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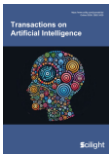

Editorial

Message from the Editor-in-Chief

Dapeng Oliver Wu

Department of Computer Science, City University of Hong Kong, Honge Kong; dapengwu@cityu.edu.hk

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It is my great pleasure to welcome readers to the first issue of the *Transactions on Artificial Intelligence* (*TAI*, Online ISSN: 2982-3439). As a multidisciplinary, peer-reviewed, open-access journal, *TAI* is committed to advancing the frontiers of artificial intelligence by presenting high-quality research that reflects both the foundational progress and the real-world impact of AI technologies. In line with our mission, this issue showcases contributions from a broad spectrum of domains, ranging from theoretical AI methods to transformative applications in medicine, cybersecurity, and software engineering.

Artificial Intelligence is no longer confined to a single discipline; instead, it functions as a transformative force across science, engineering, society, and the arts. To reflect this diversity, *TAI* maintains a broad scope that embraces both foundational advances and practical applications. Below is a brief overview of the thematic areas we cover:

- AI Foundation: This area focuses on the theoretical underpinnings of AI, including learning theory, symbolic reasoning, optimization methods, and formal guarantees for intelligent behavior. We welcome rigorous contributions that help define the mathematical and conceptual boundaries of artificial intelligence.
- AI Technologies and Tools: Here, we highlight innovations in AI systems, platforms, frameworks, and algorithms. Topics include deep learning architectures, reinforcement learning, explainable AI, and tools that enable scalable and efficient development of AI applications.
- AI for Science: AI is increasingly becoming a core component of scientific discovery. This section covers AI-enabled modeling, simulation, data analysis, and hypothesis generation in fields such as physics, chemistry, biology, and environmental science.
- AI for Engineering: This area features research where AI enhances or automates tasks in traditional engineering domains, including robotics, control systems, civil infrastructure, autonomous systems, and intelligent manufacturing.
- AI for Medicine: From medical imaging and diagnostics to drug discovery and patient monitoring, AI for medicine seeks to improve healthcare delivery, accelerate clinical research, and enable personalized treatment while addressing ethical and privacy concerns.
- AI for Social Sciences: This area explores how AI impacts human behavior, policy-making, economics, psychology, and education. It also includes the use of AI methods to study societal dynamics and inform data-driven decision-making.
- AI for Humanities: At the intersection of AI and humanistic inquiry, this domain includes computational approaches to language, history, philosophy, and cultural studies. We encourage contributions that reflect critically on the implications of AI for human values, identity, and ethics.
- AI for Arts: Creative applications of AI in music, visual arts, literature, and performance are redefining the boundaries of artistic expression. We welcome explorations of how generative models, neural synthesis, and interactive systems are reshaping artistic practice.

TAI remains committed to providing an inclusive, rigorous venue for the AI community. As we continue to expand our coverage, welcoming contributions from AI for social sciences, humanities, and the arts, we aim to foster collaboration across disciplines and encourage research that is responsible, reproducible, and impactful.

On behalf of the editorial board, I wish to thank our authors for their outstanding contributions, our reviewers for their insightful assessments, and our readers for their continued support. We look forward to your engagement as we collectively shape the next chapter in the development of artificial intelligence.

Conflicts of Interest

The authors declare no conflict of interest.

Appendix

List of Editorial Board:

