Australian
National
University

Privacy Impact Assessment

For

Proctorio
(2022 Update)

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1. Introduction

Proctorio was sourced for use at ANU during the pandemic in response to the need to quickly pivot to providing a remote proctoring (invigilation) service integrated with Wattle to provide assurance of student identity and academic integrity at scale throughout timed examinations. Due to the tight timeframe to get a service integrated into Wattle, a brief market scan was completed, and it was determined that Proctorio best met the requirements for remote invigilation of Moodle-based assessments in Wattle.

Following an exemption for Tender/Quoting process (renewed until March 2024) Proctorio was implemented in March 2020. There was a modest 9% of exams scheduled for end of Semester 2 2021 using Proctorio. Proctorio conforms to the University specifications and has been successfully integrated into the ANU education technology ecosystem.

As a review of Proctorio will be included in the Learning and Teaching strategy as part of the Digital Master Plan ANU sought a 2-year contract extension. This would allow for uninterrupted continuation of remote exams and, depending on the outcome of the strategy recommendations, allow time for a replacement to be implemented.

Due to internal changes within Proctorio a new contract had to be negotiated when it came up for renewal in May 2022 and new information was supplied about data flows and storage. A change to the data retention work flow and ANU staff access to the recordings has necessitated the updating of the PIA.

2. Project description

Proctorio is a remote proctoring service software that utilises a Google Chrome extension to monitor test takers computer screen, network activity as well as webcam and microphone feed to flag suspicious behaviour. Students install the extension into the browser on their personal device before the exam begins, or use an equipped lab on campus, and then access the Proctorio exam by a link in the Wattle course site (accessed by usual authentication process which has been configured to recognise the Chrome extension). Wattle, in combination with Proctorio, remote proctors the exam session using the user's video camera, microphone, keyboard and screen.

Exam recordings are encrypted, and the only personally identifiable information required is the student identification step where students must display their student ID (or another photo ID). Only institution-approved staff can decrypt test-taker encrypted screen, video, and audio recordings. The student identification process of matching test takers to their Identification is conducted by the ANU Examinations Office. Lecturers can view the video/audio recordings for flagged (potentially suspicious behaviour) to determine if they need to investigate further. The type of behaviour that is flagged is set by the lecturer as part of the exam set up process, but can include key presses, mouse movements, URLS visited, other people entering the room, and downloading of materials. Proctorio is designed to mimic the in-person exam environment as closely as possible.

Proctorio was identified for use in 24 examinations scheduled centrally in Semester 2, 2021 examination period and 9% of exams in final examination period for Semester 1 2022:

3. Threshold assessment

Will the project involve:	Yes	No
Handling large amounts of personal information?	☐	☑
Handling sensitive information?	☑	☐

Will the project involve:	Yes	No
Sensitive information includes, but is not limited to, information about an individual's racial or ethnic origin, political opinions, religious beliefs or affiliations, criminal records, sexual orientation or practices, biometric information[1], health information and genetic information.		
Sensitivities based on the context in which the project will operate?	☑	☐
Handling personal information of individuals with particular needs? *Will it have greater sensitivities or disproportionate impacts on certain populations or groups of individuals.*	☑	☐
Handling personal information in a way that could have a significant impact on the individuals concerned? *Examples negative impacts on physical and mental wellbeing, reduced access to public services, discrimination, financial loss or identity theft.*	☐	☑

Proctorio collects two types of data – one for test takers and one for the ANU contact person.

ANU Contact

Proctorio collects and processes client contact persons (contract manager) data for the purpose of preparation of exams and customer care. The data collected is IP address; Contact information; Exam information provided by contact person; and Communication information.

Test Taker

Proctorio collects and processes test takers' data for the purpose of identification, providing proctored exam and ensuring academic integrity as well as quality management and customer care. Personal data is pseudonymized after receipt by creating a user identification number. All subsequent processing activities exclusively contain this user identification number. In addition, the following data is stored in encrypted form and Proctorio staff have no permission to decrypt encrypted data.

The data collected is:

- Identification information (e.g., student identification number and details shared on photo ID used)
- Examination data (e.g., content, video and audio material recorded during the proctored examination, screen share data)
- IP address (upon receipt by Proctorio, the last octet is deleted)
- Personal information including ANU identity number (e.g., student identification number and subject of proctored examination)

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[1] Biometric information is an electronic copy of an individual's face, fingerprints, iris, palm, signature or voice.

