Professional Basic English
Fall 2021, Lecture 3

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Elements of style in English

- Adopted from *Strung & White: Elements of Style, 4th Edition*
- Elementary rules of grammar and style
  - Paragraphs, sentences, appropriate words
- Form in scientific writing
- Commonly misused words and phrases

Use concrete language

- In scientific writing, we are often tempted to too complex writing
  - *By utilizing different methodology, a discrepancy was observed*
  - *We got different results when we used a different method*
  - *Based on the experimentation, we observed an anomaly in the data*
  - *Our tests revealed an anomaly in the data*
  - *It is believed that a further study will provide us with an explanation of the results*
  - *We assume that a new study will explain the results*

Omit needless words

- Good writing is concise
  - *In spite of the fact that…* -> *Although…*
  - *Due to the fact that…* -> *Because of…*
  - *In a polite manner* -> *Politely*
  - *This is a topic that needs to be studied* -> *This topic needs to be studied* (or *we need to study this topic*)
  - *His cousin, who also lives the same city* -> *His cousin, living in the same city*

Express coordinate ideas in similar form

- *The French, the Italians, Spanish, and Portuguese*
- *The French, the Italians, the Spanish, and the Portuguese*
- *In spring, summer, or in winter*
- *In spring, summer or winter*
- *In spring, in summer, or in winter*
- *It was both a long ceremony and very exhaustive*
- *The ceremony was both long and exhaustive*

Keep related words together

- The new phone I bought is made in China (ok, but…)
- I bought a new phone made in China (ok)
- I told him for 1000 RMB to buy a new phone (really??)
- I told him to buy a new phone for 1000 RMB (sounds more feasible)
- A man fell wearing a brown jacket (well…)
- A man wearing a brown jacket fell (sounds better)
- A man fell wearing slippery shoes (ok)
- A man wearing slippery shoes fell (ok, but…)

Use a mixture of short and long sentences

- Too short sentences: sounds too compact and periodic

  I went to work. I was working hard all the morning. Then I had lunch. After the lunch, I got back to work. In the evening, I went back home. Then I fell asleep.

- Too long sentences: exhaustive to read

  I went to work and worked hard all the morning, after which I had lunch, and then I got back to work, and finally, in the evening I went back home and then I fell asleep.

- Good “rhythm” of short and long sentences

  I went to work and worked hard all the morning. Then I had lunch. After the lunch, I got back to work. In the evening, I went back home, and then I fell asleep.

Keep to one tense

- It is (usually) possible to explain methodologies etc. either in past or present tense, but you should keep to the selected tense

  We asked people to participate in our study. Then we select only the most suitable people. We invite the selected people to come to the office. Finally, the study was ready. (Wrong!)

- Past tense (usually) better for explaining the experiments made

  We collected the test material from public databases in the internet. Then, we applied our proposed algorithm to the test material. Finally, we used Dr. Smith's method to analyze the results.

Classroom task 1

- Read the sentences. Which of the alternatives (a, b or c) is written in the best style?

Classroom task 1a

- Read the sentences. Which of the alternatives (a, b or c) is written in the best style?

a) Java is recommended among many alternatives as the first programming language.
b) Among many alternatives, it is recommended to choose Java as the first programming language.
c) Among many alternatives, Java is recommended as the first programming language.

Classroom task 1b

- Read the sentences. Which of the alternatives (a, b or c) is written in the best style?

a) For many programming languages, the machine learning libraries are easy to use.
b) There are machine learning libraries for many programming languages that are easy to use.
c) For many programming languages, there are machine learning libraries that are easy to use.

Classroom task 1c

- Read the sentences. Which of the alternatives (a, b or c) is written in the best style?

a) We have utilized different methods for obtaining the optimal results.
b) We have used different methods to get the best results.
c) We have tried many ways to get it right.

Classroom task 1d

- Read the sentences. Which of the alternatives (a, b or c) is written in the best style?

a) The university professors do teaching, research, and innovation.
b) The university professors teach, research, and innovate.
c) The university professors are teaching, researching, and are innovating.

