

(Im)possible to Prove: Formalising Academic Judgement Evidence in Contract Cheating Cases Using Bibliographic Forensics

Associate Professor Cath Ellis

Mr David House

Mr Kane Murdoch

University of New South Wales, Sydney, Australia

Table of difficult types of evidence that can contribute to bibliographic forensics. Taken from Rogerson (2017) (text in normal font) that we have augmented and added to (text in italics).

Type	What it looks like in student submission	Exemplar of formal advice to contribute to probative evidence
Reference list provided without any in-text citations and/or direct quotation	Where a reference list is included without any in-text citations in the body text, there is no relationship between the sources and the use of sources. This may also indicate that a reference list has been borrowed from somewhere else and just placed at the end of the assessment task <i>It is also an indication that students' perception that low or no text matches in a Turnitin similarity report is an ideal/desirable outcome and that this will deflect suspicion/not attract attention.</i>	<i>"My review of this paper reveals the student has failed to reference the sources in their bibliography throughout their paper. This is inconsistent with the assessment brief and other work submitted by the student. In my academic judgement, at the very least this indicates poor academic practice. At worst, without reasonable explanation, this raises concerns that the student is not the author of this assessment."</i>
Reference list and in-text citations do not match	There is no relationship or correlation between the reference list and in-text citations. Usually an indicator of the body text being borrowed from another source, and placed with a reference list from another source. <i>Or that the writer has written the paper and 'jammed in references' at the end to plump out a bibliography. This can be a lesser allegation.</i>	<i>"My comparison of the bibliography and the in-text citations in this paper reveals that they do not match each other. This is very unusual in my academic experience marking papers. In my view, it is possible that the student has tried to overstate the research they've done in preparing this work, or worse, that it is evidence that the student is not the author of the work."</i>
Inappropriate sources	Sources in the reference list may include sources such as sites selling essays (such as UK Essays) and example or sample assignments. In these cases the student has included the source information but does not understand that these are inappropriate sources to use	<i>"The references the student has cited in this paper include websites which are known as, at best, file/assessment sharing services, and, at worst, services that sell papers students submit as their own. While it may be that the student simply does not appreciate this source material is inappropriate in an academic paper, this is also evidence that they have engaged with a website known for producing contract cheated work."</i>
Irrelevant and fabricated sources	There may be entries in the reference list that are not relevant to the discipline, assessment topic or subject matter. <i>The passage in the main body of the text has nothing to do with the information in the paper that it is cited against. References that have been made up. References that are used inappropriately: eg a novel being used to cite factual information.</i> For example: An assessment on the cross-cultural concept of power distance (Hofstede, 1980) had a reference included on 'switchable distance-	<i>"My review of this student's paper reveals several references that are not academically relevant to the topic. Having taught classes in this discipline for X study periods, it is also my academic judgement that no reasonable student reading/reviewing this source material, would mistake it for something relevant to the assessment task. In my view, it is possible that the student has tried to overstate the research they've done in preparing this work, or worse, that it is</i>

	<p>based impedance matching networks' i.e. electrical power distance.</p> <p><i>Passages in a paper that undertook a Deleuzian analysis of allegory as a cinematic process cite a paper about managing antimicrobial resistance in the treatment of acne from the Journal of Aesthetic Nursing and another on the outcomes of septorhinoplasty from the Journal of Oral and Maxillofacial surgery. These have been the product of a search for articles on 'aesthetics'. These have been the product of a search for articles on 'aesthetics'.</i></p>	<p><i>evidence that the student is not the author of the work."</i></p> <p><i>"This student has used [Reference A] to support an argument in their third paragraph that [ARGUMENT]. [Reference A] is one I have never before seen a student in this class use and so I obtained a copy (attached for your reference). Having reviewed [Reference A], not only does it not relate to the course material, but it also does not support the argument the student made in their third paragraph. In my view, the student has either actively fabricated a reference in support of an unsupported argument in their paper or, worse, the student is not the author of the paper they submitted."</i></p>
<p>Does not meet referencing/bibliographic criteria requirements set for the assessment task</p> <p><i>Or far exceeds implicit bibliographic requirements.</i></p>	<p>Set criteria may include:</p> <p>Minimum/maximum number of references</p> <p><i>No number of references required but the number in the bibliography far exceeds what is required and normally expected for a paper of this type/length.</i></p> <p>Type of references (journals/books/websites)</p> <p>Use of specific references/seminal papers/particular authors</p> <p>Date range of eligible references (e.g. post 2000 only)</p> <p>Observing where students do not meet the criteria provides another clue or observation point.</p> <p>For example: Where students are required to use journal articles from the year 2000 onwards and in-text citations and the reference list shows books from the 1980's this may be an indicator of using an old textbook as the source of their writing/references.</p> <p><i>It could also be an indication that writers are using old references to avoid matches in Turnitin.</i></p>	<p><i>"In my review of this paper I found it unusual that there were so few references for a paper of this level of sophistication. In my experience of marking this paper over three terms. Other student work submitted in this course that displays similar quality and sophistication normally have at least three times as many references as this one. At best this student has not cited the materials they have relied upon to compose this paper. Worse this may be evidence that the student is not the author of this paper."</i></p> <p><i>"Having reviewed this paper I was struck by the large volume of resources in the bibliography. For a paper of this length (xxx words) I would normally expect to see no more than yy references. This paper has four times that amount. The fact that only half of them are directly cited in the main body of the paper makes me concerned that the student has overstated the research they've done in preparing this work, or worse, that it is evidence that the student is not the author of the work."</i></p>
<p>Access date on internet / dates on internet sources</p>	<p>A reference list entry for the current year with an access date of an older year should be noted as an irregularity, particularly where it is outside the student's candidature, or matches to the assignment due dates of a previous instance of the subject.</p>	<p><i>"The following references included in this student's bibliography show an accessed date which does not correspond with the study period in which they took the subject:</i></p> <ul style="list-style-type: none"> • ... • ... • ... <p><i>In my view, this is strong evidence that they have copied some of this paper from the work of another student or, worse, that they are not the author of this paper at all."</i></p>

