Promoting Academic Integrity: Taming the Plagiarism Monster in All Disciplines

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Workshop Overview

- The Plagiarism Problem
- Plagiarism: A Simplified Definition
- Plagiarism Policies and Consequences in Syllabi
- Different Types of Plagiarism
- Preventing and Confronting Plagiarism
- Q&A and Wrap-Up
The Plagiarism Problem
The Plagiarism Problem

- Local, national, global increase in plagiarism, cheating
- MCC full time, part-time faculty, staff, administrators, as well as students convened during the summer of 2012 to address the problem
- One outcome was a succinct, consistent, easily disseminated definition of plagiarism.
- Students shared their perspectives
  - Different cultural norms & conceptions bet. students & profs
  - Inconsistency of policies across classes
  - Affects morale
  - Appreciative of attempts to address the problem
Actual Student Statements & Teacher Responses

• “I didn’t know we had to do quotes and citations.”
  It’s on the requirements for this assignment.

• “I didn’t learn that in English.”
  It’s taught in every Composition 1 class and most Basic Writing classes. You’re responsible for learning it.

• “I thought that only counts in English classes.”
  No one can take other people’s work and present it as their own. It goes for all subjects.
Actual Student Statements & Teacher Responses

• “My other professor said it’s OK.”

That’s unfortunate. It’s a serious error that we all care about.

• “I only copied sections, not the whole thing.”

It’s still plagiarism. The paper is either honestly yours or not.
Actual Student Statements & Teacher Responses

- “I didn’t copy anything; I paid for that paper.”

Buying, borrowing, reusing someone’s paper and putting your name on it is stealing someone’s ideas, which is plagiarism.

- “My classmate let me copy his.”

It’s dishonest to present someone else’s ideas as your own. Many professors will give the same consequences to the classmate as well.
Plagiarism: a Simplified Definition

"Plagiarism is representing, intentionally or unintentionally, the words or ideas of another as one's own work without correctly acknowledging the source, in any educational setting.

It is the responsibility of the student to learn and use the correct methods of avoiding plagiarism in each class."

Adapted from UMass Lowell's definition of plagiarism. Written by MCC Academic Integrity Committee, 2012
Plagiarism Policies in Syllabi
Plagiarism Policies in Syllabi

- Syllabus should state your policy regarding plagiarism with as much detail as possible.
- Include:
  1. Definition of plagiarism
  2. Consequences of plagiarism in your course
  3. Examples of plagiarism in your course
  4. How to avoid plagiarism in your course
Plagiarism Policies in Syllabi

- What is your plagiarism policy?
- How is your plagiarism policy stated in your syllabi?
Sample Syllabus Plagiarism Statement (1)

PLAGIARISM

"Plagiarism is representing, intentionally or unintentionally, the words or ideas of another as one's own work without correctly acknowledging the source, in any educational setting. It is the responsibility of the student to learn and use the correct methods of avoiding plagiarism in each class."

Adapted from UMass Lowell's definition of plagiarism.
I take plagiarism very seriously. While collaborative study and seeking assistance is encouraged, each student is expected to turn in work that is completely done by that student. If you hand in work that has been done by someone else, I almost always know. I would much rather get your own work written in your own unique style, even with some mistakes, than someone else’s perfect assignment. This applies to both written and programming assignments. You will learn more and benefit from doing your own work. You will seriously harm your progress and success if you use someone else’s work.
Examples of plagiarism in this course: copying any code from the internet or from another student, even if you change some things, even if they allow you to; handing in an assignment that contains someone else’s work, copying from an article or other source document without quotes and a source cite, having someone else write any of your paper or your code. An assignment that contains plagiarism will receive a zero grade. If two people hand in essentially the same work, both will receive a zero for that assignment. If you receive two plagiarism zeroes, you may be withdrawn from the class.
How to avoid plagiarism in this course: Hand in your own work, don’t let anyone have access to your program files, don’t leave your assignment solutions on an MCC computer, don’t copy any code from the internet or from someone else’s assignment, write your first draft without looking at the original source, don’t copy paragraphs from the internet into your paper, ask someone in the writing center to show you how to cite your sources properly, ask the professor if you have any confusion about this issue.
Sample Plagiarism Consequences

• If it occurs, that assignment will get an F. If it happens twice, the course grade will be an F.

