Designing electronic documents

rationale More and more we see paper documents being replaced by electronic counterparts. In such an electronic version, the essence of the book has vanished since there is no longer a physical representation that gives you feedback on its size and structure. When looking up information you cannot leafe through the book and do some quick browsing to get the overall picture. You cannot keep your fingers between the pages while consulting the index. Unfortunaly many electronic documents lack the typographic finetuning based upon hundreds of years of traditions.

On the other hand, electronic documents introduce new tools for accessing them, can have many faces, provide search options, represent information in different ways, as well as extend documents with new features which make them look like programs. Designing such documents can often be considered typographic programming.

main objective After this course the student is able to design and program the basic layout and navigation of an electronic document based on structured input.

learning objectives The main objective is this course can be realized by meeting the following learning objectives:

1. The student is able to analyze the functionality of an existing paper document.
2. The student is able to design the functional layout and navigation of the electronic counterpart.
3. The student is able to code the document source in such a way that reuse is possible.
4. The student is able to implement the layout and navigation taking.
5. The student is able to produce the document.

entry level Students who want to attend this course must be familiar with the basics of TEX. However, in–depth knowledge of macro programming is not needed.

methods The students can use a document of their own choice. The documents must consist of several chapters and sections, include some graphics and tables, and provide index entries. Alternatively one can use an existing documents used at the university, like course descriptions or promotional material and/or manuals. The students will analyze the document, design the basic functionality, (re)code the document if needed, define the layout, process the document, and document the layout definition and process. Transfer will take place by means of email and classroom instructions and discussions.

organization The main course will take place in one week. The number of students is limited to about 25. As preparation, students will choose a document and analyze the structure. They will also acquire some basic skills in defining layouts. The week itself will have several meetings, on:

- an introduction to electronic document design
- the basic features of document reuse and PDF
- structuring documents and designing layouts
- an introduction to ConTEXt and pdfTEX
- practical tips and tricks (in computerroom)
- presentations by students of the results
- a discussion on possible improvements
- an introduction to advanced features

tools The documents will be produced with PDFTEX originating at this university, and the general purpose macro package CONTEXT. During the course students will have access to the Adobe Acrobat tools.

reading This will be filled in later.

evaluation The students have to send in an analysis, attend the meetings, and produce a proper document, of which a selection will be presented in public. The students will be asked to sent in a resume explaining their motives for taking this course. If possible, specific topics expressed the resume can be covered.

lecturer The course will be conducted by Hans Hagen, who works at PRAGMA Advanced Document Engineering, situated in Hasselt NL. His main area of interest is the design and implementation of complex electronic documents as well as streamlining workflows of automatic document production. He is the main author of CONTEXT, a typesetting system based on TEX. His background is educational technology (University of Twente in the Netherlands).