EDITORIAL

Editorial: Intelligent Systematics: A New Transactions

Xuebo Jin[1,*]

[1] School of Computer Science and Artificial Intelligence, Beijing Technology and Business University, Beijing 100048, China

Dear Readers,

It is with great pleasure that I introduce to you our upcoming journal, "*ICCK Transactions on Intelligent Systematics*." This publication is dedicated to exploring the advancements in the field of intelligent systems and providing a platform for researchers and scholars to exchange ideas, fostering progress in this area of study.

The history of intelligent systems can be likened to a journey of constant growth and refinement, much like humanity's understanding of knowledge through cycles of recognition, denial, re-recognition, and re-denial. The study of intelligent systems began to emerge in the 1950s, and over the past few decades, it has experienced rapid development as well as periods of underappreciation. The rise of expert systems in the 1980s, such as the Dendral system in the field of analytical chemistry, showcased significant breakthroughs in intelligent systems. Additionally, the application of the MYCIN system [1] in diagnosis and treatment garnered substantial attention. However, limitations in computer science, sensor technology, and knowledge from neuroscience posed challenges to the continual advancement of artificial intelligence theories, methodologies, and techniques.

Entering the 21st century, the rapid development of machine learning and deep learning has brought about tremendous breakthroughs in intelligent systems. The success of deep belief networks [2] and the deep convolutional neural network (AlexNet) [3] in image recognition opened the floodgates for deep learning. Subsequently, significant achievements have been made in domains such as speech recognition, natural language processing, computer vision and recommendation systems [4].

The healthcare field has also made significant progress in the application of intelligent systems. For example, Esteva et al. [5] developed a deep learning-based skin cancer diagnostic model that exceeds the accuracy of skilled dermatologists, while De Fauw et al. [6] created a clinically applicable deep learning system for retinal disease diagnosis and referral using OCT images.

In recent years, with the development of deep learning, generative learning, and large-scale models, a surge of advancements in intelligent systems has been observed. We are delighted to see researchers actively exploring and successfully applying intelligent systems in various domains:

1 Artificial intelligence assistants: Voice assistants such as Amazon's Alexa, Apple's Siri, and Google Assistant, based on natural language processing and machine learning technologies, can answer questions, perform tasks, and interact with users.

2 Autonomous vehicles: Autonomous driving technology has made significant progress in

Submitted: 02 April 2024
Accepted: 12 April 2024
Published: 17 April 2024

Vol. 1, **No.** 1, 2024.
10.62762/TIS.2024.100001

***Corresponding author:**
✉ Xuebo Jin
jinxuebo@btbu.edu.cn

Citation
Jin, X. (2024). Editorial: Intelligent Systematics: A New Transactions. *ICCK Transactions on Intelligent Systematics*, 1(1), 1–2.

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the automotive industry. Companies like Tesla and Waymo (a subsidiary of Google) are developing and testing autonomous vehicles that leverage sensors, cameras, and machine learning algorithms to perceive the environment and ensure safe driving.

3 Financial technology (FinTech): The application of intelligent systems in the field of finance is becoming increasingly widespread. For example, in risk assessment, intelligent systems can employ big data analysis and machine learning algorithms to more accurately evaluate the credit risk of loan applicants. Additionally, virtual currencies and blockchain technology are hot topics in the realm of FinTech.

4 Medical diagnosis and treatment: The development of intelligent systems in the healthcare sector has provided physicians and patients with more accurate and effective diagnostic and treatment tools. Intelligent-assisted systems in medical imaging diagnosis can assist doctors in detecting abnormalities and lesions through image recognition and machine learning techniques.

5 Smart home systems: Smart home systems integrate sensors and automation control technologies, enabling home appliances and devices to operate automatically and be controlled remotely. For example, smart home systems can adjust temperature and lighting based on residents' habits.

We believe that these are just the exciting beginning of the practical application of artificial intelligence. Looking ahead, with continuous technological advancements and innovative breakthroughs, we anticipate that intelligent systems will continue to revolutionize wider domains, including transportation management, education, and industrial automation, bringing more convenience and innovation to our lives and society.

The journal "*ICCK Transactions on Intelligent Systematics*" welcomes active contributions from researchers and scholars. We invite submissions covering a wide range of topics, including but not limited to intelligent algorithms and machine learning, intelligent control systems, pattern recognition and computer vision, natural language processing and speech recognition, multi-sensor and multimodal systems, data mining and big data analytics, intelligent sensing and embedded systems, as well as applied research on intelligent systems in fields such as healthcare, finance, transportation, and education. We look forward to receiving your original research papers, in-depth discussions, and review articles, as together, we share and drive the development of intelligent systems worldwide.

Thank you for your support! We look forward to embarking on a bright future of intelligent systems together!

Data Availability Statement

Not applicable.

Funding

This work was supported without any funding.

Conflicts of Interest

The author is the Editor-in-Chief of *ICCK Transactions on Intelligent Systematics*. This Inaugural Editorial was not externally peer reviewed and was accepted directly by the publisher. The Editor-in-Chief was not involved in the handling or decision-making of this manuscript.

Ethical Approval and Consent to Participate

Not applicable.

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