Context-Aware Model in a Ubiquitous Learning Environment

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Summary

- Motivation
- GlobalEdu and ISAM
- Context Aware Model
- PA Architecture
- Scenario
- Contributions
- Future Works

Motivation

- Towards Ubiquitous Learning

The distributed, mobility and context-aware possibilities requires new models of educational applications

Global connectivity scenario

Motivation

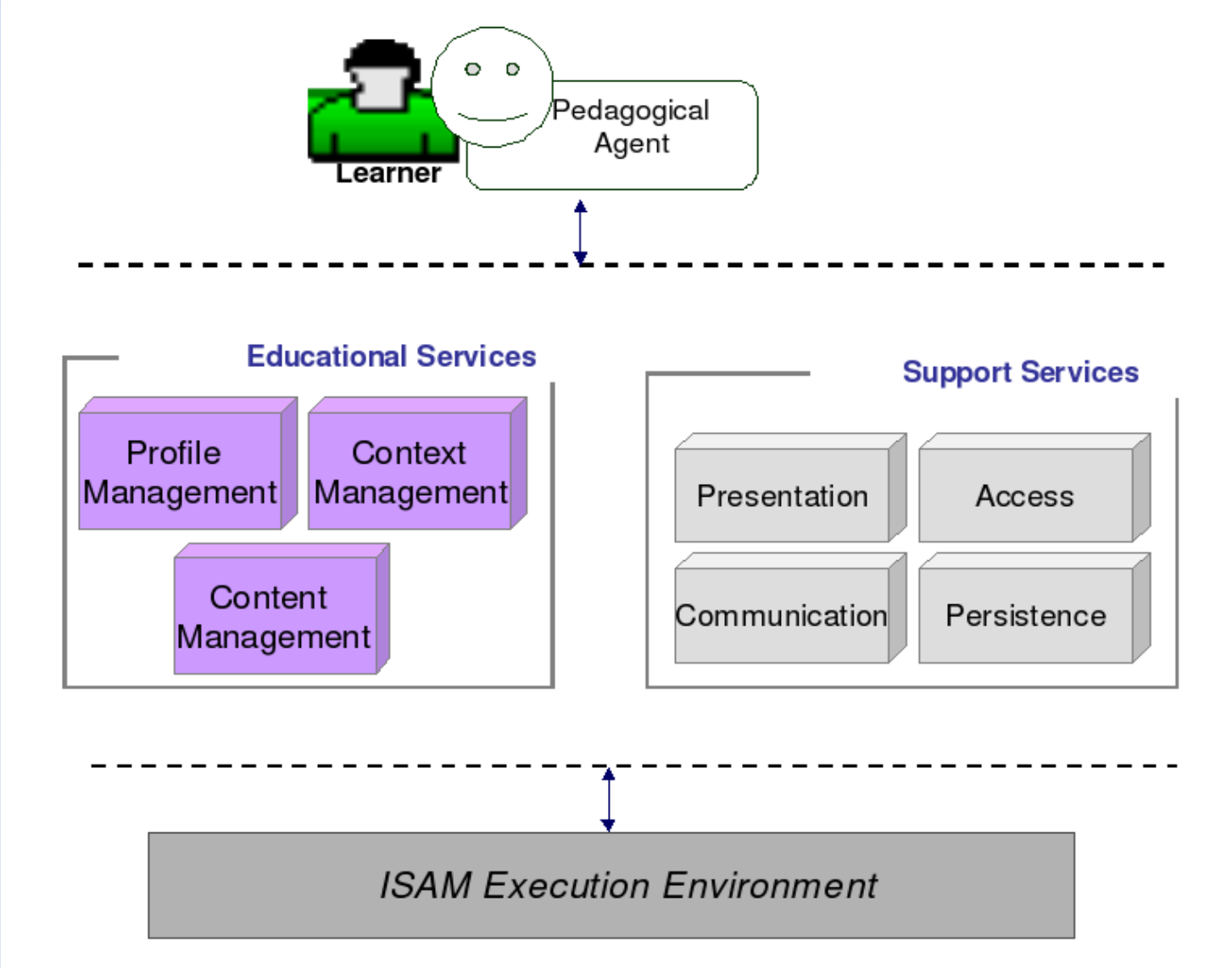
- Ubiquitous Learning

For us, one of the characteristics of U-learning is that the daily context of the user can be connected with the local context, joining current information with educational objectives

