The Plagiarist’s Dilemma: Game Theory and Academic Integrity

Congratulations on plagiarizing Wikipedia enough times to earn a degree.
someecards
Malcolm Hays
3
Creature - Instructional Developer

When Malcolm Hays enters play, all Blackboard problems are resolved...

“I have no idea, but we’ll figure something out...”

Razmus Kerwin
3
Creature - Instructional Developer

0: Troubleshoot Blackboard issues
00: Send out communications

“Sometimes, it’s about sending a message.”
Classic Game Theory Scenario...
Prisoner’s Dilemma

<table>
<thead>
<tr>
<th>prisoner A</th>
<th>prisoner B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betray</td>
<td>Betray</td>
</tr>
<tr>
<td>3 years</td>
<td>3 years</td>
</tr>
<tr>
<td>5 years</td>
<td>0 years</td>
</tr>
<tr>
<td>0 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooperate / Remain Silent</th>
<th>Cooperate / Remain Silent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 years</td>
<td>1 year</td>
</tr>
<tr>
<td>1 year</td>
<td>1 year</td>
</tr>
</tbody>
</table>
Prisoner’s Dilemma

- Ultimately an exercise in cost-benefit analysis
- Each participant makes a choice:
  - Which option will yield the most benefit for me based on assumptions I must make?
    - Will the other party betray me?
    - Will the other party cooperate with me and stay silent?
- Has many different applications in the real world
  - Environmental studies
  - Animal behavior
  - Psychology
  - Economics
  - Sports (e.g. steroid use / doping)
  - Student behavior
Prisoner’s Dilemma: Iterated Snowdrift

- Risk of being exploited through defection is lower
- Individuals always gain through cooperation
- 2 people separated by a snowdrift
  - Either one person shovels, no-one shovels, or both shovel
  - If only one person shovels, the other one receives the benefit
- Similar to group-work where all participants have choice on how much to contribute to the overall effort.
Plagiarist’s Dilemma

• Variation of the Prisoner’s Dilemma
• Students in a class have the option to cheat or not cheat.
• Each choice has its pros and cons
# Plagiarist’s Dilemma Matrix

<table>
<thead>
<tr>
<th>Integrity</th>
<th>Plagiarize</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrity</strong></td>
<td><strong>Plagiarize</strong></td>
</tr>
<tr>
<td>• May take longer to graduate</td>
<td>• Education/degree is devalued</td>
</tr>
<tr>
<td>• Students receive solid education</td>
<td>• Students aren’t prepared for jobs</td>
</tr>
<tr>
<td>• Students develop positive</td>
<td>• Students don’t meet educational goals</td>
</tr>
<tr>
<td>work/study habits</td>
<td>• Honest students are penalized</td>
</tr>
<tr>
<td></td>
<td>• Institution becomes devalued</td>
</tr>
<tr>
<td></td>
<td>• Education/degree is devalued</td>
</tr>
<tr>
<td></td>
<td>• May be blacklisted from publications</td>
</tr>
<tr>
<td></td>
<td>• Academic awards (degrees) may be revoked</td>
</tr>
<tr>
<td><strong>Plagiarize</strong></td>
<td></td>
</tr>
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</table>
Student Perceptions of the Rules of the Game...
Why do students plagiarize?

Don't know how to properly cite

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Doubt whether they're doing it the right way

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Don't know how to research

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Don't understand plagiarism concept

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Teachers don't enforce ethical standards
Why do students plagiarize?

Students think it's OK to purchase work from someone else

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Students don't understand the goals of education

Image courtesy of: http://elearninginfographics.com/college-plagiarism-infographic/
Why do students plagiarize?

Cheating is part of the culture
The Games People Play...
Plagiarism/Cheating in the News

SATs in South Korea (2013)

SOURCE: http://www.cnn.com/videos/world/2013/05/10/dnt-rivers-skorea-sat-scandal.cnn
Plagiarism/Cheating in the News

University of North Carolina (2014)

UNC report finds 18 years of academic fraud to keep athletes playing

Sara Ganim and Devon Sayers, CNN Investigations
Updated 10:28 AM ET, Thu October 23, 2014

Plagiarism/Cheating in the News

University of Regina in Canada (2014)

**UPDATED** | University of Regina prof investigated for allegedly plagiarizing student's work

Engineering journal article retracted following expert review

By Geoff Leo, CBC News | Posted: Nov 13, 2014 4:00 AM CT | Last Updated: Nov 13, 2014 5:07 AM CT

