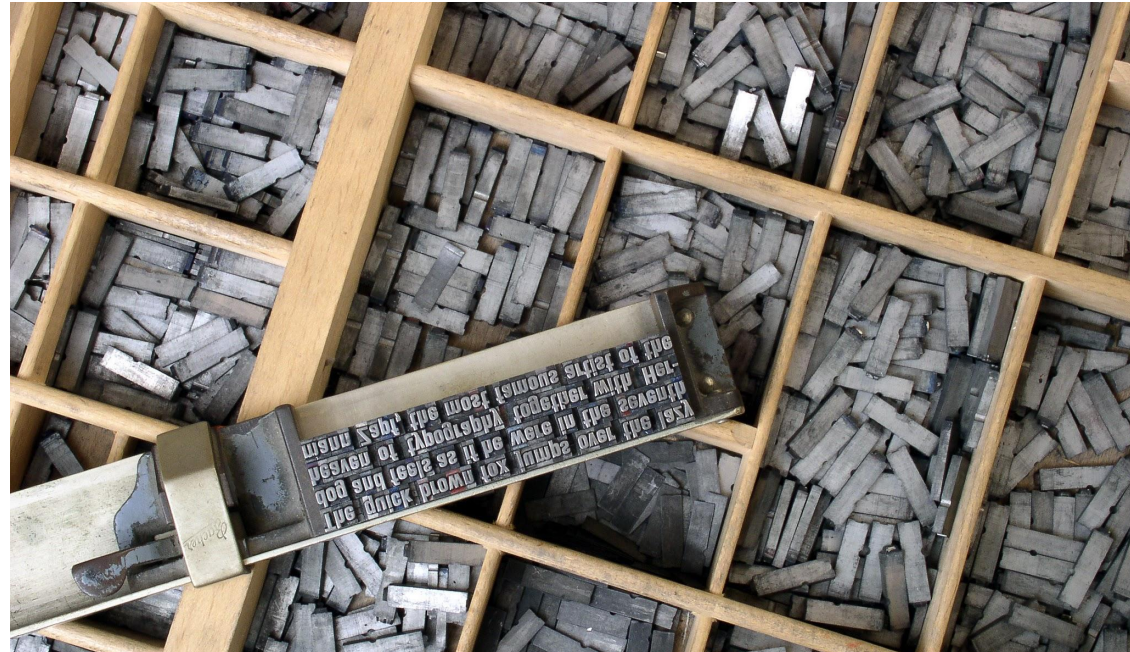
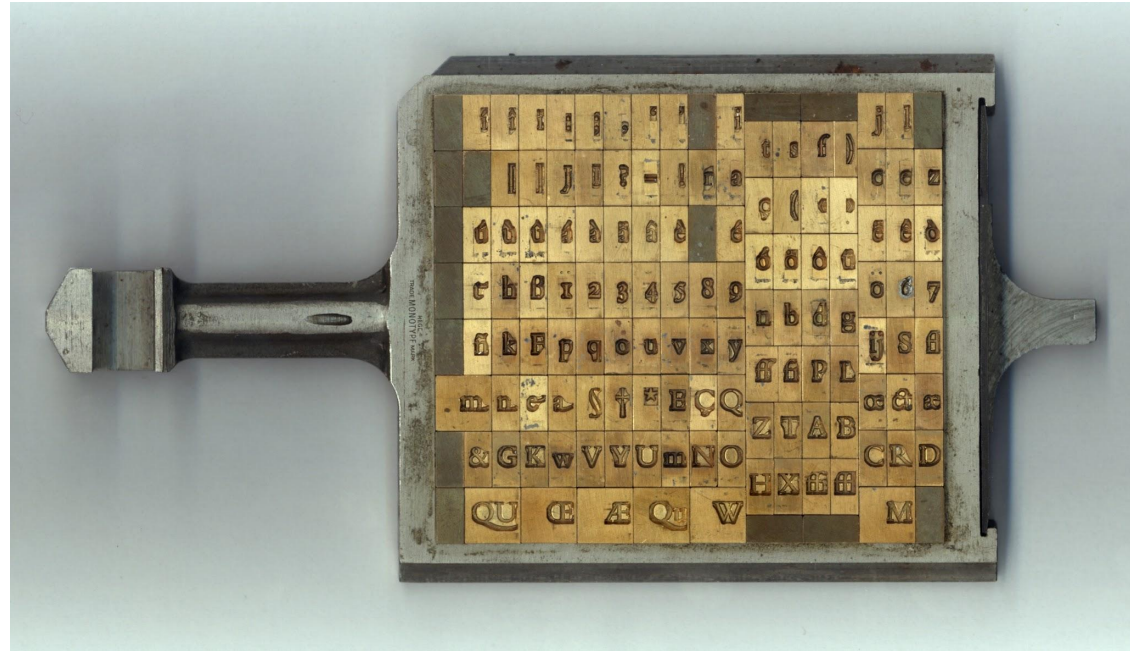

Typesetting texts using LaTeX

Hamidreza Hosseinkhani - 2020

Hot metal typesetting



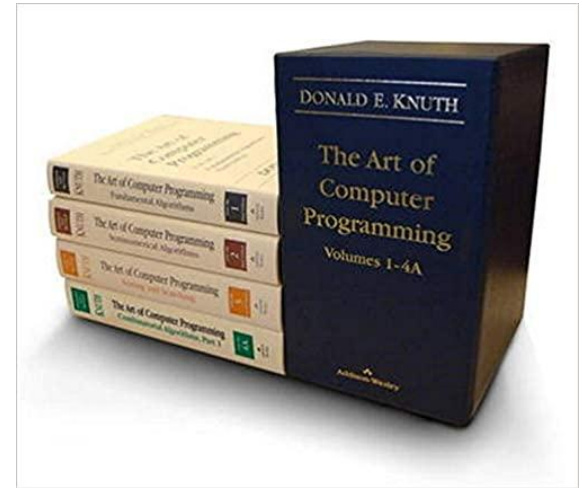
Hot metal typesetting



Phototypesetting



The Art of Computer Programming



TeX

TeX gives exactly the same results on all computers, at any point in time!