GLOBALEDU
a ubiquitous learning proposal

GlobalEdu and ISAM

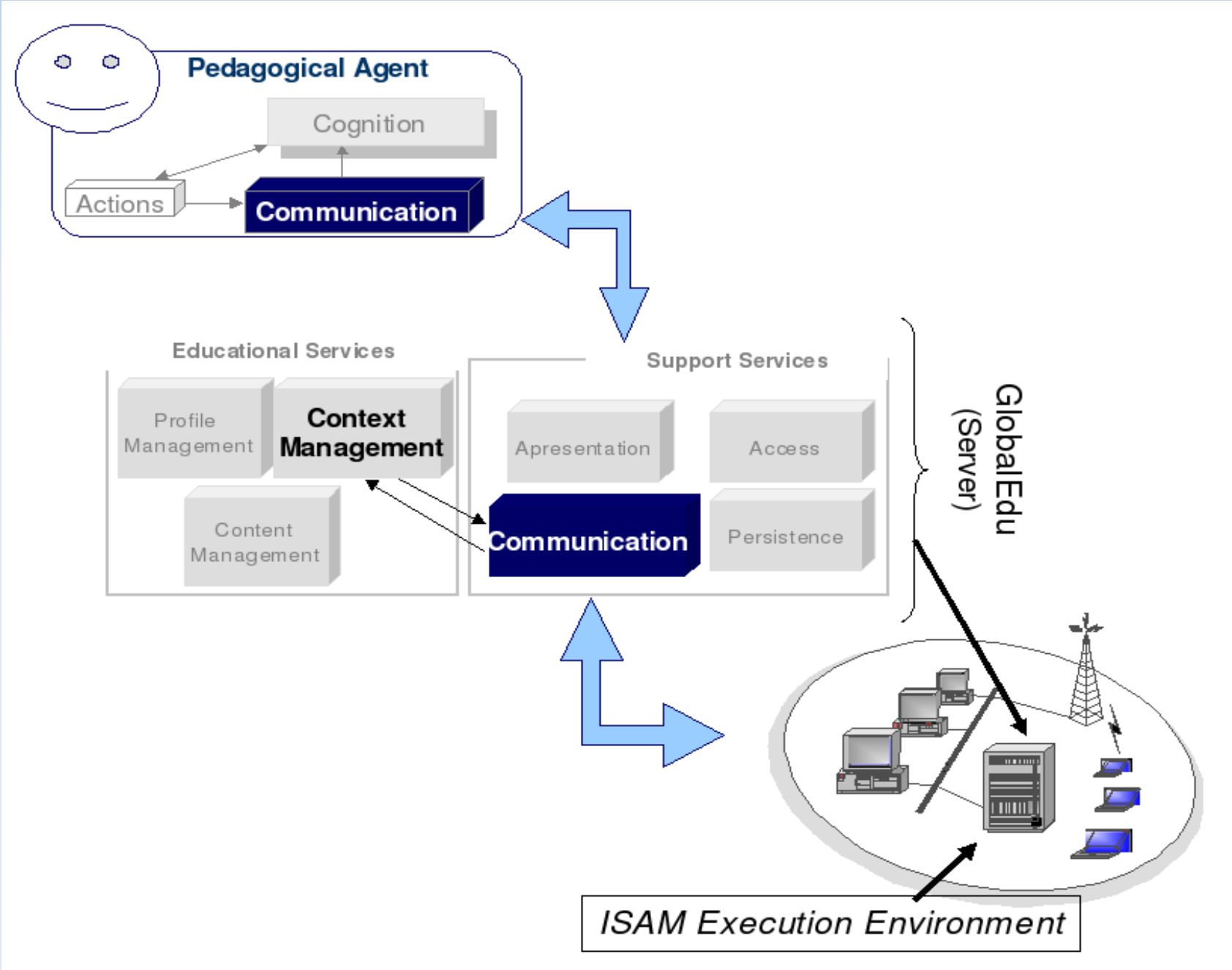
- GlobalEdu architecture



GlobalEdu and ISAM

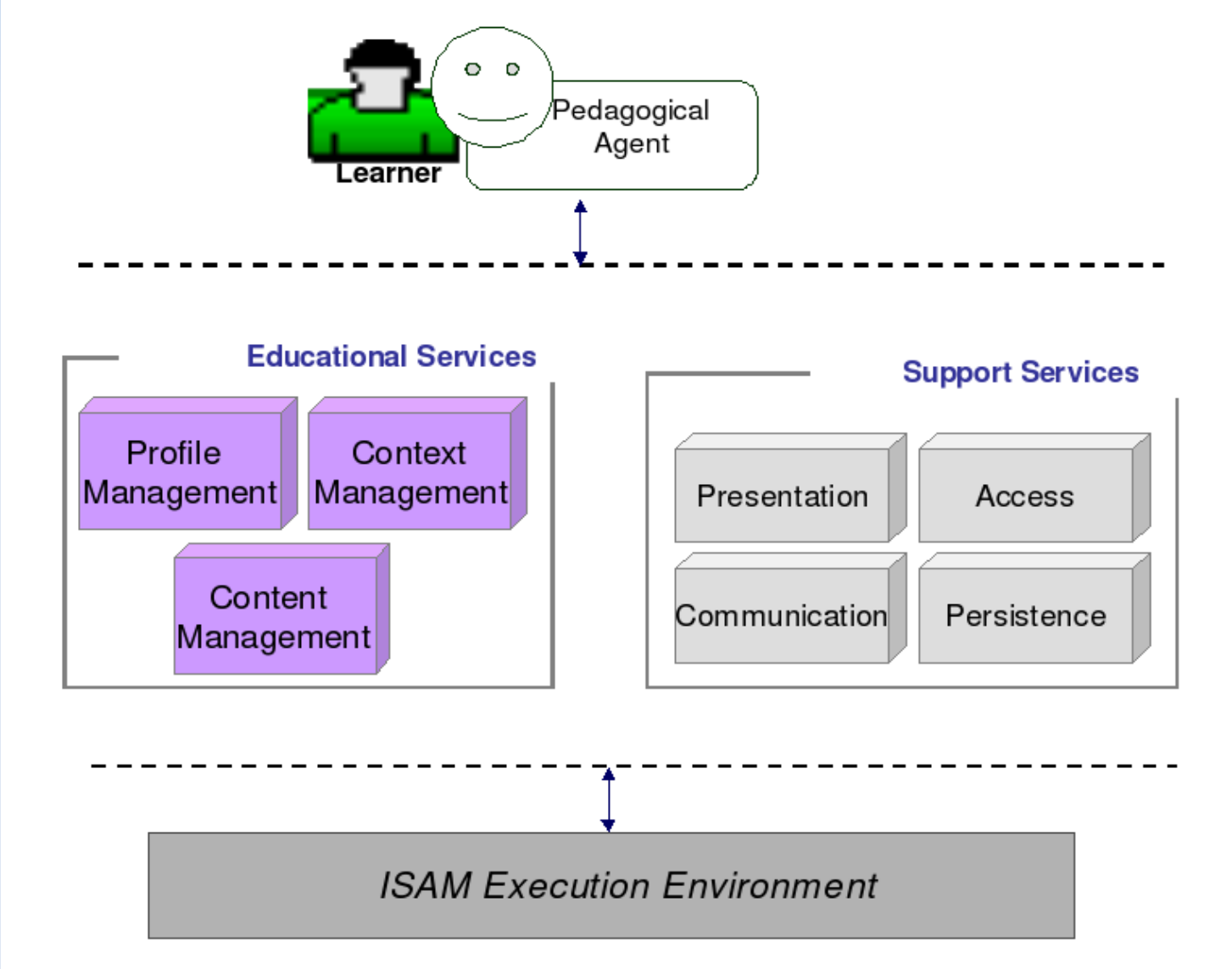
- ISAM (Infra-estrutura de Suporte às Aplicações Móveis)
  - Software architecture that manages large-scale pervasive environment

GlobalEdu and ISAM



GlobalEdu

- GlobalEdu architecture



GlobalEdu

- Support Services
  - Presentation
    - Interface
  - Access
    - Presence of PAs
  - Communication
    - Protocol between Services and PAs
  - Persistence
    - Learners's data

