Ethics and Plagiarism: Helping undergraduates write right

Chris Willmott and Joanne Badge (University of Leicester)

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In June 2008, celebrity psychiatrist Raj Persaud was disciplined by the General Medical Council for the unattributed republication of work by other scholars as though it was his own. This high-profile case is only one example of a growing anxiety about plagiarism, both in academic works and, particularly, in undergraduate courses. Indeed, concern about plagiarism now starts before students even get to Higher Education. For example, the discovery that 233 university applicants all cited as their inspiration to study medicine the same childhood incident – in which they set fire to their pyjamas – has led to the routine screening of all UCAS (Universities and Colleges Admissions Service) applications.

Many issues are raised by this current emphasis on plagiarism, with each apparently prompting a more fundamental question: why are we more concerned about plagiarism now than previously? Why has there been a growth in plagiarism? *Has* there been a growth in plagiarism? What is plagiarism? Why do students plagiarise? What can and should we be doing to address the issue?

**What is plagiarism?**

In truth, the single term ‘plagiarism’ covers an uncomfortably broad and complex range of offences. Most definitions would highlight the attempt to gain inappropriate credit using written work carried out by somebody else, but passed off as your own. Even this characterisation fails to include the repurposing of figures and images, and self-plagiarism, where the issue is reuse of your own words in another setting. There is a sliding scale of seriousness from wholesale copying of a piece of work or commissioning someone else to write it (perhaps via an online ‘ghostwriting’ service), through to the use of a short, but significant, string of words. Exactly how few words has been debated, with some suggesting seven, five or even three words in unaltered order being enough to warrant rebuke.

Copying of published works is not the only issue. Motivated by pedagogic theory, or as often by budgetary constraints, the contemporary student is often asked to carry out practicals and other assignments in groups. Teamwork is seen to be an important transferable skill yet, despite asking students to work together, we expect submission of individual reports. The temptation for collaboration to spill over into collusion is significant. How we deal with fair allocation of credit for jointly authored new media projects such as wikis or group blogs is an issue with which few institutions have yet grappled.

**Why is there growing concern about plagiarism?**

Accusations of plagiarism are not new; William Shakespeare, for example, has frequently been accused of an unhealthy dependence on his source materials. Why is it, then, that we are seeing increased discussion of the issue?
One explanation might be that more plagiarism is taking place. The existence of the internet has clearly made it far easier to find material and to import chunks of text into an assignment; hence it would be perfectly natural to assume that plagiarism is on the rise. It is almost impossible, however, to take this beyond a gut feeling and apply any meaningful numbers. Records prior to electronic detection are poor and those kept now are not much better. In a recent nationwide survey of plagiarism penalties in UK higher education institutions, fewer than half of the 93 respondents could provide information on the level at which the offence was recorded (first-, second- or third-year undergraduate), despite the fact that 72% of respondents formally required the level of study to be taken into account when the penalty is considered. As is so often the case when increases in any measure grab the media’s attention, be it the spread of superbugs or burglary figures, some of the apparent rise in plagiarism may be attributable to greater awareness and better monitoring rather than more frequent occurrence per se. Access to electronic documents has facilitated ‘cut and paste’ copying in the construction of essays, but it has also allowed for identification of instances of copying that would have gone unnoticed only a few years ago.

There are, however, other issues underlying the increased interest in plagiarism. It is surely no coincidence that the rise in discussion of the topic has occurred at the same time as two other trends in academia. One is the growing emphasis on intellectual property rights and ‘ownership’ of ideas. The second is a more widespread crisis of confidence about ethical conduct. The latter can be seen in the publication of codes of conduct for scientists, for example by the International Union of Biochemistry and Molecular Biology and by the UK Council for Science and Technology (as it was at the time, now part of the Department for Innovation, Universities and Skills), both of which had already been initiated before the Hwang Woo-Suk cloning scandal brought worries about falsified data to a wider audience. These concerns are also evident in changes to the curriculum as far down as secondary school where not only is ‘Citizenship’ now a subject in its own right, but also the ethical consequences of developments in biology and biomedicine have also achieved greater prominence.

