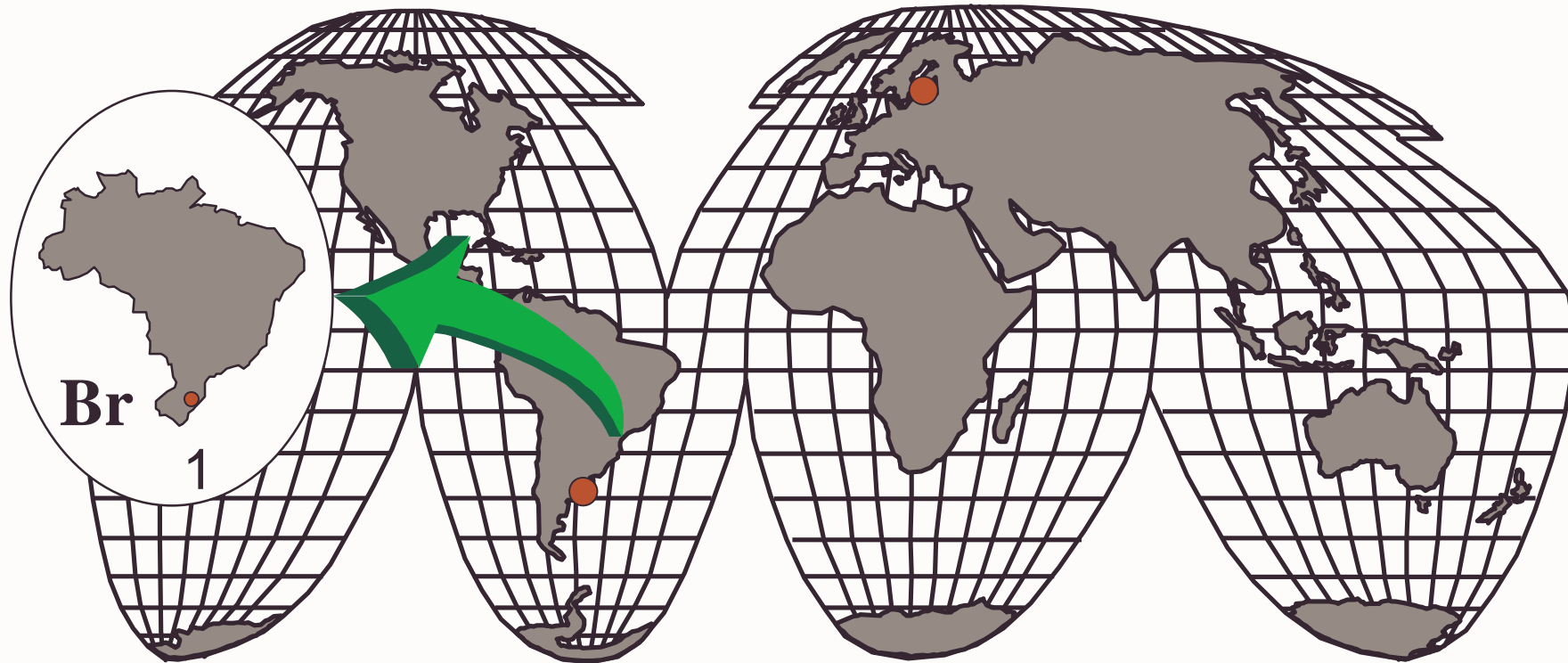

Federal University of Rio Grande do Sul
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Sharing Learner Model through a Web Services based Learning Architecture

