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Launch Editorial

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Management System Engineering

EDITORIAL Open Access

Launch editorial

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Management System Engineering (MSE) is dedicated to the methodology of System Engineering (SE) and the practice of Management Decision Making. Among the topics considered are: decision modelling, optimization, stimulation, computation, and data analytics for identifying and solving management problems; making business decisions; and managing risks in complex management systems from the SE perspective. To realize digital transformation, many enterprises have begun to introduce information-based engineering project management systems to conduct systematic and standardized management of internal enterprises and various projects.

At present, the global economy is increasingly showing digital characteristics, and human society is entering a new stage mainly marked by digitalization. The digital economy, which has become the main economic form of the world, has also become the core driving force of the world's economic and social development.

With the global wave of digitalization, the digital economy is a new economic model that promotes inclusive, innovative, efficient, and sustainable development. It takes digital knowledge and information as the key production factors, modern network technology as an important carrier, and economic structure optimization as an important driving force.

The digital economy mainly has the following three characteristics:

First, data becomes a key factor of production. The digital economy is first and foremost a data economy, and data is the first element of the digital economy. Human society uses the massive data obtained in real time, including subject data, behavior data, transaction data, and communication data, to organize social production, sales, circulation, consumption, financing, investment, and other activities. Data has become a key production factor for economic activities.

Secondly, the Internet has transformed production relations. The digital economy is a network economy, and the Internet is the basic carrier of the digital economy. The realization of the digital economy requires the ability to collect, transmit, process, analyze, utilize, and store data, including the use of mobile Internet, Internet of Things, cloud computing, computers, especially mobile smart terminals, and various software platforms that link them together.

Finally, artificial intelligence has greatly improved productivity. The digital economy is an intelligent economy, and artificial intelligence has exponentially increased data processing capabilities. Driven by "artificial intelligence & algorithm", it realizes the integration of digital simulation, knowledge model, physical model, and data model for applications in various fields. On this basis, cross-border innovation and intelligent services are realized, which greatly enhance social productivity.

Although management science (MS) and SE approaches have received widespread attention from academia and industry, there has not yet been a dedicated academic journal focusing on research in this cross-cutting science area. This journal aims to report high-quality research results on major fundamental, frontier, strategic, pioneering, and complexity science problems in management science from the perspective of systems engineering and complexity science.

Therefore, this journal aims to provide a platform for scholars in management science, system engineering methods and other cross-cutting sciences to present and exchange academic results by reporting the

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latest theoretical research results in domestic and international academia, which helps to enable managers and researchers to efficiently conduct research on management science issues oriented to frontier basic theories and applied practices.

MSE is an international, peer-reviewed, high-quality academic journal. The journal aims to provide high-quality original papers on the development of systems engineering SE methodology and management science practice, emphasizing frontier-focused, problem-oriented, cross-fertilization, the use of mathematical analysis and modeling, optimization, computer simulation and complex data analysis to solve important management science problems in production and engineering practice, and the in-depth study of new theories, methods and applications of management science in the context of the new generation of information technology from the perspective of systems engineering. The course will focus on new theories, new methods, and new applications of management science in the context of new generation information technology.

The journal also provides a unique and premiere forum for topics such as issue data-driven applications for interdisciplinary problems, and issue interpretation for any of the systems engineering lifecycle phases associated with the definition; development, and deployment of large systems with the aid of new information technology using big data analysis, cloud computing, internet of things, blockchain and so forth.

The research and review articles cover the following topics, but are not restricted to: Systems Engineering Methodology, Discrete and Continuous Optimization, Production, Manufacturing and Logistics, Decision Analysis, Artificial Intelligence and Information Management, Big Data Analytics, Machine Learning Theory, Methodology and Algorithms, Interfaces with Other Disciplines.

We look forward to your submissions and welcome your inquiries and suggestions on topics that push the boundaries of knowledge. In conclusion, *MSE* aims to continuously explore innovative trends in the field of management science engineering in the context of the digital economy, to improve the mechanisms and performance of MSs through algorithms, thus promoting an intelligent future for management systems engineering.

Author contributions
All authors read and approved the final manuscript.

Declarations

Competing interests
The authors declare that they have no competing interest.

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