

## Personal Assistants

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## Revisited: Personal Digital Assistant

Upon logging in, you are presented with a list of emails, sorted in order of importance by your PDA.

You are then presented with a list of news articles; your attention is drawn to one particular article, which describes a new work related to your own.

After an electronic discussion with a number of other agents, your PDA has already obtained a relevant technical report for you from an FTP site, in the anticipation that it will be of interest.

## Personal Assistants

### Information Agents

- ; Bibliography agents
- ; Search agents
- ; Web browsing assistants
- ; News agents

### Email agents

### Calendar agents

### Travel assistants

## What's Needed?

### Information-oriented

- ; Keyword-based information retrieval
- ; Document classification
- ; Information integration
- ; Information understanding

### Person-oriented

- ; Objectives
- ; Constraints
- ; Preferences

## *Agents need to learn!*

competence  
efficiency  
personalization

## Approaches to Learning

Similarity-based learning  
Explanation-based learning  
Instance-based learning  
Decision tree learning  
Reinforcement learning  
Bayesian learning  
Artificial neural networks  
Genetic algorithms