

Internship Proposal

Repository as supporting platform for the exchange of pedagogical material
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1 Introduction

1.1 Definitions

1.1.1 Sensei Project

Sensei is an online community repository where users can share pedagogical material related to courses taught at FCFM¹, this material vary from reference guides to learning exercises and exam questions. The project has been online since 2003 and today gathers more than 157.000 documents.

1.1.2 Repository Project

Repository is a “bootstrapping database” engine that allows anybody to start a community for sharing and producing high quality textual documents. People can join the community and get access to the data by solving challenges and uploading new content.

1.2 The need for an improvement

Exercise and practice is part of every learning process, and obtaining the appropriate material for this, is not an easy task. Students at FCFM have access to the online repository, *Sensei* (sensei.uchile.cl), where they can share this material (mainly .pdf and .doc files); nevertheless this platform is getting outdated and needs some improvements.

Sensei lacks a quality control system; the only filter to uploaded files is applied centrally by a group of designated users. This puts a lot of work on a few people shoulders and delays the publication of new documents. *Repository* reports the problem of quality control to the community itself.

In every community people tends to benefit themselves but does not offer anything in return, this happens in *Sensei* too. A survey about the participation in *Sensei* was applied to 431 users and results show that the percentage of users who share documents has dropped from 50% in 2003-2004 to 6% in 2009-2010. Survey also shows that 57% of current users consider ‘outdated documents’ as the main disadvantage of *Sensei*. *Repository* tries to solve these issues by asking users to upload new documents to get access to other documents in return.

¹ FCFM: Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile.

Sensei organizes documents by folders, making difficult to find information when it is not known exactly its location. For example, to find information about 'Network Theory' a user would have to search in the Computer Science folder but also in the Electric Engineering folder. *Repositoryum*, instead, makes it easier to find documents by searching the specific term.

All this suggests that *Repositoryum* is a good base to build a new platform where students can share pedagogical material. This new platform can take advantages of the data accumulated in *Sensei* project and of existing *Repositoryum* features and of additional features (to be identified).

2 Objectives

The main objective of this internship is to build an online community to share pedagogical material using *Repositoryum* as supporting platform and *Sensei* data as a starting catalogue.

Other objectives would be:

- Implement module to upload files.
- Implement simple "duplication control" in *Repositoryum*.
- Test the performance of *Repositoryum*, in order to decide if it is suitable as an alternative to *Sensei*, or not.
- Correct eventual bugs (in collaboration with other students) which affect the projects.
- Acquire knowledge about the implementation of *Repositoryum* aiming to the development of a future Engineering thesis.

3 Schedule

3.1 Week 1-4

- Prepare and apply first survey (survey one) to current and potential users of *Sensei* in order to determinate which are the needs and how *Repositoryum* can meets them.
- Collect and analyse results from survey one.
- Design a strategy to migrate data from *Sensei* to *Repositoryum*, considering automatic tagging.

3.2 Week 5-7

- Implement simple "duplication control".

3.3 Week 8-9

- Migrate data from *Sensei* to *Repositoryum*.

- Apply usability test to selected users on *Repository* in order to determinate what is need to be improved.

3.4 Week 10-13

- Work in website design to improve usability.
- Integrate ADI API for login on *Repository*.
- Open access to selected group of users for trail phase.
- Prepare survey for selected users (survey two).

3.5 Week 14-15

- Apply survey two, collect and analyse results.
- Determinate if this new platform is ready to replace *Sensei* or, if it needs more work, suggest improvements.

3.6 Week 16

- Produce a report about the developed work and obtained results.