



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

Privacy Impact Assessment Report
For
Proctorio (online exam invigilation tool)

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Introduction

The Exams Team is responsible for coordinating 18 separate examination periods for end-of-session and supplementary and deferred exam periods at all Australian campuses. This results in the coordination of approximately 95,000 exams including scheduling the exam timetable, arranging and managing exam venues, administration of exam papers and materials, managing allegations of academic misconduct in exams venues, and the recruitment, training and coordination of exam supervisors (invigilators).

Historically at UOW exam invigilation was face-to-face with hardcopy exam papers. This model was disrupted since the beginning of 2020 due to COVID- restrictions and this prompted consideration of online invigilation.

Invigilation of exams is important to:

- ensure academic integrity of open book, closed-book and restricted materials exams.
- meet accreditation requirements for certain courses.
- meet Australian universities regulator (TEQSA) and accreditation bodies expectations to have robust invigilation of online closed book exams.

To mitigate the risk of future disruptions, UOW, like many institutions across the sector, has decided to undertake online invigilation using Proctorio. Proctorio is not being utilised for all exams.

The move to online exams also forms part of a larger piece of work the University has embarked on to improve how it effectively delivers and assesses student competencies and outcomes.

Colleagues across the University have been working with Learning, Teaching and Curriculum (LTC) to reconsider their subject delivery and assessment practices through assessment redesign. In some instances, this has resulted in the removal of formalised invigilated final exams.

The decision to use Proctorio follows an extensive evaluation and selection process that included both staff and student representatives, pilot programs in Autumn 2021 and across several summer session subjects in 2021/22. Please refer to Stakeholder Consultation section below for further information.

Privacy considerations were the primary focus of the review. Some of the reasons that Proctorio was chosen over other options include:

- Proctorio operates on a web browser extension. Other providers required students to download stand-alone executable software that would have access to their operating system. As such Proctorio was considered a much less intrusive option that gave students more control over the permissions and installation of the tool.
- Proctorio has no insight to the data because it is encrypted in the browser before being sent to Proctorio and remains in Proctorio servers in an encrypted state. Only UOW staff have access to the encryption keys to access this data.
- Due to the encrypted nature of the data, UOW data cannot be accessed or resold, whereas other service providers could not give this guarantee.
- Proctorio is able to be integrated directly with our Moodle Learning Platform, which means that:
 - teaching staff would not need to learn how to use a new environment to build and run exams
 - students sit the exam in a familiar environment (Moodle)

- no additional software needs to be download and run (aside from the browser extension)
- marking and grades will be retained within our current systems (Moodle/SMP) rather than an additional third party exams systems.
- Proctorio does not require a live person watch a student sit the exam in real time. This was a major consideration due to the additional intrusiveness of third party live surveillance. Proctorio reports are captured electronically, there is no live viewer and the reports are only viewed by UOW staff after the reports have been generated.

UOW recognises that some students may not have adequate access to equipment (such as a webcam) or a suitable environment (quiet space at home) to sit an online exam remotely. Students can contact UOW Exams team to discuss their options including sitting their exams in one of UOW's facilities. Students who report concerns about using Proctorio on their personal device will be dealt with on an exceptions basis and, depending on the case, may be offered alternative arrangements such as sitting the Proctorio online exam on campus, using a limited number of UOW computers.

About this Privacy Impact Assessment (PIA) Report

PIAs are used to inform relevant stakeholders, decision-makers, and regulatory authorities on privacy considerations pertaining to a system, environment, program, policy or process.

The purpose of this PIA Report is to provide a summary on the examination of the process associated with the use of the Proctorio tool, which included identification of any risks and application of appropriate mitigation strategies to ensure compliance with NSW privacy laws

The PIA for the use of the Proctorio tool for online exam invigilation was completed in March 2022.

As PIAs are considered "living" documents (which should be revisited whenever there is any change to the information collected, system, environment, program, policy or process) this document will be updated to reflect the most up to date information.

