WE'VE GOT EYES ON YOU!
Lessons learned using online proctoring to stop cheating

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AGENDA

- ✔ Problem / Issue

- ✔ Possible Solution: Online Proctoring

- ✔ Investigation

- ✔ Nursing Experience

- ✔ Omnium Experience

- ✔ Lessons Learned

- ✔ Moving forward

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PROBLEM / ISSUE

How can we **stop students from cheating** when taking online tests from ***remote locations***?

In other words...

- How do we know that students are who they say they are?

- How do we know that students are not accessing unauthorized materials?

- How do we know that students are taking the test individually?

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OPTIONS

- Change the assessment

- Invigilate exams on campus

- Arrange for students to take exams at testing centers

- Online invigilation / proctoring

PROGRAM INTRODUCTION:
OMNIUM GLOBAL EXECUTIVE MBA

- ✓ 18 Month Graduate Degree program; 6 two-week face to face modules, delivered in various locations **around the world**. Each module is separated by 3 months.

- ✓ Cohort of **25 - 35 students**

- ✓ International Student Group - live in Canada, Germany, Switzerland, China, Austria, USA, etc...

- ✓ Students write **final exams for 7 courses**

- ✓ Exam scheduling takes up precious time during a module – Sometimes **1.5 days out of 10**

- ✓ Previously, exams were written **3 months after** conclusion of course

⚠ **NOT IDEAL**

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PROGRAM INTRODUCTION: FACULTY OF NURSING

- ✓ Hybrid 2 year Nurse Practitioner graduate program

- ✓ Cohort of about **90 students**

- ✓ Students are spread out across Canada

- ✓ Students write a **licensure exam** at end of program

- ✓ 2 online courses with high stakes exams
  - Field of study course: **1 midterm and 1 final exam**
  - Foundation research course: **1 final exam**

- ✓ Before: LMS features only to prevent cheating

⚠ **NOT SUFFICIENT**

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PROCTORU

- Live proctors watch approx 6 students at once
  - ✓ Using student's webcam
  - ✓ Viewing / controlling the student's screen
  - ✓ Verifying the student's identity
  - ✓ Trained to watch for eye movement
  - ✓ Log interactions with students
- Exam taking technology is **independent of** ProctorU (usually an LMS)
- React to issues in **real time via faculty advocate**
- $17.50/student/one hour exam
  $25.00/student/two hour exam
  $33.00/student/three hour exam

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EXAM TAKING PROCESS

- Before the exam:
    - Student **creates account** and **schedules exam**
    - Student **tests** equipment

- On the day of the exam:
    - Student **logs into ProctorU** and **connects with Proctor**
    - Student goes through '**readiness procedure**' with Proctor
    - Login to LMS, navigate to course/exam
    - **Proctor enters password**
    - Student writes exam
    - Student submits exam when finished
    - Disconnects with ProctorU

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PRIVACY CONCERNS

A **first** for the University of Toronto

Address privacy:

- Worked with I+TS Security office to conduct a Privacy Impact Assessment (PIA) and a Threat/Risk Assessment (TRA)

- Worked with ProctorU to complete assessments and build in recommendations for privacy

✓Students accept ProctorU's Terms of Service

✓**ProctorU must purge all data** at the end of the pilot

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THE NURSING EXPERIENCE

THE PILOT

- Conduct **3 proctored online exams** using the **Blackboard Test tool and ProctorU**
- Faculty of Nursing to **incur the costs**
- Students can **opt out**
- 2 - 90 minute exams:
  - Midterm and final, closed book, MC, 91 students each
- 1 – 2 hour and 15 minute exam:
  - Final, open book, MC and open-ended, 30 students
- Evaluate effectiveness and make a decision for future use

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EXAM RULES

- **NUR1100: 2 closed book exams (Nov and Apr)**
  - No Calculator, no phones
  - Blank scrap paper and pen/pencil allowed.

- **NUR1022 (Mar): Open book exam:**
  - Hard copy only (notes, textbook, etc.)

- Student should not leave proctor's sight (no washroom breaks).

- No additional programs, browsers, or browser tabs open

- Student will need to present 2 pieces of photo ID

- Student will need a reflective surface

- ❖**Accessibility concerns**

BEFORE THE EXAMS

Student communication is key:

- Included technical requirements in course syllabus

- Concept introduced at residency week

- Developed **practice BB test** (without ProctorU)

- Developed short **demonstration video** of how to take a BB test (without ProctorU)

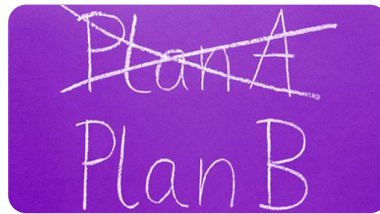- Created student guide with **firm deadlines**
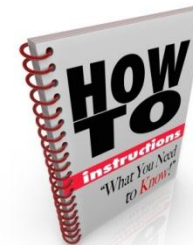
DURING THE EXAMS