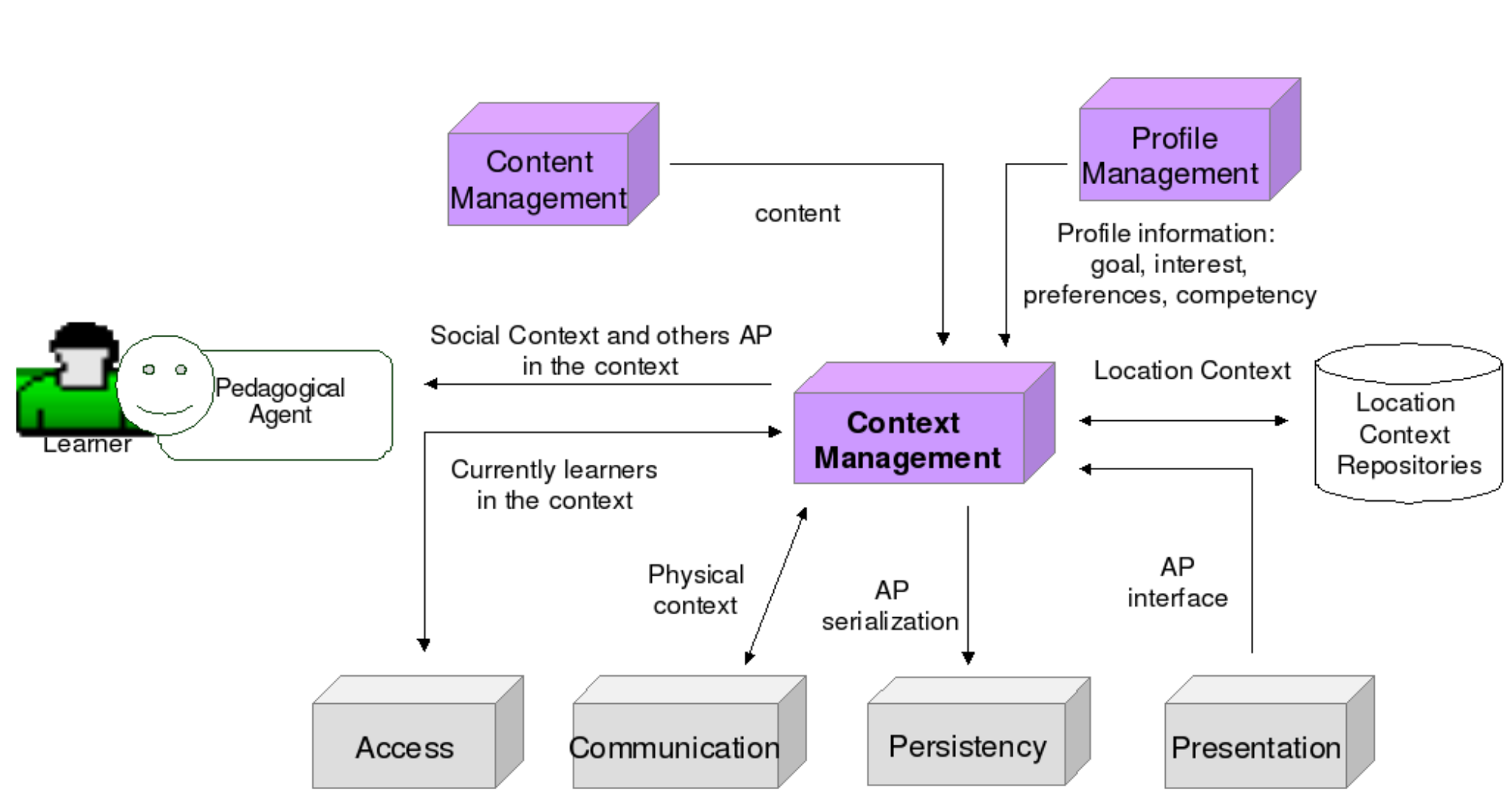
GlobalEdu

- Educational Services
  - Profile Management
    - Learner model
    - Metadata
  - Content Management
    - Lerning Objects
  - Context Management
    - Learner Context

