

## Actor Model

A universal modular actor formalism for artificial intelligence

Hewitt1973

\*Summary “This paper proposes a modular ACTOR architecture and definitional method for artificial intelligence that is conceptually based on a single kind of object” (p. 235). This position paper is often cited as the foundational work of the actor model.

\*Notes

itemize

The exact details of the paper are less important than the overarching themes, given that actor theory evolved from the time of publication.

‘ ‘We use the ACTOR metaphor to emphasize the *inseparability of control and data flow*” (p.235).

‘ ‘Every actor has an INTENTION which checks that the prerequisites and the context of the actor being sent the message are satisfied. The intention is the CONTRACT that the actor has with the outside world” (p.235). ■

Some aspects of actor-based message passing: itemize

‘ ‘Sending messages between actors is a *universal control primitive in the sense that control operations... are special cases*

‘ ‘Sending a message to an actor makes no presupposition that the actor sent the message will ever send back a message to the continuation” (p. 241).