

World Model

Implicit Representations
of the External World



Future Predictions
of the Physical World

Decision-
Making

Section 3.1

World
Knowledge

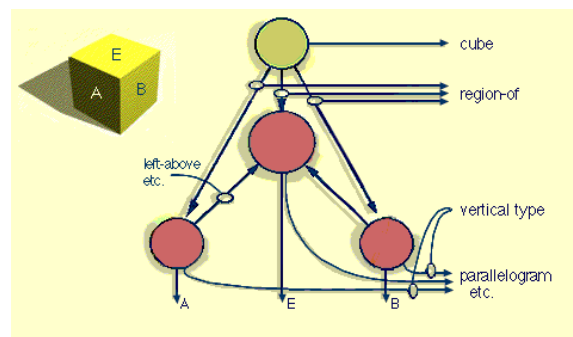
Section 3.2

Video
Generation

Section 4.1

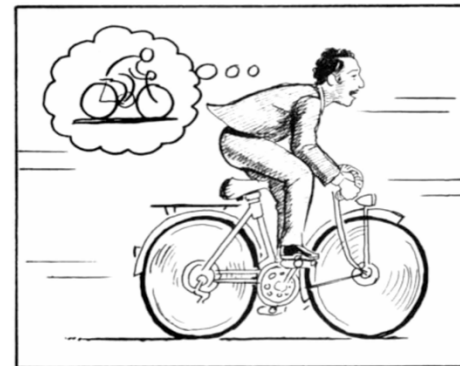
Embodied
Environment

Section 4.2



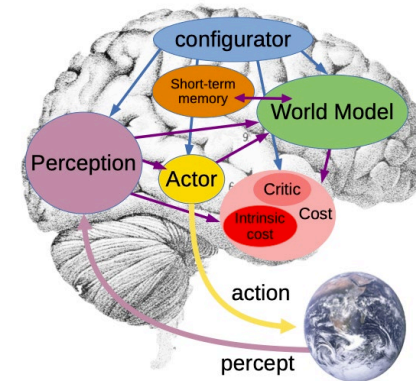
**Frame System
Theory** [136]

1974



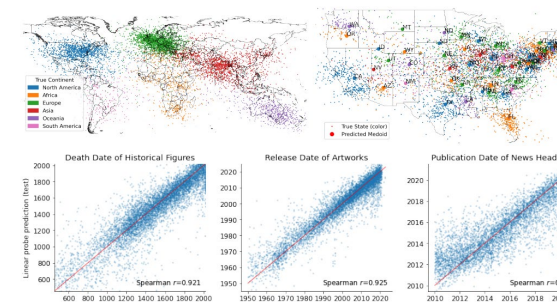
**World Models –
mental model** [65]

2018



**JEPA – perception
and reasoning** [109]

2022



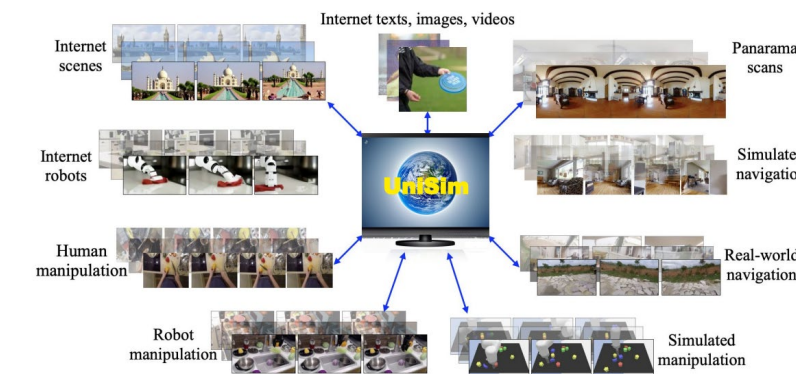
**World Knowledge
in LLM** [64]

2023.10



Sora [146]

2024.2

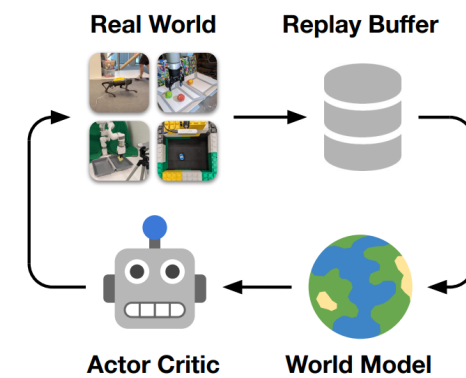


UniSim [236]

2024.5

Applications

DayDreamer [220]



Robots

Section 5.2

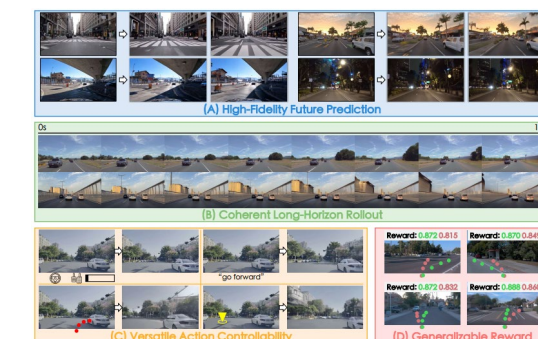
Smallville [148]



Social
Simulacra

Section 5.3

Vista [54]



Autonomous
Driving

Section 5.1