Context Aware Model

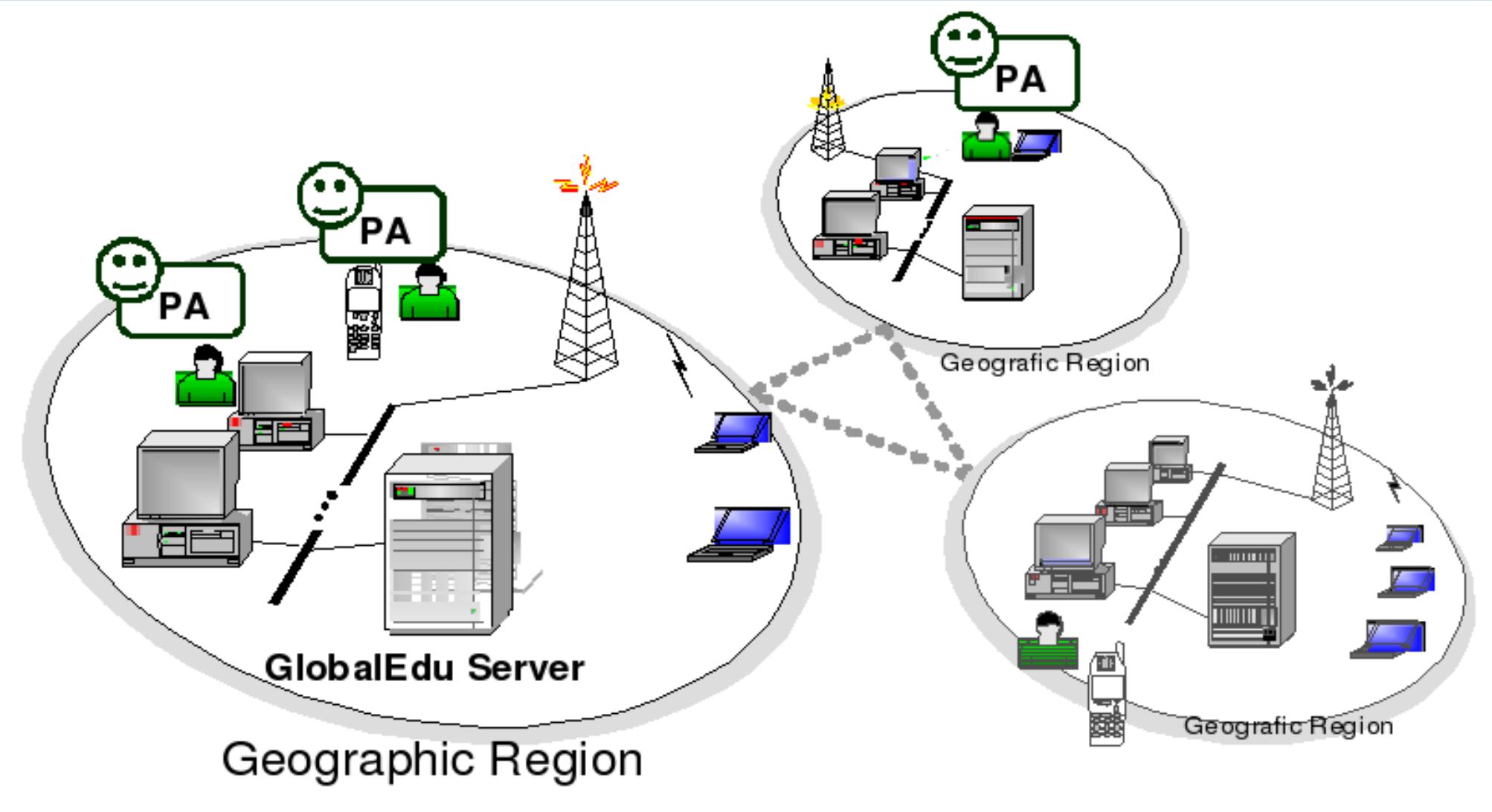
- Social Context
  - Location Context
  - Presence of others PA's
  - People, Events, Resources
- Physical Context
  - Devices, network
- Representation: ontology

