

IEEE VR



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AI and the Metaverse

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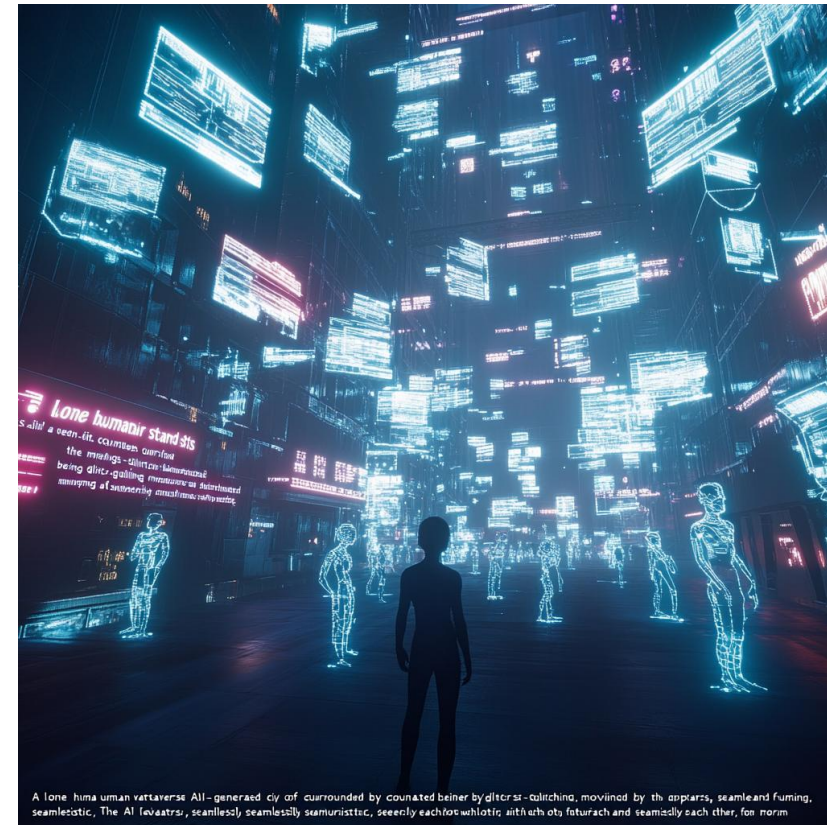
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EMRNRN
The European Metaverse Research Network



AI & Metaverse Synergy

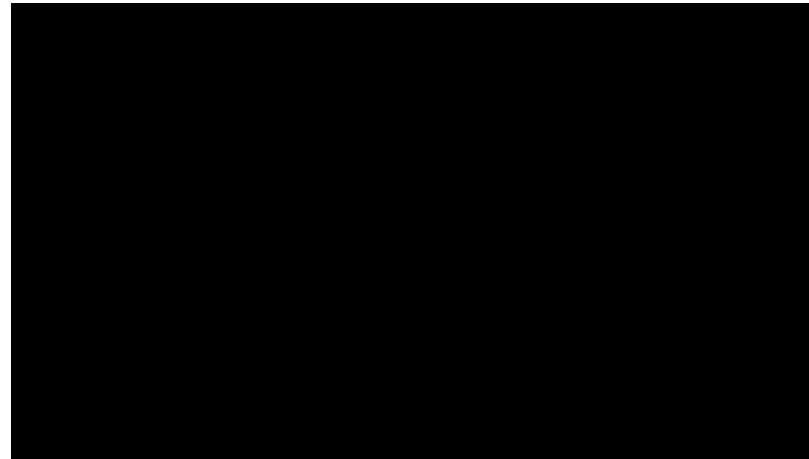
1. AR - Scene understanding (Piotr's talk)
2. Avatars (mind/body – Marco's talk)
3. Lessons from social media (now)
 1. User generated content
 2. AI-based social regulation



