Engineering Ethics and Integrity

Material presented in today's lecture is mostly from Dr. Salman's PhD course at University of Alberta, Canada

What is plagiarism?

- *Plagiarism*: to steal or pass off as one's own (the idea or words of another); use (a created production) without crediting the source; to commit literary theft; present as new and original an idea or product derived from an existing source *(Webster's Third New International Dictionary of the English Language,p. 1728).*

"[Cyber-plagiarism](#)" -- The process by which students either copy ideas found on the Web without giving proper [attribution](#),

OR

The process by which students download research papers from the Web, in whole or in part, and submit the paper as their own original work.

Plagiarism

We will examine and discuss the issues relevant to plagiarism as an academic offense.

Perspective
How serious is the problem?

HEC Policy on Plagiarism

A Closer View of Plagiarism

- Plagiarism encompasses a range of actions from incorrectly citing sources (*unintentional plagiarism)* to the outright theft of someone else's work (*intentional plagiarism*).

- The type of plagiarism committed, *intentional plagiarism* or *unintentional plagiarism*, affects the disciplinary action.

Why Do People Plagiarize?

Research and Writing Issues

- Lack of research and writing skills
- Confusion between plagiarizing and paraphrasing text (typically "Patchwriting")
- Incomplete, careless note-taking
- Confusion about how to properly cite sources

Why Do People Plagiarize?

External Factors
- Pressure from family, competition for scholarships and jobs

Internal Factors
- Poor time management and organizational skills
- Ignorance, laziness, procrastination   the habit of delaying an important task, usually by focusing on less urgent, more enjoyable, and easier activities instead.
- Lack of confidence/boredom/lack of interest

Cultural Factors
- Culturally based attitudes towards plagiarism

Factors leading to Plagiarism: Cultural Factors

- Some cultures view plagiarism differently than Western cultures

- Copying may be considered a high form of flattery.

- It is important to remember that individuals from our cultures may take more time to master proper attribution.

Factors leading to Plagiarism: Ethics (or a lack thereof)

Student ethics and relationship with the University

- Don't expect to get caught

- Some will plagiarize deliberately

- Some perceive education only as a means of fulfilling career aspirations.

- However, most plagiarism is unintentional.

Consequences (these happen mostly abroad but not in Pakistan)

- No credit given for an assignment
- Failure in the course
- Suspension from the University
- Dismissal from the University
- Records of plagiarism can follow on transcripts and career documentation

Strategies to Combat Plagiarism

Avoid Patchwriting!

Patchwriting *is often a failed attempt at paraphrasing. Rather than copying a statement word for word, the writer is rearranging phrases and changing tenses, but is relying too heavily on the vocabulary and syntax of the source material.*

Patchwriting Example

Original

We do not yet understand all the ways in which brain chemicals are related to emotions and thoughts, but the salient point is that our state of mind has an immediate and direct effect on our state of body.
(Source: Siegel, B. (1986).
Love, Medicine and Miracles (p. 69). New York: Harper and Row.)

Patchwriting

Siegel (1986) writes that **we** still **do not** know **all the ways in which** brain chemistry is **related to emotions and thoughts, but the** important **point is that our** mental state **has an immediate and direct effect** on our physical state

Source : UOL Sweden

Why is this Patchwriting?

- The writer has kept the same exact sentence structure.

- The writer had only substituted synonyms in certain places; in others the wording is exactly the same as that of the original.

- Even though the writer mentions the original source in the introductory phrase, the result is **plagiarism**.

Patchwriting Corrected

Original

We do not yet understand all the ways in which brain chemicals are related to emotions and thoughts, but the salient point is that our state of mind has an immediate and direct effect on our state of body.
(Source: Siegel, B. (1986).
Love, Medicine and Miracles (p. 69). New York: Harper and Row.)

Acceptable Paraphrasing

Siegel (1986) writes that although the relationship between brain chemistry and thoughts and feelings is not fully understood, we do know that our psychological state affects our physical state.

Source : UOL Sweden

What did the writer do?

- Used synonyms.
- Changed sentence structure.
- Changed voice.
- Cited source.
- Words like *brain* are generic and do not need to be changed.

