Introduction

Background of this book

By Tom Bäckström:

As I was teaching the course "Speech processing" at Aalto University, I was always looking for good teaching material. I was not really content with what I found. Some good books were available but they were expensive. I was not comfortable with demanding the students to pay hundreds of Euros for a book they'd use once. I was also not comfortable in illegally copying content. The alternatives were then to accept lower-quality material or write my own.

Part of the issue I have with expensive books is that the money does not go to the authors themselves, but to middle-men. Moreover, in the Internet-era, paper books seem so last-century. Why print a book on paper when we can make it a web document? Why put it behind a pay-wall? I mean, I really would not receive any significant part of my income from such a book. Putting it on the web then seems like the only sane solution.

Besides, once you're free from the constraints of a conventional book, you can do all kinds of fun stuff. Like why would I limit access to modifying content and why not something more wikipedia-like? I'm paid by the government, so it seems also obvious that I should put my work out in the public domain. No, more accurately, I'm putting this out with a Creative Commons licence (attribution & share-alike). Perhaps it's vanity, but I would like to receive credit for this work, if there is any credit due.

The desired consequence of Creative commons licensing is that the material would find multiple contributors, to improve the content. To follow the old, worn but accurate adage; to stand on the shoulders of giants, and so forth. By collaboration we can do better.

The way I intend to use this in my own teaching is that the on-line version of the document follows its own natural grouping of topics. Start with basics and progress to more complex topics and applications. For my own, course, however, I want to have exercises in parallel with the course. The problem is then that the most basic chapters do not lend themselves to exercises which are useful for my teaching goals. So I design exercises to match my teaching goals and organize lecture material to give sufficient background to the exercises. In this web-based document this is no problem. I'll just create a new table of contents, where the ordering of chapters and sections is reorganized.