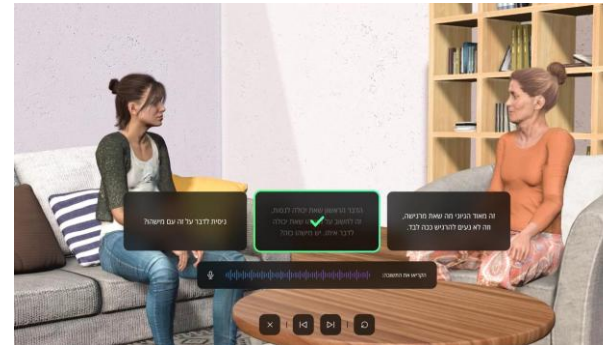
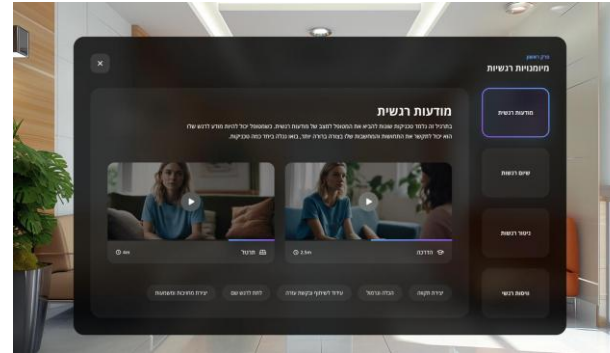
User generated content!



