Google Alerts for detection of contract cheating

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What problem does it solve?

- Detect improper sharing of test and assignment questions to chegg.com and (potentially) other websites where contract cheating can occur.
- Minimise cognitive burden: set and forget.
- Google crawls the entire web frequently and so alerts are typically received within hours of a question appearing.
- Quick detection acts as disincentive to cheat, and reduces exposure of questions and solutions in the wild.

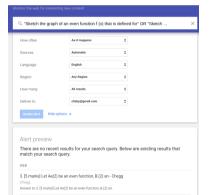
How does it work?

- Prior to release of the assessment, set up a Google Alert that searches for text fragments from the assessment.
- If any hits are detected you will receive an email alert from Google with the URL.

- Google Alerts URL: https://google.com/alerts (you will need a Google account).
- Search text: 32 words or less. Options: As-it-happens, All results.
- Chain together with OR operator "rare" text snippets in double quotes.
- E.g.: "Sketch the graph of an even function f (x) that is defined for" OR

 "Sketch the graph of an odd function g(t) that is defined for" OR

 "function. Determine if the function"
- For individualised assessments ensure that snippets are common to all versions.
- 6 words of mathematical text, even with common words, will result in few hits.





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- We have received various alerts from chegg.com that have detected cheating.
 (False positives: Quizlet, Brainly, 4chan, Numerade, Byjus, Gauthmath.)
- Chegg is indexed by Google. This is Chegg's choice, presumably because it drives traffic to their site and improves profits.
- Detection relies on students not modifying the question text.
- Chegg will takedown questions within a couple of days of a request, and provide account information of question submitter.
- Typically this account information will not identify the student, as users can sign up with any email address.
- Ideally: generate unique questions for each student, and that way identification can occur purely based on question that has been shared.
- Nathan Clisby & Antony Edwards (2021) Individualized summative assessments as used during COVID-19, International Journal of Mathematical Education in Science and Technology, DOI: 10.1080/0020739X.2021.1982040