In some cases, Proctorio collects payment and contact data from test takers, but this data is not collected for ANU students as the service is paid for by ANU.

3.1 Activity Based Risk Factors

Will the project involve:	Yes	No
Using or disclosing personal information for secondary purposes? *A 'secondary purpose' is any purpose other than the primary purpose for which the APP entity collected the personal information.*	☐	☑
Disclosing personal information outside of your agency?	☑	☐
Using or disclosing personal information for profiling or behavioural predictions?	☐	☑
Using personal information for automated decision-making?	☑	☐
Systematic monitoring or tracking of individuals?	☐	☑
Collecting personal information without notification to, or consent of, the individual?	☐	☑
Data matching or data linkage?	☑	☐
Developing legislation to modify the operation of one or more APPs or which seeks to rely on the required or authorised by law exception to the APPs?	☐	☑

## 4. Consultation with stakeholders

During the initial procurement of Proctorio the following key stakeholders were identified and consulted.
- Examinations office (EGAP)
- Academics – Colleges as represented by ADEs, individual academics with particular assessment requirements
- ITS: Contracts management; IT Security; Learning and Teaching Technology team (LTTT); Learning Systems Support Group (LSSG)
- CISO
- Privacy officer
- ASQO (policy support)
- College Educational Support Teams, CLT Educational Designers – supporting academics to implement online assessment
- Student representatives: ANUSA, PARSA
- Access and Inclusion
- Executive and governance oversight: DVCA, PVCE, CMT, TLDC, AQAC, Academic Board
- RSCS (particular technical requirements that do not align with Wattle).

During the contract renewal phase CLT was identified as the business owner and shared the updated information and consulted with the following stakeholders: CISO, Privacy Officer, LSSG, LTTT, ITS Contracts Management, ANU Legal, EGAP and PVC E&D. ⌗

5. Information flows

Proctorio System Overview, Test-Taker
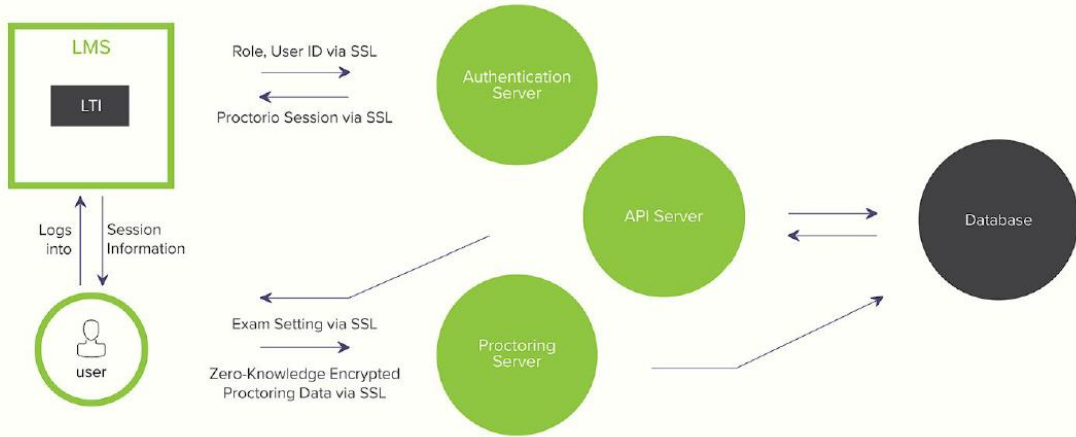
Proctorio System Overview, Exam Administrator
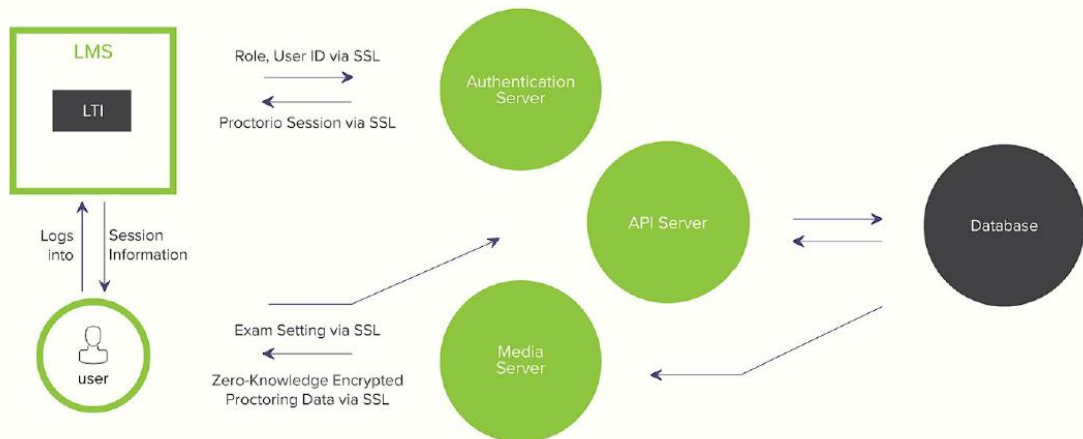
5.1 Data collection