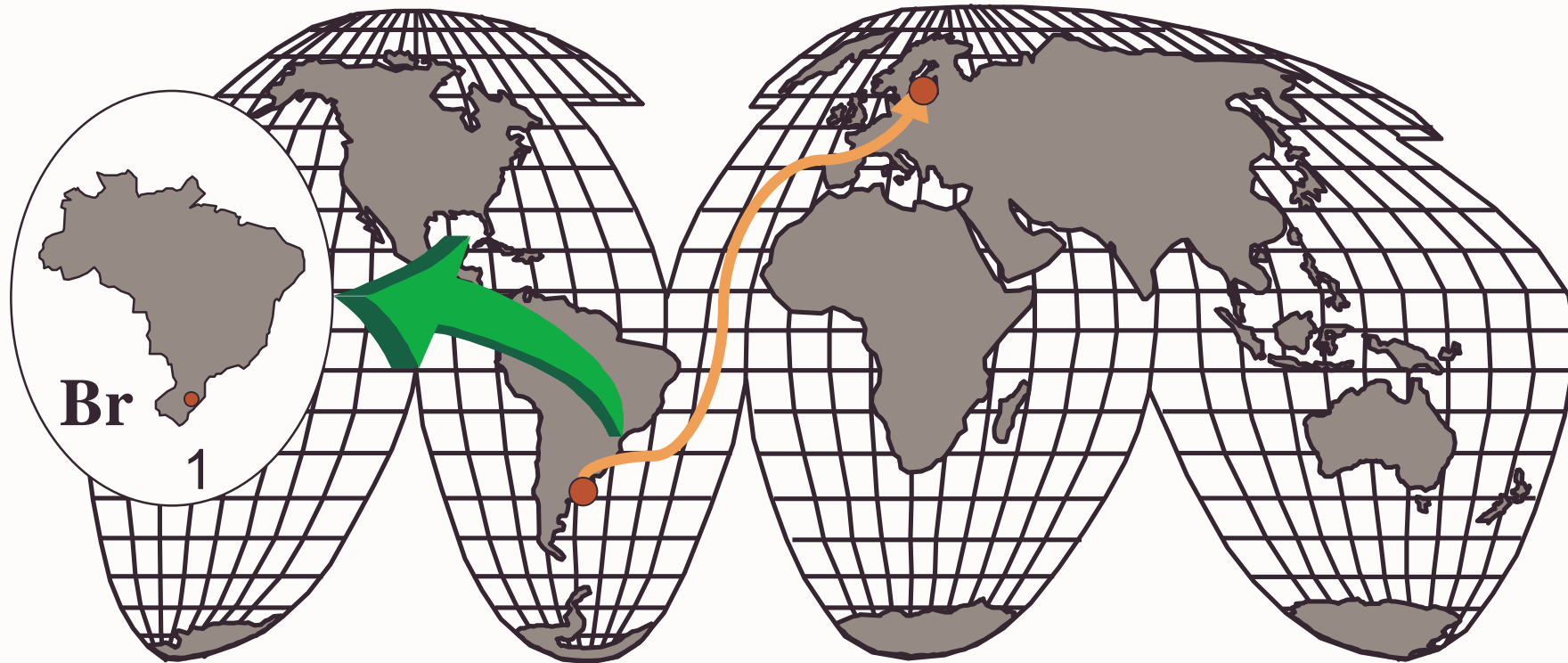
José Palazzo Moreira de Oliveira
Daniela Leal Musa

