

TECH 305:
Information Literacy
for Technologists

Wednesday, February 17

Professor Ethan Lipton

WINTER QUARTER 2010

Today's Agenda

Consuming Information: Critical Evaluation of Sources

- How to Evaluate Information
- Reading Like A Scholar
- Why Copyright and Plagiarism Matter

Assignments Due:

- Newspaper Article 2
- Information Diary Entry
- Database Comparison

Assignments Due:

- *Information poverty: How the Internet is failing the developing world* by Subbiah Arunachalam
- Be prepared to discuss in class



*How to Evaluate Information:
Primary and Secondary Sources*

Primary Sources

. . .the first hand evidence left behind by participants or observers at the time of events.

- Autobiographies, memoirs, diaries, emails, oral histories
- Letters, correspondences, eyewitnesses
- First-hand newspaper and magazine accounts of events
- Legal cases, treaties
- Statistics, surveys, opinion polls, scientific data, transcripts
- Records of organizations and government agencies
- Original works of literature, art or music
- Cartoons, postcards, posters
- Map, photographs, films
- Objects and artifacts that reflect the time period in which they were created

Secondary Sources

. . . materials that digest, analyze, evaluate and interpret information contained within primary sources or other secondary sources.

- Books, such as biographies (not an autobiography), textbooks, Encyclopedias, dictionaries, handbooks
- Articles, such as literature reviews, commentaries, research articles in all subject disciplines
- Criticism of works of literature, art and music

Reading like a scholar:
How to target read a scientific paper

Scholarship begins with new ideas.

Creators and critics
of new ideas



Experts in
training



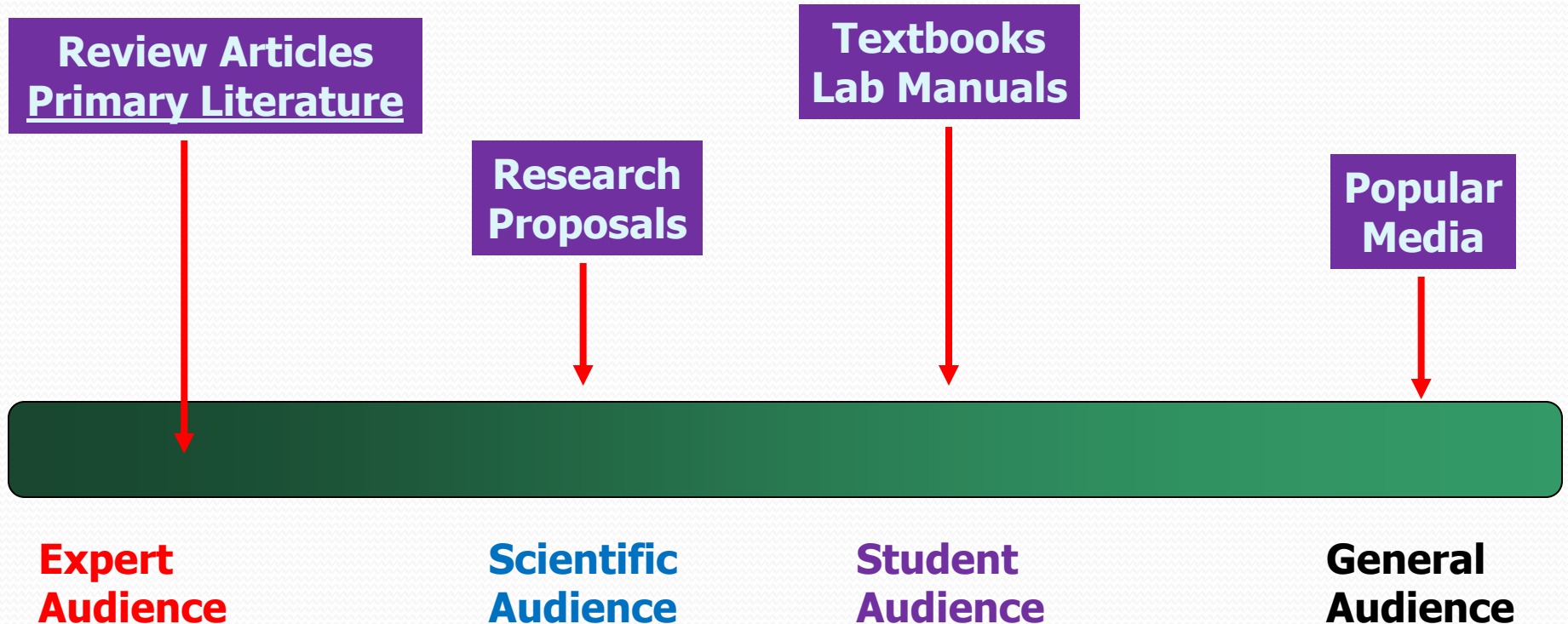
Experts :
Researchers
Inventors
Creators
Authorities on
a single subject

