Transforming Exams Across Australia

Exams of 2030

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So Far…

e-Exam v5 trials held* at
- University of Queensland
- University of Tasmania
- Central Queensland University

e-Exam v6 under development

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*Under the seed grant, more to come soon!

Photo: A. Fluck. UTAS e-Exams in use

Trial Procedure

1. Planning and ethics approvals.
2. Call for interested academics.
3. Exam plans for paper equivalence
4. Student EOI and consent form.
5. Pre-exam set-up/practice sessions with student pre-survey, (technical and first impressions).
6. Academics send e-Exam copy. USB master created, tested and duplicated (1 per student).
7. Exam day:
   a. Setup room (power, paper backup, spare laptops).
   b. Students enter room, given USB each, startup laptop with USB and type into doc.
   c. Exam runs supervised.
   d. At the end, all USBs collected.
   e. Students given post survey.
8. After the exam, USBs are reverse copied to collate responses.
9. Responses sent to academic for marking.

Try it yourself

1. Download the ISO of the open source e-Exam System client.
2. Follow the demo set-up guide to build your own e-Exam USB.
3. Read user and features guides.
4. Start your laptop with the e-Exam USB.
5. Set-up and start up guides available for Apple Mac and 'Windows' laptops.

Download and try today…

Futures

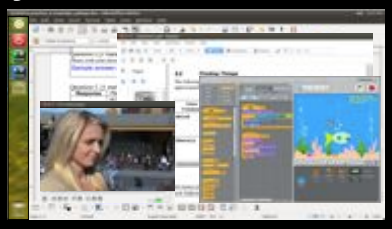
	About now	2015-2020	2020-2025	2025-2030 and beyond
Medium for high stakes assessments	Paper	Paper-replacement – students can opt to type instead of handwriting (uses USB drive to boot BYOD). Some post-paper exams appearing.	Post-paper exams common. All questions and materials are digital, a computer is required to respond to assessment challenges.	Fully computerised, internet enabled exams with candidates using a range of software and input devices.
Connectivity	None	None to some use of restricted ad-hoc networks for response reticulation in post-paper exams.	Mix of offline and online exams limited to selected resources. Connections logged.	Open internet access but all transactions are fully logged inclusive of communication, timing, sources.
Authenticity of assessment	Scenarios are written descriptions, with monochrome illustrations	Full colour diagrams and video begin to provide more authentic scenarios	High fidelity, data-driven simulations	Real-time links to global databases
Candidate identity assurance	Manual comparison of face with ID card photo by a trusted supervisor	Practice continues, linked to local database via handheld device.	Practice continues, but laptop camera takes pictures of the keyboard user at random intervals.	Practices continue, with two-factor authentication incorporating biometrics such as face recognition.
Materials provided and permitted	A range of published books, electronic calculators and stationery equipment bought into the room by students	Digital equivalents begin to replace some materials. E.g PDFs.	e-books, high resolution images, video, simulations, all software tools are provided (open source).	Practice continues with increasing diversity of subject-specific software tools.
Assessment workflow	Bundles of scripts are physically transported to assessors	Practice continues, but digital response scripts can be duplicated, archived and e-mailed.	Digital responses, extends to data files created using subject specific software. E-workflows, banked and tagged questions.	Digital response files are accompanied by performance metrics for individual students, and interaction logs
Achievement measurement	On quality of solution, and written process	Practice continues, analytics of selected response items.	Practice continues, but analytics increasingly detailed. E.g. time taken per question, marks gain.	Detailed analytics, keystrokes/screen touches available – the solution process dominates assessment.
Continuous assessment improvement process	Year-on-year bell-curve comparisons regulate overall difficulty of exam.	Some data on overall ease or difficulty of individual questions and options is available.	Individual questions are rated for discrimination and reliability etc.	Question ratings take into account all candidate interactions within the assessment.

Australian outlook; the educational socio/cultural/policy environment takes time to change.

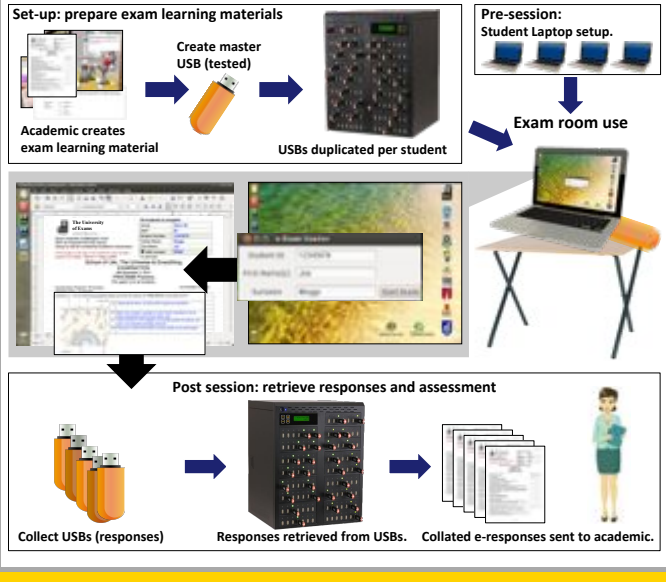
Contemporary Work <@.@> Exams Today → e-Exams Future

Photo: WEF
How digital changes the working world

Photo: M. Hillier. Paper exam venue



Current e-Exam Workflow



Why e-Exams

To accredit graduates as proficient for the modern world we need to test the wicked, messy, complex problems of today's world using the "tools of the trade of the 21st century".

Coming Up…

- e-Exam v6 (16.04) due 3Q.
- National trials at 9 Universities
- Trial result dissemination.
- Formation of an 'International e-Examinations Research Network' - Seeking EOIs

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