Context Aware Model



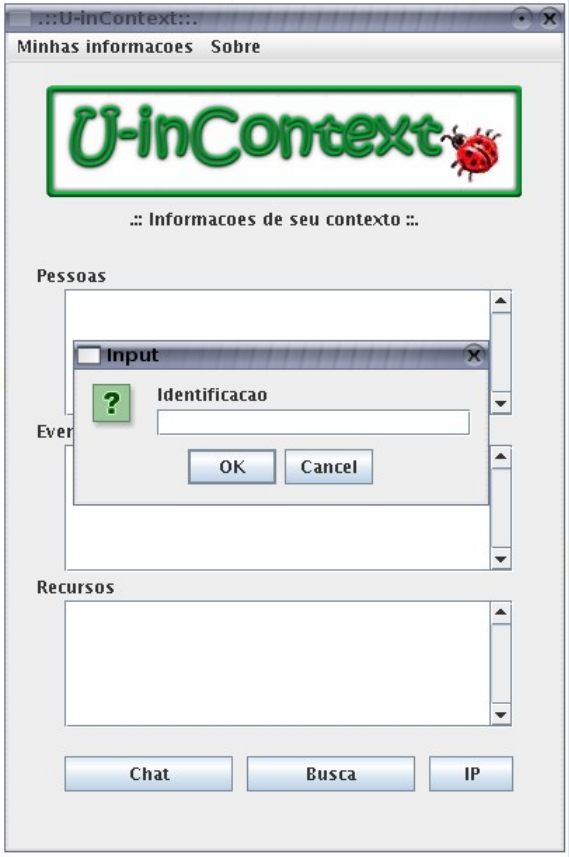
Scenario

- Environment

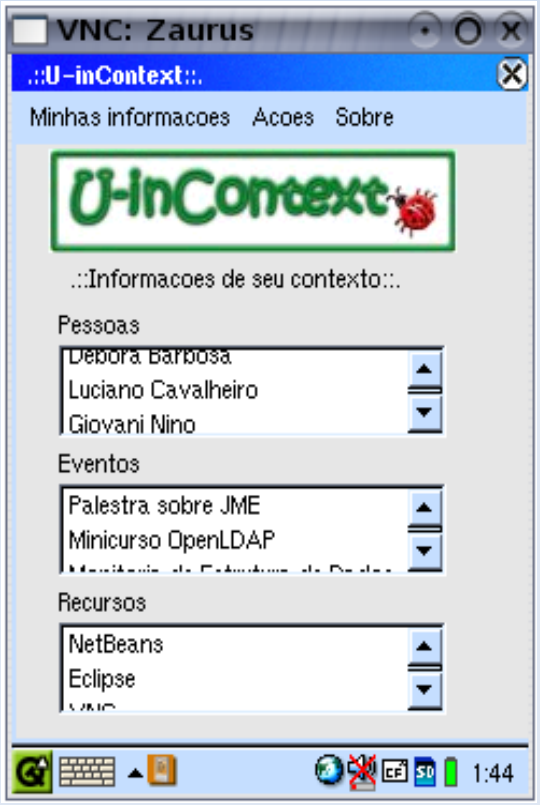


Scenario

- U-inContext
  - A context aware application



Scenario


VNC: Zaurus
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Minhas informacoes
Acoes
Sobre
U-inContext
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Pessoas
Luciano Cavalheiro
Giovani Nino
Eventos
Palestra sobre JME
Minicurso OpenLDAP
Recursos
NetBeans
Eclipse
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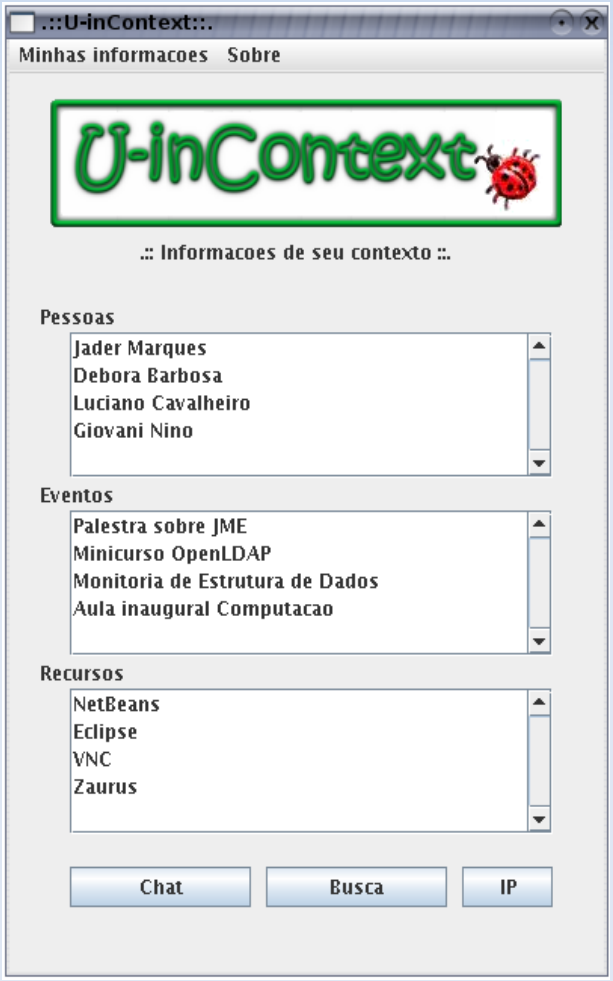
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Minhas informacoes
Sobre
U-inContext
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Pessoas
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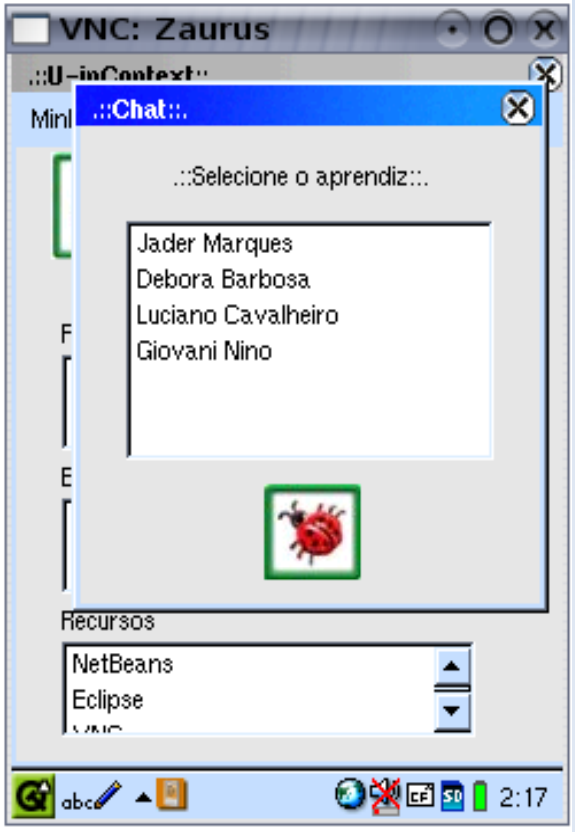
Debora Barbosa
Luciano Cavalheiro
Giovani Nino
Eventos
Palestra sobre JME
Minicurso OpenLDAP
Monitoria de Estrutura de Dados
Aula inaugural Computacao
Recursos
NetBeans
Eclipse
VNC
Zaurus
Chat
Busca
IP