What personal information is captured?
Full name and face as shown on the Student ID (or other ID) used, photograph of face taken for identification, biometric information revealed in the recording, student identification number & course enrolment. If other photo ID is used, students are recommended to obscure additional personal information.

How will the personal information be collected?
A photo is taken of the Student ID (or alternative), webcam video, audio and screen share are recorded during the test, student identification number and course enrolment is collected via Wattle. Wattle communicates with the servers within the Proctorio ecosystem which enables Wattle to authenticate itself, access the Proctorio API and begin the capture of the video session. Via the API server, Wattle can access the cloud storage in Azure Australia East (New South Wales) region.

5.2 Data management

How will the personal information be stored?
Proctorio has been assessed by the Information Security Office and approved as meeting ANU cybersecurity requirements.
Personal data is pseudonymized upon receipt by the creation of a user identification number. All subsequent processing is based on the user identification number. The Processor only receives pseudonymous user IDs which are specifically created for the Processor from pseudonymous IDs used in Wattle (two-level-pseudonymization).

Recording data at rest within the data centre is encrypted using AES-256 and is FIPS 140-2 compliant. All data centres are ISO 27001 certified, SOC 2 attested. ANU data is stored in Microsoft Azure Australia East servers.

The ANU agreement includes storage of ANU data for 18 months to match EGAP advice to maintain written script books for a period of 18 months. From July 2022 the data retention period is calculated per each individual attempt in the gradebook and not from the last attempt that was submitted in the gradebook.

How will the personal information be secured/protected?
Information is secured with zero knowledge encryption. Data is stored in encrypted form and only ANU staff have permission to decrypt encrypted data. Transmission of data into the data centre is only over TLS 1.2 or 1.3.

The last octet of the test takers' IP address is deleted upon receipt.

Proctorio undertake measures to restrict physical access management, system access management, data access management, data separation management, data transfer management and data input management as outlined in the Attached Data Processing Agreement. All sub-processors are contracted to provide the same level of data protection as provided by the standard contractual clauses.

State-of-the-art transport and end-to-end data encryption techniques regarding key length and operating mode are used by the Processor. These can be considered robust against cryptanalysis performed by the public authorities in the third country, considering the resources and technical capabilities (e.g., computing power for brute-force attacks) available to them. The existence of backdoors (in hardware or software) has been ruled out.

The system has a log which records details of all user interactions including user details, time stamps and data which was modified/entered/viewed.

Who will have access to the personal information?

Recordings of authorized users are analysed and encrypted in the user's browser application, which means that only authorised ANU staff can access the personal information. Sub-processors (see Appendix 1) do not need to, and cannot technically, access recordings of users in the clear.

ANU Staff Access

Access will only be available to ANU staff members with a need to access the information in order to facilitate a student's academic progress (primary purpose of personal data being held by ANU). Recordings stored in Proctorio are only able to be viewed by teaching staff (including lecturers & tutors) and critical support staff for technical troubleshooting and follow-up. The Registrar's office are provided with an extract of the recordings only, allowing them to compare the image captured by Proctorio of the test taker's face, for comparison with the photo ID provided by the test taker, to confirm their identity.

