Preamble

Title, Author, and Page Layout

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This Presentation

- Making the necessary "title, author, date" at the top of the page.

- Adjusting margins of a paper.

- The benefit of the default margins.

- Making Headers with `fancyhdr`.

Title and Author

- Professors often require that the student put the title of the document

- We can place the title and author in the preamble, then call up this information in the body.

- LaTeX will not only place this information at the top of the first page in the document, but also in the header along with the page number.

Title and Author (con't)

- Recall that the preamble are the lines of text before `\begin{document}`.

- The first line of the preamble is `\documentclass[`*`options`*`]{`*`class`*`}`.

- This is often followed by `\documentclass[`*`options`*`]{`*`package`*`}`.

Title and Author (con't)

- After the *document class* and *package(s)* command, we can enter information about the document.

- Typically we want to include the title and author:
  `\title{`*Title of Document*`} \author{`*Author's Name*`}`

Title and Author (con't)

- Together with the *document class* and *package(s)* command, the preamble may look similar to this:

```
\documentclass[pdf]{article}
\usepackage{hhref}
\title{Exploitation and Unfreedom}
\author{Trin Turner}
\begin{document}
```

- With the information defined in the header, we can call this in the body of the text.

Title and Author (con't)

- Immediately after `\begin{document}`, place the `\maketitle` command: ...`\title{Exploitation and Unfreedom}`
  `\author{Trin Turner}`
  `\begin{document}`
  `\maketitle`

- This will place the title, author, and date as a banner on the front page.[a]

- It will also place the title on the header, opposite side of the page number.[b]

- For multiple authors, separate the names with `\and`.

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[a]The date will be the date the document was generated.

[b]The placement of the page number will depend if you're generating a single–sided or double–sided document.

Title and Author (con't)

- As it was previously mentioned in a footnote, the date LaTeX creates for the title banner is the date it was generated.

- We may want to set it to a static date—perhaps to avoid looking like we typed it an hour before class.

- Insert `\date{`*Desired Date*`}` into the preamble.

- The *Desired Date* may be any format (e.g. 6/26/2005; June 26, 2005).

Title and Author (con't)

- Sometimes we may want to or be required to have more information at the beginning of the document.

- For instance, we may need to include a university or company name, our address, or a unique ID number.

- There are no direct fields for this, we cannot create \school... and hope it will be placed in the title banner.
  - LATEX will not like this and stop making your document.

- Instead, we can play around with the \author command.

Title and Author (con't)

- Here we will make "Drake University" appear below the authors name. . . . `\title{Exploitation and Unfreedom}`
`\author{Trin Turner \\`
`Drake University}`
`\begin{document}`
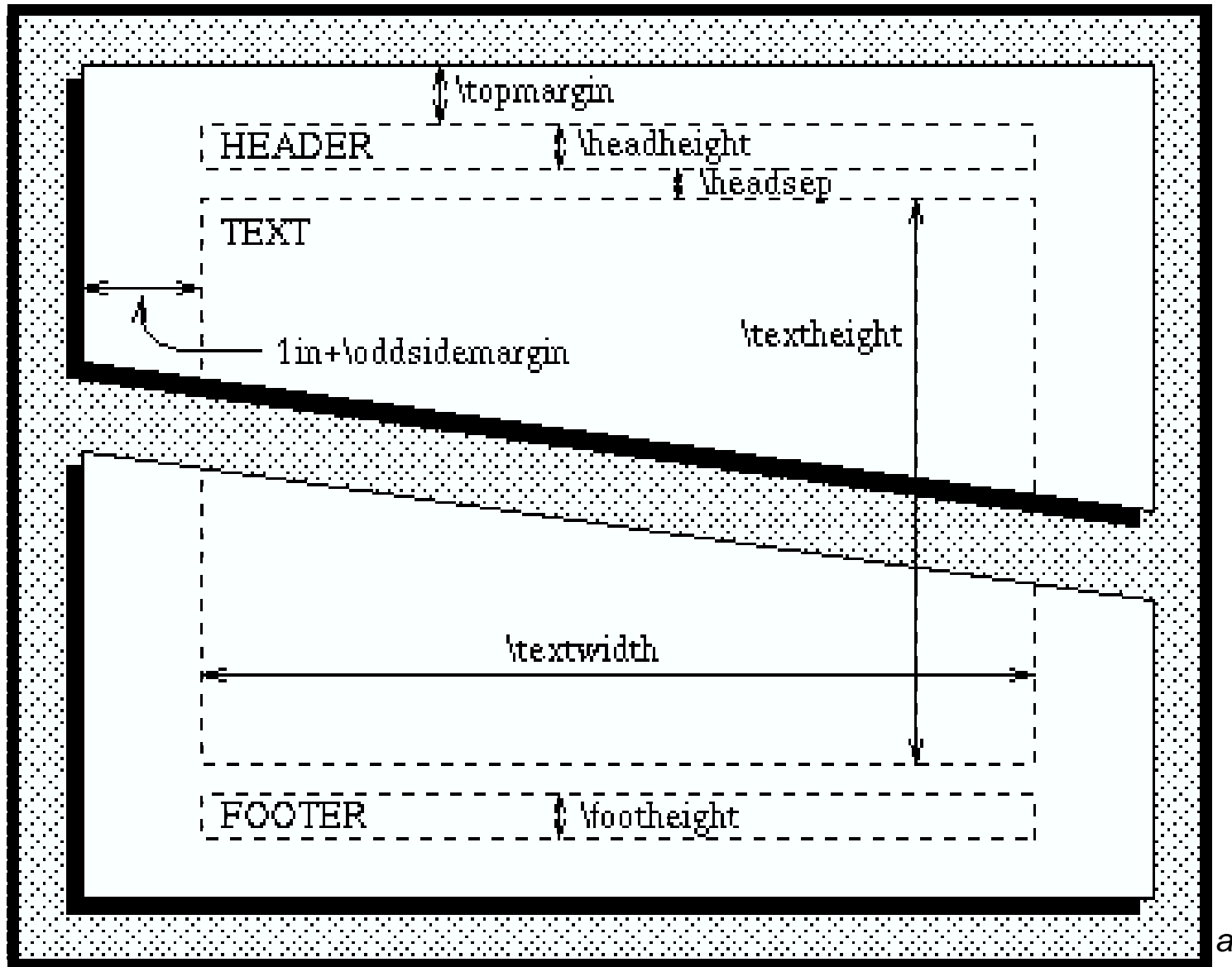`maketitle`