Scenario


VNC: Zaurus
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Eclipse
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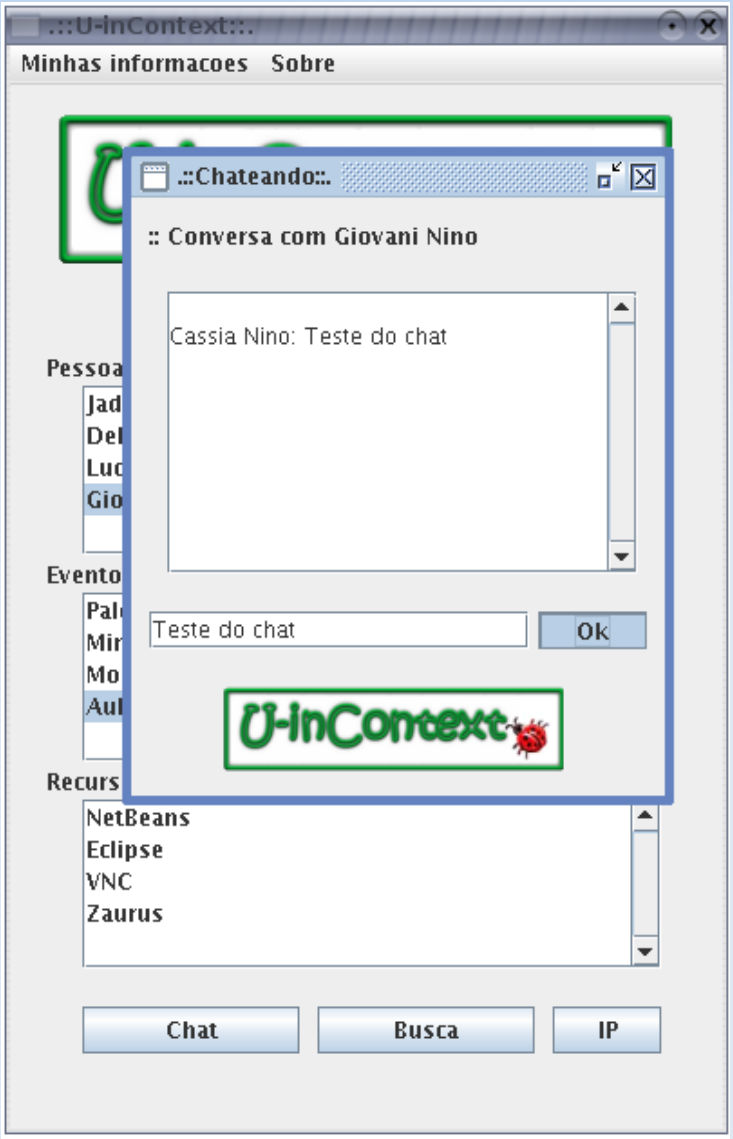
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Sobre
.::Chateando::.
:: Conversa com Giovani Nino
Cassia Nino: Teste do chat
Teste do chat
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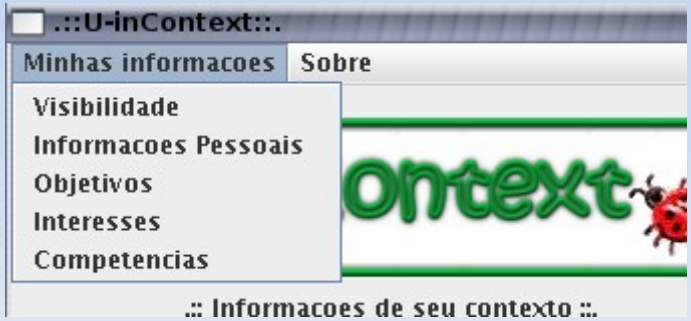
Pessoa
Evento
Recurs
NetBeans
Eclipse
VNC
Zaurus
Chat
Busca
IP

