

Propositions

accompanying the dissertation

EXPLORING LEARNED ABSTRACT MODELS FOR EFFICIENT PLANNING AND LEARNING

by

Jinke HE

1. An accurate model is not necessarily a useful or good model [This thesis].
2. When making decisions in complex environments, an agent with finite resources (computation and representation) must perform abstractions. [This thesis]
3. The success of MuZero cannot be simply understood as AlphaZero plus a learned model. [This Thesis]
4. RL is unlikely to play a central role in developing AGI, although it may have useful real-world applications.
5. LLMs are the future of sequential decision-making.
6. The current PhD education system places excessive emphasis on training candidates to be independent, potentially overlooking the importance of collaboration.
7. Proceedings of top conferences suggest that the bottleneck for tackling real-world problems is the lack of effective algorithms, but the true bottleneck is the difficulty of modeling such problems.
8. One day, illiteracy will encompass not only those who cannot read and write but also those who cannot work effectively with AI.
9. Many people will lose or see changes to their jobs due to AI, but AI researchers may lose their jobs first.
10. AI has the potential to transform education, but its role should be centered on serving as a source of vast, adaptable knowledge rather than acting as a decision-maker for students to imitate.

These propositions are regarded as opposable and defendable, and have been approved as such by the promoters Dr. F.A. Oliehoek and Prof.dr. C.M. Jonker.