<p>Presentation of references in foreign languages particularly where unrelated to the students' background <i>Or resources that are unavailable</i></p>	<p>While some students may include references from articles studied at other institutions, presentation of references unrelated to the student are worth noting. For example: An international student from South East Asia presented 4 references in Polish, referencing a Polish institution in Warsaw. Two were seminal papers available in English and referred to in class. The student had purchased essays written by someone in Poland, but due to poor English language skills did not review what they had purchased and did not detect the discrepancy. <i>Reference to a publication in the bibliography that is unavailable (eg. a reference to a newspaper article that included 'page unavailable in your region' as part of the reference)</i></p>	<p><i>"During my review of this paper I noted the student had reference [Reference B]. This source material was one I'd never previously seen in running this subject and when I obtained a copy, it could only be acquired in a foreign language. In my view, unless the student can show that they read/speak this language, it is likely that they have tried to overstate the research they've done in preparing this work, or worse, that it is evidence that the student is not the author of the work."</i></p>
<p>Old dated references linked to contemporary organisations or recent concepts/findings</p>	<p>For example: A reference dated 1965 but citing Microsoft as the company being researched A reference dated before a discovery took place or a theory published</p>	<p><i>"My review of this student's paper reveals several references that are not logically possible. For instance there is a source referring to the use of [a technology] which has a publication date X years earlier than [the technology] was invented. While this may be a simple error on the part of the student it may be evidence that the student has overstated the research they've done in preparing this work, or worse, it may be evidence that the student is not the author of the work."</i></p>
<p>Bibliographic 'mashups' (Rogerson, 2014) <i>Altered dates</i></p>	<p>A mix of bibliographic information (books, journals, news articles) within the one reference entry For example: Tribune, H. (2008) Engineering leadership and Anticipation in Australia. <i>Journal of Economy</i>, Australia: Queensland Edition. The journal does not exist, there are no state based editions of journals, and Tribune H ended up being the Herald Tribune. This particular example was sourced by the student from a student file-sharing site. The sharing site was located through a Google search. <i>References in a bibliography are changed eg date changed by 10 years, so saying the date of publication is 2013 but the resources was actually published in 2003. This could possibly be to use sources that are not detected by Turnitin but make the bibliography appear up-to-date.</i></p>	<p><i>"My review of the references the student used in this paper reveals that many either do not exist or have been altered to, for example, change the date from X to Y. You can see this on the Turnitin report where the date is the only portion of the bibliography that is not matched to other sources. The consistency of these mistakes makes it unlikely to be explicable as a typographical error. In my view, the likelier explanation is that the author has fabricated/altered these references to artificially deflate the Turnitin similarity score. This amounts to fabrication or, worse, could also indicate that the student is not the author of the paper"</i></p>
<p><i>Unique or specific bibliographic markers</i></p>	<p><i>Evidence of such things as database account IDs appearing in bibliographies that are irregular and/or that do not match the institutional ID number. Eg. every document downloaded from ProQuest from an institutional library includes an ID number</i></p>	<p><i>"My review of the bibliography in this student's paper reveals that multiple ProQuest accounts have been used to obtain the source material. This is demonstrated by the varying ProQuest account IDs that appear in the</i></p>

	<p>that is unique to that library account in the document metadata. This appears in a bibliography if a referencing tool (eg Zotero) has been used to write the bibliography. These tools can be used to extract bibliographic data from the document metadata when they create a bibliography. If more than one account ID appears in a student's bibliography, it is evidence that resources have been accessed from more than one library.</p>	<p>references. The library has advised me that our institution's ProQuest ID number is [XXXXXX]. Since our students have free access to ProQuest through the library, I am concerned that the student may have acquired reference material inappropriately or worse that this is evidence that the student is not the author of this piece of work."</p>
<p>Use of multiple referencing tools</p>	<p>Different referencing tools or systems being used within a paper: Eg footnotes being placed by using both the Microsoft word footnote tool and being typed in manually. Use of Microsoft citation manager being used for some references and not others.</p> <p>Different referencing tools or systems being used across multiple papers: Eg evidence of Mendeley, Zotero, Endnote, Microsoft Word citation manager in an earlier paper in the course and a later paper showing now evidence of these being used.</p>	<p>"My review of this student's paper reveals that the author has employed multiple referencing tools within this paper. For example [Reference A] has most likely been copy/pasted from the library website into the document, while other references have been populated using Endnote. In my academic judgement, this is inconsistent and unusual. I have also reviewed two other papers this student has submitted in the same study period. One of those papers shows no signs of the use of a referencing tool, and the other has used Zotero consistently throughout. It is my academic opinion that this level of inconsistencies within and across these assessments, make it likely that the student is not the true author or some or all of these pieces of work."</p>

Rogerson, A. M. (2017). Detecting contract cheating in essay and report submissions: Process, patterns, clues and conversations. *International Journal for Educational Integrity*, 13(1), 1–17. <https://doi.org/10.1007/s40979-017-0021-6>