector information and artificial intelligence.

Seventh, social security issues need to be given special attention to the workforce in occupations strongly affected by AI. Vietnamese policymakers need to prepare a budget to support retraining and promote lifelong learning activities for human resources in need of transition, creating motivation for job creation in parallel with the national plan. , especially plans that require large unskilled human resources. Training institutions must coordinate with businesses to come up with training plans that are suitable to capacity, requirements and are economical, contributing to solving the problem of human resource conversion for the entire society.

Thứ tám, để đảm bảo tiếp tục phát triển kinh tế - xã hội, đem lại thịnh vượng cho Việt Nam, song song với việc tận dụng những thành tựu phát triển công nghệ AI và tự động hóa hiệu quả, các nhà hoạch định chính sách cần sớm xem xét các giải pháp cho những thách thức về xã hội trong tiến trình chuyển đổi cách mạng công nghiệp 4.0 nhanh chóng và mạnh mẽ.

Eighth, to ensure continued socio-economic development and bring prosperity to Vietnam, in parallel with taking advantage of achievements in developing AI technology and effective automation, policy makers Books

need to soon consider solutions to social challenges in the process of rapidly and strongly transforming the 4.0 industrial revolution.

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