Porto Alegre - UFRGS



1 Porto Alegre

Porto Alegre - UFRGS

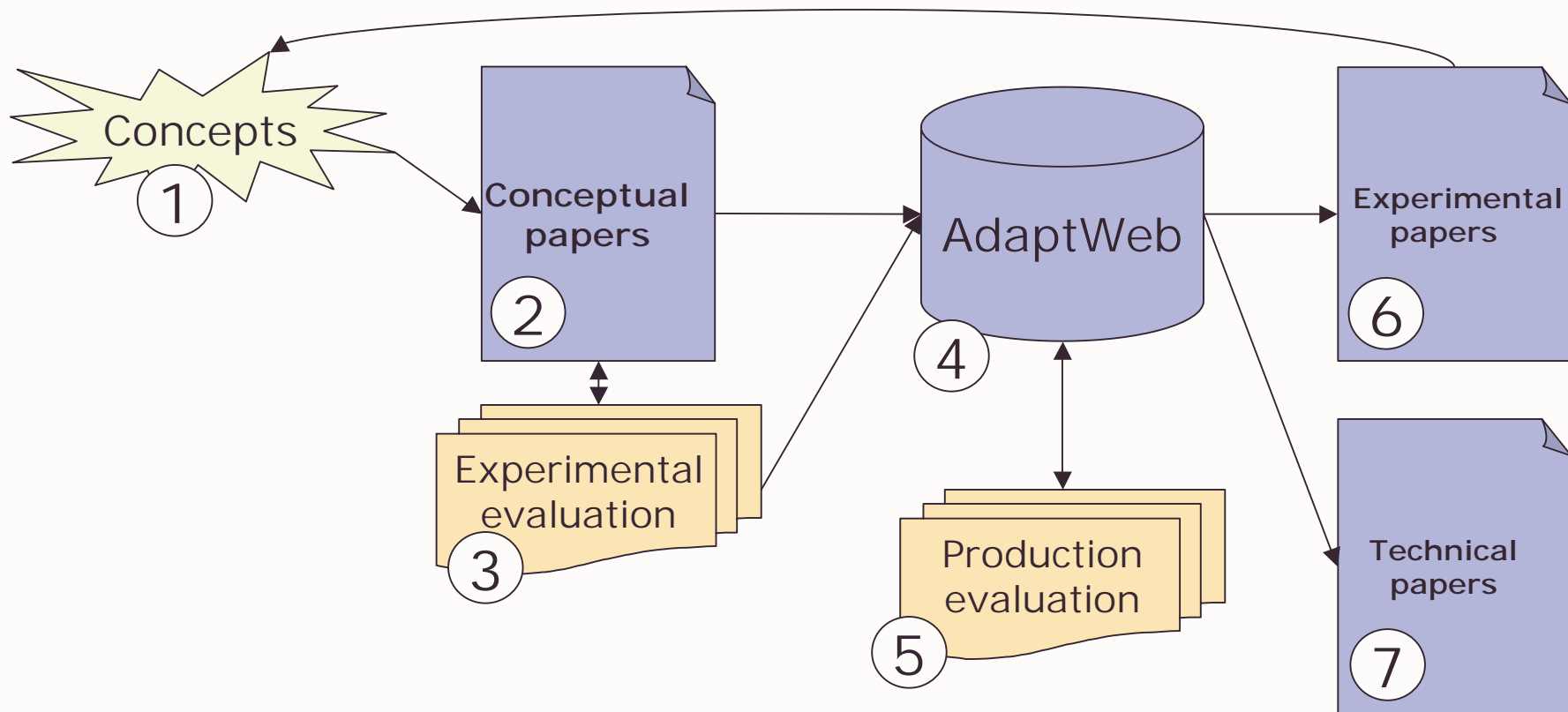


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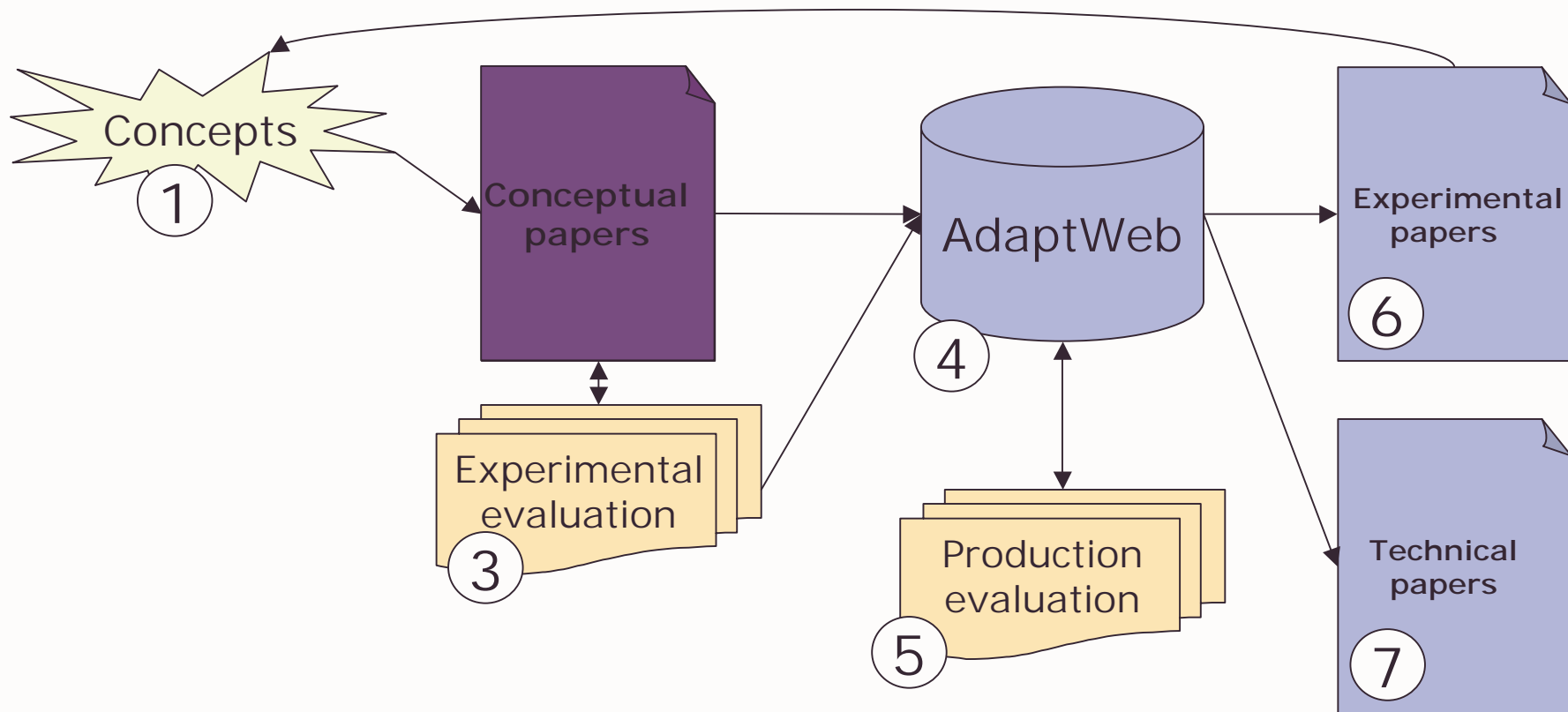
Outline