Classroom task 1e

- Read the paragraphs. Which of the alternatives (a, b or c) is written in the best style?

a) John could not stop thinking about his programming task that felt far too overwhelming and something that he could not do, because his programming skills were too limited.
b) John could not stop thinking about his programming task. It felt far too overwhelming. It was something he could not do. That was because his programming skills were too limited.
c) John could not stop thinking about his programming task. It felt far too overwhelming. It was something he could not do, because his programming skills were too limited.

General style advice

- Use (mostly) the active voice
  - "*We studied X*" is usually better than "*X was studied*"
- Put statements in positive form
  - "*We found only little evidence*" is better than "*We did not find much evidence*"
  - Admitting too much doubt (*may*, *might*, *can*) makes the writing lack authority, but on the other hand, it is essential to express caution when uncertain
- Use definite, specific, and concrete language
  - Do not confuse or mislead the reader
  - Scientific writing is not the right place for poetic language or metaphors (except very obvious ones)

Structuring the text

- Writing must follow the thoughts of the writer
  - Logical flow from thought to another
- Use sentences of varying length to rhythm your text
  - Use both short and compound sentences mixed
- Make the paragraph the unit of composition
  - One topic in one paragraph
  - Paragraphs signal development in the subject, the next step
  - Sometimes the liaison between the preceding text need to be expressed: *again*, *therefore*, *however*, *nevertheless…*

Classroom task 2

- Read the text below. What is wrong with the style? How would you improve it?

Very few people do not have a smartphone today. This is because the prices of smartphones have been greatly reduced during the past few years. Smartphones are also much faster than before. A computation by a new smartphone does not take more time than the same computation by a desktop computer a decade ago. The mobile devices may be used for entertainment, communicating with friends, and buying things in the internet. Living without a smartphone would not be easy.

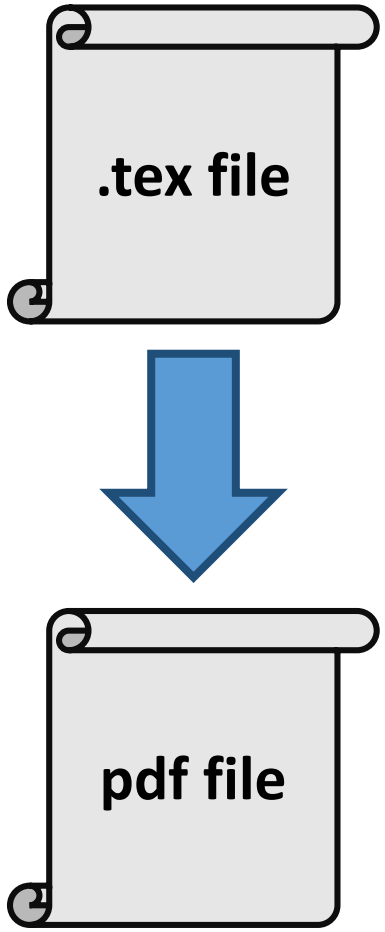
Classroom task 2 example answer

Most people have a smartphone today, because smartphones are now much cheaper and powerful than before - modern smartphones can compute faster than desktop computers ten years ago. The mobile devices are an important part of our everyday life: they are used for entertainment, communicating with friends, and shopping in the internet. It would be hard to live without a smartphone in today's world.

Using LaTeX

- LaTeX is a document preparation system for producing documents with professional look
  - Available for free for most computer systems
- Not a word processor; a LaTeX document is a text file with .tex extension, the final document is produced as pdf file after compilation
  - Not *'What You See Is What You Get'* (WYSIWYG) like MS Word
  - However, there are editors that produce LaTeX output in real time while editing the .tex file