Training material will be revised and updated on a regular basis to reflect any changes in the system processes or privacy laws. Regular reminders of privacy and data obligations will be included in user communications.
All users will need to read and agree to abide by the conditions detailed in the below documents,
Acceptable Use of Information Technology
Account Management and Access
Privacy Policy
Code of Conduct
Information Technology Security
ANU Enterprise Agreement

How can individuals request access to and/or correction of their personal information?
Not applicable as no personal information is sent to or held in the Proctorio system.

When will the personal information be deleted/destroyed?
Proctorio will ensure that any record as defined in the Privacy Act containing Customer Personal Information provided to or obtained by the Company is, at the expiration or termination of this Agreement, either returned to the Customer or deleted or destroyed, and if required, in the presence of a person duly authorised by ANU

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6. Privacy management

Analysis of privacy risks/impacts –

Privacy Impact	Necessity/ Impact Rating/ Impact Response	Impact treatment Plan
Personal information will be collected without a clear purpose, which could increase the risk of unauthorised uses and disclosures.	Necessary/ Low/ Mitigate	Data is collected as a part of a student's academic progress. All participants will be made aware of the reason for their data being collected (see Proctorio Practice site). Proctorio commit to taking every reasonable precaution to ensure no unauthorized access to the data occurs. ANU CISO has assessed the system. All ANU staff will complete Privacy Awareness training and be reminded of their privacy and data obligations.
Consent for collection, use or disclosure of information may not be valid.	Necessary/ Low/ Mitigate	Consent is met through the student accepting the Google Chrome conditions to download the extension (Appendix B) and repeated by giving Proctorio access to their machine and agreeing to the Privacy Policy and EULA at the start of the exam (Appendix C).
Individuals are not able to easily correct or delete their personal information.	Necessary/ Low/ Encourage	No personal data is collected by Proctorio. Examinations Office can aid test takers with correction or deletion (if it meets University Policy).
Individuals may be surprised or upset by a secondary use or disclosure, resulting in privacy complaints and/or negative publicity.	Necessary/ Moderate/ Mitigate	Data is not supplied for secondary purposes except where required under legislation. Sub processors do not have access to user recordings and are bound by the conditions in the DPA.
Sensitive or confidential data may be shared unintentionally in a recording.	Necessary/ Moderate/ Mitigate	Recordings stored in Proctorio are only able to be viewed by education staff with the capability of marking the assessment (to check any flags for review of academic misconduct and to enable the recording of the results of the assessment) and support staff (for technical troubleshooting and follow-up). The Registrar's office have access to an extract showing the test takers image and Photo ID(to ensure appropriate individuals have taken the test). Videos are only reviewed to determine if academic misconduct has occurred.

7. Conclusion/recommendations

1. This PIA will be reviewed and updated if any data flow or information handling practices change.
2. All ANU staff with access to Proctorio will be required to complete the ANU Privacy Awareness training module in Pulse and users will be given regular reminders of their privacy and data obligations.
3. CLT will ensure that all training materials will be revised and updated when there are changes in the system processes or privacy laws.
4. The CISO approves Proctorio for use at ANU
5. ANU Legal Office approve the contract and DPA.