Dapeng Oliver Wu (S'98-M'04-SM'06-F'13) received a B.E. degree in electrical engineering from Huazhong University of Science and Technology, Wuhan, China, in 1990, an M.E. degree in electrical engineering from Beijing University of Posts and Telecommunications, Beijing, China, in 1997, and a Ph.D. degree in electrical and computer engineering from Carnegie Mellon University, Pittsburgh, PA, in 2003. He is Yeung Kin Man Chair Professor of Network Science, and Chair Professor of Data Engineering at the Department of Computer Science, City University of Hong Kong. Previously, he was on the faculty of the University of Florida, Gainesville, FL, USA, and was the director of the NSF Center for Big Learning, USA. His research interests are in the areas of artificial intelligence, network science, communications, signal processing, computer vision, and biomedical engineering. He received University of Florida Term Professorship Award in 2017, University of Florida Research Foundation Professorship Award in 2009, AFOSR Young Investigator Program (YIP) Award in 2009, ONR Young Investigator Program (YIP) Award in 2008, NSF CAREER award in 2007, the IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI) Outstanding Paper Award for Year 2025, the IEEE Circuits and Systems for Video Technology (CSVT) Transactions Best Paper Award for Year 2001, and the Best Paper Awards in IEEE GLOBECOM 2011 and International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine) 2006. He has served as founding Editor in Chief of Transactions of Artificial Intelligence, Editor in Chief of IEEE Transactions on Network Science and Engineering, founding Editor in Chief of Journal of Advances in Multimedia, Editor-at-Large for IEEE Open Journal of the Communications Society, and Associate Editor for IEEE Transactions on Cloud Computing, IEEE Transactions on Communications, IEEE Transactions on Signal and Information Processing over Networks, IEEE Signal Processing Magazine, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Wireless Communications and IEEE Transactions on Vehicular Technology. He has served as Technical Program Committee (TPC) Chair for IEEE INFOCOM 2012, and TPC chair for IEEE International Conference on Communications (ICC 2008), Signal Processing for Communications Symposium, and as a member of executive committee and/or technical program committee of over 100 conferences. He was elected as a Distinguished Lecturer by the IEEE Vehicular Technology Society in 2016.

Martin Reisslein (Fellow, IEEE) received the Ph.D. degree in systems engineering from the University of Pennsylvania, Philadelphia, PA, USA, in 1998. He is currently a Professor of Electrical Engineering and Program Chair for Computer Engineering (CEN) with the School of Electrical, Computer, and Energy Engineering, Arizona State University, Tempe, AZ, USA. Dr. Reisslein is currently an Associate Editor for IEEE Access and IEEE Transactions on Network and Service Management.

Peng Shi (Fellow, IEEE) is currently a Professor with The University of Adelaide. His research interests include systems and control theory and applications to autonomous and robotic systems, and cyber-physical systems. He is a fellow of IET, IEAust, IETI, and CAA, and a member of the Academy of Europe. He serves as the Editor-in-Chief for IEEE Transactions on Cybernetics, a Senior Editor for IEEE Access, and the Distinguished Lecturer for the IEEE SMC Society.

Koduvayur (Suba) Subbalakshmi received the B.Sc degree in physics from the University of Madras in 1990, the M.Eng degree in electrical communication engineering from the Indian Institute of Science in 1994, and the Ph.D degree in engineering science from Simon Fraser University in 2000. She is a Professor with the Department of ECE, Stevens Institute of Technology, Hoboken, NJ, USA. Her current research interests include artificial intelligence and machine learning with an emphasis on explainable AI, mental health, cyber safety/security, and cognitive radio networking. Dr. Subbalakshmi was Associate Editor for several journals. She is currently an Associate Editor for IEEE *Transactions on Artificial Intelligence* and IEEE Transactions on Neural Networks and Learning Systems. She was a Founding Associate Editor of IEEE Transactions on Cognitive Communications and Networking. She is the Founding Chair of the Special Interest Group on Security, IEEE COMSOC's Technical Committee on Cognitive Networks. She is a Fellow of the National Academy of Inventors, a Jefferson Science

Fellow, and a Member of the National Academy of Science Engineering and Medicines' Intelligence Science and Technology Experts Group. She was the recipient of the New Jersey Inventors Hall of Fame, Innovator Award. Her research is supported by NSF, NIJ, AFRL, US ISSO, CCDC, and other DoD agencies as well as industry.

Wei Zhang (Fellow, IEEE) received the Ph.D. degree from The Chinese University of Hong Kong, Hong Kong, in 2005. He is currently a Professor with the School of Electrical Engineering and Telecommunications, The University of New South Wales, Sydney, NSW, Australia. His current research interests include 6G communications and networks. Prof. Zhang is a Vice President of the IEEE Communications Society. Within IEEE ComSoc, he has taken many leadership positions, including Member-at-Large on the Board of Governors from 2018 to 2020, Chair of the Wireless Communications Technical Committee from 2019 to 2020, Vice Director of the Asia-Pacific Board from 2016 to 2021, Editor-in-Chief of IEEE Wireless Communications Letters from 2016 to 2019, Technical Program Committee Chair of APCC 2017, ICCC 2019, ICCC 2024, and WCNC 2025, Award Committee Chair of the Asia-Pacific Board, and Award Committee Chair of the Technical Committee on Cognitive Networks. He was an IEEE ComSoc Distinguished Lecturer from 2016 to 2017. He currently serves as an Area Editor for the IEEE Transactions on Wireless Communications and the Editor-in-Chief for the Journal of Communications and Information Networks. Previously, he served as an Editor for IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, IEEE Transactions on Cognitive Communications and Networking, and IEEE Journal on Selected Areas in Communications—Cognitive Radio Series.