• Any student caught cheating or committing plagiarism will receive a zero for that test or that assignment and may also receive an F as the final course grade.

• An assignment that contains plagiarism will receive a zero grade. If two people hand in essentially the same work, both will receive a zero for that assignment. If you receive two plagiarism zeroes, you may be withdrawn from the class.
Different Types of Plagiarism
Different Types of Plagiarism

• Entire paper taken from classmate or web, which student presents as his/hers
• Parts of paper copied, which student presents as his/hers
• Exact language not put in quotation marks
• No parenthetical references or Works Cited page

• Incorrect parenthetical references or Works Cited page*
• Errors in summaries or quotations*

*These last two would not necessarily result in an F in my class. If the errors are few, I would reduce the grade accordingly. However, if there is a “pattern of plagiarism” throughout, then it would get an F, not because I believe the student stole information, but simply because the student has not learned how to accurately borrow and cite information.
Different Types of Plagiarism

- Plagiarism can be found in any educational assignment or assessment, including:
  - Written assignments, papers and exams
  - Copying all or sections of science lab reports
  - Copying computer files (Word, Excel, Powerpoint, etc.)
  - Copying all or part of a computer program
  - Submitting ideas found on the Internet as your own
- It’s plagiarism even if some changes are made.
- It’s plagiarism even if it is copied from the Internet.
while ( Odometer > 0 )
{
    cout << " Enter the Gallons: ";
    cin >> Gallons;
    Miles = Odometer - odometer;
    TotalM += Miles;
    TotalG += Gallons;
    MPG = Miles / Gallons;

    cout << "Odometer Gallons Miles\t MPG " <<endl;
    cout << " ------------------------------------------ " <<endl;
    cout << Odometer<<"\t"<< Gallons<< "\t"<< Miles << "\t"<<
    setw(5) << setiosflags( ios:: fixed) <<setprecision(2) << MPG
    << endl;
    //cout << " Odometer: " <<
    //cout << " Gallons: " << Gallons << endl;
    //cout << " Miles: " << Miles << endl;
    //cout << " MPG: " << setw(5) << setiosflags( ios:: fixed)
    //<<setprecision(2) << MPG << endl;
    cout << "Enter the Odometer: ";
    odometer = Odometer;
    cin >> Odometer;
}

while ( Odometer > 0 )
{
    cout << " Enter the Gallons: ";
    cin >> G;
    Miles = O - o;
    TotalM += M;
    TotalG += G;
    MPG = M/ G;

    cout << "Odometer Gallons Miles\t MPG " <<endl;
    cout << " ------------------------------------------ " <<endl;
    cout << O<<"\t"<< G<< "\t"<< M<< "\t"<< setw(5) <<
    setiosflags( ios:: fixed) <<setprecision(2) << MPG << endl;
    //cout << " Odometer: " <<
    //cout << " Gallons: " << Gallons << endl;
    //cout << " Miles: " << Miles << endl;
    //cout << " MPG: " << setw(5) << setiosflags( ios:: fixed)
    //<<setprecision(2) << MPG << endl;
    cout << "Enter the Odometer: ";
    o= O;
    cin >> O;
}
Different Computer Programs

while ( Odometer > 0 )
{
    cout << " Enter the Gallons: ";
    cin >> Gallons;
    Miles = Odometer - odometer;
    TotalM += Miles;
    TotalG += Gallons;
    MPG = Miles / Gallons;
    cout << "Odometer: " << Odometer << " Gallons: " << Gallons << " Miles: " << Miles << " MPG: " << setw(5) << setiosflags( ios:: fixed) <<setprecision(2) << MPG << endl;
    cin >> Odometer;
}