Why do students plagiarise?
It is frequently assumed that students caught plagiarising have carried out their actions with the deliberate intention to cheat. This ‘guilty until proven innocent’ approach may not be warranted; although some offenders will indeed have been ‘trying it on’, research has shown that there are a range of causes of plagiarism. Jude Carroll, Deputy Director of the Assessment Standards Knowledge exchange CETL and a leading authority on undergraduate plagiarism, argues that there are at least three categories of offence grouped under the ‘plagiarism’ heading. These are: misunderstanding – the student genuinely didn’t know what to do; misuse – they knew what to do, but didn’t know how to achieve the objective; and third misconduct – they knew what to do and they knew how to do it, but chose to break the rules.

Inspired by Delia Smith’s recent book and TV series How to Cheat at Cooking, Fiona Duggan, formerly of the JISC (Joint Information Systems Committee) Academic Integrity Service, draws an analogy between academic writing and cookery. Students, she argues, are too prone to settle for a “frozen mash and tinned mince” approach rather than developing genuine culinary skills. Their reasons for failure to engage with the task may be varied. Some may have such serious weaknesses in their underlying skills and experiences that they cannot follow the instructions being given
(Duggan illustrates this by reference to a query posted on the Deliaonline discussion board, where one puzzled user asked for an explanation of what was meant by “browning” the mince). Others may know what is required, but decide that they will try and get away with cutting corners. They may even pay someone to write an essay for them; by extension of Duggan’s analogy, this would be like hosting a dinner party and employing outside caterers while pretending you have done the cooking yourself.

**What can we do to address the issue?**

There is no doubt that unacceptable levels of copying are occurring in the preparation of undergraduate assignments. What are universities to do about the problem? There are at least three dimensions to a suitable response: detection of offences; consistent application of appropriate sanctions; and, most importantly, we believe, training in correct approaches to scientific writing.

**Detecting plagiarism**: identifying copied text is a relatively straightforward task. Plagiarists frequently leave a ‘smoking gun’ in the form of unnecessary font changes, inconsistent writing style and/or quality, American spellings or excess use of obscure reference materials. Source documents can often be identified by typing a suitable phrase from the assignment into Google since, as Derek Cox points out, “If worry, overload and poor understanding are the wellsprings of much (or most?) plagiarism, it is very unlikely that it will also be carefully concealed. ...If you are plagiarising in order to shortcut work pressures, it would be self-defeating to then spend extensive amounts of time covering your tracks.”

Many institutions, and some journals, now use specialist software for detecting and quantifying plagiarism. The best-known package is Turnitin (or iThenticate, the publishing equivalent). Assignments submitted electronically by students are automatically compared against other electronic sources, including web pages, open access journals and previous work submitted for analysis. The software generates an ‘originality report’ showing the percentage of the assignment matching other source(s), colour-coding the text to highlight the matches side-by-side with the phrasing in the reference document.

There is no doubt that Turnitin is a powerful weapon and, in our experience, few students challenge the outcome. This may be, however, because we are relatively careful in application of the technology. The software is merely looking for identity algorithms, and it will always require human intervention to assess the veracity of an apparent offence. An overall score of 8% matching text, for example, may be the result of multiple occurrences of a few common phrases or technical scientific language taken from several sources, or it may a whole paragraph lifted verbatim from one source. Short assignments will tend to have a higher percentage of ‘background counts’ than longer pieces of work, and extensive reference lists can inflate a score (there is the option using Turnitin to exclude references and quotes in inverted commas, but Harvard-style in-text citation may also cause apparent matches).