Wei Bao (Member, IEEE) received the B.E. degree in communications engineering from the Beijing University of Posts and Telecommunications, Beijing, China, in 2009, the MASc degree in electrical and computer engineering from the University of British Columbia, Vancouver, Canada, in 2011, and the PhD degree in electrical and computer engineering from the University of Toronto, Toronto, Canada, in 2016. He is currently a senior lecturer with the School of Computer Science, the University of Sydney, Sydney, Australia. His research covers the area of network science, with particular emphasis on Internet of Things, mobile computing, edge computing, and distributed learning. He received the Best Paper Awards in the ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM) in 2013 and 2019 and the IEEE International Symposium on Network Computing and Applications (NCA) in 2016.

Jianfei Cai (Fellow, IEEE) received the PhD degree from the University of Missouri-Columbia. He is currently a professor with the Faculty of IT, Monash University, where he had served as the inaugural head of the Data Science & AI Department. Before that, he was head of the Visual and Interactive Computing Division and head of the Computer Communications Division at Nanyang Technological University (NTU). His major research interests include computer vision, deep learning, and multimedia. He has successfully trained 30+ PhD students, with three receiving the NTU SCSE Outstanding PhD thesis award and one getting Monash FIT Graduate Research Student Excellence Award. He is a co-recipient of paper awards in ACCV, ICCM, IEEE ICIP, and MMSP. He serves or has served as an associate editor for IEEE Transactions on Pattern Analysis and Machine Intelligence, International Journal of Computer Vision, IEEE Transactions on Image Processing, IEEE Transactions on Multimedia, and IEEE Transactions on Circuits and Systems for Video Technology, as well as serving as area chair for CVPR, ICCV, ECCV, IJCAI, ACM Multimedia, ICME, ICIP, and ISCAS. He was the chair of IEEE CAS VSPC-TC during 2016–2018. He had served as the leading TPC chair for IEEE ICME 2012 and the best paper award committee chair & co-chair for IEEE T-MM 2020 & 2019. He is the leading general chair for ACM Multimedia 2024, and a Fellow of IEEE.

Xiuzhen Cheng (Fellow, IEEE) received the M.S. and Ph.D. degrees in computer science from the University of Minnesota-Twin Cities in 2000 and 2002, respectively. She is currently a Professor with the School of Computer Science and Technology, Shandong University. She worked as the Program Director of the U.S. National Science Foundation (NSF) from April 2006 to October 2006 (full-time) and from April 2008 to May 2010 (part-time). Her current research interests include wireless and mobile security, cyber-physical systems, wireless and mobile computing, sensor networking, and algorithm design and analysis. She is a member of ACM. She received the NSF CAREER Award in 2004. She has also chaired several international conferences. She has served on the editorial boards for several technical journals and the technical program committees for various professional.

John C. Harris received his B.S. and M.S. degrees in electrical engineering from MIT in 1983 and 1986. He earned his Ph.D. from Caltech in 1991. After a two-year postdoc at the MIT AI lab, he joined the Electrical and Computer Engineering Department at the University of Florida. He is currently a full professor and leads the Hybrid Signal Processing Group. He has published over 100 research papers and patents in this area. He co-directs the Computational Neurofingineering Lab and has a joint appointment in the UF Biomedical Engineering Department.

Jiong Jin (Member, IEEE) received the B.E. (Hons.) degree in computer engineering from Nanyang Technological University, Singapore, in 2006, and the Ph.D. degree in electrical and electronic engineering from The University of Melbourne, Parkville, VIC, Australia, in 2011. He is currently a Full Professor with the School of Engineering, Swinburne University of Technology, Melbourne, Australia. His research interests include network design and optimization, edge computing and intelligence, robotics and automation, and cyber-physical systems and Internet of Things, as well as their applications in smart manufacturing, smart transportation, and smart cities. Dr. Jin was recognized as an Honorable Mention in the AI 2000 Most Influential Scholars List in IoT (2021 and 2022). He is an Associate Editor of IEEE Transactions on Industrial Informatics and IEEE Transactions on Network Science and Engineering.

