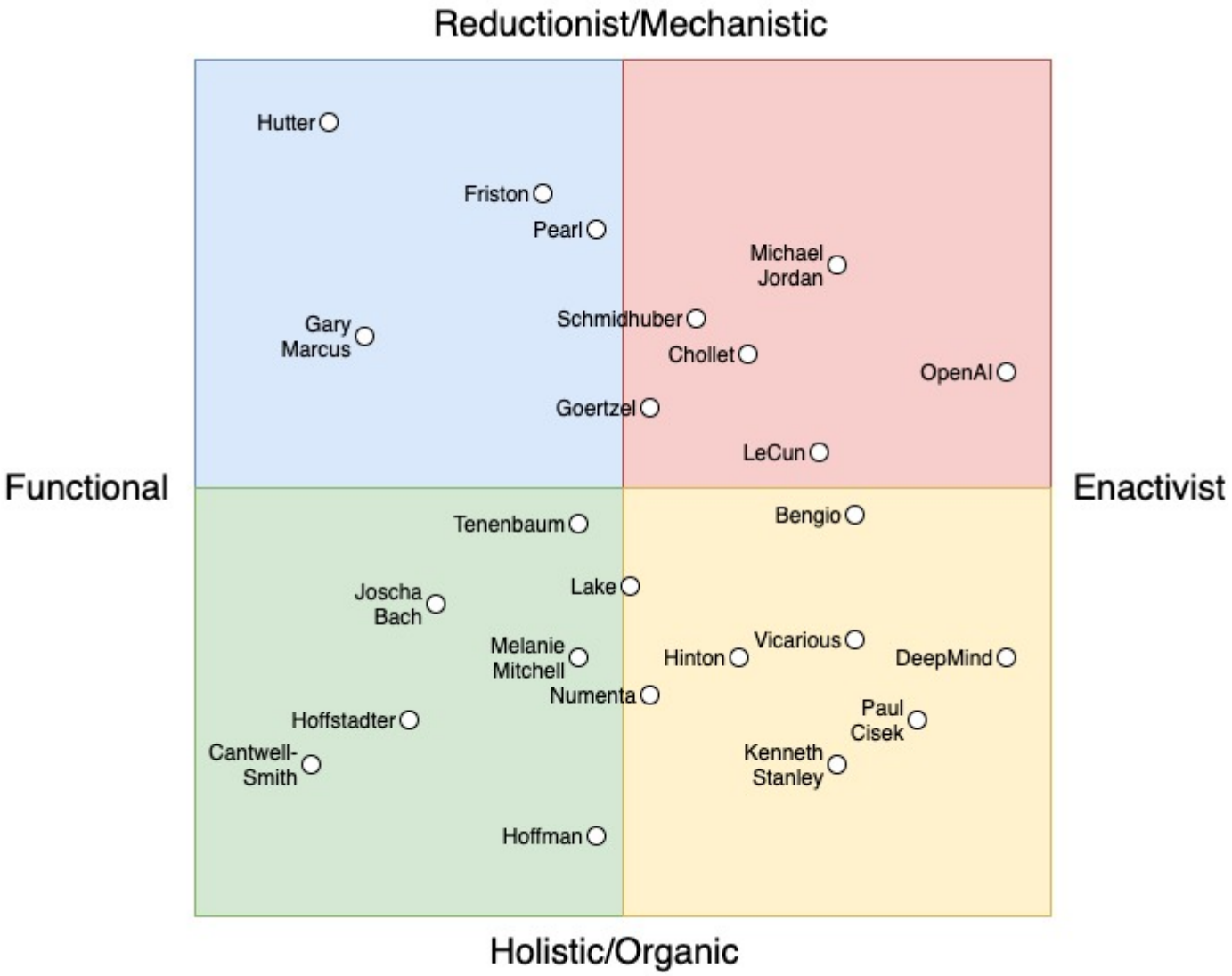
Twitter Thread by Carlos E. Perez

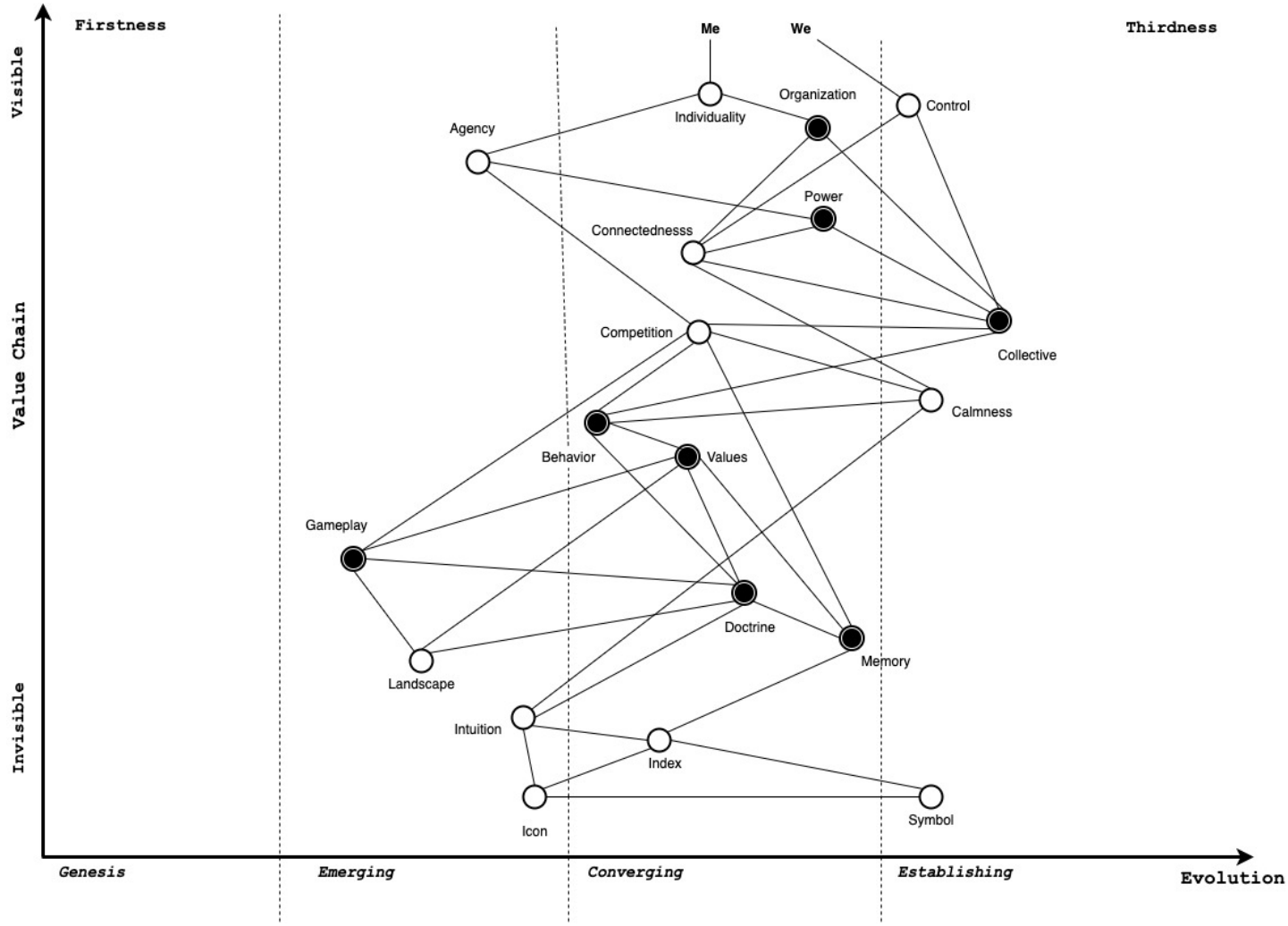
Carlos E. Perez
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My attempt to map the research *doctrines* of various groups working on Artificial General Intelligence.



Although one might see names of individuals here as well as organizations, take it just as identification of the organization behind the person and a very narrow slice of their overall research portfolio.

Here is a @swardley map that captures the relationship of doctrine with other individual and organizational processes.



We can capture a party's doctrine by either an explicitly stated agenda or an aggregation of the kind of approach that is pursued. A doctrine is an invariant property of the overall behavior of a party.

In this map one can see the conflict between different parties (compare @garymarcus with the deep learning folks).

Also you can compare groups like @DeepMind and @OpenAI which although are both working on Deep RL. Deepmind has a neuroscience flavor that is reflected in its classification as being more organic.

Because it is unnatural to capture a high dimensional concept such as doctrine in just two dimensions. The dimensions have been selected to be purposefully ambiguous so as to allow the reader some leeway in interpretation.

The vertical axis reflects a difference in inspiration for the hypothesis generated by the doctrine. One can be biologically inspired like @numenta or one can be less so, but informed by a mathematical idea (i.e. free energy).

The horizontal axis reflect the known tension between representationalists and non-representationlists. In one side are functionalists that identify specific mechanisms. On the other extreme are enactivists that try to capture the complexities of the ecosystem.

Every scientific discipline as well as each individual researcher follows a research agenda that is explicitly or implicitly driven by a doctrine. The debates we see between various groups are the manifestations of the conflicts in doctrine.

There is an argument to be made (see: @blamlab) that the complexity of intelligence requires a pluralistic approach, yet people and organizations seek a dogmatic stance instead. This is of course unavoidable, it is the nature of the human condition.

I've captured this in a blog post that hopefully will expand the details: https://t.co/Qek1Z1WH7S