Proctorio Sub Processors

A.1   1ˢᵗ Level Sub-processors

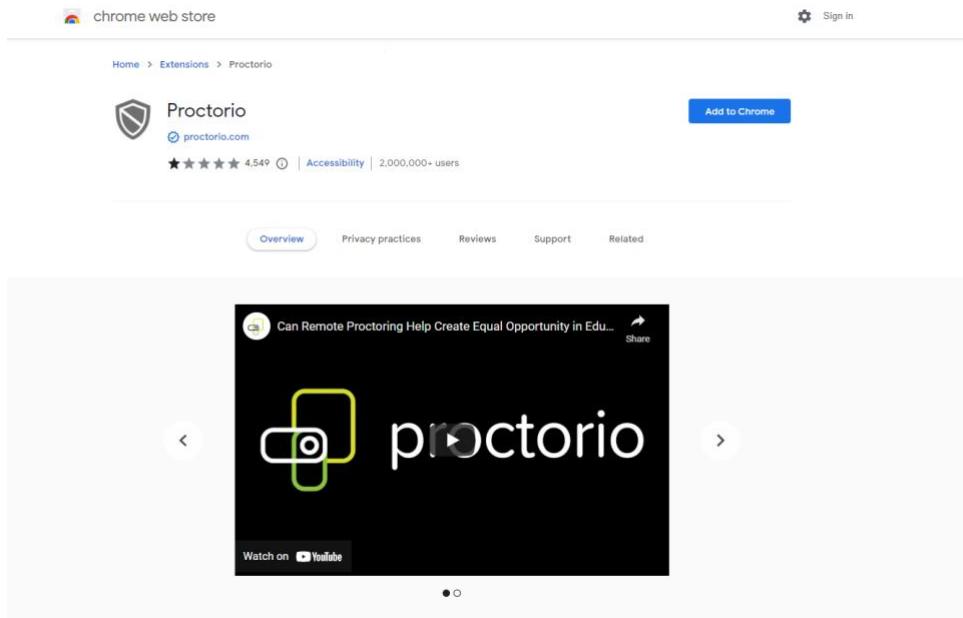| Sub-Processor	Services	Country where sub-processor is located
Proctor.io Inc.	• IT Support • Maintenance of the software solution • All services that they provide via the 2ⁿᵈ Level Sub-processors (see below)	USA
Proctorio d.o.o.	• IT Support • Maintenance of the software solution	Serbia

A.2   2ⁿᵈ Level Sub-processors

2ⁿᵈ Level Sub-processor	Personal Data or category of Personal Data processed by the Sub-processor	Type of processing and purpose	Directly or indirectly supportive to the proctoring process	Country of processing	Transfer mechanism	When is the processing necessary?
Microsoft Azure	• Role • Hashed UID • Hashed Course ID • Zero Knowledge Encrypted Recordings • Test Taker IP Address (last octet removed) • Test Taker System Information (browser information, CPU, ram, internet connection) • any URLs viewed during the exam • recording of on-screen activities	Hosting of data	Directly supportive	Territory outside the EU/EEA (indicated in the Main Agreement)	No data transfer from the EU to third countries.	Continuously
Cloudflare, Inc.	• IP Address • System configuration information, and • other information about traffic to and from Proctorio application, and/or networks	• DNS resolution and security • DDoS protection and security	Directly supportive	US	Onward transfer agreement based on SCC	In case of DNS and/or DDoS attack
Google LLC	• Name • email address • email content	• Gmail - An emailing tool for communication with institution personnel and students. • If data subject decides to contact Proctorio through an email system instead of using the standard support chat (Olark). • Immediately after the communication, data subject 's personal information will be deleted before further processing	Indirectly supportive	US	Onward transfer agreement based on SCC	When personnel/students need any support or information and cannot use the standard built-in chat solution.
Maxmind, Inc.	• IP Address • Country • City • ISP	GeoIP - Identifying the student's location for the purpose of identifying potential collaboration/fraud when two students are taking exam from the same location.	Directly supportive	US	Onward transfer agreement based on SCC	Continuously
Olark	• In-Chat information, such as name, email address and incident.	Customer support chat tool for providing live support during exam.	Indirectly supportive	US	Onward transfer agreement based on SCC	When personnel/students need any support or information regarding Proctorio platform during exams.

Zendesk, Inc	• IP Address • Reported issue • The fact that data subject requested support. • (optional if university does not request support services)	Customer support tickets - Zendesk is used for handling student and personnel tickets that are generated based on their reported issues.	Indirectly supportive	US	Onward transfer agreement based on SCC	When personnel/students need any support or info regarding troubleshooting with Proctorio application
	• IP Address	Help desk website - Students can visit Proctorio help desk website to find articles regarding troubleshooting steps.	Indirectly supportive	US		When students visit Proctorio help desk website for troubleshooting
Twillio Inc.	• Phone number • Interaction • Voicemail	• If data subject decides to contact Proctorio via phone instead of using the standard support chat (Olark). • Communication tool - Allowing personnel or students to call or leave a voicemail to Proctorio for the purpose of support. • Voicemail will be deleted after incident is solved.	Indirectly supportive	US	Onward transfer agreement based on SCC	When students have call with Proctorio support team or leave voicemail

Appendix B: Google Chrome Extension Permissions

B.1   Extension Overview

CAPTURE THE CONTENT OF YOUR SCREEN - Some exams require desktop recording. This is set solely by your exam administrator and/or institution. This permission allows Proctorio to capture your screen during an exam—using a technique that intentionally obfuscates sensitive information. Proctorio support can also leverage this to help provide fast & effective technical support. Screen recording cannot be started automatically. Google Chrome offers you another layer of protection by asking you a second time for permission to share your screen. This will happen each and every time the screen share is needed. Google Chrome also places messaging at the bottom of your screen so you always know when it is being captured. You can manually end screen recording at any time. Once an exam is submitted, Proctorio will always automatically end screen capture for you.