Privacy Analysis

The privacy analysis conducted as part of this PIA is centred on the principles as defined in NSW privacy laws.

Collection

Information collected via Proctorio is reasonably necessary to ensure the requirements of invigilation are met.

Proctorio integrates with the existing learning platform Moodle and specifically within the Moodle quiz activity. Proctorio works within a student's web browser extension (Chrome or Edge).

Proctorio supports single sign on to verify a user. Users are verified to Proctorio as valid users via Moodle. Students are required to access the exam within Moodle as Moodle controls access to Proctorio. Moodle does not send user account passwords to Proctorio.

The Proctorio tool will collect the following:

1. Identity details to ensure that the student undertaking the exam can be verified by UOW staff after the exam session
2. Records the test taker via webcam during the exam
3. Records the sound of test takers surroundings during the exam

4. Takes periodic screenshots of the test-taker's display while they are within the exam
5. Records the URL and screenshots the pages of websites visited by test taker while sitting the exam (and where that setting is enabled by UOW).
6. Detects the number of computer monitors connected to the computer
7. Records keystroke activity (only limited to the number of keystrokes, not the individual keystrokes or the content)
8. Certain hardware and network diagnostics for performance and troubleshooting purposes by UOW staff
9. Recordings collected by the Proctorio tool are directly encrypted by the web browser and placed in a server that only authorised and trained UOW staff are able to access.

Students will be asked to enable their cameras and microphone to be used during the exam process. Students will be required to show their student ID (preferred method) and a photo will be taken of their ID and their face by the Proctorio system (via instructions). If a student chooses to use a licence or passport for the purpose of ID, they are strongly encouraged to only show their name. Students are requested to ensure that licence/passport numbers, date of birth, address, card number are covered/masked so these details are NOT visible.

Proctorio does not use any form of biometric analysis however it does complete some image processing to determine it has captured a sufficient photo of the student's ID and face.

During the time the student is sitting the exam, video, audio and screen capture recording of the student's activities will take place. Proctorio does not utilise keystroke fingerprinting, it simply tracks keystroke usage amounts. What this means is that Proctorio can determine the amount of keystrokes being pressed, but not which keys, or content of those keystrokes.

Students will also only be able to use one display. Cloned displays are permitted. This will be checked by the Proctorio system.

The data collected by the Proctorio tool during student exams is directly encrypted in the browser and then sent encrypted to Proctorio's servers in Australia that only UOW can access. This covers the entire session, i.e: ID check, video, audio, and screen images.

The Proctorio browser extension is only active while sitting the exam. The extension can be easily removed from the browser after sitting the exam.

If students are concerned about granting permission to the Proctorio extension to their existing Chrome profile data, they can choose to create a new 'empty' Chrome user profile for use with Proctorio. This ensures that Proctorio does not have access to any data from a student's personal Chrome profiles.

What won't be collected

- The Proctorio Room scan feature will not be used.
- Proctorio will not have access to the operating system or any files from students' computers other than what students have explicitly granted permission to during their invigilated exam browser session. (For example Proctorio can access performance metrics about a student's computer such as how much RAM is available or how busy the CPU is to the extent they are available to the browser)
- Files submitted as part of a student's assessment (working out, answers etc) are submitted

directly into Moodle and not to Proctorio. Proctorio does not receive a student's exam submissions.

- Proctorio does not utilise keystroke fingerprinting, it simply tracks keystroke usage amounts. Proctorio only records the amount of keystrokes being pressed, but not which keys.
- Proctorio does not employ facial recognition, only facial detection. No biometric data is collected.
- Proctorio only stores an image capture of a student ID, it does not interpret or store the information in the ID as discrete data.
- Proctorio only logs web sites visited with the Proctorio enabled browser while actively sitting the exam. It does not track or store any website access data while the student is not actively sitting the exam.
- Upon submitting an exam, the Proctorio extension ceases reporting any student activity.