Professionals

Students

General Public

New ideas are disseminated to different audiences.



The original (expert) audience communicate via the scholarly literature.

Scholarly journals
Case studies (primary articles)
Review articles (secondary literature)
Conferences



Expert Audience

Types of readers

Creators and critics
of new ideas



Experts in
training



Experts

Readers who are very knowledgeable about a topic.

Professionals

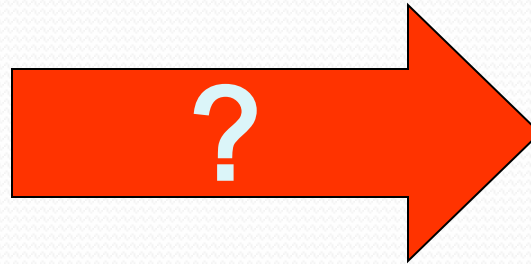
Students

General Public

Readers who have little, if any, knowledge about a topic.

Learn to read critically.

**Student
Reader**



**Expert
Reader**

Why bother?

- The ability to give evidence is required in most college research papers.
- Professors will ask you to give evidence via the scholarly record.
- Preparation for graduate course work and research (write proposals, plan experiments, dissertation work)

Evidence is the point of scholarship.

EVIDENCE



Experts

Professionals

Students

General Public

Scholarly literature is the way a field or discipline advances.

Where can we learn more?

- **Textbooks:** Simplified statements of facts written to introduce general concepts to a student audience.
Never to be cited.
- **Review Articles:** Reflection on the current state-of-affairs in a specific sub-topic of your discipline (includes many citations).
- **Primary Literature (peer-reviewed articles):** new experiments, the results, and discussion of these results written for an expert audience.



**In any discipline, all
primary literature
follows a format.**

IMRD

- Introduction
- Methods
- Discussion (conclusion)
- Results

The Introduction

- Identifies the area of research to be reported, provides background information, cites and summarizes key literature in the field, points out what still needs to be studied.
- Functions as a literature review.
- Look for the bulk of citations here.

The Methods

- Also known as Materials and Methods or the Experimental Section -- describes **how** the study was performed.

Results and Discussion

- Results: Summarizes quantitative (and some qualitative) data collected during the study.
- Results: Authors' interpretation of their data and presentation of the larger implications or applications of their results.

Heart of the scientific paper.

Why Copyright and Plagiarism Matters

http://news.yahoo.com/s/afp/usmediaindustrynewspapersnytimes;_ylt=AqghFBpXGt9dmlR5NH5aXxGs0NUE;_ylu=X3oDMTQ1bXJ0cXE0BGFzc2V0A2FmcC8yMDEwMDIxNy91c21lZGlhaW5kdXN0cnluZXdzcGFwZXJzbmI0aW1lcwRjY29kZQNtb3N0cG9wdWxhcGRjcG9zAzYEcG9zAzMEcHQDaG9tZV9jb2t1BHNIYwN5bl9oZWFKbGluZV9saXN0BHNSawNueXRpbWVzc mVwb3I-

Session 8: Wed., Feb. 24

- No Class Meeting; *faculty furlough day*
- *Work on your research papers*
- *I will be available all week (except 2/24) in-person, by phone, or via email*

See you in two weeks. . .

- How to Research a Paper
- Discussion: *Information poverty: How the Internet is failing the developing world*