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 mathew.hillier@monash.edu

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

<table>
<thead>
<tr>
<th>Medium for high stakes assessments</th>
<th>About now</th>
<th>2015-2020</th>
<th>2020-2025</th>
<th>2025-2030 and beyond</th>
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<tbody>
<tr>
<td>Paper</td>
<td>Paper-replacement – students can opt to type instead of handwriting (uses USB drive to boot BYOD). Some post-paper exams appearing.</td>
<td>Post-paper exams common. All questions and materials are digital, a computer is required to respond to assessment challenges.</td>
<td>Fully computerised, internet enabled exams with candidates using a range of software and input devices.</td>
<td></td>
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<tr>
<td>Connectivity</td>
<td>None</td>
<td>None to some use of restricted ad-hoc networks for response retification in post-paper exams.</td>
<td>Mix of offline and online exams limited to selected resources. Connections logged.</td>
<td>Open internet access but all transactions are fully logged inclusive of communication, timing, sources.</td>
</tr>
<tr>
<td>Authenticity of assessment</td>
<td>Scenarios are written descriptions, with monochrome illustrations Manual comparison of face with ID card photo by a trusted supervisor</td>
<td>Practice continues, linked to local database via handheld device.</td>
<td>Practice continues, but laptop camera takes pictures of the keyboard user at random intervals.</td>
<td>Real-time links to global databases.</td>
</tr>
<tr>
<td>Candidate identity assurance</td>
<td>Practice continues. E.g. PDFs.</td>
<td>Digital equivalents begin to replace some materials.</td>
<td>Practice continues, but laptop camera takes pictures of the keyboard user at random intervals.</td>
<td>Practices continue, with two-factor authentication incorporating biometrics such as face recognition.</td>
</tr>
<tr>
<td>Materials provided and permitted</td>
<td>A range of published books, electronic calculators and stationary equipment bought into the room by students.</td>
<td>Digital equivalents begin to replace some materials.</td>
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<td>Practice continues with increasing diversity of subject-specific software tools.</td>
</tr>
<tr>
<td>Assessment workflow</td>
<td>Bundles of scripts are physically transported to assessors.</td>
<td>Practice continues, but digital response scripts can be duplicated, archived and e-mailed.</td>
<td>Digital responses, extends to data files created using subject specific software. E-workflows, banked and tagged questions.</td>
<td>Digital response files are accompanied by performance metrics for individual students, and interaction logs.</td>
</tr>
</tbody>
</table>

Achievement measurement
- On quality of solution, and written process.
- Practice continues, analytics of selected response items.
- Digital responses, extends to data files created using subject specific software. E-workflows, banked and tagged questions.
- Detailed analytics, keystrokes/assessors touch specific action - the solution process generates assessment.
- Question ratings take into account all candidate interactions within the 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.

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

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.

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