Research and Writing

CS 391: Social and Ethical Issues in Computer Science
Guidelines

• In order to meet the Bacc Core objectives for this course, your primary work in CS 391 will be to do research and synthesize that research into your own writing.

• Your goal: establish facts and also possibly reach conclusions that others haven’t yet reached. It is OK, though, to simply confirm (or refute) others’ conclusions.

• You will write 3-4 shorter papers (3-5 pages) and one longer paper (8-10 pages) in which you research recent events, ideas, trends, etc. and use that research to perform an analysis from an ethical standpoint.

• There are several guidelines you’ll want to follow as you perform your research and writing. We’ll review those guidelines here.
Research Tools

There are lots of great tools available to help you do research for this course:

- **The OSU Library**: Don’t hesitate to ask librarians for help finding sources for your research. They can be very helpful.
  - [Pam Van Londen’s CS 391 page](http://people.oregonstate.edu/~vanlondp/cs391/research/index.php#library) has a great list of all the different librarians who can help you and the different ways to get in touch with them

- **Google search**: You can use straight-up Google search or, maybe better, [Google Scholar](https://scholar.google.com/), which searches through academic papers.

  Be careful here to choose valid/reputable sources. There’s a lot of junk on the web that Google will unearth. We’ll talk more about this in a bit.
Research Tools

• Use a [citation manager](http://guides.library.oregonstate.edu/c.php?g=286173&p=1905969)

• These help you organize, manage, and cite your research sources. They make it easy to automatically generate properly-formatted citations and reference lists for your papers.

• The following are all great citation managers and will save you a lot of time and effort while you’re researching and writing:
  • [Zotero](https://www.zotero.org/)
  • [Mendeley](https://www.mendeley.com/)
  • [Endnote](https://endnote.com/)
Writing for CS 391

• Your writing should be *synthesis writing*.
  • This means that you should do more than just state facts, or summarize and quote other authors.

• Synthesis writing requires you to:
  • Unearth and organize facts, evidence (from experiments and studies) and other peoples’ ideas
  • Help readers understand the topic at hand, often generating your own new ideas or conclusions in the process.
Writing for CS 391

• You should write formally and professionally.
  • Write for a global audience, not just yourself, your CS 391 classmates, OSU students, US citizens (e.g. avoid using “we”).
  • Don’t write in the first person (i.e. don’t say “I think...”, etc.).
  • Rely on formal research instead of personal anecdote.

• Use good grammar and spelling, and edit your writing before submitting it.
Writing for CS 391

• You must cite your sources using a standard citation format. Good citation formats include:
  • APA (https://www.mendeley.com/guides/apa-citation-guide)
  • MLA (https://www.mendeley.com/guides/mla-citation-guide)
  • IEEE (http://libguides.nps.edu/citation/ieee)
• Use a citation manager! They’ll handle the formatting for you.
• You must include a citation any time you use information from someone else’s work. Cite every fact, statistic, study, quotation, etc.
  • Cite original articles from Wikipedia’s reference list instead of Wikipedia itself.
• Use proper names of organizations and authors instead of domain names.
Writing for CS 391

• Here is an example of a good (APA) in-text reference to a cited source:

  Corinne A Moss-Racusin et al. (Moss-Racusin et al., 2012), notes that hiring practices are not equal.

• And here is the corresponding reference list entry for that article:

Writing for CS 391

Here are some examples of bad in-text references to a cited source:

• In this article, it says that hiring practices are not equal.
• This article on domainname.com says hiring practices are not equal.
• Moss-Racusin said that hiring practices are not equal.
Writing for CS 391

• Each writing project for the course will require a bibliography/list of references in your chosen format (APA, MLA, IEEE, etc.).
  • A citation manager helps to automatically generate a correctly-formatted list of references.

• Include relevant and informative images (charts, graphs, maps, infographics, etc., **NOT** just pretty pictures) into your reports.
  • Make sure to include a copyright statement indicating the owner of the image and a citation of the image.

• Make sure your citation for the image includes the original source URL.
Writing for CS 391

Importantly, you should **AVOID PLAGIARISM**!

In general, the words you use in your writing must be your own. There are three ways to incorporate other people’s facts, ideas, and conclusions into your own writing:

- **Quoting** – a quotation is a word-for-word copy of another person’s work. Quotations should be limited in length, and you must always attribute the original author/source when quoting their work.

- **Paraphrasing** – paraphrasing means putting a passage from someone else’s work into your own words. Often, this will involve some condensing, where a larger passage is reduced slightly in your words. Again, you must always attribute the original author/source when paraphrasing.
Writing for CS 391

• **Summarizing** – summarizing involves condensing the main idea(s) from someone else’s complete work into your own words. Again, you must always attribute the original author/source when summarizing their work.

Note importantly that [TurnItIn](http://guides.library.oregonstate.edu/c.php?g=286121&p=1906660), the tool we use for assignment submission, automatically detects plagiarism in submitted work, so it will be easy for us to know if you are doing it.
Writing for CS 391

There are a few resources available to help you with your writing:

• **NetTutor** – online tutoring available from within Canvas. Make sure you use the NetTutor Writing Tutor and Paper Center.

• **The OSU Writing Center** – [http://writingcenter.oregonstate.edu](http://writingcenter.oregonstate.edu)
  • The writing center offers free, in-person, on-campus writing support. You can bring your laptop and write right there, getting help while you write.
  • The writing center also offers online writing help through the Online Writing Lab (OWL).
    • You can access OWL via the writing center’s website, linked above.
Evaluating Research Sources

• How credible is a source of information? Be particularly careful to select relevant, in-depth sources of information.

• For example, not all news sources are reliable. The ad fonts media bias chart (https://www.adfontesmedia.com/), uses a rigorous process to rank news sources in terms of both quality and political bias.

• Which news sources should you use when doing research?

Source: https://www.adfontesmedia.com/
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Evaluating Research Sources

The CRAAP Test (https://en.wikipedia.org/wiki/CRAAP_test), developed by Sarah Blakeslee and the librarians at CSU Chico, is a (non-exhaustive) five-category checklist of questions that you can use to help determine whether a given source is credible.
Evaluating Research Sources

1. **Currency** (the timeliness of the information)

2. **Relevance** (the importance of the information for your needs)

3. **Authority** (the source of the information)
Evaluating Research Sources

4. **Accuracy** (the reliability, truthfulness, and correctness of the informational content)

5. **Purpose** (the reason the information exists)
Evaluating Research Sources

Ask yourself the CRAAP questions about each new research source you find. If your answers to these questions lead you to believe the source may not be reliable, drop it, and find a different source.
Evaluating Research Sources

The following resources may also be useful for helping you determine how credible your sources are:

- Columbia College’s Evaluating the Credibility of Your Sources (https://www.college.columbia.edu/academics/integrity-sourcecredibility)