- Introduction
- AdaptWeb[®] Project
- Motivation and objectives
- The proposed approach
- Conclusions and future work

Project Strategy



Project Strategy



Introduction

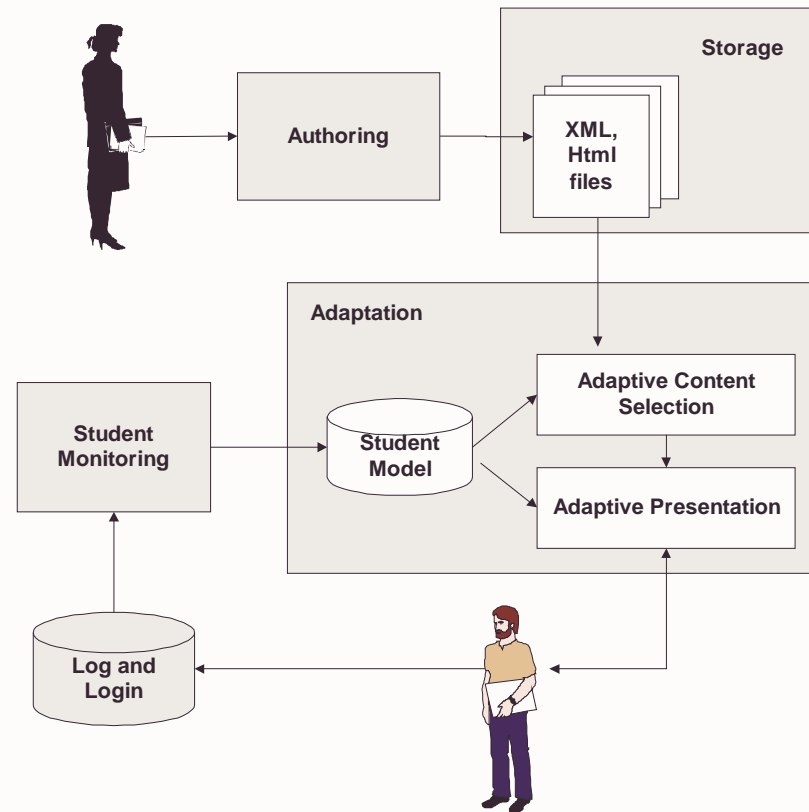
- E-learning systems
- AdaptWeb[®] Project
 - Adaptive content associated to
 - A specific course
 - A particular **learner profile**
 - Research line started 11/1999
 - CS, Psychology, Education
 - It is a hard task!

The AdaptWeb[®] Project



- The project is supported by CNPq/UFRGS
- Developed in PHP and MySQL
- This is an open source project hosted at SourceForge
- The homepage: <http://adaptweb.sf.net>