MANAGE YOUR DOWNLOADS - If your exam administrator has disabled your ability to download files during an exam, Proctorio will use this permission to do that. Proctorio doesn't monitor your downloads except while inside the exam. Proctorio simply uses this permission to prevent test-takers from downloading items while in an exam. Like all test lockdown settings, this only applies when your exam administrator has enabled it—otherwise, the extension will never manage your downloads.

MANAGE YOUR APPS, EXTENSIONS, AND THEMES - Sometimes another app or extension can cause conflicts with Proctorio. This permission allows Proctorio to see what other extensions are installed to look for these possible issues. Proctorio will never install, download or modify your theme. Proctorio uses this permission to automatically enable and disable Chromevox (for ADA test takers when necessary). Lastly, this permission allows the extension to temporarily disable extensions or apps during an exam if the exam administrator has specified that lockdown setting.

DISPLAY NOTIFICATIONS - This permission simply allows Proctorio to display important notifications while you're in an exam.

MODIFY DATA YOU COPY AND PASTE - If the exam administrator has disabled your ability to copy and paste during an exam, Proctorio will use this permission to clear your clipboard. Unlike other solutions, Proctorio cannot see the contents of your clipboard. These permissions are only required while you are in a proctored exam and do not affect your ability to copy & paste outside of an exam.

IDENTIFY AND EJECT STORAGE DEVICES - Don't worry. We won't eject any of your storage devices. This permission allows Proctorio to look at your computer resources to determine whether your computer meets the system requirements. If you encounter a problem before or during an exam, this information can help us better assist you.

CHANGE YOUR PRIVACY-RELATED SETTINGS - Again, this is a lot less scary than it sounds. Within your Chrome browser, you can disable 3rd party cookies under your privacy settings. Proctorio uses Olark (https://www.olark.com/) to provide proactive chat support so that in the event you experience an issue before entering an exam, we can chat in to help you out. Olark requires (https://www.olark.com/help/cookies) that your 3rd party cookies are enabled which is why we need this permission.

Single purpose policy: use chrome to secure online exams

Proctorio is iKeepSafe Certified: https://ikeepsafe.org/global-leader-online-proctoring-recognized-excellence-data-security-privacy-protection/

https://proctorio.com/about/personal-data-protections
https://proctorio.com/coppa
https://proctorio.com/ferpa
https://proctorio.com/gdpr

Read less

B.2   Extension Privacy Practices

B.3 The Permissions box that appears when you click the add to chrome button

Appendix C: Proctorio Test taker Permissions

General practice exam test (lenient) (Remotely Proctored)

Before you Begin

This exam will be proctored. Here are a few things to know before you begin.

We will tell you when we start and stop recording.

Your institution can access the data collected and will control who sees it.

Decisions are made by your exam admin, not us.

Proctorio d.o.o. complies with GDPR, FERPA, and other regulations. Read our Privacy Policy.
Your data will be securely stored in **Sydney, New South Wales** for 6 months before being deleted.

What's recorded during the exam
camera feed •audio •computer screen •exam environment •websites visited •location •identity document

What's restricted during the exam
one monitor •You will not be allowed to open new **tabs or windows** during the exam except from links provided in exam questions. •no clipboard •no printing •no downloads •no right-clicking •cache cleared

24/7 support available during the exam
Click the Proctorio browser extension icon to chat with an agent within seconds.

