

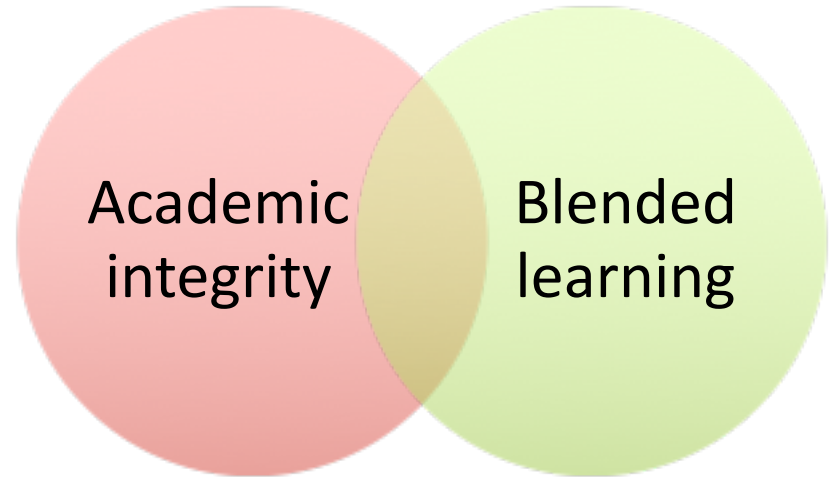
Exam hacking and new academic integrity opportunities in a blended era

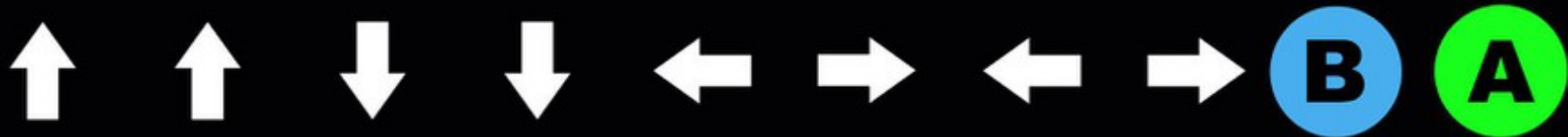
Associate Professor Phillip Dawson



3 things to think about at the intersection

1. Exam hacking
2. Assessment security
3. Cognitive offloading





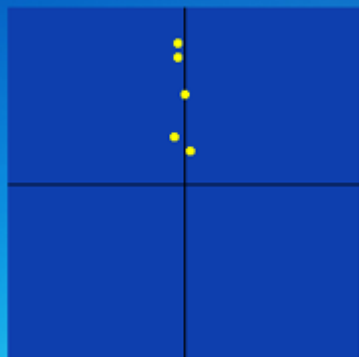
BE A COUNTER-STRIKE GOD

FOR ONLY
\$10.95
PER MONTH!



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

You won't BELIEVE these hacks!



2792209

menton's hook 1.0

- Bunny Hop
- Radar
- Aimbot

Aimbot Fov

Aimbot Smooth

Aimbot RCS

Aimbot Bone





What do those hacks have in common?

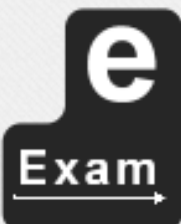
- Pre-packaged
- No technical skill required to use
- Undetectable
- Provide unfair advantage



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





TRANSFORMING EXAMS

A Scalable Examination Platform For BYOD Invigilated Assessment

DIGABI

– Virtaa ylioppilastutkintoon!



Deakin University CRICOS Provider Code: 00113B



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*Five ways to hack and cheat with bring-your-own-device
electronic examinations*



Deakin University CRICOS Provider Code: 00113B



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



Task	Type of cheat	Approach	Cost
Traditional closed-book exam	Cheat	Use authorized material to bring unauthorized notes	Free or very cheap
	Subcontract	Exam impersonator	Allegedly \$3,500

Task	Type of cheat	Approach	Cost
Traditional closed-book exam	Cheat	Use authorized material to bring unauthorized notes	Free or very cheap
	Subcontract	Exam impersonator	Allegedly \$3,500
Remote proctored exam	Cheat	Hide unauthorized materials in room	Free or very cheap
	Subcontract	Online exam taking service	\$140