while ( odometer >0)
{
    cout << "odometer, gallons, miles, mpg \n" << "--------- ------ ---- \
";
    cout<< odometer<< " ";
    cout<< gallons<< " ";
    miles= odometer-olddodometer;
    cout<< miles<< " ";
    mpg = miles/gallons;
    cout<< mpg << endl;
    oldodometer=odometer;
    togallons+=gallons;
    cout << "Inter odometer reiding " << endl;
    cin >> odometer;
    cout << "Inter gallons " << endl;
    cin >> gallons ;
}
Preventing and Confronting Plagiarism
Plagiarism-resistant assignments and exams

- Multiple, scaffolded assignments
  - **Research papers**: Sources, Biblio cards, and QPS (twice), Outline, Thesis Statement, Draft; Sources collected with papers
  - **Regular essays**: meet twice during class or office hours with outline and supporting quotes
  - **Exams**: essay questions given in advance; bring outline to exam to write essay
Plagiarism-resistant assignments and exams

Instructor’s motivation:
- I don’t want to encourage cheating/copying.
- I want other students to feel appreciated for their efforts.
- I don’t want to catch cheaters- it’s not worth the hassle.

I want to minimize its occurrence.
Strategies for exams

Four versions of the same test

tabled rooms

desked rooms
**VERSIONS**

1. Each has a **different order** of questions.
2. For multiple choice, each question has the **correct variable changed**.
3. Change the **font style, size** for various questions on each version*
4. Change the presentation of choices from **vertical to horizontal***

*These make it more difficult for students to orient themselves.

Watch for duplicate scantrons (under). Students write notes on them.
Other exam strategies

1. No restroom, phone use during exam. Include in syllabus, on board and announced at start.
2. Walk around room.
3. Have students at tables put up “blockers” - back packs (I also use first aid kits, boards, etc.) between them.
4. Either single sided or have them tuck pages under.
5. No holding exams up. Others around them can see answers easily. Can hide notes, camera to take pictures, see info.
6. Desks as far apart as possible. Widen aisles.
7. Do not let them keep exam copies.
On line exam strategies

1. Pool, randomize, tightly time
2. Assign some questions by criteria.
3. “No print” htmls
4. Do not release answers. They can come to see you if necessary.
Assignments

- I want my students to do well, be successful— even after the semester is over. Students learn more, do better on summative assessments (tests) when they do their own assignments.

- By grading duplicates and triplicates of the same work— I am not wisely using my time to be a teacher, but rather an ineffective assessor.
Assignments

Problem:
In science classes the answers are often objective thus the temptation is just too great to copy from someone else if the assignment has easy answers to copy. It is the instructor’s responsibility to design assignments that don’t fuel this behavior.

Solution:
Create assignments that make it a hassle for them to copy right before class, but still easy enough to grade.
1. Cut out answers from lists

Examples:

a. Students must *cut out* the organs, substrates, products, and place them in the correct positions and identify the enzymes responsible.

Salivary Amylase
b. Students cut out terms in order to complete concept maps
c. Students given a sheet of “dominoes”