LaTeX Hello World example

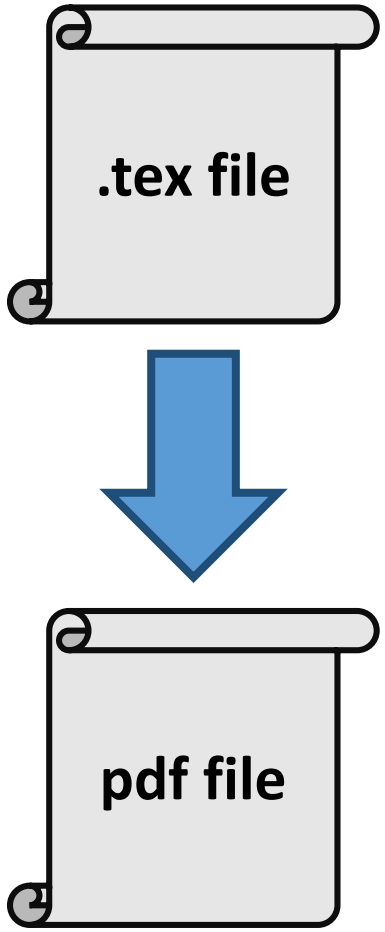



```
\documentclass[a4paper,12pt]{article}
\begin{document}
        Hello World!
\end{document}
```

compilation

Hello World!

LaTeX basic formattings

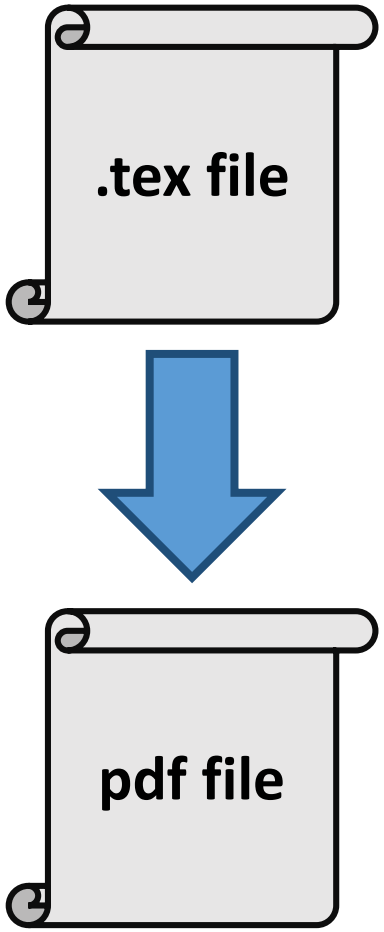



```
\documentclass[a4paper,12pt]{article}
\begin{document}
        Hello World!
        \textbf{Hello World in bold!}
        \textit{Hello World in Italics!}
\end{document}
```

