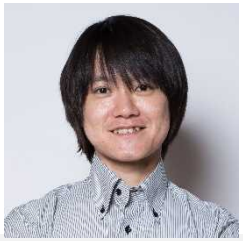
AI & Robots that Harmonize with Humans to Create Knowledge and Cross Its Borders

Project manager

(selected in 2022)

USHIKU Yoshitaka

OMRON SINIC X Corporation
Vice President for Research



Leader's institution

OMRON SINIC X Corporation

R&D institutions

Osaka University, OMRON SINIC X Corporation, Kyoto University, Chubu University, UTokyo, Tohoku University, Nagoya University, NAIST, RIKEN, IMS

Summary of the project

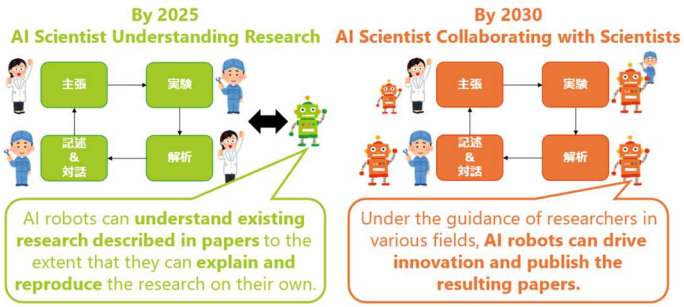
In innovation, deductive thinking is necessary for continuous performance improvement, while paradigm disruption requires knowledge creation through inductive thinking and abduction, as well as knowledge cross-border migration between fields. We aim to create a world in which researchers and AI can harmonize and produce Nobel Prize-level research results by 2050.

Milestone by year 2030

AI robots innovate based on the instructions of researchers in various fields, and the papers compiled as the results are accepted.

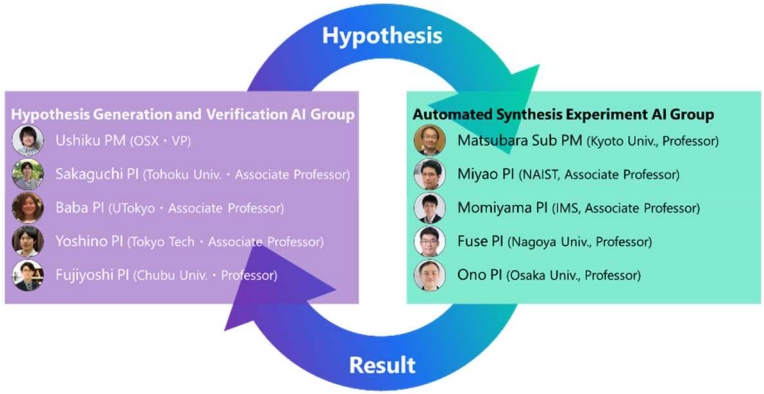
Milestone by year 2025

AI robots can understand research conducted by researchers at such a level that they can reproduce and explain the research themselves. In addition, new hypotheses can be generated.



Project structure

During the Feasibility Study period, through document information and interaction with researchers, we carried out research that will be an offshoot of AI to understand human research. Toward the milestone by 2025, both the Hypothesis Generation and Verification AI Group and the Automated Synthesis Experiment AI Group will work to achieve a deeper understanding of the literature and hypothesis generation.



Additionally, in collaboration with PM Harada towards the same goal, we will advance the development of AI robot-driven science. In the future, we plan to handle experimental science in more diverse disciplines in a structure that allows simultaneous deployment of research AI robotics results to multiple disciplines while avoiding bottlenecks and stagnation.