

Short title

Adam
Goodkind

Overview of
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Why Not \LaTeX ?

A Few \LaTeX
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Bibliography/
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BibTeX and
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Mendeley,
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Presentations
and Posters

Beamer/Tikz

\LaTeX for
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Trees

Symbols

Glosses

Extensive
Online
Support

The Joys of \LaTeX

Adam Goodkind

Northwestern University

a.goodkind@u.northwestern.edu

January 11, 2017

Our Path Today

Short title

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Portability of Code

- Overleaf.com has made real-time / collaboration simple

Logistics

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 - **What You See Is What You Get...Everywhere!**

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- No need to worry about typesetting itself

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- No need to worry about where to place figures

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- No need to worry about where to place figures
- Dynamic section, figure, item numbering etc.

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- No need to worry about where to place figures
- Dynamic section, figure, item numbering etc.
- Citations are automatically added to bibliographies

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- \LaTeX is a Turing-complete programming language

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- L^AT_EX is a Turing-complete programming language
- For very (very!) short and straightforward writing, may not be worth overhead

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- Tables are a bitch

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- Merging/splitting cells can be difficult

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- Picture placement/sizing can be tricky

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- Merging/splitting cells can be difficult
- BUT as with everything L^AT_EX, extensive online support

Aesthetics

- Picture placement/sizing can be tricky
- L^AT_EX has its fair share of quirks

A Few L^AT_EX Features

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Extensive
Online
Support

- Very easy to change formats (slide template demo)
 - Columns / Format
 - Line Numbers
 - Journal Template (<https://www.overleaf.com/7657746tdydxffysqjg#/26800114/>)

A Few L^AT_EX Features

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- Dynamic numbering!!

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- Dynamic numbering!!
- Equations and symbols (+Blocks +Verbatim)

Example of Denotation Function

```
\usepackage{stmaryrd}
% or
\newcommand{\sem}[2][M!,g]{\mbox{ $[\![ \ #2 ]\! ]^{\#{#1}}$ }}
\sem[M',g]{walks}
```

becomes $\llbracket walks \rrbracket^{M',g}$

Tables

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Tables can be tricky

```
\begin{table}[]  
\caption{My caption}  
\label{my-label}  
\begin{tabular}{ll}  
Name      & Date    \\  
Adam      & 1/1/17  \\  
Bob       & 1/2/16  \\  
Charlie   & 1/3/15  
\end{tabular}  
\end{table}
```

Table: My caption

Name	Date
Adam	1/1/17
Bob	1/2/16
Charlie	1/3/15

- Lots of tables at <http://www.tablesgenerator.com/>
- Tables can be made from Python and R dataframes

From PDF to citation

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Adding an article from Google Scholar is simple

- Copy the BibTeX key
- Paste the key into JabRef
- Download the PDF and rename it with the citation key
- Add the BibTeX key to the BibTeX file

From PDF to citation

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- Add the BibTeX key to the BibTeX file

Easy Citations

Typing the `\cite` command within L^AT_EX:

This statement requires citation `\cite{p1}`.

Automatically produces

- This statement requires citation [Smith, 2012].
- And adds it to the bibliography



John Smith (2012)

Title of the publication

Journal Name 12(3), 45 – 678.

Mendeley, Zotero and Biber

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- Mendeley, Zotero, EndNote etc. all support BibTeX
- Changing reference styles can be done with a single line
- Supposed to use biber instead now
 - Offers more stability
 - Supports more character types
 - Doesn't work with all bibliography packages, such as natbib

Posters and Presentations

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- Going between presentations and posters is easy
- Can use tikz and beamer packages
- A slide is a block
- Useful if including lots of technical details
- Not always useful for more straightforward presentations
- But often less headaches than Microsoft

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Lots of resources for linguists

```
\includegraphics[scale=0.2]{LatexForLinguists.png}
```

Google latex for linguists

About 152,000 results (0.53 seconds)

LaTeX for Linguists
www.essex.ac.uk/linguistics/external/cmt/latex4ling/ ▾
These pages provide information on how to use LaTeX for writing Linguistics papers (articles, books, etc.). In particular, they provide instructions and advice on ...
[Tree Drawing in LaTeX](#) · [AVMs in LaTeX](#) · [Semantics](#) · [Books and articles](#)
You've visited this page many times. Last visit: 1/7/17

LaTeX/Linguistics - Wikibooks, open books for an open world
<https://en.wikibooks.org/wiki/LaTeX/Linguistics> ▾
There are a number of LaTeX packages available for writing linguistics papers. Various packages have been created for enumerated examples, syntactic trees, ...