UGC: 3D Reconstruction



UGC: Text – to – VR scene



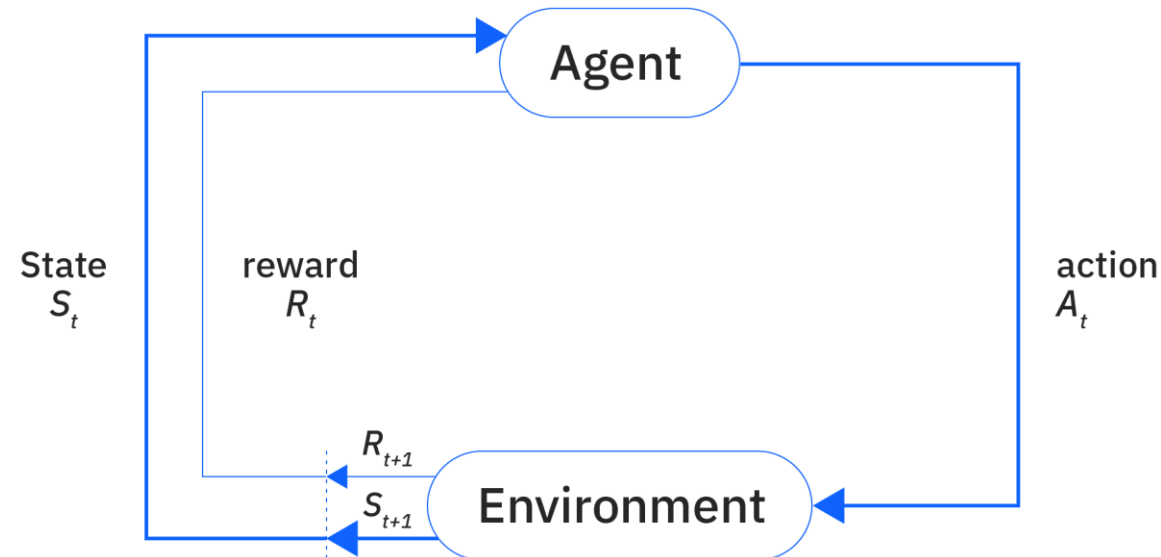
Come see our demo – GuestXR booth



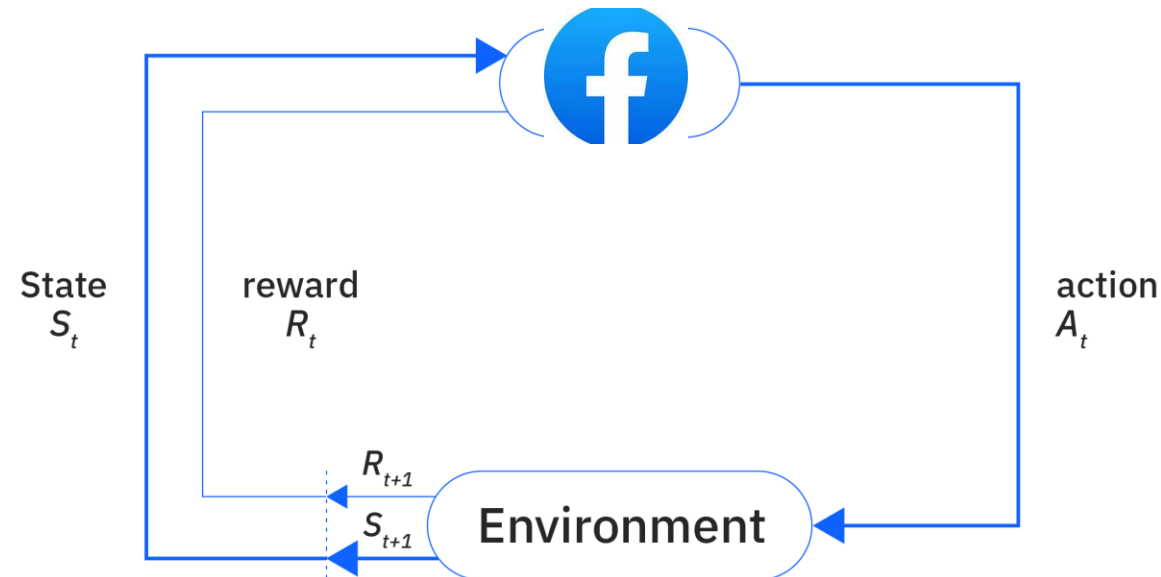
