Desmond: A Web-based Service for Study Planning
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Abstract
When course information is available in the web, students can choose courses seemingly easily. Very little effort is needed to access the information. However, some effort is still required when choosing the appropriate courses among the huge list offered. Some courses are obligatory; some are required for further courses; and some are optional. We have designed a simple, operating system and browser independent, web-based tool called Desmond that helps students in the planning process. Most importantly, it guarantees that the student’s plan fulfils the requirements in the syllabus and course prerequisites.

Overview
The seeming easiness that comes from the information availability in the web is misleading the students to avoid the hard part: making decisions about one’s own future. The primary goal of the Desmond tool is to activate the students to think about their own future starting with an easy task, deciding what to study next term, and evolving this to a complete and explicit plan.

While making plans for her studies, the student needs to assure the reality of her plans against the syllabus, the curriculum and the course prerequisites. Previously, the student had to browse through several sources of information. Now, Desmond integrates the already existing information sources to the same user interface. It contains links to the original data, like curriculum and course home pages, not handled within the tool.

The tool has been integrated with the departmental course database and it uses simple rules to describe the curriculum, syllabus, course prerequisites, and course correspondences. The curriculum and syllabus rules describe the set of obligatory courses that the student has to pass for graduation. The course prerequisites are used to describe the precedence order of the courses. The course contents are needed to map older courses with the current requirements. The study path, the course selections over the terms, must follow the same rules.

Desmond does not have a separate validation phase for the plans. The compliance with the selected syllabus, current curriculum and listed course prerequisites is maintained all the time. The student is warned, if the selection violates any of these requirements.

The students are the primary users of the system. Still, the same system must also be beneficial to the educational staff [1], especially by reducing the mechanic, error-prone verification work [2].

Surprisingly, none of the related systems that were found in the literature has the same real-life starting point as Desmond: the teaching database with all courses and exams, the course homepages that could be linked to Desmond, the current and many previous syllabi in the web, the web-based course enrolment system. Instead, there has to be lots of course data input into the system.

Desmond is a pilot (see [3]) and meant for the local needs of the department. However, the design solution will be suitable for other subjects and other Finnish universities. The Desmond tool can be accessed through web page http://ilmo.cs.helsinki.fi/desmond/.

Naturally unauthenticated use of the tool and its data is prohibited. We were able to use the existing and familiar authentication mechanism already used in the course enrolment tool. The same authenticator is used for both systems. This reduces the burden of remembering another separate password, too.

The tool we have designed is not restricted to traditional on-the-place courses, but can be used as a student activation tool also in the virtual university or e-learning model, where the students may be distributed over a wide area or a long period.

References