LaTeX for Philosophers

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1 What is LaTeX?

LaTeX is a Typesetting System

- LaTeX is a progam that takes a plain text file containing text and markup instructions and turns it into a typeset document (usually in PDF format).
- LaTeX is open source and cross-platform.
- LaTeX comes with hundreds of *packages* dealing with anything from producing presentation slides (such as this) to dealing with bibliographical references to typesetting musical scores.

LaTeX is a Markup Language

- LaTeX documents do not contain formatting—all formatting, sectioning, special symbols and formulas, etc., are coded using plain text.
- For instance:
  - an *emphasized* piece of text is coded as `\emph{emphasized}`,
  - a formula such as
    $$\exists x(\phi(x) \land \psi(x))$$
    as
    `$\exists x(\phi(x) \land \psi(x))$`,
  - a bulleted list as

```
\begin{itemize}
  \item \LaTeX{} documents do not contain ...
  \item ...
\end{itemize}
```

LaTeX is a Programming Language

- The commands of LaTeX (and the underlying TeX system) are *also* a full-fledged programming language.
- This allows you to customize your typesetting environment for special purposes.
- It makes LaTeX extremely flexible and powerful.
- It also makes it very complex, and sometimes very frustrating.

Who Should Use LaTeX?

Use LaTeX if . . .

- Your writing includes lots of formulas (logic or mathematics).
  - logicians
  - formal epistemologists
  - philosophers of physics
  - philosophers of mathematics
- You have to include text in other languages or alphabets, code, or diagrams.
  - philosophers of language (phrase structure trees)
  - ancient philosophers (greek text with diacritics)

Use LaTeX if . . .

- You want no control (and hence not have to worry about) the layout of your writing.

  If you use LaTeX and stay away from formatting commands, your typeset output will basically be guaranteed to look good. You can change the look of your paper very easily and without having to format every single paragraph. This can be done in Word, but is much more cumbersome than in LaTeX.
- You want complete control over the layout of your writing and produce professionally typeset output.

  On the other hand, if you want to typeset your writing professionally, LaTeX is about as capable as professional typesetting software. Packages like [**?**] are designed to produce print-ready books according to traditional publishing standards. This is hard to do in Word.

- You are fussy about typography.

  Word processors such Word have come a long way in turning text into type on the page—in part because of the sophisticated algorithms that underly the TEX system. LATEX understands kerning, line spacing, hyphenation, its typefaces have ligatures, its SMALL CAPS aren't just scaled-down capitals, and it makes it easy to keep your hyphens, en, and em-dashes straight.

Do *Not* Use LATEX if . . .

- You get easily frustrated by software.

  LATEX is open source software. It's been around for 30 years and there are thousands of users, but not everything is polished, it doesn't come with a guarantee. It wasn't designed for user-friendliness but for functionality. You may find yourself having to do some reasearch in order to figure out how to make LATEX do something. You may find yourself spending hours trying to get a document to compile.

- You get easily sidetracked by techy things.

  If you're the kind of person who has to understand the inner workings of things, is tempted to take things apart, improve them, or repurpose them—then be prepared to spend a lot of time tinkering with LATEX. You may find yourself writing your own package files, or wasting weeks on making your documents be just a little bit more beautiful. This is not a good idea if you have a dissertation to finish.