Social media as a learning system



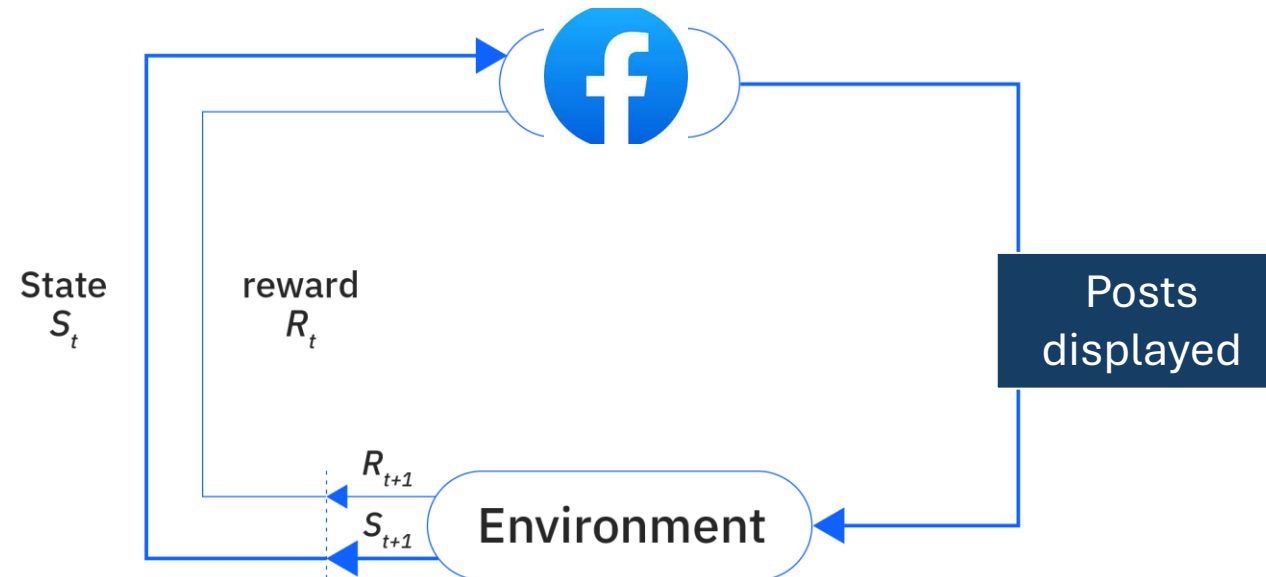
Social media as a learning system



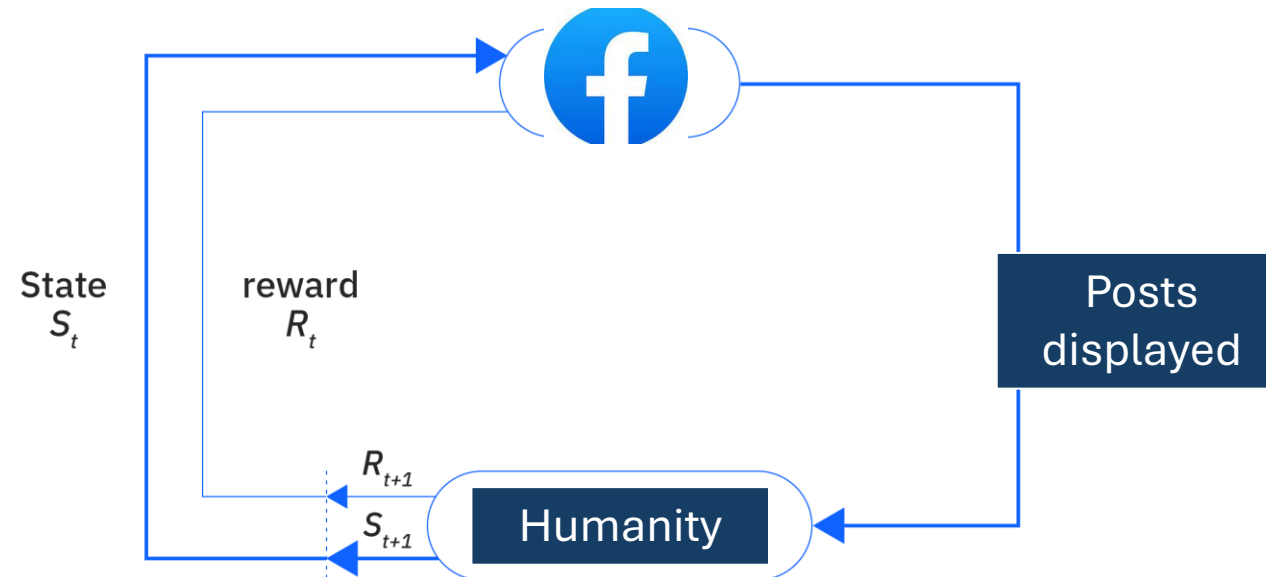