University of Regina engineering professor Shahid Azam refutes accusations that he plagiarized his former student's master's thesis. (CBC)

**Latest Saskatchewan News Headlines**

- Safety concerns rule out Creighton, Sask., as possible nuclear waste site
- Cellphones arrive in Sask.: Throwback Thursday from CBC News archives
- Sask. woman helps 2-day-old baby in Ebola clinic
- Sask. club raises money to replace child's stolen snowmobile

Ex-VC of Delhi University Jailed (2014)

NEW DELHI: Amid high drama, former Delhi University vice-chancellor Deepak Pental was sent to jail by a city court in a case of alleged plagiarism and forgery. However, the Delhi high court stayed the arrest order by evening and directed the Tihar Jail authorities to immediately release the academic.

Justice S Muralidhar granted the relief on urgent mentioning by Pental’s lawyer and said the stay will remain in force till the next date of hearing.

Earlier, additional chief metropolitan magistrate Vinod Kumar Gautam had ordered professor Pental’s arrest on a complaint by professor P Parthasarathy accusing him and one of his students of plagiarizing his paper on biotechnology. Parthasarathy also accused him of illegally using cobalt, a chemical substance, from the university’s science lab.

Plagiarism/Cheating in the News

Senator John Walsh’s election bid (2014)

Senator’s Thesis Turns Out to Be Remix of Others’ Works, Uncited
John Walsh, Democrat, Confronts Questions of Plagiarism

By JONATHAN MARTIN  JULY 23, 2014

WASHINGTON — Democrats were thrilled when John Walsh of Montana was appointed to the United States Senate in February. A decorated veteran of the Iraq war and former adjutant general of his state’s National Guard, Mr. Walsh offered the Democratic Party something it frequently lacks: a seasoned military man.

On the campaign trail this year, Mr. Walsh, 53, has made his military service a main selling point. Still wearing his hair close-cropped, he notes he was targeted for killing by Iraqi militants and says his time in uniform informs his views on a range of issues.

Don’t play their game...Make them play yours!
Strategies to Minimize Plagiarism

• Teach students about authorship conventions and how to avoid plagiarism
  • Teach students important skills
    • Summarizing
    • Paraphrasing
    • Critical analysis
    • Referencing and citation
  • Include assessments that force students to practice these skills

Strategies to Minimize Plagiarism

• Counter plagiarism through the design of assessment tasks
  • Randomize questions and answers on electronic quizzes and assignments
  • Avoid asking students to collect, describe and present
    • Make them analyze and evaluate
  • Use alternatives to standard “essay type” questions
    • Case studies are more difficult to plagiarize
  • Have students give brief presentations

Strategies to Minimize Plagiarism

• Ask for evidence!
  • Annotated bibliography—forces students to analyze their sources for relevance on their research topic
  • Use a meta-essay or meta-assignment where students have to answer question “What did you learn?”
  • Insist on evidence for significant claims
    • Return assignments to be redone if students can’t meet the criteria for evidence

Strategies to Minimize Plagiarism

• Make positive use of collaborative work
  • Have students work together in groups but submit individual assignments
    • Include a mechanism to account for “shirkers”
  • Ensure criteria for evaluating group work is clearly understood
  • Provide peer-evaluations for group work and include that as part of the overall assessment

Strategies to Minimize Plagiarism

• Familiarize yourself with resources that can be used for plagiarism/cheating
  • Use a search engine to find sites students may use.
  • Show students that you know how to use the Internet, too!
    • Demonstrate the PROPER way to search on the web!

Strategies to Minimize Plagiarism

• Use detection software and other tools
  • Have students submit assignments electronically.
  • Run assignments through software that checks for similarities with other papers (e.g. Turnitin, iThenticate)
• Use deterrence penalties and ENFORCE THEM!
  • E.g. first offense results in failing assignment, second means failing the subject, third results in institutional disciplinary action, etc…
• Archive student work for later cross-checking

Strategies to Minimize Plagiarism

• Respond quickly to incidents of plagiarism!
  • Be firm and fast in responding
  • Blatant examples of plagiarism should be dealt with immediately
  • Sometimes, it’s about sending a message!

SOURCE: 36 strategies to minimise (sic) plagiarism. (n.d.) Retrieved March 8, 2015, from
You can win the plagiarist’s dilemma!

You have to learn the rules of the game. And then you have to play better than anyone else.

(Albert Einstein)

izquotes.com