### Neurological Disorder Dominoes

<table>
<thead>
<tr>
<th>Parkinson’s Disease</th>
<th>Alzheimer’s Disease</th>
<th>Multiple Sclerosis</th>
<th>Stroke</th>
<th>Herpes viruses including chicken pox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaques &amp; tangles.</td>
<td>Myelin around neurons’ axons is lost. It’s an autoimmune disease.</td>
<td>Blood supply to brain is suddenly stopped (can be ruptured blood vessel); symptoms may vary depending on brain area affected. May include weakness, headache and loss of speech.</td>
<td>The virus travels up sensory nerves, it becomes latent, “hiding out” in the dorsal root ganglion (cell bodies of the sensory neurons). At a later time, it may travel back down the sensory axon resulting in symptoms.</td>
<td>Probably multiple causes. Thus no vaccine or cure available. Just treatments. Neurons in the motor cortex AND spinal cord die. Symptoms include weakness and inability to move.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amyotrophic Lateral Sclerosis</th>
<th>Epilepsy</th>
<th>Polio</th>
<th>Meningitis</th>
<th>Spina Bifida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abnormal electrical activity in the brain. Symptoms: generalized or partial seizures.</td>
<td>Diagnosed by taking cerebrospinal fluid from the subarachnoid space. Bacterial form is usually worse than the viral. Much rarer now in the U.S. thanks to multiple vaccines! Information on the membranes can damage the brain (could be fatal).</td>
<td>Failure of the spinal cord to develop properly. Congenital: Symptoms vary. Paralysis, bladder and bowel problems, limb and spine disorders.</td>
<td>Reverses of the substantia nigra die. These midbrain neurons release dopamine onto parts of the basal ganglia (nuclei). Since this area controls movement, symptoms include rigidity and tremors.</td>
<td></td>
</tr>
</tbody>
</table>

**Directions:** Cut out each of the ten dominoes. Mix up the dominoes and then match each disorder with its correct description on another domino. Match the black dots of each domino. If you have matched the disorders and their descriptions correctly, you will have made a rectangle with all of the dominoes.

**Example:**
EXAMPLE

Students hand in properly matched
go to Bb to identify their (student specific) patient’s disease

patient A
2. “Each” student has a slightly different task

Case study to determine pathogen responsible for food borne illness.

24 patients (each student get a different),
- but in reality there are only 8 different ones.
- each is given a different menu of their patient
3. Students have to hand in an artifact they made.

S.A/volume increase with decreasing volume

Correctly construct a plasmid with gene of interest. Always questions, calculations etc. in addition to artifact.
4. Students have to use colored pencils

Factors that contribute to the membrane potential of a resting neuron.

The graded potential (below) 12 pts. (color 2pts, direction 2 pts, time 2pts) (X2)

In green - diagram an excitatory post synaptic potential from -70 mV (rest) to -62 mV and back to rest. It starts at 10 ms and ends at 20 ms.

In blue - diagram an inhibitory post synaptic potential from -70 mV (rest) to -82 mV and back to rest. It starts at 10 ms and ends at 40 ms.
Plagiarism-resistant assignments and exams: computer files

- To prevent plagiarism with computer files, students are told they:
  - May not share files
  - May not borrow flash drives
  - May not give a student a file to “look at”
  - May not let another student look at the contents of a file on a monitor
  - May not copy another student’s file, entirely or any part, using file copy, using a keyboard, or by hand on paper
Using Plagiarism Detection Tools

- Writing Assignments:
  - “Guess”
  - Google Search
  - MCC Blackboard contains SafeAssign
SafeAssign

- Determines a “Matching” percentage
- Highlights which sentences are “matching”
- Different colors indicate different sources
- Add a Draft SafeAssignment for students to check the Matching Percent ahead of time, before uploading final paper.
- Setting maximum allowed Matching Percent makes detection objective, avoids personalization
- Students see which areas are “Matching” and must rewrite those to bring the percentage down
Sample SafeAssign Assignment instructions

- Sample assignment text:
  When you upload your paper, you will see a "matching" percentage. The areas that are found to be matching are highlighted. This may show that you copied too much from your article. You must rewrite those portions in your own words to bring the matching percentage down.

  I will not accept papers with a matching percentage greater than 10%. (They will earn 0 points.)
SafeAssign’s Matching Percentage

- In Gradebook, SafeAssignment displays Matching Percentage:

1. **Assignment Information**
   - **Name**: W2 Matching Draft (SafeAssignment)
   - **Description**: Upload W2 here first to check your Matching Percentage. You must upload the final document to W2 Final Version for grading.