Students are informed of the use of Proctorio and the way that it will be handled (a Privacy Statement) via the following methods:

1. A dedicated webpage to discuss the online exam invigilation process has been developed. This webpage includes a privacy statement and a series of FAQ's to address best practice privacy considerations and communication to students in a transparent manner. See <https://www.uow.edu.au/student/exams/online-exam-invigilation>.
2. Students are also directly informed via SOLS mail and provided with a link to the dedicated webpage.
3. This PIA Report is also available on the dedicated webpage.

A communication plan has been developed to capture the methods of communication and the intended audiences. The comms plan includes comms with students as well as relevant staff.

How the Information will be used

The information collected via the Proctorio tool will be used by UOW's trained invigilators to identify potential irregularities during an exam session. A report is generated per student for each individual exam sitting.

The use of Proctorio by UOW invigilators will not compromise the fairness of UOW exams. It will help mirror invigilation that has previously occurred during an on-campus exam setting.

UOW's trained invigilators will use the data reports to identify potential irregularities but will not flag them as suspected misconduct until there is clear evidence that a student has gained an unfair advantage. This is in line with the procedural fairness and the principles of natural justice that would apply to any allegations of possible misconduct. UOW will continue to follow long established and robust UOW Academic misconduct procedures with its online exams, including those exams using Proctorio.

Access to the Proctorio recordings and reports is only via encryption keys held by authorised UOW staff. The encryption keys are never shared with Proctorio.

Limited authorised UOW staff will access and view the data, strictly within established academic integrity processes.

Proctorio recordings and reports will be viewed by trained invigilators directly after exam sessions are complete to confirm student ID and to review video, audio and screen capture reports. If any irregularities are flagged in the reports and further investigation is warranted, the relevant data will

be viewed. These reports do not imply suspected misconduct and are only one component of the evidence gathering process for exam invigilation.

The report generated by Proctorio tool provides analytics generated on the exam session based on the settings UOW puts in and artificial intelligence/algorithms identify irregularities. For example, a closed book exam will include Proctorio settings that record URL visitations and records the screen showing the websites visited.

The annotated report (containing suspected instances of academic misconduct) may be extracted, and after viewing of recordings, UOW Invigilators will summarise any suspected instances of [academic misconduct](#), seek to obtain an adequate response from the relevant student, and then forward to the Academic Integrity Officers (AIO) along with the student's statement for further investigation.

Those reports which may have indicated suspicious activity will be treated in a similar manner to suspected instances of academic misconduct in face-to-face exams as per UOW's Examination Rules.

Storage and Security

A detailed security assessment was carried out by UOW and it was identified that the information held by the system is collected and protected in a manner consistent with the appropriate security controls.

The Proctorio tool works with encryption according to the zero-knowledge protocol, which means Proctorio has zero access to the encrypted data on their servers. Proctorio does not have the ability to decrypt the data.

Data captured by Proctorio is stored in Microsoft Azure (ISO-27001 certified) located in Australia and access is via the UOW Moodle instance. The data is double encrypted so that not even Proctorio can access it.

Reports and recordings that are accessed by authorized UOW staff will be managed under strict privacy protocol. These reports will only be accessed where there is a relevant business need.

Audit logs are available within Moodle that record details of any user interactions including user details, time stamps and data that was viewed/entered.

Student and Accommodation Services Division will ensure all relevant staff are aware of Proctorio data and its prohibited use, specifically advising that the reports are not to be viewed, accessed, downloaded, or shared.

Sharing information with internal parties

No information will be shared with external parties.

To ensure authorised UOW staff are aware of their privacy obligations, compulsory inductions will be delivered in the lead up to exams for those subject coordinators who will require access to Proctorio. This induction will not only cover privacy obligations but also best practice for exam design with the use of Proctorio.

UOW invigilators will receive training focused on the online exam environment, utilising the University's lead researchers in this topic to ensure exam invigilation with Proctorio will be optimal.

