Exam hacking and new academic integrity opportunities in a blended era

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3 things to think about at the intersection

1. Exam hacking
2. Assessment security
3. Cognitive offloading
BE A COUNTER-STRIKE GOD

FOR ONLY $10.95 PER MONTH!

See through walls!
Use an aimbot to score killer headshots!

You won’t BELIEVE these hacks!
What do those hacks have in common?

• Pre-packaged
• No technical skill required to use
• Undetectable
• Provide unfair advantage
What do those domains have in common?

• Huge anti-cheating budgets
• Aggressive anti-cheating approaches
• Limited regulation around punishing cheating
• Huge profit margins
• Long history conducting business online
Five ways to hack and cheat with bring-your-own-device electronic examinations
Remote proctored exams

• Taken on student’s own computer at home
• Software locks down & surveils computer
• Student monitored by webcam, audio, keystroke biometrics
• Mirror used to see whole room
Remote proctored cheating room

• All of the previous attacks, plus:
  – Bypass keystroke biometrics
  – One-way mirror
  – Fishing line
  – Optics exploits
  – Tiny wireless earpieces
  – Wireless keyboards
  – ...

• With so many possible attacks, exercise caution with remote-proctoring
Not if, but when

- Next five years?
- Next year?
- This semester?
- Will it take a disaster for us to take exam hacking seriously?
Advice

1. Find a balance between positive academic integrity mindset and hacker mindset

2. Talk to your cybersecurity people about academic integrity and online exams

3. Think programmatically about academic integrity
Assessment security

• The degree to which an assessment is resistant to cheating
• No metrics exist
• What if we thought about cost
  – Analogous to computational cost?
Metrics for assessment security

Cost to cheat
• the cost for a student to gain an unfair advantage

Cost to subcontract
• the cost for a student to pay someone else to do the substantive work of a particular assessment
<table>
<thead>
<tr>
<th>Task</th>
<th>Type of cheat</th>
<th>Approach</th>
<th>Cost</th>
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<tbody>
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<td>Contract cheating</td>
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What might be more expensive?

- Currently getting quotes to find more expensive tasks
- Authentic tasks that require practitioner-level skills
- Varies by discipline
“this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves.  

...they will appear to be omniscient and will generally know nothing”
Cognitive offloading

• “the use of physical action to alter the information processing requirements of a task so as to reduce cognitive demand” (Risko & Gilbert, 2016)

• Is cognitive offloading acceptable in assessment?
AI IS MAKING IT EXTREMELY EASY FOR STUDENTS TO CHEAT
Cognitive offloading

• Not laziness: allows assessing more in less time
• Authenticity: Do practitioners offload?
• Honesty: This is happening already; what conditions are your LOs really assessed under?
Summary

To address
• Exam hacking
• Assessment security
• Cognitive offloading

Assessment needs to be
• Authentic
• Programmatic
• Honest

We need to address this now
Questions/Comments?
Prompts for discussion

• What are you going to do about exam hacking?
• How can we make assessment more expensive?
• Should students be allowed any cognitive offloading they want?
References

Image attributions

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