Ruidong Li received the Ph.D. degree in computer science from the University of Tsukuba in 2008. He is currently an Associate Professor with Kanazawa University, Japan. His research interests include quantum networks, metaverse, and future networks. He was a recipient of the Best Paper Awards for IEEE ICC 2022 and IWCMC 2022 and an IEEE Distinguished Lecturer. He serves as the Chair for IEEE Internet Technical Committee (ITC) and had served as the Chair for several conferences, such as the General Chair for ICNC 2025, IEEE HealthCom 2024, MSN 2021, CPSCom 2021, the Area TPC Chair for INFOCOM 2023, and the TPC Chair for QCNC 2024, ICNC 2024, IEEE MetaCom 2023, HotICN 2022, IWQoS 2021, and IEEE MSN 2020.

Jun Luo (Fellow of the IEEE) received the B.S. and M.S. degrees in electrical engineering from Tsinghua University, Beijing, China, in 1997 and 2000, respectively, and the Ph.D. degree in computer science from EPFL (Swiss Federal Institute of Technology in Lausanne), Lausanne, Switzerland, in 2006. From 2006 to 2008, he worked as a Postdoctoral Research Fellow with the Department of Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, Canada. In 2008, he joined the faculty of the School of Computer Science and Engineering, Nanyang Technological University, Singapore, where he is currently an Associate Professor. His research interests include mobile and pervasive computing, wireless networking, machine learning, and computer vision, as well as applied operations research.

Chiranjib Sur, Assistant Professor at Mehta Family School of Data Science and Artificial Intelligence and an Associate Faculty at the School of Business at the Indian Institute of Technology, Guwahati. Currently research focuses on: Deep Learning, NLP/NLU, Recommendation Systems for Multimedia, Image/Video Captioning, Story Telling, Questioning Answering, Translation, Visual Questioning Answering, Statistical Learning, Image to Image Transformation, Segmentation and Organ detection, Object Detection, Scene Understanding, Multi-Frame Prediction, Scalable Big Data Technologies.

Zhen Wang (Fellow, IEEE) is a full professor with Northwestern Polytechnical University, Xi'an, China. He is a member of Academia Europaea and the European Academy of Sciences and Arts. His current research interests include artificial intelligence, network science, data mining, and evolutionary game theory, which have attracted more than 19,000 citations for his works.

Shui Yu (Fellow, IEEE) received the Ph.D. degree from Deakin University, Australia, in 2004. He is currently a Professor with the School of Computer Science, University of Technology Sydney, Australia. He has published four monographs and edited two books, more than 500 technical papers, including top journals and top conferences, such as IEEE INFOCOM, IEEE Transactions on Information Forensics and Security, IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Computers, IEEE Transactions on Mobile Computing, and IEEE/ACM Transactions on Networking. His research interests include network science, security, and privacy. He has been a member of organizing committees for many international conferences, such as the Publication Chair of Globecom 2015, INFOCOM 2016 and 2017, the TPC Chair of IEEE Big Data Service 2015, and the General Chair of ACSW 2017. He served as an Editor for IEEE Communications Surveys and Tutorials (an Area Editor), IEEE Communications Magazine, and IEEE Internet of Things Journal. He served as a Distinguished Lecturer for the IEEE Communications Society (2018–2021). He is a Distinguished Visitor of IEEE Computer Society (2022–2024), a Voting Member of IEEE ComSoc Educational Services Board, and an Elected Member of the Board of Governors of IEEE Communications Society and IEEE Vehicular Technology Society.

Peng Yang (Member, IEEE) received the B.E. degree in communication engineering and the Ph.D. degree in information and communication engineering from the Huazhong University of Science and Technology (HUST), Wuhan, China, in 2013 and 2018, respectively. He was with the Department of Electrical and Computer Engineering, University of Waterloo, Canada, as a Visiting Ph.D. Student, from 2015 to 2017, and a Post-Doctoral Fellow, from 2018 to 2019. Since 2020, he has been an Associate Professor with the School of Electronic Information and Communications, HUST. His current research interests include mobile edge computing, video analytics, and virtual reality.