Specialist staff in LTC and IMTS will be involved in providing support on the use of the platform, guidance, and its integration with Moodle. Specialist staff, where needed to access data for support purposes, are already bound by strict confidentiality and privacy requirements.

As Moodle site owners, teaching staff may have access to view Proctorio reports. However, they are not permitted by UOW to directly review or action Proctorio reports (as these will be managed via the UOW Invigilators). Instructions on their obligations not to access or use this information for academic decision-making and not to extract this information, will be covered by specific induction.

Faculty Academic Integrity Officers (AIOs) will see report extracts which may include still images from the exam along with annotations and other information. If the AIO requests to see video or audio from the exam, a viewing can be arranged by the UOW Exams Team without providing permanent access or duplicating/storing the information elsewhere.

Retention and destruction

Proctorio will store the encrypted recordings in accordance with recordkeeping requirements as outlined in its privacy policy.

All data captured by Proctorio will remain as encrypted data in servers within Australia and only authorized UOW staff can access it. Only those reports that have been identified as containing suspected instances of academic misconduct and require further follow-up will be downloaded by UOW.

UOW will retain initial recordings and reports only for the period of time in which they may need to be reviewed to determine whether or not they will result in a misconduct report. This timeframe is in accordance with the exam appeal period.

Only reports (or parts of reports) which are extracted to form part of an investigation will be downloaded by UOW who will follow the existing process for managing alleged exam misconduct investigations. The existing process includes upload to UOW's electronic records management system (EDRMS) at the end of the process, where records are retained in accordance with UOW's recordkeeping obligations under the NSW State Records Act.

UOW will carry out a manual deletion process at the end of the exam appeal period of reports stored within Proctorio. Any report data stored by Proctorio will not exceed a maximum of 12 months and will be automatically deleted.

In the event that UOW ceases engagement with Proctorio, UOW data will be deleted from Proctorio servers no later than 30 days after the cessation of the engagement.

Access to Personal Information

Recordings of Proctorio sessions will not be held by UOW unless suspicious activity is identified and action is required by UOW. In these circumstances, reports will be extracted and examined by UOW authorised staff and where relevant, students will be notified and given an opportunity to respond before further action is taken.

A student may request access to their personal information collected via the Proctorio tool that UOW holds by contacting the UOW Exams Team.

Stakeholder consultations

The original project team (led by the Future Education Division)

- Ran an EOI with representatives in 2020 from all Faculties, SASD, LTC, AQS and 3 student representatives.
- Presented to 25 stakeholders across the University to answer any questions and concerns.
- Ran a controlled on-campus pilot of Proctorio in Autumn 2021 and collected valuable feedback from staff and student participants
- Ran a remote delivery pilot during summer session 2021-2022 and collected valuable feedback from staff and student participants
- Feedback was also obtained from support staff at UOW Dubai pertaining to deployment and use of the Proctorio tool.

Since inheriting leadership of the project in mid-2021, the Student and Academic Services Division has also presented updates to Student Advisory Committee and Faculty Executives.

UOW Privacy Officer was consulted throughout the process and assisted with examination of compliance with privacy compliance, identifying risks and applying appropriate strategies to mitigate those risks

IMTS and LTC staff were actively involved in the deployment and effective use of the Proctorio tool. This included due diligence, technical oversight and support during the pilot phases.

Conclusion

This PIA Report has been produced following examination of the privacy principles as set out in the *NSW Privacy and Personal Information Protection Act 1998*.

It will be reviewed as required to ensure that it remains up to date and informative.

To demonstrate UOW's commitment to transparency, this Report has been published to UOW's Online exam invigilation webpage located at <https://www.uow.edu.au/student/exams/online-exam-invigilation/>

Further information about UOW's commitment to privacy, including how to raise concerns about UOW's handling of personal information, can be found at <https://www.uow.edu.au/privacy/>

This version dated 4 April 2022.