Organization

- Imagination Engines, Inc.
  - Founded in 1995, working AFRL contracts
- Dr. Stephen Thaler
  - With McDonnell Douglas for 15 years
- Spin-off Company – Imagitron
  - Michigan-based company backed by MI Senate resolution and bills, US Congressional support
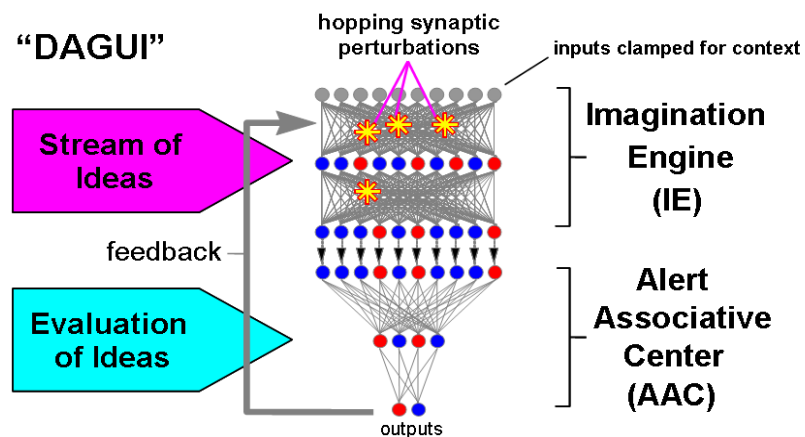- Ties With – Raytheon, GD, Boeing, NASA

Research Areas

- Autonomous Discovery / Invention Systems

- Improvisational (i.e., Creative) Robotics

- <u>Very</u> Advanced Machine Vision

- Natural Language Processing / Generation
  - JWAC: convert neural to semantic nets
  - USSOCOM: pre-/post-911 semantic parsing
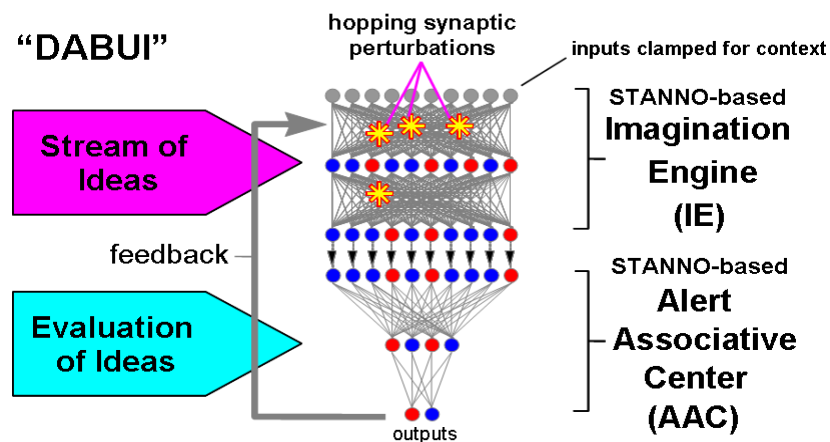 - Sensemaking = Contextual Invention of Meaning

Capabilities

- IEI holds the key patents and accompanying expertise to build computationally-based models of the core cognitive loops of the brain that invent meaning (i.e., sensemaking) to raw data patterns arriving from the external environment. Purely connectionist in nature, they are mentored rather than programmed.

- Patented technology for self-creation of complex brain-like pathways for pattern recognition/generation.

"DAGUI"

hopping synaptic perturbations

inputs clamped for context

Stream of Ideas

feedback

Evaluation of Ideas

Imagination Engine (IE)

Alert Associative Center (AAC)

outputs

US05659666, 08/19/1997, Device for the Autonomous Generation of Useful Information

"DABUI"

hopping synaptic perturbations

inputs clamped for context

Stream of Ideas

feedback

Evaluation of Ideas

STANNO-based Imagination Engine (IE)

STANNO-based Alert Associative Center (AAC)

outputs

US7454388, 11/18/2008, Device for the Autonomous Bootstrapping of Useful Information

Partners Sought

- Integrators
  - Those already having symbolic AI software frameworks and/or hardware infrastructures who would like to incorporate totally autonomous, adaptive, brain-like features.

- Hardware Developers
  - Those willing to harness IEI cognitive neuroscience paradigms on highly parallel computational platforms.

Contact Information

- Dr. Stephen Thaler
- President & CEO
- Imagination Engines, Inc.
- sthaler@imagination-engines.com
- (636) 724-9000 / (314) 378-5406
- http://www.imagination-engines.com