Scenario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Sobre
Visibilidade
Informacoes Pessoais
Objetivos
Interesses
Competencias
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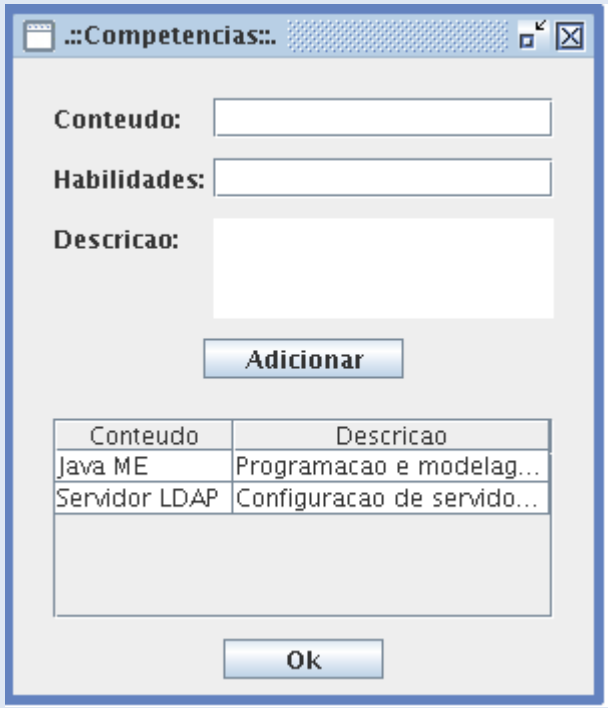
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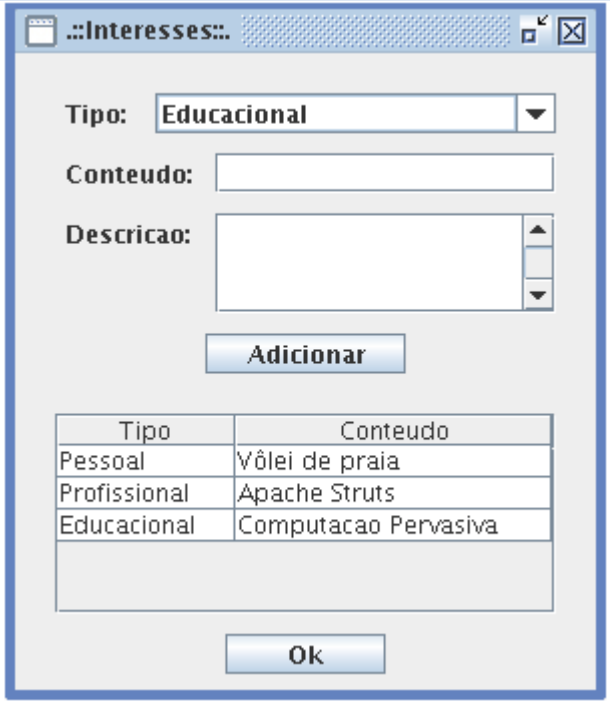
Conteudo:
Habilidades:
Descricao:
Adicionar
Conteudo
Descricao
Java ME
Programacao e modelag...
Servidor LDAP
Configuracao de servido...
Ok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Tipo:
Educacional
Conteudo:
Descricao:
Adicionar
Tipo
Conteudo
Pessoal
Vôlei de praia
Profissional
Apache Struts
Educacional
Computacao Pervasiva
Ok

Contributions

- GlobalEdu contributed by the using the educational agents and educational services to implement and improve the ubiquitous learning

- The ISAM project is extremely interesting because it supports a stabilized pervasive environment

Future Works

- Validation
  - Content Management Module
  - Profile Management Module
- Adaptability to other devices
- Algorithms to optimize the matching between the PAs

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