A Learning Context

Memory

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Context Memory (History) Requirements

• Store context
• Context needs to be easily retrievable
• Store relations between context attributes
• Discover interesting patterns
• Learning and forgetting
• Identify key contextual information
• Noise tolerant
Artificial Immune Systems

AISs are adaptive systems inspired by theoretical immunology and observed immune functions, principles and models, which are applied to complex problem domains (de Castro & Timmis, 2002)

• AIS - biologically motivated computing paradigm

• We use it as a metaphor not a model
Useful properties of AIS for Context Aware Systems

- Sophisticated memory structure
- Distributed
- Adaptive
- Noise tolerant
- Robust
- Self organising
We want to build system with the following properties:

- Store context in a clever way
- Deal with high dimensional data
- Able to gradually adapt to change in users behaviour
- Real time unsupervised learning
- Noise tolerant
- Resource friendly
ARB
Artificial Recognition Ball

\[ R \approx \Delta r \]

\( R(\text{resource level}) \)
Any Questions?

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