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Intelligent User Task Oriented Systems

What ?

- Provide the user with a system having knowledge of her day-to-day tasks
- TIM should be able to recognize that a task is being run
  → allows for some anticipation
  → relieves the user from much routine procedures
- Both the tasks and how they are to be lead are specific to each user

Why (should we care)?

- User often performs similar tasks, in a similar manner
- Current desktop oriented systems: disconnected set of generic tools

e.g. when performing a specific task, user often re-enters or copies information between applications, that is already available in her desktop!

How ?

- By defining a formal and well-defined semantics for the task modeling language
- The challenge: task definition should be
  → simple: for the novice user to define her tasks,for the system to learn new tasks
  → powerful: for really aid the user gain in efficiency
- 1st approach: the user defines herself a task decomposition(HTA)
  → given example runs of each subtask, the system infers missing parts of the task
- 2nd approach: task-aware environment keeps track of user actions
  → from frequent patterns, new task specifications are proposed to the user, to gradually build up task hierarchies

Results so far…

- Underlying OntoPIM system allowing user to organize and access her desktop data according to a Personal Ontology
- Task definition language based on the idea of combining
  → task decomposition: a task is decomposed into a set of subtasks
  → plan language: to describe for each task, the execution plan of its subtasks (limited to sequences, alternatives and repetitions)
  → data mapping: input from/output to the Personal Ontology