General Architecture



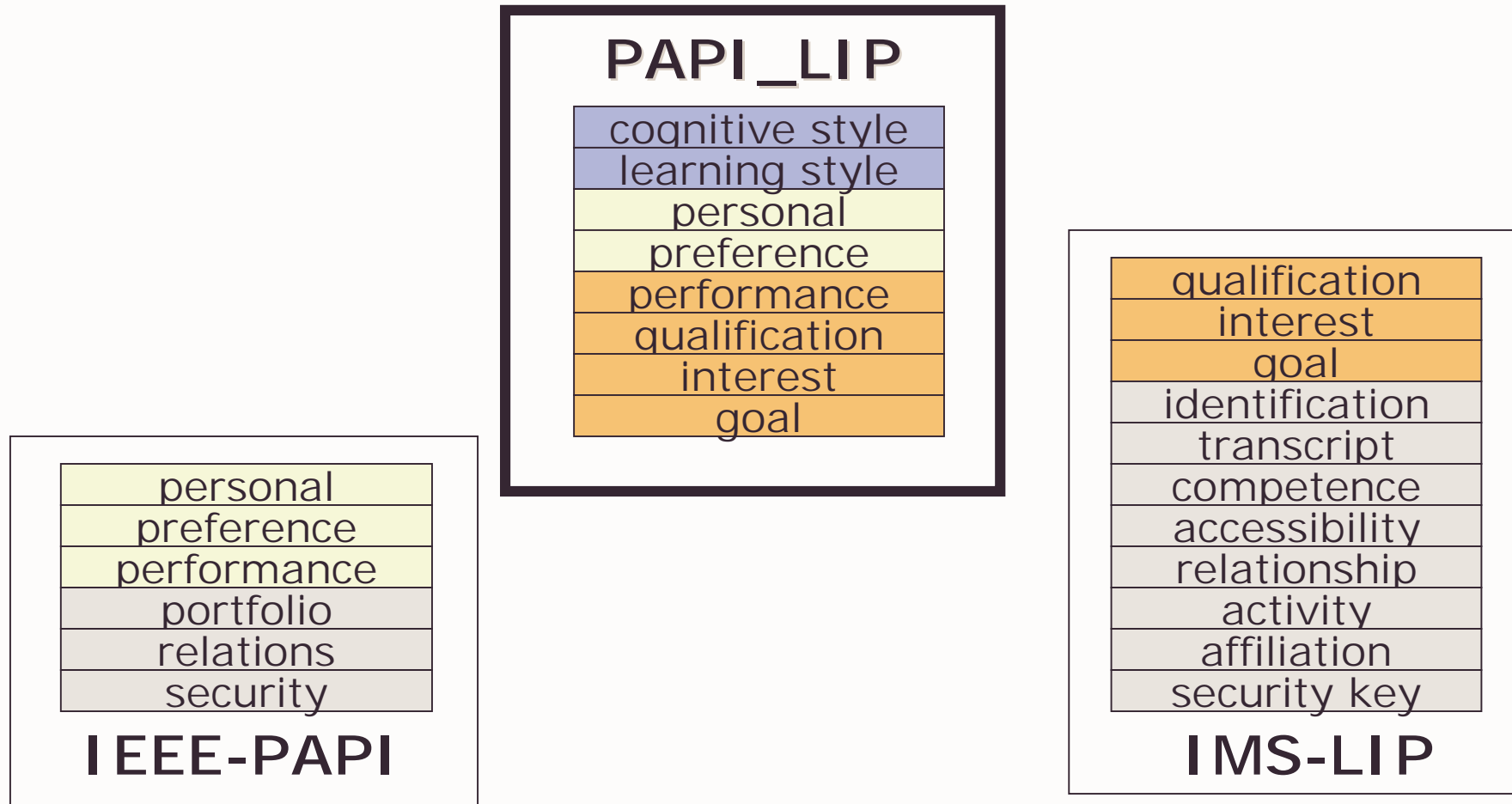
Motivation

- Learner profile (student model) is not shared among different e-learning systems
- E-learning systems do not collaborate with each other to enrich the learner model
- With richer learner profile, a better adaptation may be achieved

Objective

- An architecture for e-learning systems that collaborate to enrich the learner data model (profile + personal data)
- A learner model that provides definitions of learning styles and cognitive styles