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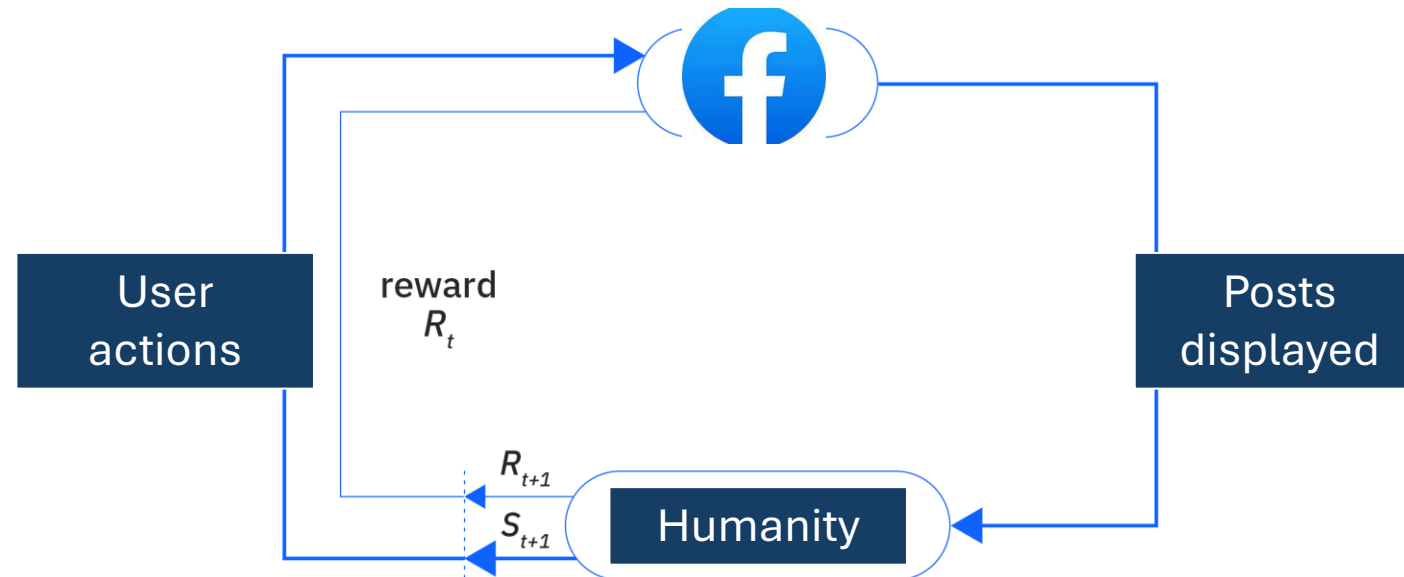
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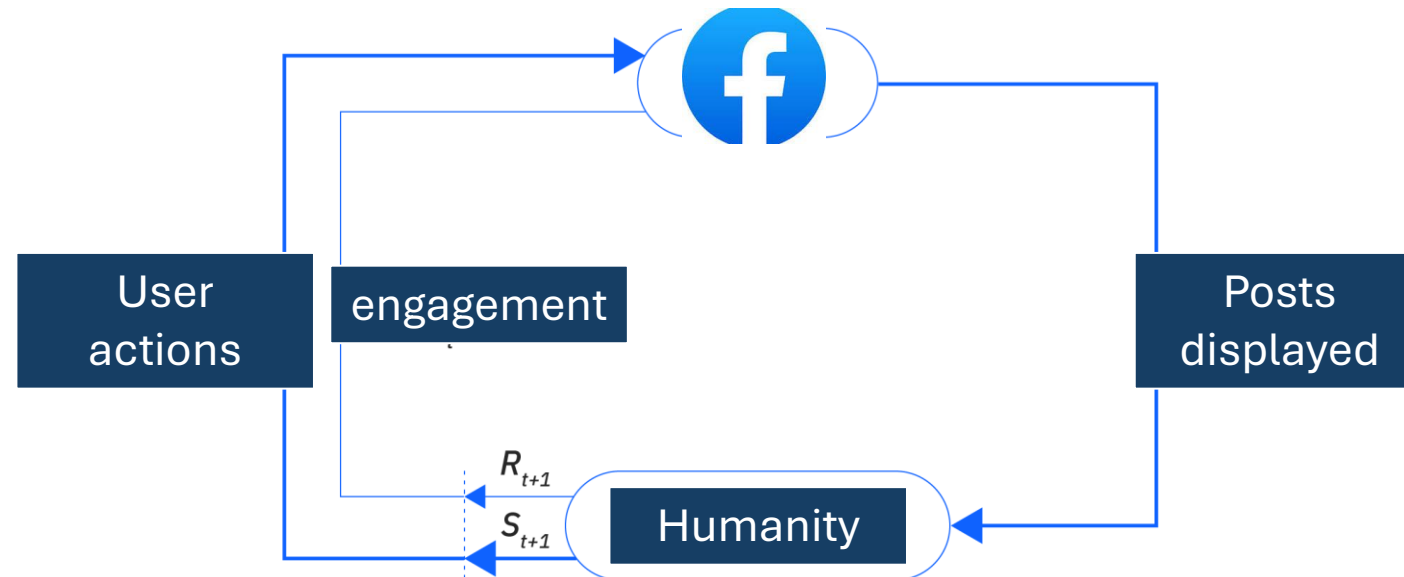


