

# A Reflection of Future in History: Introduction to The Alfred North Whitehead Laureate Lecture

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Welcome to the inaugural article from the Alfred North Whitehead Laureate Lecture, which was held at the Whitehead Academy of Intelligence in Beijing, China, on October 18, 2018. The inaugural lecture was delivered by Professor Jonathan M. Garibaldi, the Head of School of Computer Science at the University of Nottingham and the Editor-in-Chief of *IEEE Transactions on Fuzzy Systems*. I am sure you will enjoy his “The Need for Fuzzy AI” in crystal logic and with nothing of fuzzy thinking.

## THE ALFRED NORTH WHITEHEAD LAUREATE LECTURE

This lecture was established last year jointly by *IEEE/CAA Journal of Automatica Sinica*, Chinese Association of Automation, and The State Key Laboratory for Management and Control of Complex Systems to celebrate the 90<sup>th</sup> anniversary of the publication of Alfred North Whitehead’s seminal work *Process and Reality*, and the 100<sup>th</sup> anniversary of his *Principia Mathematica* with B. A. Russell.

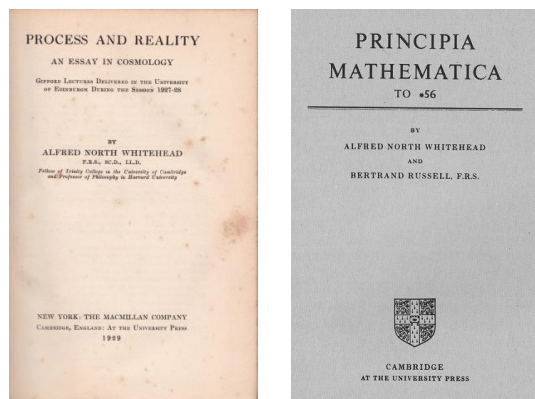


Fig. 1. Whitehead’s *Process and Reality* & *Principia Mathematica*.

In *Process and Reality*, Whitehead propounded a philosophy of organism, the process philosophy, by positing an ontology based on two kinds of existence of entities, that of actual entities and that of abstract entities. Whitehead’s thinking provides a philosophical and epistemological foundation for parallel intelligence and knowledge automation.

Computer Science, Artificial Intelligence in particular, can trace their origin back to *Principia Mathematica* which sparked interest in symbolic logic and inspired Gödel’s incompleteness theorems, that in turn motivated Turing’s work on computability and Turing Machines as well as von Neumann’s Architecture for modern digital computers. In the end, we have automata, robots, AI, robotics, intelligent machines, intelligent control, and AlphaGo today.

In 2021, we will celebrate the 160<sup>th</sup> anniversary of Whitehead’s birth, a very special human deserving a special memory. We need to continue his effort of moving a phenomenological philosophy of *being* for descriptive knowledge to a process philosophy of *becoming* for predicative knowledge, further to a parallel philosophy of *believing* for prescriptive ontology for new knowledge and its automation into a smart society. This is the purpose of creating the Alfred North Whitehead Laureate Lecture.



Fig. 2. A. N. Whitehead (February 15, 1861- December 30, 1947).



Fig. 3. Inaugural Lecture by Prof. J. M. Garibaldi at Whitehead Academy.

## CALL FOR RECOMMENDATION

This is an open call for recommendation of lecturers to the Alfred North Whitehead Laureate Lecture. Please send your recommendation to the Lecture’s Advisory Committee co-chaired by Professor Fei-Yue Wang and N. J. Nilsson via *IEEE/CAA Journal of Automatica Sinica*.

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