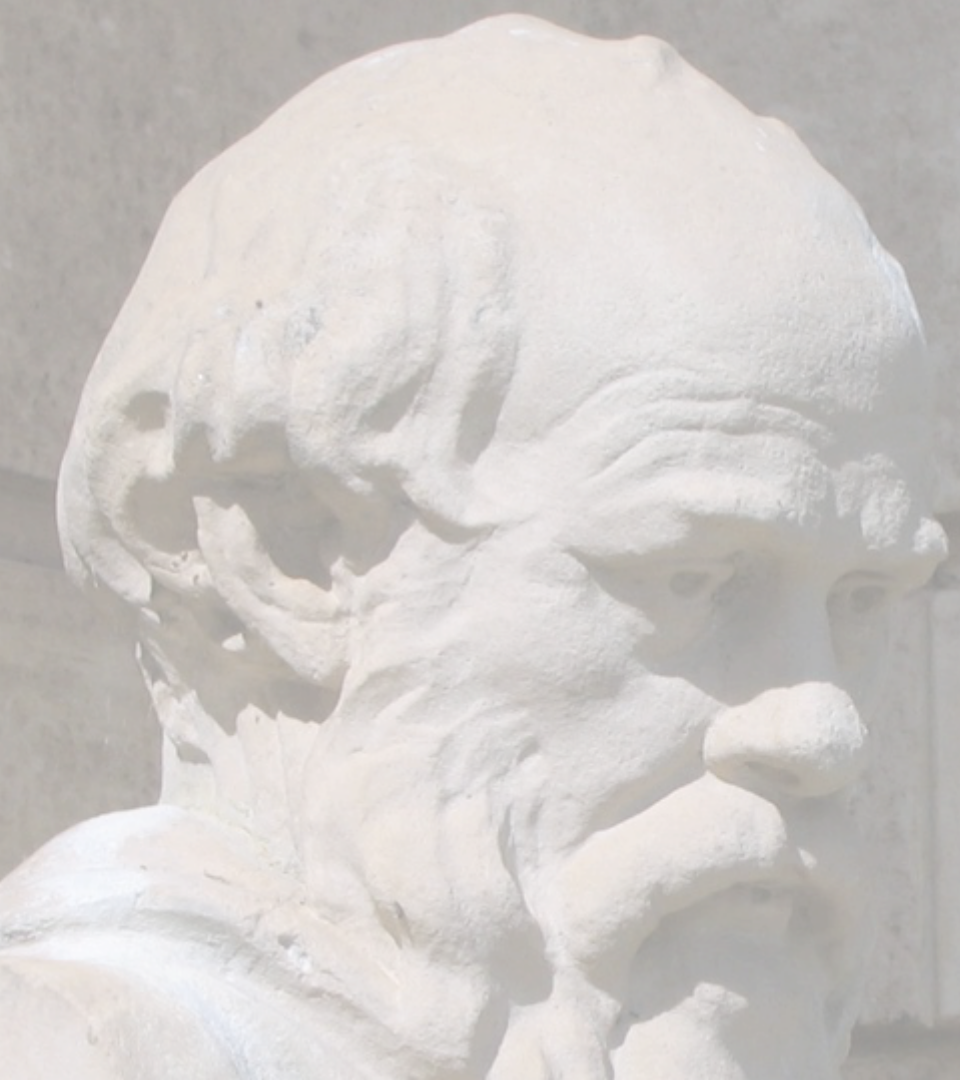
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		Collude with friends in same room	Free or very cheap

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Unsupervised online MCQ	Cheat	Find answers online	Free or very cheap
		Collude with friends in same room	Free or very cheap
Traditional essay (2000 words)	Cheat	Backtranslation	Free
	Subcontract	Contract cheating service	\$150

What might be more expensive?