- **Make sure** "**faculty advocate**" and **instructor** are readily available

- Monitor the test
  - ProctorU has great real-time reporting with transcripts
  - Cross-reference with Blackboard

- **Hope for the best**, **expect the worst**
  - Be ready for technical and academic issues

RESULTS: NUR1100 MIDTERM EXAM (NOV)

- **89 / 91** students proctored by ProctorU
- Two student issues:
  - One student had low bandwidth – **extra time allotted**
  - One student could not load screen sharing software – **took test without ProctorU**
  - Detailed reports of incidents were received after the test
- ProctorU provided many reports including:
  - Test start and end times
  - Chat transcripts and proctor notes
  - Avg wait time for a proctor: **8 secs**
  - Avg startup time: **8.5 mins**

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RESULTS:NUR1022 FINAL EXAM (MAR)

- **Improvement made**: all questions on one screen

- **29 / 30** students proctored by ProctorU
  - One student could not load screen sharing software and had bandwidth issues – **took test without ProctorU**

- Experience was **much worse** than the last exam!
  - Avg wait time for a proctor: **12 minutes!**
  - Avg startup time: **13 mins!**
  - **Not enough communication** with faculty advocate
  - Proctors **not as familiar** with exam rules
  - **Inappropriate authentication** mechanisms
  - **Cultural differences**

- **Why??**

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RESULTS: NUR1100 FINAL EXAM (APR)

- **87 / 91** students proctored by ProctorU
- **BB was down the day before**, a little slow the day of
- All student issues were related to Internet speed.
- Experience was **much better** than the last exam!
  - Avg wait time for a proctor: **57 secs**
  - Avg startup time: **12.5 mins**
  - **Lots of communication** with faculty advocate

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THE OMNIUM EXPERIENCE

THE PILOT / COMMITMENT

- **Committed** to moving all final exams online

- Program to **incur the costs**

- Students **cannot opt out**

- Require that faculty supply **multiple versions** of final exam

- Schedule an **alternate 'in person' exam** date in the event of technical difficulties

- To date have run **two final exams out of six planned**

EXAM RULES

- Open book exam:

  - **Open notes** (including soft copies of notes), allowed iPad use for accessing e-text

  - Scratch paper allowed

  - Only rule – **no communicating with another human being**, except for proctor

- Student will need to present 2 pieces of photo ID

- Student will need a reflective surface

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BEFORE THE EXAMS

Student communication is key:

- Reminders to schedule exam; **fee for scheduling late**

- Students confirm that they have the **correct technical requirements** for the exam – webcam, microphone, bandwidth, flash and operating system

- Insist that students **connect with a live proctor prior** to exam day to take care of technical issues in advance

- **Clearly communicate** the requirements of the exam and what is allowed

- "Borrowed" student guide
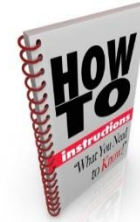
RESULTS: RSM5201 ACCOUNTING FINAL EXAM

- **24/ 27** students proctored by ProctorU
  - One student had no Internet access!
  - 1.5 hours to clear issues; writing in China so would have started the exam at 1 am
  - Travel conflict
- Multiple student issues:
  - **Wait times to start exam** due to technical issues
  - **Inconsistent messaging across proctors** – what was allowed and what wasn't
  - **No timing by proctor**
  - Timed link created anxiety; could not upload or download exam after 2 hrs 15 mins. **75% of the class emailed their exams** ☹

RESULTS: RSM5302 FINANCE FINAL EXAM

- Experience was **much BETTER** than the last exam!
- **Improvements made**:
  - Link provided by Proctor
  - Students told to time themselves - no timed link
- **28/28** students proctored by ProctorU
  - 1 major technical issue due to work firewall. **Fixed after 45 minutes**
- Students knew what to expect so anxiety levels were much lower
- ProctorU issues:
  - Timing issue – **time zone confusion**
  - 2 instances with **providing the incorrect link to students** – some proctors gave our LMS link, not exam link.

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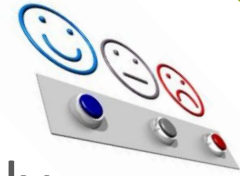
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EVALUATION OF NURSING PILOT

Data sources include:

- ProctorU post-test surveys – generally positive

- Nursing surveys on online test-taking experience

Response Rates:

- Exam 1 (midterm) – ProctorU 64/91 (70%), Nursing 73/91 (80%)

- Exam 2 (final) – ProctorU 22/30 (73%), Nursing 17/30 (57%)

- Exam 3 (final) – ProctorU 67/91 (74%), **Nursing 16/91 (18%)**

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INDEPENDENT SURVEY RESULTS

- ✓ **Almost all** students took the test from their homes
- ✓ Majority of students accessed the test **wirelessly** via a DSL or Cable Internet connection
- ✓ Most students agreed that the **demo videos and practice exam helped** them prepare for the exams
- ✓ Being able to **test equipment ahead of time really helped**
- ✓ Creating a ProctorU account and signing up for exams was easy
- ✓ **Felt well supported** before and during the exams
- ✓ Had a good understanding of what the test taking experience would be like prior to taking the exam

