Previous Lectures

- Critical Reading and Reference Management
- English Grammar guidelines
- Communication Ethics
- Office Communications
- Resume/CV and Interview Process
- Conference paper and presentation
- Thesis and Thesis-Defense
- Presentation Skills
- Journal Papers
- General Rules of technical writing and communication Skills

Today's Lecture

- Referencing
  - BibTeX

Need for References and Citation

- Technical writing and communication → based on
  - **Data**
  - **Analysis**
  - **Facts** already established.
- A lot of reading and thinking and discussion.
- References

Importance of References

- Academic Integrity
- Credibility and Authority to your Work
- Show that you Know
- Avoid charges of Plagiarism/Unethical practices

Listing of References

- Absolutely NECESSARY
  - Due Credit
  - Somebody counts these
- Very difficult manually
- Every university/company/journal/conference has own standards
- Hundreds of styles

Reference Management

- Need a powerful database software to process according to various styles
- EndNote
- **Zotero**
- Mendeley
- Jabref …
- LibreOffice Write feature
- Microsoft Word feature

References and Citation Software

1. A master list of books, journal and conference papers, webpages, blogs, reports, theses, …
2. Extract the data of those you need
3. Make a list of references and cite in the style you need

Several Styles for Citation and Reference List

- IEEE
- ACM
- MLA
- APA
- Depends on
  - Journals
  - Conferences
  - Magazines,
  - University (for thesis)
  - Company (for reports) …

Various Styles (Zotero)

- APA

  In a recent paper (Ghosh, 2019) the complexity of an image was explained …

  References

  Ghosh, A. and Deb, T. (2019). "Spatial Complexity of Images", *Optical Eng., 52* (4), 408-411.

- IEEE

  In a recent paper [3] the complexity of an image was explained …

  References

  [1] …

  [2] …

  [3] A. Ghosh and T. Deb, "Spatial Complexity of Images", *Optical Eng.,* vol. 52, pp. 408-411, Apr. 2019.

Making references in LaTeX

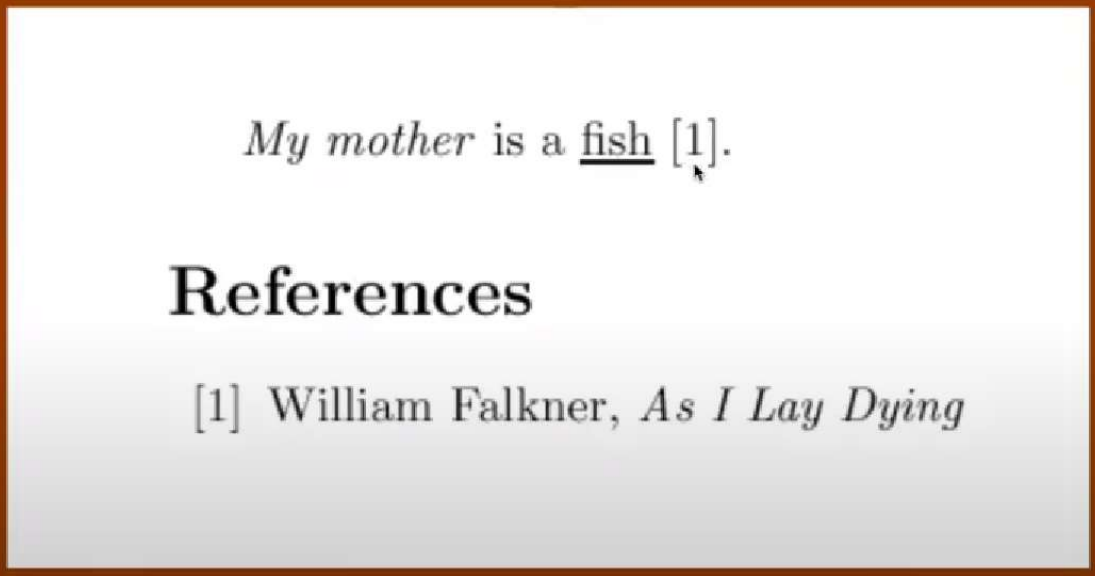
```
\documentclass{article}
\begin{document}
\emph{My mother} is a \underline{fish}
 \cite{WF}.
\begin{thebibliography}{99}
\bibitem{WF}
William Falkner, \emph{As I Lay Dying}
\end{thebibliography}
\end{document}
```

from: www.cs.uga.edu/~eileen/6950/

Need to compile the document twice

- Because we are using symbolic references, e.g., `\cite{WF}`,
  - a second pass is necessary
- The second pass will resolve references

from: www.cs.uga.edu/~eileen/6950/



Problem with this method

- User is burdened with deciding how to format article titles, journal names, proceeding references
- Difficult to reuse references in other documents

BibTex

- Complements LaTeX documents by managing bibliography and references
- Minimizes the drudgery of formatting, numbering, and referencing
- Disadvantage:
  - Steep Learning Curve

The BibTex Process

1. Create a **`BibTex`** file with Rerefence entries
2. Get a **`*.bst`** file (bibliographic style file)
3. "Compile" or "Build" your **`LaTeX`** document to create an **`*.aux`** file
4. Run **`BibTeX`** on your **`LaTeX`** file
5. Run **`LaTeX`** twice on your updated file
6. View the **`dvi`** or **`pdf`** file

from: www.cs.uga.edu/~eileen/6950/

Types of Documents BibTex can handle

- ARTICLE
- BOOK
- BOOKLET
- INBOOK
- INCOLLECTION
- INPROCEEDINGS
- MANUAL
- MISC
- PHDTHESIS
- PROCEEDINGS
- TECHREPORT
- UNPUBLISHED

Each Document type can have the following entries

- address
- author
- booktitle
- chapter
- crossref
- edition
- editor
- howpublished
- institution
- journal
- key
- language
- month
- note
- number
- organization
- pages
- publisher
- school
- series
- title
- type="Ph.D. dissertation"
- volume
- year

Sample BibTex Book Entry

```
@BOOK{Press,
author="W.H. Press",
title="Numerical Recipes in C:  The Art
 of Scientific Computing",
publisher="Cambridge University Press",
year=1992,
}
```

from: www.cs.uga.edu/~eileen/6950/

Sample BibTex Article Entry

```
@ARTICLE{Vodacek,
author="Anthony Vodacek and F.E. Hoge and R.N. Swift and
  J.K. Yungel and E.T. Peltzer and N.V. Blough",
title="The use of in situ and airborne fluorescence
  measurements to determine UV absorption coefficients
  and DOC concentrations in surface waters",
journal="Limnology and Oceanography",
volume=40,
number=2,
year=1995,
pages="411--415",
}
```

from: www.cs.uga.edu/~eileen/6950/

Generating BibTeX files

- Use bibliographic software such as Zotero, Mendeley, Jabref, …
- Export the entire library or a few items in the BibTeX format with a mybib.bib name
- In your main LaTeX file use commands

```
\usepackage{mla}
\bibliographystyle{mla}
\bibliography{mybib}
```

- Use the command \cite{key} to refer to a reference in your list

To invoke these styles in your document

- Copy them to your current working directory with your **LaTeX** and **BibTex** document
- Edit your **LaTeX** file to appropriately reference these style guides