- Currently getting quotes to find more expensive tasks
- Authentic tasks that require practitioner-level skills
- Varies by discipline





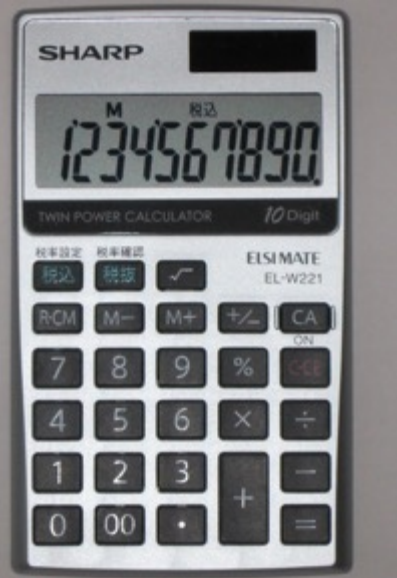
“this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves.

...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?





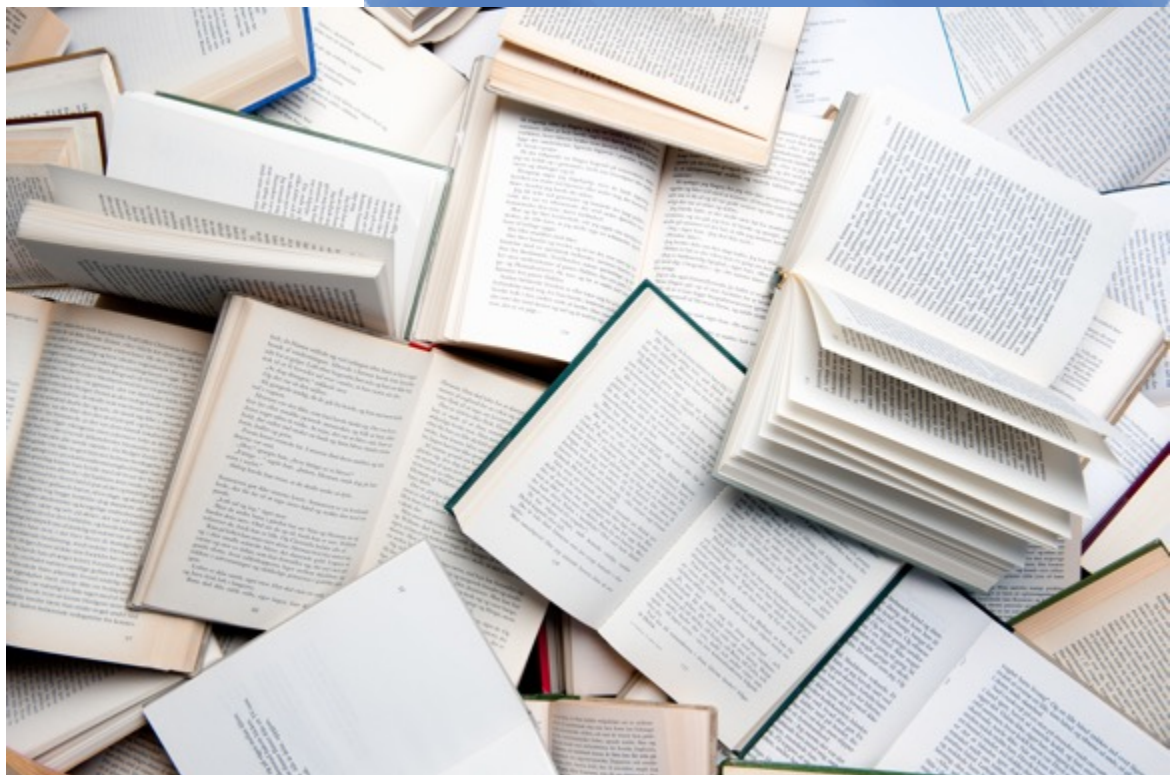
Microsoft Word



The spelling and grammar check is complete.

OK

Help



Article Spinning, Text Rewriting, Content Creation Tool.

Enter Text To Rewrite:

WIRED

AI Is Making It Extremely Easy for Students to Cheat

BUSINESS

CULTURE

DESIGN

GEAR

SCIENCE

SHARE



SHARE

PIPPA BIDDLE [BACKCHANNEL](#) 07.05.17 06:45 AM

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?



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