TeX, pdfTeX, XeTeX

- pdfTeX, principally written by Hàn Thế Thành, is a TeX variant that can generate **PDF** output directly as well as **DVI**.
 - XeTeX, by Jonathan Kew, is a TeX engine with native **Unicode** and **OpenType** support. It produces **PDF**.
 - ...
-

LATEX

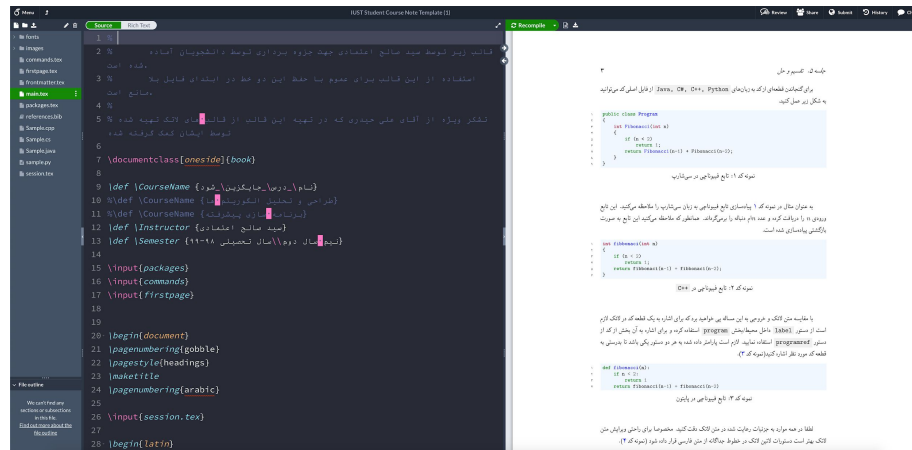
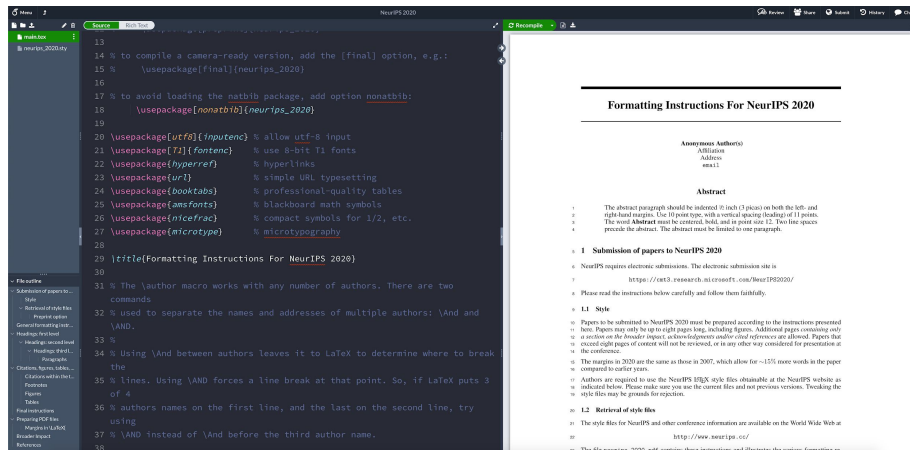
you only have focus on the contents of your document and the computer will take care of the formatting

Two Major LaTeX Distributions

<i>TeX Live</i> (<i>MacTeX</i> for macOS)	<i>MiKTeX</i>
tug.org/texlive tug.org/mactex	miktex.org
Installs everything completely (~4GB)	Installs packages on the fly progressively!

Cloud-based Applications (SaaS)

Overleaf (overleaf.com)



Overleaf

- Collaborative cloud-based
 - provide official journal LaTeX templates
 - Direct submission links (The IEEE and Springer(incl. Nature) mention the possibility for submission using Overleaf.)
 - Provides templates for submission to scientific journals and conferences.
 - A tool for writing scientific publications in Nature, Science, Red Hats opensource.com and the German IT magazine heise online.
 - CERN adopted Overleaf as its preferred collaborative authoring platform.
-

Let's practice!

Bibliography management

Citation vs Bibliography

Bibliography management softwares: *BibTeX*, *EndNote*, *RIS*, ...

BIB_TE_X -> modern reimplementation -> **Biber**

BibLaTeX package: `\usepackage{biblatex}` or `\usepackage[style=authoryear]{biblatex}`

BibTeX bibliography file (Bibliography database) -> `\addbibresource{resources.bib}`

Cite: `\cite{tensorflow2015-whitepaper}`

Print Bibliography: `\printbibliography`

Learn More!

- [https://www.overleaf.com/learn/latex/Learn LaTeX in 30 minutes](https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes)
 - <http://tug.org/mactex/src/WelcomeToMacTeX.pdf>
 - <https://www.overleaf.com/gallery/tagged/farsi>
 - [https://www.overleaf.com/learn/latex/Bibliography management in LaTeX](https://www.overleaf.com/learn/latex/Bibliography_management_in_LaTeX)
 - <https://www.overleaf.com/read/jxhnkcwnwhfxp> (for neural networks)
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Thank you!