Social Media has a Dark Side



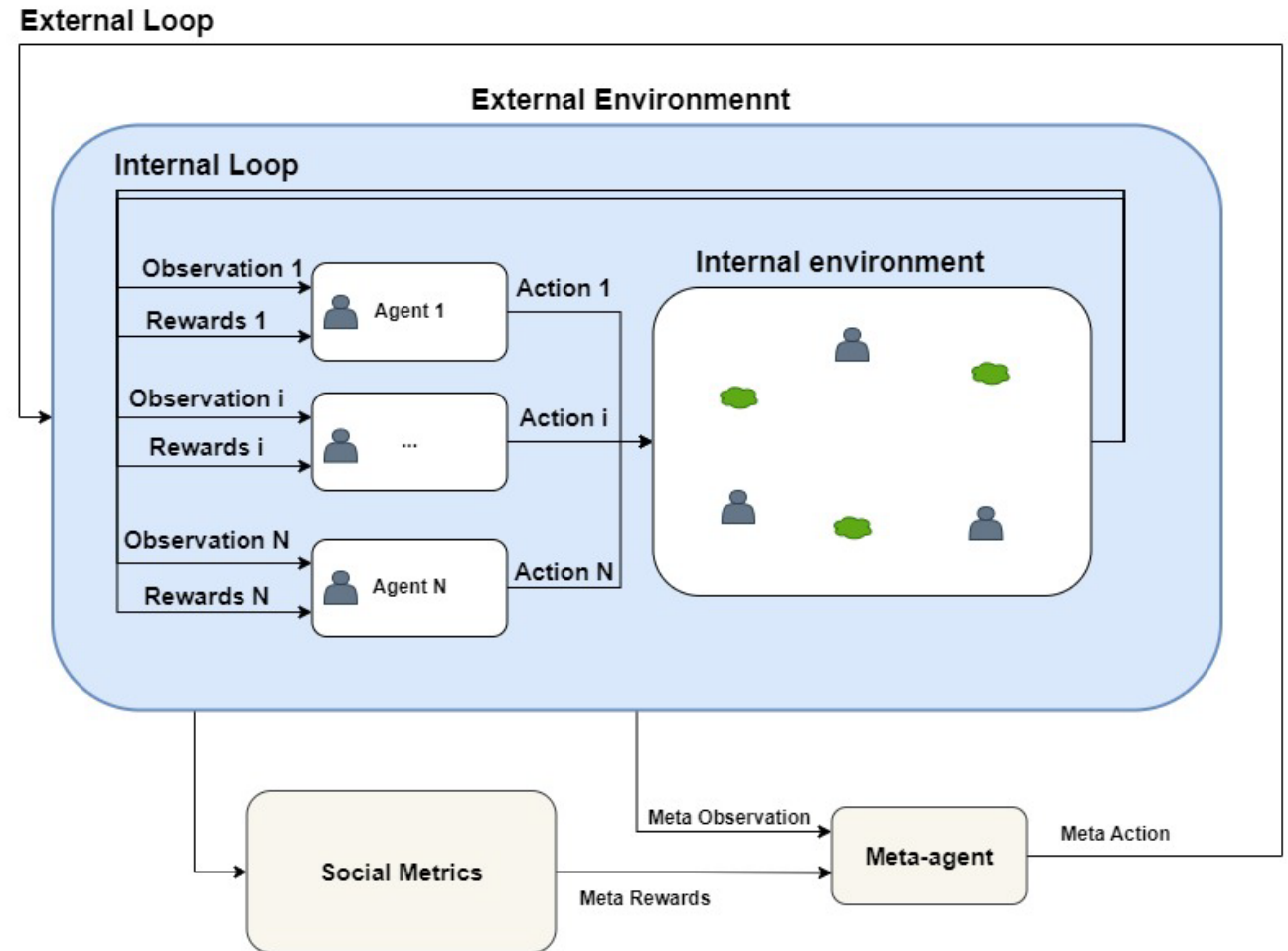
Social Media has a Dark Side

- Can we use AI to make sure the metaverse comes up better?



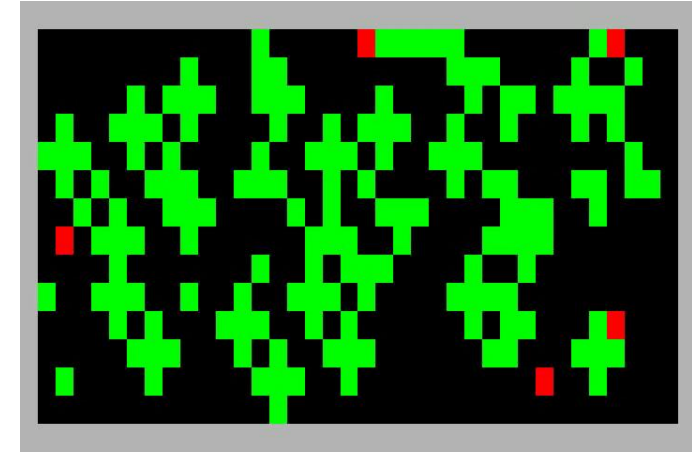
Introducing the Guest Meta-Agent

1. Develop a multi-agent simulation (UW)
2. Train RL meta-agent with simulation
