

## **“Chegg-proofing” Examination Setting**

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Cast your mind back to first semester 2020. Many of us were tasked with setting a final examination for a physics unit of study which was to be taken online, without invigilation. Students were to have access to all the unit learning resources, books, and the global internet, as they sat the exam. Also, students were to be given generous time windows for completion and upload of their exam script, as a reasonable accommodation to the “brave new-world” assessment practices, that were forced upon academic and student alike, due to the COVID-19 pandemic emergency. This presentation will describe the setting of what was planned to be, and proved to be, a Chegg-proof, ungoogle-able final examination. The examination also led to a profile of marks across the student cohort that was consistent with previous in-person, on-campus, invigilated examination. The specific unit was second year physics of vibrations and waves - PHYS2010 - Classical and Quantum Oscillations - at Macquarie University, Sydney, Australia.

In conclusion, it is possible to set final examinations for open, online delivery that do not raise academic integrity issues. But, the question is - at what cost in academic workload? The workload in the case being described was at least five times that of setting an examination that is to be sat in-person under invigilated conditions. There is little prospect that this workload would reduce as academics become more experienced at setting such examinations. Once such an examination has been sat by one cohort it is “out there” and can never be re-used. Every year has to have a completely new, ungoogle-able set of questions. The increasing creative effort to draft the questions year-on-year might even lead to increasing workload over time. In contrast, the invigilated, in-person examination, implemented according to appropriate standards of academic integrity, achieves meaningful summative assessment in an efficient manner. One risk is that extra workload associated with implementation of online, open examination will be unacknowledged and unpaid additional work for academics, as it was in 2020.