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Supplementary note 1

Once the bribe was paid, the 'fixers' would either arrange for other 'intelligent but financially needy medical students – so-called proxy candidates – to sit the admission examination on behalf of the bribe-paying students, or they would plan the seating in the examination venue so that the bribe-payer sat next to a so-called 'scorer' and was allowed to copy off the scorer's paper. Sethi notes that the scam became 'even more sophisticated' in 2011. According to him, applicants who paid the pre-set bribe were instructed to only attempt questions to which they knew the *correct* answers. In the background, all the computers of the testing centre were linked to a common office network to which the Head of the test centre retained sole administrative privileges. This enabled the Head to access all the multiple-choice answer sheets after they had been scanned into the system, identify the test papers of the bribe-payers, and complete the test on behalf of the students, inserting the correct answers into the blank spaces. After the test sheets were altered, the Head would then source the original answer sheets from the invigilators – under the pretext that the students had requested copies of their answer sheets – and complete the answers on the hard copy so that they tallied with the version on the computer.

Supplementary note 2

Similar to the Indian situation, Transparency International² noted the prevalence of examination fraud in Nigeria, pointing out that the dilemma in Nigeria is grounded in several factors but a critical contributor is again the shortage of university spaces. Data on university access in Nigeria for 2015, for example, indicate that while more than 1.4 million students gained university admission passes, only 415 000 were admitted to the universities.³ Discussing the problem without seeking to rationalise or justify the significant risk to higher education, Osipian notes that the intense competition for available spaces created fertile ground for 'bribes and personal connections to gain coveted places at universities with university administrators working directly with agents to get bribes from students'³. He underscores the point that students who do not want to participate in the fraudulent activity are then actually excluded from a university opportunity.³

Supplementary note 3

During the investigation into examination fraud at Makerere University, some of the student respondents (as well as some students from other Ugandan universities) were sufficiently bold to share their 'tips' with the investigators which included:

- Using calculators to write down formulas, or typing answers to multiple-choice questions on a calculator, which is 'lent' to a friend.
- Smuggling crib notes into the examination room. Several students indicated specifically learning shorthand which allowed them to write lengthy pieces of work on small pieces of paper. Another trick was to place the crib notes in underwear because this was never checked by invigilators. Some of the young women interviewed stated that they would often write on their thighs because it was very rare for the invigilator to ask them to pull up their skirts, and if the invigilator was seen to be looking too closely, it posed the risk of an allegation of sexual harassment by the student.
- Working in a network and using pre-agreed signal systems, for example, coded coughs, sneezes, and stationery taps in multiple-choice examinations; or planning for different members of the group to study different units of work and then sitting in close proximity to one another so that answer books could be shared amongst members of the network. It is conceivable that a conscientious invigilator should have prevented this arrangement, or a vigilant marker would have noticed the different handwriting in the answer book, but it seems that this did not happen, and senior students reported using the network strategy from their first year of study.
- Using smart watches with which to exchange information with friends in and outside the examination venue. The information would be easily accessed while a student pretended to be checking the time.
- Exploiting the sloping infrastructure in the examination halls and either arranging with a cleverer student to sit in a position where they could copy (so-called 'active collusion') or positioning themselves in a manner that easily allowed (unknown) access to another students' answers (so-called 'passive collusion').

Impersonation and identity fraud - where someone else was paid to sit the examination for a student – was also highlighted and some students even went to the extreme measure of reporting their identity documents or examination cards 'as missing' in order to avoid detection.⁴

Supplementary note 4

In 2011, in response to the examination cheating scandal at Kyoto University (when a student was caught using a mobile phone to source answers from online platforms during the university entrance examination), the greatest concern and outrage was not the emerging ethical dip but rather whether the country's top universities – recognised as 'the gateway to top jobs in Japan's corporate culture' – had adequately understood and adapted to the

Internet's new opportunities for cheating'⁵. Based on available reports, the issue of possibly declining ethical standards appears to have been given no (or very little) consideration.

Supplementary note 5

The Honour Code is not a once-off initiative contained in the Rules Book or discussed at the University Academic Opening – in order to make a difference, the university must ensure that it becomes a series of continuing scaffolded activities integrated into all of the university experiences so that students begin to internalise an outlook on life that will prevent them from cheating. At Coventry University, institutional budget is made available to appoint student champions for academic integrity. 'These students are formally trained and given the job of highlighting to other students why it is wrong to cheat,' says O'Malley⁶.

References

- Sethi A. The mystery of India's deadly exam scam. The Guardian. 2015 December 17 [cited 2017 Mar 30]. Available from: https://www.theguardian.com/world/2015/dec/17/the-mystery-of-indias-deadly-exam-scam
- Transparency International. Global corruption report: Education. London: Routledge; 2013 [cited 2017 Mar 30]. Available from:
 - https://www.transparency.org/whatwedo/publication/global corruption report education
- 3. World Education News + Reviews (WENR). Education in Nigeria. 2017 March 07 [cited 2017 Mar 30]. Available from: http://wenr.wes.org/2017/03/education-in-nigeria#
- 4. Campus Eye. Revealed: Tricks Makerere University students are using to cheat exams. 2015 December 04 [cited 2018 Mar 04]. Available from: https://www.campuseye.ug/revealed-tricks-makerere-university-students-are-using-to-cheat-exams/
- 5. Mogg T. A country is shutting off its entire internet to stop exam cheats. Digital Trends. 2018 June 22 [cited 2018 Dec 23]. Available from: https://www.digitaltrends.com/mobile/a-country-is-shutting-off-its-entire-internet-to-stop-exam-cheats/
- 6. O'Malley B. The digital revolution in cheating has already begun. Academic World News. 2018 July 07 [cited 2018 Dec 24]. Available from:
 - https://www.universityworldnews.com/post.php?story=20180707045425397