**Punishing plagiarism**: there is a suspicion that some staff in the past have turned a blind eye to plagiarism. Before electronic detection, the process of preparing a case against a student was time-consuming and laborious. Policies may have been underdeveloped (through lack of use and insufficient test cases) and, as such, impractical to administer, requiring, for example, the gathering of several senior members of staff and a substantial body of evidence. Some staff have a natural talent,
and occasionally an enthusiasm for, spotting plagiarism, whereas others, by luck or judgment, never find a single case. Electronic detection of matching text has certainly levelled the playing field, removing the burden of the initial discovery or suspicion from staff and facilitating a more consistent approach to penalties across a department. Early identification of a problem allows for timely feedback, before bad habits have become ingrained and, hopefully, training students in better approaches before the offence occurs in a piece of work where a zero mark would jeopardise a student’s degree classification.

**Prevention is better than cure**: a growing body of academics recognise that the battle against plagiarism must be seen in the broader contexts of scientific literacy and of study skills such as referencing and citation, a package that Carroll terms “academic apprenticeship”. For several years, we have incorporated advice on plagiarism avoidance in our skills modules for first-year undergraduates. We use a short activity in which students are asked to consider first individually, and then in consultation with their neighbours, whether or not example texts are guilty of plagiarism when compared with the original document. The ‘answer’ is then discussed with the group, and helps students to begin to distinguish appropriate and inappropriate uses of sources. This popular session also includes advice on note-taking and organising of references. The aim is not only to avoid people falling inadvertently into ‘cheating’ behaviour, but also to convey that we actually learn better when we have made greater effort to understand the subject sufficiently well to explain it in our own words. The plagiarism activity has now been developed further by a colleague at Leicester into Don’t cheat yourself, a series of subject-specific online tutorials.

**Putting more thought into the assignments we set**: if we leave our house door open and go on holiday, we should not be surprised if someone has helped themselves to our valuables by the time we return. Equally, if we set simple “regurgitate facts about biochemical process X” essay titles, then we are inviting less conscientious students to lift material from books and from the internet. As Carroll points out, the un-invention of Google is not going to happen, so we need to be more creative in making tasks less plagiarisable. Rather than ‘write an essay on stem cell research’, a simple ‘click-and-find’ title, why not ask students instead to contrast the approach taken in two different research papers (possibly specified by you) and to present a reasoned argument suggesting why one rather than the other is likely to have greater impact on future patients.

**Modelling good practice**: to avoid accusations of hypocrisy, and to provide examples of correct practice, we need to ensure that our module booklets, lecture handouts and Powerpoint slides are appropriately cited and give credit where credit is due.

**Hearts and minds**: ultimately, institutional policy towards plagiarism needs to be more than both catching students cheating and teaching them how to avoid accidental plagiarism. Students need to work in an environment where it is obvious that plagiarism is a poor short cut that will not provide for their personal development in the longer term. To return to Duggan’s cooking analogy, by buying tinned mince, you will never learn what ‘browning’ means, neither will you share the satisfaction evident on the faces of Masterchef contestants when they have produced a mouth-watering dish of their own creation.
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Timetabled against astronomer Patrick Moore, Chris Willmott once gave a conference presentation on plagiarism to an audience of one. Fortunately for him, the attendee was a journalist who subsequently disseminated the talk to a broader audience. Awarded a National Teaching Fellowship in 2005, Chris is a Senior Lecturer in the Department of Biochemistry at the University of Leicester. He has particular interests in the ethical dimension of developments in biomedicine and manages BioethicsBytes.wordpress.com, a web-based archive of resources for teaching about bioethics. email: cjrw2@le.ac.uk

Joanne Badge is Web Resources Development Officer in the School of Biological Sciences at University of Leicester, providing support to academic staff for online teaching. Having completed a PhD in molecular plant virology at the University of Leicester and undertaken various university posts in the UK and USA, she came to work for JISC as the Resource Guide Advisor for Health and Life Sciences. This role involved the promotion of subject-specific JISC electronic resources to staff and students in UK higher education institutions. She rejoined the University of Leicester in 2004 to start her current role. The School of Biological Sciences was the first in the institution to trial and fully implement electronic plagiarism detection (TurnitinUK). An ongoing research project at the School, led by Dr Badge, is looking at how the institution can move beyond electronic detection to instil a culture of academic integrity in staff and students. email: jlb34@le.ac.uk