

NEAT

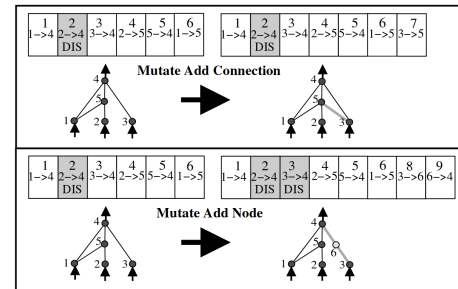
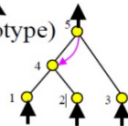
- NeuroEvolution of Augmenting Topologies (NEAT)
- **Evoing neural network using genetic algorithm**
- Structure and weights information are encoded in a *chromosome*
- New networks are generated via *mutation* and *crossover* of chromosomes

Genetic Encoding

Genome (Genotype)

Node Genes	Node 1 Sensor	Node 2 Sensor	Node 3 Sensor	Node 4 Hidden	Node 5 Output	
Connect. Genes	In 1 Out 4 Weight 0.7 Enabled Innov 1	In 2 Out 4 Weight -0.5 Enabled Innov 3	In 2 Out 5 Weight 0.5 DISABLED Innov 4	In 3 Out 5 Weight 0.2 Enabled Innov 5	In 4 Out 5 Weight 0.4 Enabled Innov 6	In 5 Out 4 Weight 0.6 Enabled Innov 10

Network (Phenotype)



Interactive learning (?)

- http://endlessforms.com/g/v69p7mlvr6_0/ (http://endlessforms.com/g/v69p7mlvr6_0/)
- demo

YouTube video

- <https://www.youtube.com/watch?v=qv6UVOQ0F44&t=243s> (<https://www.youtube.com/watch?v=qv6UVOQ0F44&t=243s>)
- https://www.youtube.com/watch?v=OLa_akdwDXY&t=9s (https://www.youtube.com/watch?v=OLa_akdwDXY&t=9s)