Editorial

Write Your Own Contest Entry

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Introduction

This year's ICM was marred by the disqualification of two teams. Their papers would have been judged Outstanding—except that the papers weren't their work. The papers included numerous entire paragraphs from other sources without any acknowledgment. The teams presented as their own the work of others: They utterly failed to distinguish where the sources' words ended and the team's began.

The Rule

The very first contest rule for the ICM (and the MCM) is

1. Teams may use any inanimate source of data or materials—computers, software, references, web sites, books, etc., however all sources used must be credited. Failure to credit a source will result in a team being disqualified from the competition.

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What to Do

We reproduce below advice and examples that we give to our classes, modified slightly for ICM/MCM teams. Further examples and advice are offered by Hacker [2007].

When you research a topic for a paper, project, or presentation, you collect information from books, journal and magazine articles, lecture notes, Web pages, and other sources.

You then construct your own statements about a topic, and occasionally you may want to use direct quotations from a text. Either way, there must be

- a *citation*: the source of the information must be acknowledged in the text of your work, and
- a *reference*: bibliographic information must be provided at the end of the document or in a footnote, depending on the style book used in the discipline.

Some Guidelines

As you work on a topic, ideas initially provided by an author or colleague become very familiar. Often they become so familiar that you may begin to think of them as your own! To avoid omissions or errors in acknowledging the sources of ideas, take thorough notes as you research. These notes should include bibliographic information and page numbers (or bookmarked URLs) for finding the information again.

Here are some guidelines:

- Widely known facts do not need attribution ("The U.S. population has increased substantially over the last 50 years.")
- Your references do not need to include sources that are not cited in your paper.
- Lines of reasoning (such as the outline of a mathematical model) taken or adapted from others must be credited, even if you do not use any wording from the source.
- All data sets, equations, figures, photos, graphs, and tables must be credited with their sources.
- It is OK to quote a source directly. To do that correctly,
  - either use quotation marks or (particularly for a long quotation) indent and set off the quotation from the rest of the text,
  - cite the source (including page number),
  - make sure you include among your references the full bibliographic data for the reference, and

  - get the quotation right.

- It's OK to summarize an author's thoughts. You still must cite the source, but in addition you must avoid close paraphrases. It is not acceptable to adopt an author's phrases, sentences, or sentence structure, even if you substitute synonyms or modify a few words. Use your own words and your own syntax. The best way to do that is not to have the source text in front of you when you write.

Instructive Examples

Here is an excerpt from Benton [1989, 4]:

The fin-back Dimetrodon *was able to keep warm by orienting its "sail" perpendicular to the direction of sunlight.*

The following examples should help you understand the nature of plagiarism. All examples use the citation style of this *Journal*, which is the publication outlet for Outstanding ICM/MCM papers. Further style details of the *Journal* are at Campbell [2007]. (Of course, if you are preparing a non-contest paper for a different journal, you should acquaint yourself with its style policy and follow that.)

1. *The fin-back* Dimetrodon *was able to keep warm by orienting its "sail" perpendicular to the direction of sunlight [Benton 1989].*

   Why is this plagiarism? Since the statement is a direct quotation, attribution (to Benton) is not enough; you also need quotation marks (and many style manuals require you to cite the page number). Here's the proper way to write this example:

   > *"The fin-back* Dimetrodon *was able to keep warm by orienting its 'sail' perpendicular to the direction of sunlight" [Benton 1989, 4].*

2. *Benton [1989] claimed that the fin-back* Dimetrodon *was able to keep warm by orienting its "sail" perpendicular to the direction of sunlight.*

   This is properly attributed to Benton, but it still is plagiarism. Tell why.

3. *The sail-back* Dimetrodon *could keep warm by orienting her "sail" perpendicular to the sunlight.*

   There is no attribution. This is plagiarism, despite alteration of a few words.

4. *The sail-back* Dimetrodon *could keep warm by orienting her "sail" perpendicular to the sunlight [Benton, 1989].*

   This is almost exactly the same as 3). This time, there is attribution of the source, though it is not clear that the twice-used "apt term" of "sail" is Benton's and not the writer's. Also, although a few words have been changed

from the original, the sentence structure is identical. Of course, the writer could continue to change the words until the result was almost completely different from the original. Hacker [2007] clearly indicates that this example is plagiarism.

How to Avoid Plagiarism

Develop your own approach. Don't rely on another author to dictate the organization of your report. If you adopt that organization, you might be tempted to adopt the sentence structure as well, and maybe even the wording—and this can lead to plagiarism. How do you develop your own approach?

- read about your subject,
- develop an outline,
- establish a set of topics to discuss,
- take notes from sources, and
- write those notes on index cards, one per topic.

You'll end up with a collection of note cards, each of which has ideas from five or six authors. You will then see connections among the ideas of a number of different authors; these new connections will allow you to express your ideas (and those of the authors) from a unique viewpoint, a viewpoint that requires a sentence structure and a vocabulary that differ from those of the original author(s). One way to do this is to read one of your note cards, then turn it over and write your own thoughts on the matter.

For example, suppose that your paper is to have a section on the thermal physiology of mammals and mammal-like reptiles:

> *Mammals are truly warm-blooded: they have specific physiologic mechanisms that maintain their body within a narrow range of temperatures. Mammal-like reptiles probably exploited a variety of strategies; for example,* Dimetrodon *may have used its "sail" as a thermoregulatory device [Benton 1989, 4].*

Here the statement about warm-bloodedness in mammals does not need attribution—warm-bloodedness in mammals is common knowledge. In addition, the language has been changed substantially, so quotation marks are not necessary. However, the specific point about *Dimetrodon* needs attribution, particularly since the word "sail" is an "apt term" that you did not invent but is Benton's.

Application to the ICM/MCM

The contest rule is simple and explicit. Given the unpleasant circumstances this year, however, the Contest Director will review it with a revision in mind to urge team members to review guidelines such as those given above. An important new policy in the ICM/MCM will be:

> *At the discretion of the judges, papers will be checked for originality of content and proper attribution of sources used. Any paper with an unattributed direct quotation or paraphrase, uncredited line of reasoning from another source, or uncredited figure or table will be disqualified. The team advisor will be informed of the disqualification, and the plagiarism policy of the institution may be invoked.*

In particular, all citations should include specific page numbers or URLs in the reference. Any references obtained electronically should specifically state so and include the exact URL or other source reference (not just say, for example, the generic page `http://stats.bls.gov`). For example, if your source is a journal article but you acquired it electronically (e.g., finding it on the Web or through JSTOR or another periodical database), you should give both the journal reference and the page-specific URL; doing so is an aid to the reader in locating a copy, which is the purpose of full bibliographic information in references.

References

Benton, M.J. 1989. [This reference is fictitious!]

Campbell, Paul J. 2007. Guide for authors. *The UMAP Journal* 28 (1): 91–92.

Hacker, Diana. 2007. *A Writer's Reference Sixth Edition with Writing in the Disciplines*. New York: Bedford/St. Martin's.

About the Author

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