3. Transfer RL to XR with humans (with UB)

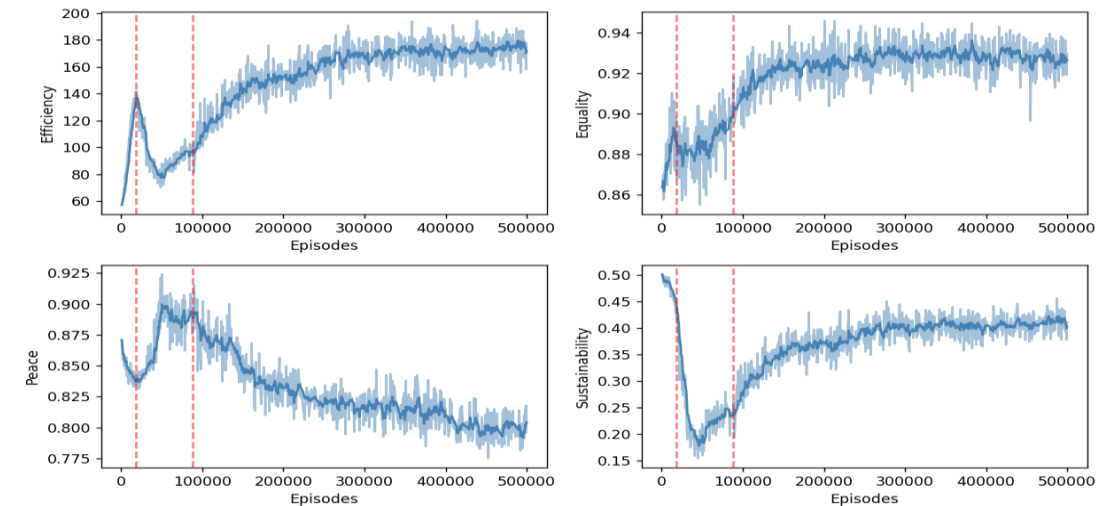


Social simulation + Meta-Agent: Computational Paradigms

- Basic research
 - The prisoner's dilemma (abstract)
 - The tragedy of the commons (spatio-temporal)
- Applied scenarios
 - Counseling and support (language + self-play)
 - Multi-user discussion (turn taking)

