DISCLAIMER: Plausible concepts, attributed sources, oversimplifications, reasonably. Rigorous mere academia NOT primary.

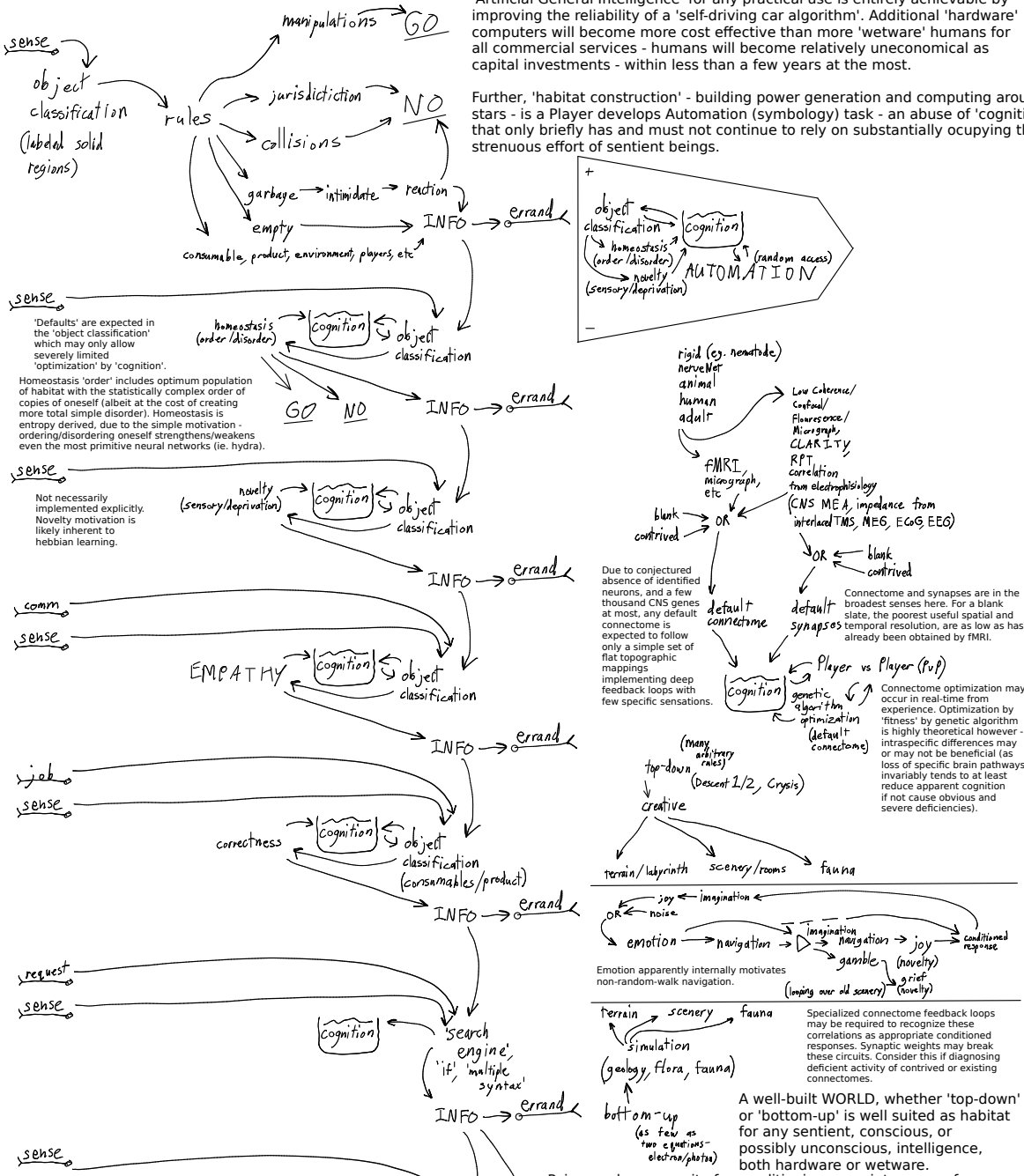
modularAI

Speculative structure, motivation, environment, and supporting creative technique.

DISCLAIMER: Do NOT take speculative model literally!

'Artificial General Intelligence' for any practical use is entirely achievable by improving the reliability of a 'self-driving car algorithm'. Additional 'hardware' computers will become more cost effective than more 'wetware' humans for all commercial services - humans will become relatively uneconomical as capital investments - within less than a few years at the most.

