Neurally inspired computing
Functional computer implementations
..to sharpen neuroscience issues by application pull

Issues (unsolved and of critical importance)

- Neural activity as data structure for
    state, short-term memory and long-term memory
- Neural dynamics leading to globally coherent states
- The mechanism of learning from natural input
- The physiological basis for short-term memory
- Stable long-term memory from rapidly plastic synapses
- The mechanisms of goal orientation

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Computer-simulated neural ontogenesis

reaping the benefit of

    successful efforts to understand map formation

    recent progress in understanding the genetic tool-kit

    recent availability of computer power and software tools

for creating functional systems, by

Modelling

- the growth of gross anatomical brain structures
- the establishment of local circuits
  (especially in the cortex)
- the establishment of long-range connections
  (including axonal guidance)

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