Source : UOL Sweden

Rules of Paraphrasing

- The basic rule of paraphrasing is to re-write the text in one's own words and give proper references to the source text.

- If the writer wishes to use some phrasing from the source text, that portion of the text has to be quoted (that is, reproduced in an exact manner within quotation marks).

Source : UOL Sweden

Paraphrasing Guide

1. Read the text you intend to paraphrase carefully, making sure that you understand it fully.

2. When first writing down your paraphrase, do not look at the source text, but write from your memory.

3. Compare your draft with the source text to make sure that your paraphrase catches the essence of the source text without copying it.

4. If your text is too close to the source text, consider quoting instead of paraphrasing.

5. Remember that proper references are needed in both paraphrases and direct quotations.

Source : UOL Sweden

Activity

Like drought, excess rainfall and flooding can also contribute to epidemics of waterborne infectious diseases, in this case due to poor sanitation resulting from runoff from overwhelmed sewage lines or the contamination of water by livestock.
(Source: Shuman, E., M.D. (2010, March 25). Global climate change and infectious diseases. New England Journal of Medicine; 362, 12, 1061-1063. Retrieved from nejm.org at MIT Libraries.)

Source : UOL Sweden

Don't become paranoid – Cite!

But when you present a work for evaluation:

- It must be entirely your own work, written by you in your own words, and containing your own interpretations, ideas, approaches etc.

- It must state clearly where you got other people's words or major ideas.

- It must state clearly where you got your charts, diagrams, photos, graphics, and media (including sound, video and digital images).

Why We Cite & Reference

- Acknowledgement of others' work(s)
- Readers (such as your advisors) can follow your train of thought
- Readers can locate your sources
  - **Failure to cite** your references can lead to charges of plagiarism & its consequences

How to Cite? - Style Manuals

- Papers and reports you write **must** include a list of the sources used in your research
- You may be required you to use a particular **style**, or use one of your choosing
- It is important to use any style correctly and consistently
- The question is: which style to use?

Style Manuals

- A number of popular style manuals for citing exist, and provide guidance to citing references. We will cover this in upcoming lectures.

Writing for Publication

- Scholarly publishers and professional societies require specific styles for citing references in their publications

- A journal will normally have specific guidelines and instructions for formatting references

- Any style used will provide sufficient information to find the sources cited in your publication

Ethical Obligations of Authors

1. An author's central obligation is to present a concise and accurate account of the research, work, or project completed, together with an objective discussion of its significance.

2. A submitted manuscript shall contain detail and reference to public sources of information sufficient to permit the author's peers to repeat the work or otherwise verify its accuracy.

3. An author shall cite and give appropriate attribution to those publications influential in determining the nature of the reported work sufficient to guide the reader quickly to earlier work essential to an understanding of the present work. Information obtained by an author privately, from conversation, correspondence, or discussion with third parties, shall not be used or reported in the author's work without explicit permission from the persons from whom the information was obtained. Information obtained in the course of confidential services, such as refereeing manuscripts or grant applications, shall be treated in the same confidential manner.

4. The submitted manuscript shall not contain plagiarized material or falsified research data. ASME defines plagiarism as the use or presentation of the ideas or words of another person from an existing source without appropriate acknowledgment to that source. The Society views any similar misappropriation of intellectual property, which may include data or interpretation, as plagiarism. [This definition is based on one used by the National Academy of Science, National Academy of Engineering, and the Institute of Medicine. ASCE added the sentence on misappropriation of intellectual property.]

5. Fragmentation of research papers shall be avoided. An engineer or scientist who has done extensive work on a system or group of related systems shall organize publication so that each paper gives a complete account of a particular aspect of the general study.

6. In submitting a manuscript for publication, an author should inform the editor of related manuscripts that the author has under editorial consideration or in press. Copies of these manuscripts should be supplied to the editor, and the relationships of such manuscripts to the one submitted should be indicated.

Ethical Obligations include:

Citing References!

Warning against plagiarism!

Summary

- Plagiarism is a moral and ethical issue
- Plagiarism is a deceptively complex issue; proper citation is a fine art
- Ask for help if you are having trouble with citing
- Give yourself enough time to do proper research