

Porting MOSES to the Atomspace

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SingularityNET & OpenCog Foundations



SingularityNET



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 - Initially: Estimate Fitness with Bayesian Network
 - But then: Stochastic Local Search + Crossover

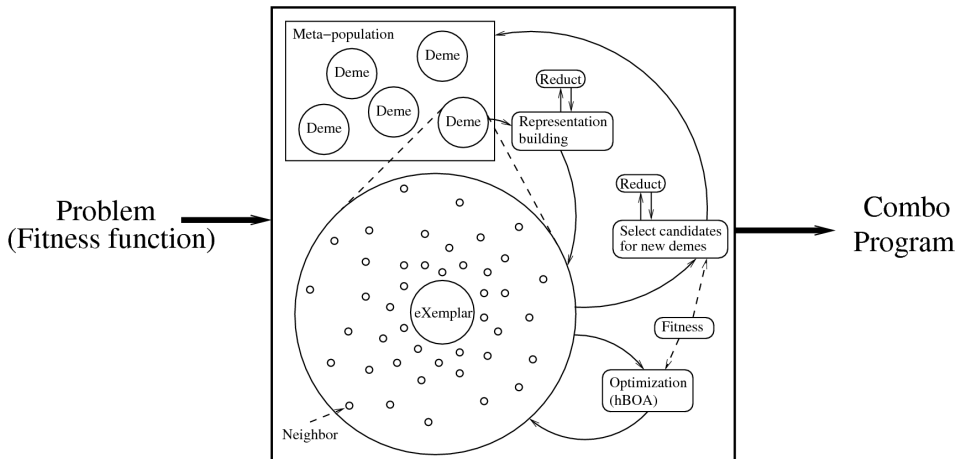
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 - Multi-dimensional fitness
 - Reduct: avoid semantically redundant candidates

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 - Reduct: avoid semantically redundant candidates
 - Evolutionary Search
 - Simple to complex
 - Demes: islands of populations

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- Strengths
 - Compact Expressive Models
 - Relatively Efficient
- Weaknesses
 - Limited Vocabulary
 - Limited Meta-Optimization
 - Relatively Inefficient

Port MOSES to the AtomSpace

AS-MOSES:

- Unleash meta-optimization
- Expand vocabulary
- Fitness function versatility

MOSES vs AS-MOSES

	MOSES	AS-MOSES (now)	
Description Language	Combo	Atomese	⇒ Expand vocabulary
Program Space	C++	Atomese	⇒ Meta-optimization
Reduction	C++	C++/Atomese	⇒ Broaden usage
Optimization	C++	C++	To incorporate PLN-based EDA
Fitness Function	C++	C++	To support Atomese