2. **Student’s Work**
   - **Student ID** | **Name** | **Text** | **File** | **Matching** | **SA Report** | **Submitted** | **Clear Attempt**
   - | | | | 42% | | | Tuesday, Feb 05, 2013, 02:49 PM
Dna may soon be used for storage by Lucas Marean Published: January 24, 2013 CSC101 Introduction to Computer Science

Researchers from European Bioinformatics Institute based in the United Kingdom has discovered that there is an encoding method to store 100 million hours of HD video in about a cup of DNA. This is an incredible breakthrough in bioinformatics. DNA research has come a long way. Binary code is being used in the DNA markers to store the information. Binary code can be used in video and audio files. The researchers at the institute is paving the way for commercially used viable DNA storage model, that in the right conditions, could last 10s of thousands of years. This amazing research will make it possible to store the world’s most valued information such as books, research papers, music.

The institute has claimed to have stored encoded versions of Martin Luther King’s “I have a dream” speech, along with several text files. Nick Goldman, who co-authored the study, stated that it was already well known that DNA is a sturdy way to store information based on the fact of being able to retrieve DNA from woolly mammoths, who died thousands of years ago, and can tell what happened. Nick also stated that it is so small and does not need any power, shipping and keeping it would be effortless.

Reading DNA is easy to do and understand, writing it has become a major issue. There are two issues. The first issue is that while using current methods, it is only possible to create DNA using short strings. The second issue is that both reading and writing DNA can have lots of errors because the same letter in the string is used multiple times. Nick Goldman and co-author, Ewan Birney, who is also the director of the Institute, have begun to create a code to end these issues. This new method will entail synthesising DNA from encoded information. The institute has been working with Agilent Technologies, to transmit the data and then encode it in DNA. Agilent Technologies is based in California. They are the maker of electronic and bio-analytical measurement instruments such as signal generators and oscilloscopes. The team has downloaded files from the internet and then synthesized thousands of pieces of DNA to represent the data. This was then mailed back to the institute and researchers were able to sequence the DNA and decode the files without any errors. A spokesman from Agilent has stated that it looks like a tiny speck of dust.

This was not the first time DNA was successfully used as storage. Researchers from Harvard University have the ability to store 70 billion copies of a book in HTML form in DNA binary code. The researchers created a binary code for “Regenesis: How Synthetic Biology Will Reinvent Nature and Ourselves in DNA”. Neither school was aware of each other’s study. The difference between the two studies is that the institute was the first to create an error correcting code that converts 0’s and 1’s to A’s, T, C’s, G’s. Genetic data is encoded by using a sequence of nucleotides using the letters A, T, G, C which represent guanine, adenine, thymine, and cytosine.

Sriram Kosuri, who has stated that the world’s total information is about 1.6 petabytes, which can be stored in about 4 grams of DNA. 3. A single zettabyte contains one sextillion bytes, or one billion terabytes. The zettabyte unit of measurement is so large; it is only used to measure large aggregate amounts of data. Researchers are trying to find a method that works in order to store data in smaller packets because of the data growth that will continue through the years. According to the Digital Universe Study, within the next 10 years, the total amount of data will contain 5,200 GB of data for every person in the world. The data will not come from humans but from machines between now and the year 2020. 4. Nick Goldman has stated that they have created a code that is error free using a molecular form that should last, in the right conditions, for over 10,000 years or maybe longer. He has stated as long as someone knows the code, it can be read back by machines that can read DNA.
In Summary

• Recommendations:
  • Include definition of plagiarism in syllabus
  • Include detailed plagiarism policy in syllabus
  • Discuss plagiarism in class
  • Consistently apply plagiarism policies
  • Use plagiarism-resistant assignments and assessments
  • Use plagiarism detection tools
Going Forward

- Do you have any academic dishonesty initiatives at your college?
- Should we work towards a consensus on consequences of plagiarism? What might they be?
- Should we have a consistent anti-plagiarism policy across a division? across a college? across the state university system?
- Q&A