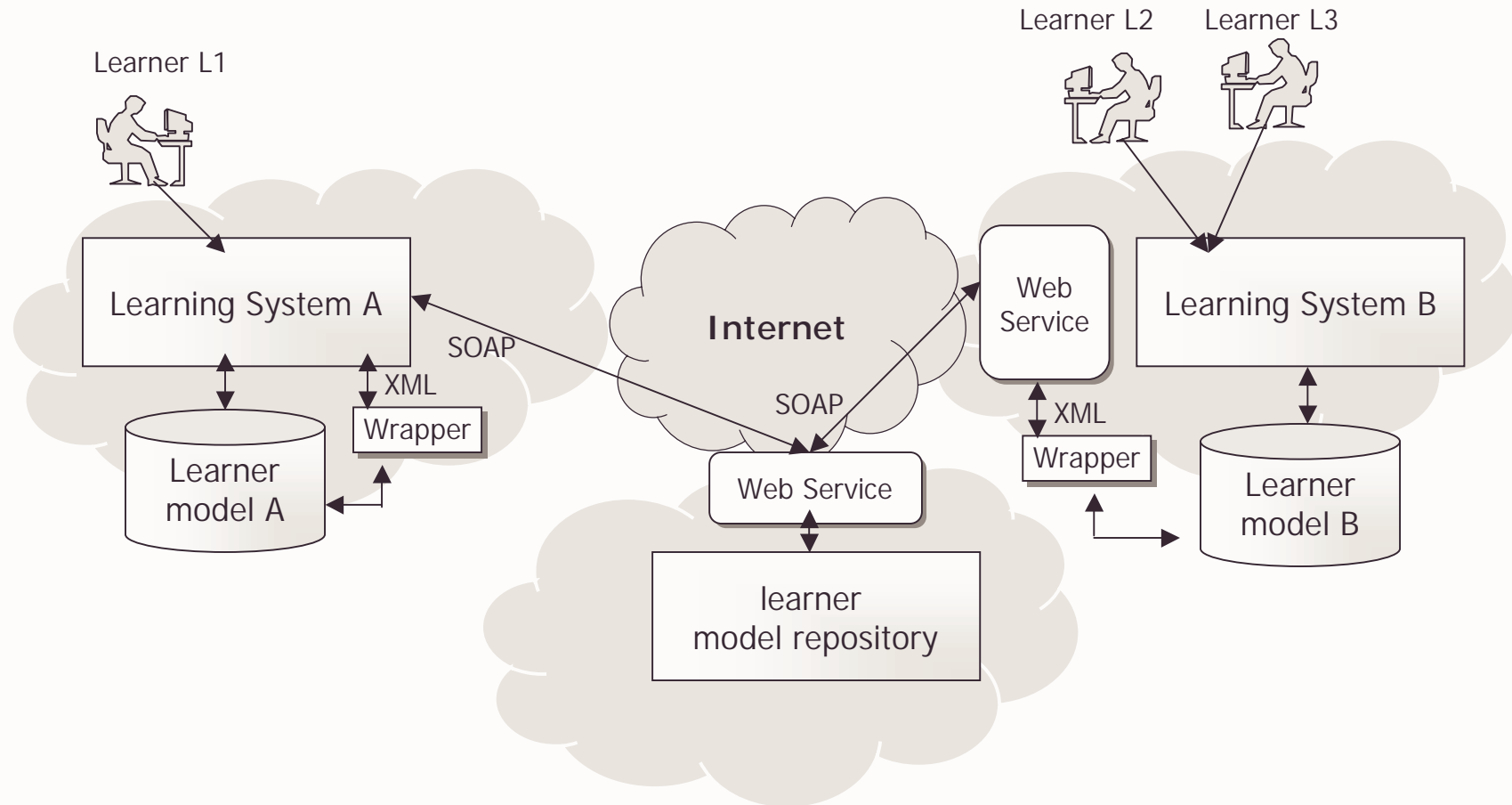
The Learner Model



Learning and Cognitive Style Taxonomies

Cognitive Style Taxonomy	Cognitive Style Descriptor
Gregorc	Concrete Sequential (CS) Abstract Sequential (AS) Concrete Random (CR) Abstract Random (AR)
Learning Style Taxonomy	Learning Style Descriptor
Felder- Silverman	Active/Reflective Sensing/Intuitive Visual/Verbal Sequential/Global

Architecture



Architecture

- Learner model repository
 - stores data collected from the various e-learning systems
- E-learning systems
 - collect data from the repository
 - retrieve and store data in the repository
- Communication
 - Web service through SOAP

Conclusions and Future Work

- Web services based-architecture that allows the exchange of learner's information between e-learning systems
- Active behaviour (SCS - Student Cognitive Style) at the learner model repositories to notify the e-learning systems

Questions?

- AdaptWeb[®] Homepage
 - <http://adaptweb.sourceforge.net/>
- Contacts
 - Jose Palazzo Moreira de Oliveira
 - Professor at UFRGS
 - e-mail: palazzo@inf.ufrgs.br
 - Daniela Leal Musa
 - PhD Student at UFRGS
 - e-mail: musa@inf.ufrgs.br