compilation

Hello World! **Hello World in bold!** *Hello World in Italics!*

LaTeX equation example

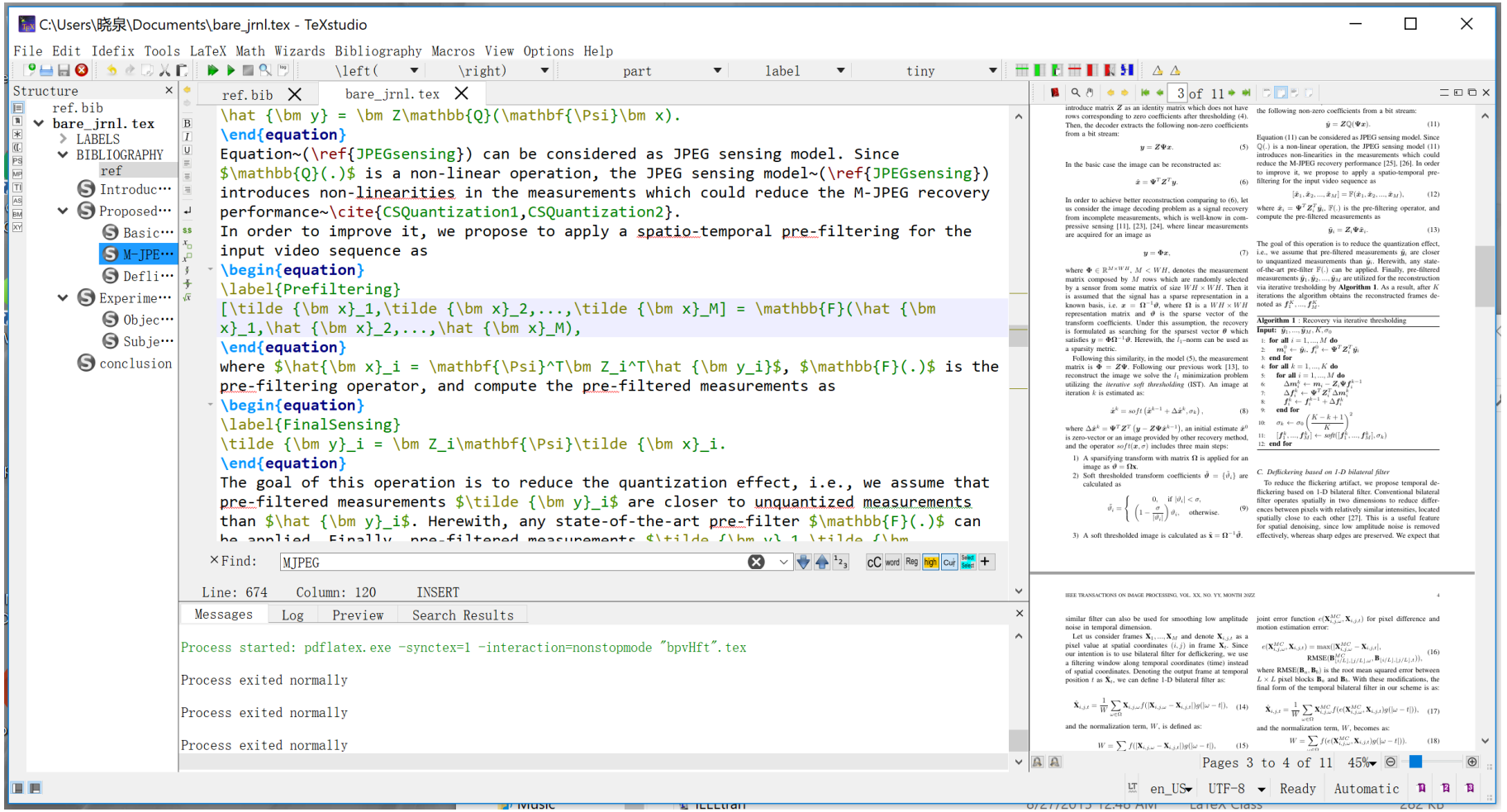



```
\begin{equation}
\tilde {\bm y}_i = \bm Z_i\mathbf{\Psi}\tilde {\bm x}_i
\end{equation}
```

compilation

$$\tilde{\boldsymbol{y}}_i = \boldsymbol{Z}_i \boldsymbol{\Psi} \tilde{\boldsymbol{x}}_i$$

Example of LaTeX editor (TeXstudio)



Example LaTeX resources

- MikTeX: open TeX/LaTeX implementation
  - https://miktex.org/ (TeX/LaTeX implementation)
- Editors
  - https://www.texstudio.org/
  - http://www.tug.org/texworks/
- Tutorials
  - https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes
  - http:// www.docs.is.ed.ac.uk/skills/documents/3722/3722-2014.pdf
  - and many others…

Homework 1

- Write a short introduction/biorgraphy of yourself (about 100 words) and use LaTeX to make your introduction in pdf format
  - Include one image (e.g. your photo) and use some basic formatting (e.g. different font sizes, bold, italics)
- Submit the pdf file in BlackBoard before next lecture (October 8)!

Example biography

Jari Korhonen (*ID: 12345678*)

Jari Korhonen received his M.Sc. (Eng.) degree in information engineering from University of Oulu, Finland, in 2001 and Ph.D. degree in telecommunications from Tampere University of Technology, Finland, in 2006. Currently, he is with the College of Computer Science and Software Engineering, Shenzhen University, China, where he is working as Research Assistant Professor since 2017. From 2001 to 2006, he was Research Engineer with Nokia Research Center, Finland. In 2007, he was with EPFL in Switzerland, and from 2008 to 2010 with NTNU in Norway. From 2010 to 2017 he was with Technical University of Denmark. His research interests include both telecommunications and signal processing aspects in multimedia communications, including visual quality assessment.

Summary

- Advice for writing English in good style
  - Use concrete language, do not use too complicated expressions
  - Express coordinate ideas in similar form and keep related words together
  - Use a mixture of short and long sentences
  - Keep to one tense
- Basics of document processing with LaTeX
- Homework 1:
  - Write a short introduction of yourself, convert your introduction into a pdf document using LaTeX and submit in BlackBoard