

# Experiences with generating diagnostic training cases from dismissal reports

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## Introduction

Case-based training becomes an established form of learning and training of medical content. Still, authoring is a complex and time-consuming task. To reduce author's effort and time-to-class for new training cases, in [1] we presented an approach of generating diagnostic training cases from dismissal reports. Here, experiences from 8 systems and 280 cases are compiled.

## System and Methods

The case-based training environment *d3web.train* [2] is a diagnostic tutoring environment: Selected cases are presented to a learner in a realistic fashion. The student is actively working to solve the case by giving correct diagnoses. Optional, the correct solution requires proper treatment.

In order to work on the case, the learner is given a set of tools: he can perform examinations and interpret results, make and test hypotheses. The system criticizes the learner's actions if necessary.

Building upon the structural similarities of dismissal records and training cases, we developed a tool to compile *d3web.train* cases from MS Word documents: *d3web.CaseImporter*.

Authors add additional knowledge (intro, images, questions, weighted diagnoses) in Word, labeling it with build-in layout features like paragraph-breaks, font weight, or background color. After uploading their enriched documents to the web-based *d3web.CaseImporter*, authors debug cases, before releasing them to *d3web.Train*.

Together with *d3web.CaseImporter*, we introduced the technique of flexible authoring: To a much greater extend than ever before, it is up to the author to decide on features and granularity – *d3web.Train* adopts to a wide range of case semantics, from simple slideshows to highly interactive case-based simulations.

## Results

We finished the tool *d3web.CaseImporter* and several authors used it to implement their own training systems, some of which are part of lectures. In the last year, eight systems were set-up, containing a total of 280 cases.

The technique of flexible authoring from word documents drastically reduces the workload on the author. *D3web.CaseImporter* enables even inexperienced authors to write their first interactive case in a few hours.

## Discussion

The technique of flexible authoring puts control to where it belongs: the case authors. Together with the *d3web.CaseImporter* tool, it is possible to transform an existing dismissal record into a training case within minutes.

Starting from that minimalist case model, author can further develop his case to a full-blown knowledge based case. With *d3web.CaseImporter*, it is possible to author a case-based training system for supporting a single lecture. Experiences show, that these systems are well accepted by students [3].

## References

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