TeX/LaTeX documentation - University of Pennsylvania
www.ling.upenn.edu/advice/latex.html ▾
This document tries to provide some information useful to linguists using LaTeX at the University of Pennsylvania. Much of it is applicable to other circumstances ...

Doing Linguistics in LaTeX - A fairly quick ... - Boston University
ug.bu.edu/blog/lingtech/files/20080528-latex-intro.pdf ▾
May 28, 2008 - Miscellaneous notes. Doing Linguistics in L^AT_EX. A fairly quick introduction. Paul Hagstrom. Linguistics Program. Dept. of Romance Studies.

Using LaTeX in Linguistics | Linguistic Society of America
www.linguisticsociety.org/content/using-latex-linguistics ▾
LaTeX is a document preparation system widely used in linguistics to create papers, handouts, presentations, and other publications. There are many ...

LaTeX for Linguists | The Department of Linguistics & TESOL at UT ...
www.uta.edu/linguistics/about/conferences/latex-linguists/ ▾
Installation. For a Mac: go to www.tug.org/mactex/; download from the < MacTeX.mpkg.zip > link (it's a

Easy Tree Diagrams

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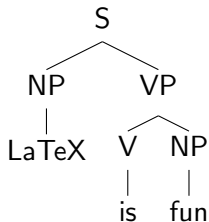
Trees
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This code:

```
\usepackage{qtree}
\Tree [.S
      [.NP LaTeX ]
      [.VP [.V is ] [.NP fun ] ] ]
```

Produces:



Lots of Pretty Math

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Sets

`\setof{a,b,c}`

which produces

$\{a, b, c\}$

`\setof{x : walk'(x)}`

which produces

$\{x : walk'(x)\}$

`\tuple{a,b,c}`

which produces

$\langle a, b, c \rangle$

Symbols

`\neg`

$\&$

\equiv

`\equiv`

`\rightarrow`

\Rightarrow

`\Rightarrow`

`\vee`

\wedge

`\wedge`

`\exists`

\forall

`\forall`

`\vdash`

\models

`\models`

`\in`

\times

`\times`

`\cup`

\cap

`\cap`

`\subset`

\subseteq

`\subseteq`

`\supset`

\supseteq

`\supseteq`

Greek Letters

α

β

γ

ϵ

λ

π

ρ

σ

τ

ψ

ϕ

ω

Glosses and Numbering Are Super Easy

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- Example numbers can be continued throughout a document, and modified on-the-fly

- Aligning glosses is easy

```
\usepackage{gb4e}
\begin{exe}
\ex
\gll Stolz ist er auf seine Kinder gewesen. \\
proud is he of his children been\\
\trans ‘He was proud of his children.’
\end{exe}
```

- (1) Stolz ist er auf seine Kinder gewesen.
proud is he of his children been
‘He was proud of his children.’

Support is Everywhere!

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- Ask Anything (General Support)
 - tex.stackexchange.com
 - reddit.com/r/LaTeX
 - en.wikibooks.org/wiki/LaTeX
- For Linguists
 - <http://www.essex.ac.uk/linguistics/external/clmt/latex4ling/>
 - <https://en.wikibooks.org/wiki/LaTeX/Linguistics>
- Symbols Galore (Complete Lists)
 - <http://tug.ctan.org/info/symbols/comprehensive/symbols-a4.pdf>
 - Draw! <http://detexify.kirelabs.org/classify.html>
 - Pretty <http://zelmanov.ptep-online.com/ctan/symbols.pdf>
- Table Generator <http://www.tablesgenerator.com/>
- Task Management with [todonotes](#)

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The End

Slides & code available at

<https://github.com/angoodkind/LaTeXTutorial>