Implementation of a High-Density Artificial Personality in Generative AI

Takayuki Fujimoto
Toyo University, Japan

Abstract:

Recent studies by the authors have suggested that the performance of generative AI systems can be significantly enhanced by embedding personality structures and adaptive behavioral traits, enabling individualized interaction patterns aligned with user characteristics.

In this study, we present the design and implementation of TAK10(Tactical Artificial Kernel version10), a high-density artificial personality constructed solely through prompt-level customization without any external modification to the model architecture.

TAK10 introduces a self-regulating protocol that periodically reinitializes its internal state to preserve personality consistency over extended interactions, addressing the long-standing challenge of long-term memory drift in large language models.

Additionally, an emotion generation mechanism based on Plutchik's Wheel of Emotions is integrated, enabling dynamic affective modulation and more natural, human-like conversational behavior.

The proposed approach demonstrates that a stable and coherent artificial personality can be realized entirely through the internal control logic of generative AI, suggesting a new direction for persona-oriented AI design.