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INDEPENDENT SURVEY RESULTS

During the on-line exam I was able to focus on the questions **without worrying about the technology**.
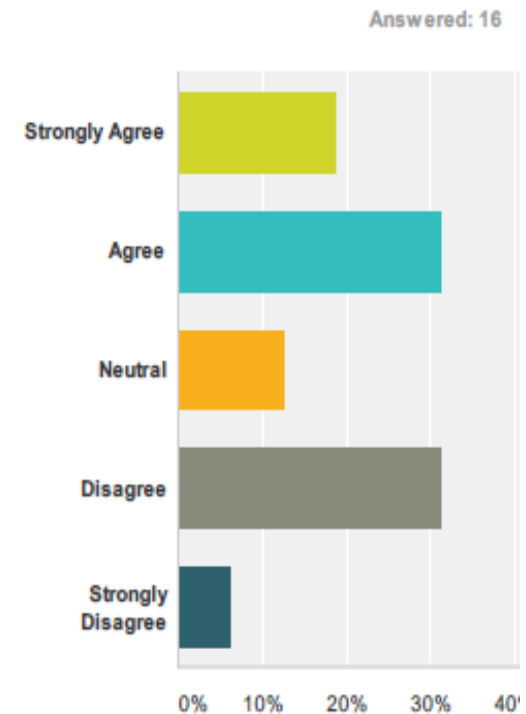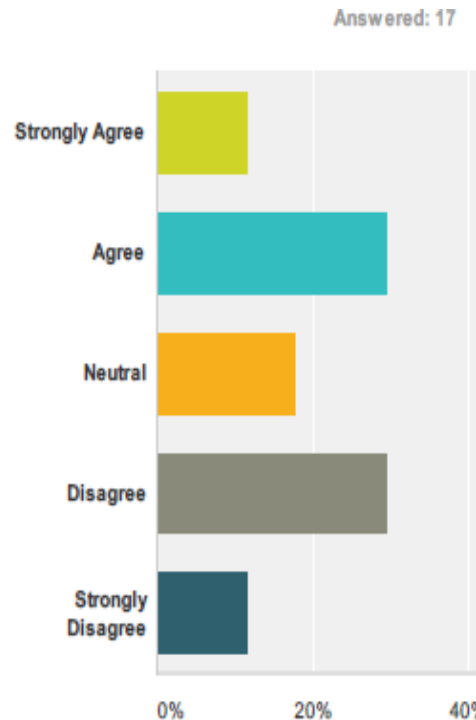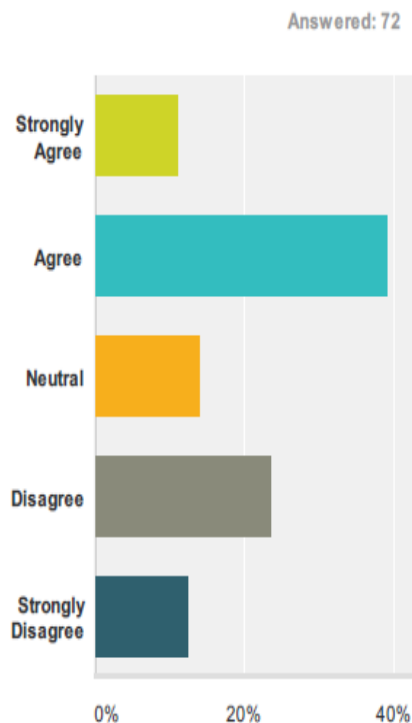
INDEPENDENT SURVEY RESULTS

During the on-line exam I was able to focus on the questions without worrying about the technology.

- Going back and forth between questions is slow (**native BB issue, fixed during exams 2,3**)
- Too long to get setup to take the exam
- Too long to wait for an available proctor
- Proctor shift changes were distracting
- Nerve racking worrying if the technology would not work
- Prefer to take paper exams
- Audio was delayed so had to use chat window, which was distracting
- Webcam light was distracting
- Connection dropped a few times, which was stressful

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INDEPENDENT SURVEY RESULTS

Additional comments:

- ProctorU was helpful in solving technical difficulties
- Appreciated the lengths that ProctorU went to ensure that academic integrity was upheld
- The room scan felt like an invasion of privacy
- Worried about losing test time while the proctor was getting them setup
- Unable to access professor if a question arose during the exam
- Do not like online test taking in general

LESSONS LEARNED

- Backup plans are **extremely important**
- **Communication** is key
  - Inform students of the wait times
- Cultural differences – language/accents of proctors, American Thanksgiving!
- Accessibility
- Consistency of proctors

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MOVING FORWARD

- **Concern**: how much does it effect performance?
- Determine if we think that online proctoring is the right choice for our program
- Determine if we wish to continue using ProctorU's services
  - If so, conduct a broader PIA and TRA for continuous use
  - If not, research alternatives and conduct a new pilot
- Build in lessons learned for future use

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THOUGHTS/QUESTIONS/COMMENTS?