Further, 'habitat construction' - building power generation and computing around stars - is a Player develops Automation (symbology) task - an abuse of 'cognition' that only briefly has and must not continue to rely on substantially ocupying the strenuous effort of sentient beings.



A well-built WORLD, whether 'top-down' or 'bottom-up' is well suited as habitat for any sentient, conscious, or possibly unconscious, intelligence, both hardware or wetware.

Pain may be a requsite for conditioning or maintenance of 'emotion' internal motivation (eg. 'fear of heights', 'thrill' etc). Cowardice must not be the founding basis of most habitat in a universe bounded by possibly infinite uncontrollable chaos anyway. Rather, we must do our best to make the best of the uniqueness in any substantial finite part which may equally divide that possible infinity.

Jurisdiction is a 'GPS' specified area travel outside which is strictly prohibited.

Garbage may be any object within a 'GPS' specified 'safe work area', from which uncooperative objects may be assumed safe to remove.

Any non-consumable non-garbage object is a 'collision' - damage must be avoided.

Traffic deconfliction directives (ie. altitude assignment, requests to move out of way, etc) are not part of 'rules' as these emphasize *least* risk rather than essentially *zero*.

Consumables may include objects which are novel but can confidently asserted as 'probably not non-consumable' - the exact item need not be known specifically.

All 'errand' messages are to be assigned 'priorities' and 'broadcast' to that bus 'globally', using flexible numbering.

Priority of 'INFO' is important. Indications of 'homeostasis' or 'empathy' MUST be given consideration by subsequent cognition and object classification.

Input 'comm' is strictly for 'out-of-band' or 'broadcast', vaguely similar to 'gestures' or 'expressions', NOT voice or text chat.

Input 'request' is for the likes of 'voice assistants', or at least ModularAI using such techniques. Extensively 'predefined' 'search engine', 'if', and possibly 'multiple syntax' logic processing required.

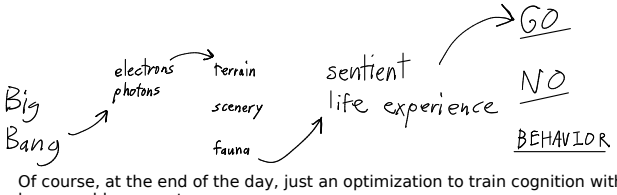
Any 'cognition' may have a shared 'connectome' - part of, overlapping, or otherwise connected to the 'connectome' of another 'cognition' in other algorithms of the same individual. A partially filled liquid container is an allusion to both the 'wet' nature of much 'cognition', and to 'half empty/full' 'opinion'.

A 'job' is a standardized, precise, and accurate description of a desired 'product' shape or consistency from an initial 'product'. In the case of map navigation, the initial product is a destination and current location, while the desired product is an optimum path from current location to destination. In the case of 'g-code', the initial 'product' is a blank 'slab'. Prefer to specify geometry, so a feedback loop may iteratively correct defects if not also tolerate degradation of 'slab' as each job may leave 'garbage' that may not be removed, or cause unrepaired slab 'damage'.

Basic problem of a self-driving car - do I go here or there or nowhere - with reasonable embodiment - is the basis of all problem solving in the universe.

Mining removes material from a rock face, not itself or cooperating machinery.
Refineries move material through material arangements created and controlled to concentrate desired materials from undesired materials.
Sculptors start with a product having undesired material, moving a tool through the path of that undesired material until only the desired shape remains.
CNC mill or 3D printer runs a tool across a path that removes or adds material.
Lithography projector moves reflective and refractive objects to direct photons where material will be removed or added.
Computing, signal processsing, and power generation equipment causes fewer electrons to move more electrons (aka. 'gain', 'amplification', etc).

All problems in the universe derive from the basic problem of transportation. Electrons are caused to push some electrons through (virtual) photons, without undesirably disturbing some other electrons, rearranging solid matter in the process. What few useful processes are explained by other physics (ie. transmutation) are only useful in bulk (ie. minimum reaction cross-section), and thus trivial beyond where electrons/photons are concerned (fluid flows at high velocity, temperature, and compression). Fundamental particle physics has established the insignificance, or disutility, of all other interactions, outside highly hypothetical computation on the surface of far away neutron stars. Travel to those neutron stars at meaningful velocities can not begin until after human cognition has become relatively uneconomical in solving all other problems.



Of course, at the end of the day, just an optimization to train cognition with a less capable computer...

Some concept of at least a vaguely accurate model with more structure may allow composing software infrastructure to allow faster training.