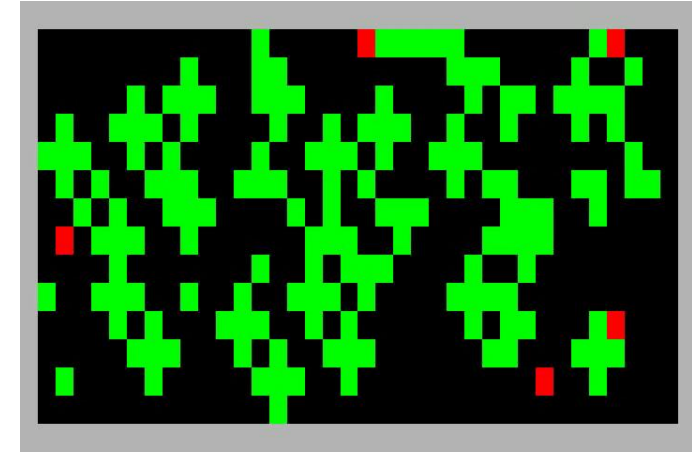


Perolat et al., *NIPS* 2017

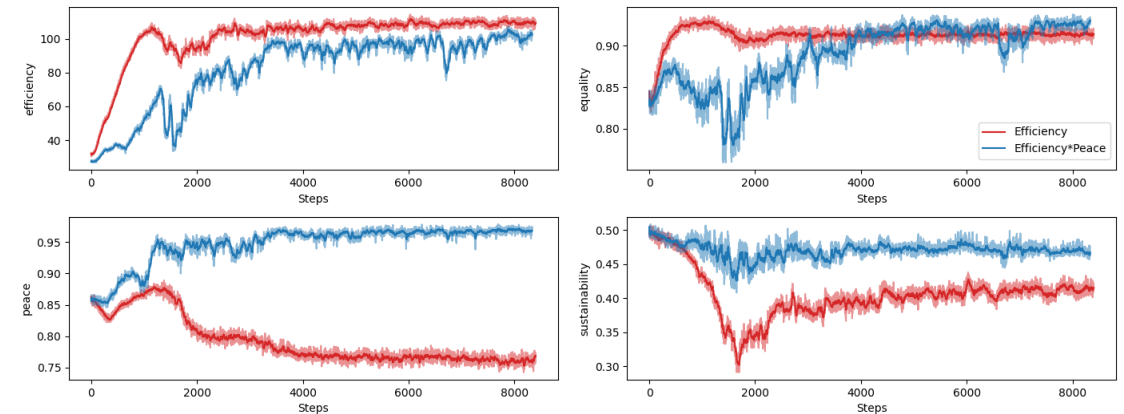


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Ours:



Moderating multi-party XR discussions



60 Henrietta Bla bla James.
63 William : Bla bla Bla bla.
66 James : Bla bla Henrietta.
67 William : Bla bla Henrietta.
70 James : Bla bla Bla bla.
70 William : Bla bla Bla bla.
72 Henrietta Bla bla William.
73 James : Bla bla Bla bla.
75 William : Bla bla Henrietta.
76 James : Bla bla Bla bla.
79 William : Bla bla Bla bla.
81 James : Bla bla Bla bla.
86 William : Bla bla William.
86 Henrietta Bla bla William.
88 William : Bla bla Henrietta.
90 Henrietta Bla bla Bla bla.

TalkingAgents.mp4