Accessibility options:
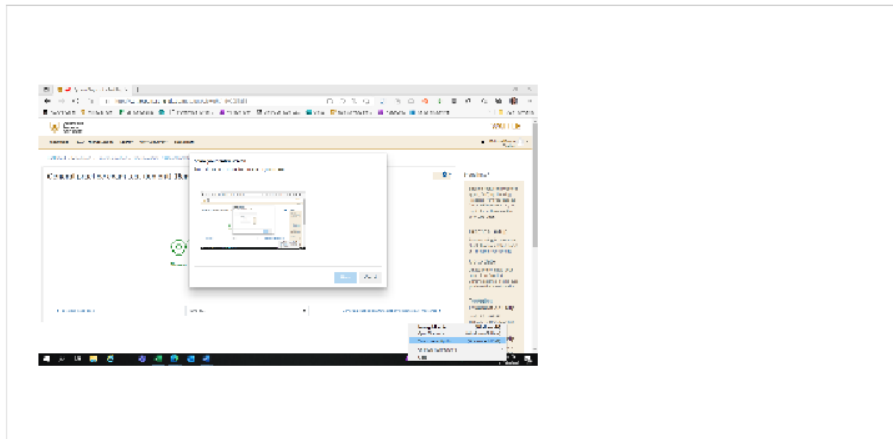Enable high visibility mode.
Learn more about Proctorio's approach to Accessibility.

User action required before you continue. Please do the following:
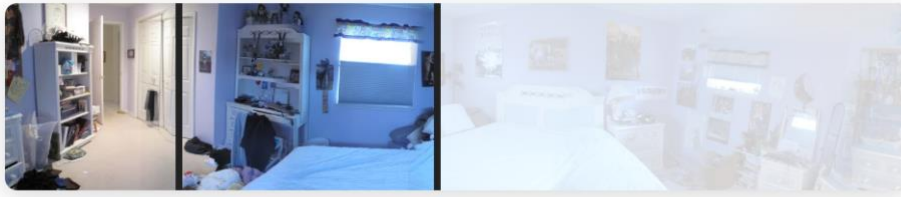
Share your entire screen

Proctorio wants to share the contents of your screen.

Share   Cancel

Your institution requires you to scan your environment. The request for a scan will include specific instructions about what area to scan. You can find more details here. The scan may include a 360 view of the entire area, a view of the ceiling or floor, a view of the area under your desk, a view of the items on your desk, or some combination of these things. If there are items in any of these areas that you do not want to be recorded, please take a moment now to cover them or remove those items, or move to a different area.

Sometimes this can be tricky, especially when using a built-in webcam. Before moving on, we recommend you visit the help center article.

I understand »

By clicking "I accept, begin exam now" (button below) I represent and warrant that I, Belinda Bergin Student, am the person whose name is associated with the login used in this assessment system. I further certify that I am the person whose name appears on the identification presented and that said identification is legible in the image shown. I further certify that I am the person whose name appears on the identification presented and that said identification is legible in the image shown.

If over the age of 18, I acknowledge that I have read and agree to Proctorio's Terms of Service, and to Proctorio's Privacy Policy. If under the age of 18, I understand that when my parent or legal guardian provided consent to my school district for my access to the Services, they consented to the same terms and privacy policy. If I or my parent or legal guardian have any questions regarding the Proctorio's Terms of Service or Proctorio's Privacy Policy, I or my parent or legal guardian will not click "I accept, begin exam now" and will contact Proctorio before clicking "I accept, begin exam now" or otherwise using the Proctorio Services.

I agree and acknowledge that:
- I have read and understood the expectations and requirements regarding this examination as described on the Examination Conduct webpage.
- I am eligible and able to undertake this examination.
- I will follow the directions set out in the examination instructions.
- During the examination I will not access or have in my possession materials that are not expressly permitted by the course convener or on the Examination Conduct webpage.
- My work in this examination:
  - upholds the principles of academic integrity as defined in the University Academic Misconduct Rule.
  - is original.
  - is produced for the purposes of this examination and has not been submitted for assessment or examination in any other context.
  - in no part involves cheating, collusion, fabrication, plagiarism.
- The use of my WATTLE account to electronically undertake and submit this examination task constitutes my agreement to this declaration
- If I do not agree to this declaration, I will not click on the "I accept, begin exam now" button and will instead apply for a deferred examination in accordance with the process and timeframes set out on the Deferred examinations webpage. Failure to comply with the prescribed deferred examination process and timeframes may result in failing the examination task.

I accept, begin exam now »