Title and Author Review

- Instead of directly typing the document title, author's name, and date directly on the document, we define it in the preamble.

- The benefit of this is LaTeX can insert the necessary information into the headers (document title). Also, if we want the title banner to come after another section (i.e. the abstract), we only have to move the `\maketitle` command.

- We can create more fields by using a small trick by not closing the *author* command and inserting a line break.

Margins

- Generally we can adjust the size of the paper by using *options* for the document class .

  - Recall that 8 in. x 11 in. (letter paper) is the default setting, but we could change it to legal:

    $$\texttt{\textbackslash documentclass[legalpaper]}\{\textit{class}\}$$

- However, this changes the entire paper size all together.

- To change the margins of the paper (spaces between the type and the edges), we use commands in the preamble.

Margins (con't)

The image shows a page layout diagram with the following labels: \topmargin, HEADER, \headheight, \headsep, TEXT, 1in+\oddsidemargin, \textheight, \textwidth, FOOTER, \footheight.

[a]Image courtesy of Peter Newbury.

Margins (con't)

- Lengths can be set with, for example, `\textheight 8.0in`.

- Practically, it is easier to add to the current length if you need more space.

- More length can be allocated with, for example, `\addtolength{\textwidth}{2in}`.

Margins (con't)

- Optimally, students should use 1 inch margins, which is a pain to configure by hand.

- I suggest using the `fullpage` package with the following syntax:

$$\backslash\texttt{usepackage}[\mathit{options}]\{\texttt{fullpage}\}$$

- I suggest looking at the `fullpage` documentations that is listed under "Supplemental Documents" on the website.

Headers

- I suggest using the `\fancyhdr` package.

- After invoking the package, follow it with these commands:

$$\texttt{\textbackslash pagestyle\{fancy\}}$$

- `\lhead{`*text*`}`, `\chead{`*text*`}`, and `\rhead{`*text*`}` will place text justified on the left, center, and right, respectively.

Headers (con't)

- By default, the left header will be the section number and section title of the page you are currently reading.

- If you do not want any header in the upper left, but a header in the upper right, then use:

```
\lhead{}
\rhead{text}
```

Headers (con't)

- If you are using a two–sided document, even and odd pages can be differentiated using:

$$\texttt{\textbackslash lhead}$$
$$\texttt{\textbackslash fancyhead[}\mathit{position}\texttt{]\{}\mathit{text}\texttt{\}}$$

- The *position* is where the position and page is defined.

Headers (con't)

R	Right Side	E	Even Pages
L	Left Side	O	Odd Pages
C	Center		

- For instance, RE places the text on the right side of even pages.

- Similarly, LO places the text on the left side of odd pages.

- If you are only using one–sided documents, all of the pages are considered odd numbered.

Headers (con't)

- Below is an example of different headers:

$$\verb|\fancyhead[RE]|\{\mathit{text}\}$$
$$\verb|\fancyhead[LO]|\{\mathit{different\ text}\}$$

- To put the page number in center of the header, use:

$$\verb|\fancyhf{}|$$
$$\verb|\fancyhead[CO,CE]|\{\verb|\page|\}$$

Review

- `\title`, `\author`, and `\institution` are available and are implemented with `\maketitle`.

- Margins can be manually adjusted, but usually simply using the `fullpage` package will create a desired layout.

- `fancyhdr` has a lot of options, I suggest also reading the supplemental documents.

- Also, look at the notes for this lecture. I have included a trick so different headers for odd and even pages can be used without printing a double–sided document.