


Academic citation practices need to be modernized so that all references are digital and lead to full texts.

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Researchers and academics spend a lot of time documenting the sources of the ideas, methods and evidence they have drawn on in their own writings. But [Patrick Dunleavy](#) writes that our existing citation and referencing practices are now woefully out of date and no longer fit for purpose. The whole scholarly purpose of citing sources has changed around us, but our conventions have not recognized the change nor adapted yet. Below he sets out what's wrong with what we do now, and then sketches a radical agenda for starting afresh.



What is the essential purpose of academic referencing? What is its 'be all and end all' rationale, such that we devote so many hours to it? A completely out of date answer dominates current practice—namely that referencing and citing is about showing (acknowledging) your sources, in a way that can be followed up by another researcher. Your referencing should direct them to the same precise sources and pages that you yourself used in constructing an argument or a case. In this sense referencing is about replicability (ascertaining that a cited source actually exists and says what you say it says), as well as about correctly assigning credit, or (far less commonly) criticizing inadequate work.

But in the digital era this is too limited an ambition. Referencing should instead be about directly connecting readers to the full text of your sources, ideally in a one-stop way. Readers should be able to go directly (in a single click and in real time) to the specific part of the full text of the source that is being cited.

'Legacy' referencing marginalizes open access texts

Referencing should connect readers as far as possible to open access sources, and scholars should in all cases and in every possible way treat the open access versions of texts as the primary source. Versions of the text that depend upon paid access (buying the book, or subscribing to the journal) should be relegated to the status of secondary sources, supplementary information for status-conscious academics (or their promotion committees), but not forming part of the core information about a text. This may seem revolutionary but it is actually just a reflection and slight extension of the [new rules](#) that the British government's research funding body has already introduced for the next 'research excellence framework' (REF) exercise, expected in 2020. For any academic's or researcher's journal articles to be considered as part of a university case for REF funding support they will either need to be available in open access form in the journal, or the university must show an immediate pre-publication version of the paper on their e-depository.

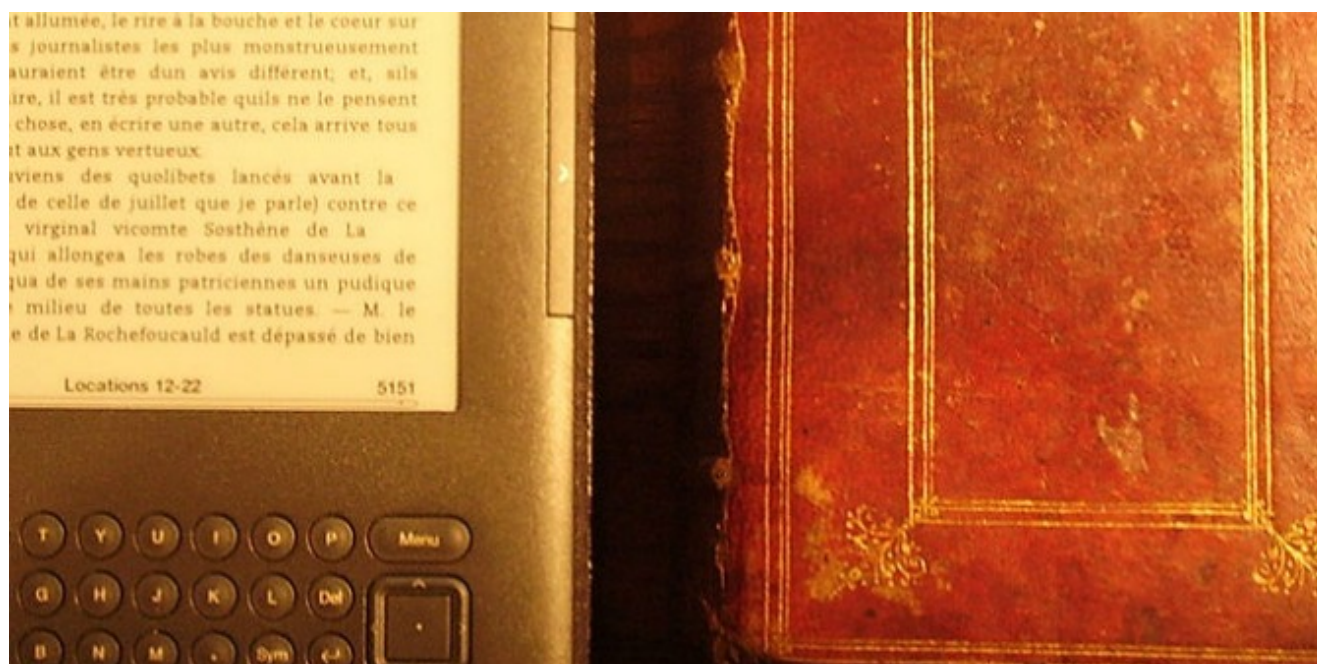


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So the **primary version** of a journal article, the version that we should reference first and most prominently in our own work, and that we should always provide links to, should be in one of four forms:

1. *An article in a wholly open-access journal.* This is probably the best option because a well-known journal is easy to find, and most readers in the field will already know that in this source they can click through to any paper, maximizing their incentives to do so.
2. *An open-access article within a journal that is generally behind a pay-wall.* Those readers who click through to it will still get the full text here, because the authors or their university or grant donor have paid to secure that. But current estimates suggest that less than 5% of articles in paywall journals are open access, so readers may not expect it. This status needs to be clearly communicated e.g. by putting [**Open access**] at the end of every relevant reference. Otherwise, readers may see this as just another legacy source.
3. *The immediate pre-publication version available on the university e-depository.* Essentially this is the author's final manuscript version, so that the text and Figures etc are completely identical to those in the formally published version—but, of course, the pagination is not the same. Publishers like to claim that their printed version 'adds value' compared to a depository version, but for most readers any gain will be imperceptible, while the published diagrams, graphs and charts are often worse than the author's originals (e.g. in black and white instead of colour).
4. *The immediate pre-publication version available on another widely accessible and well-used access open access site, such as the brilliant [Research Gate](#), or perhaps [academia.edu](#).* (If you don't know about these sites already, please read my post on [not being an academic hermit](#)).

From now on therefore, any version of a journal article behind a paywall should *only* be cited first, as the primary source if none of the four options above is available, and nothing better than source details alone can be produced. However, if an open access version of a text is available, this must always be treated as the primary text. Here the commercial version of the text becomes the **secondary version** and it should always be cited second and in a manner that makes this completely clear. For instance, after the primary reference to the full text, you could write: 'Also available as:' And add the traditional paywall (\$) warning to stop readers without access wasting time on such a source.

Updating legacy practices for digital

Perhaps you are sceptical about (or do not agree with) the argument for prioritizing open access versions above. Whatever your stance here, hopefully in this section I can convince you of the need to make some other fundamental changes in our concept of the core details for journal articles and books. These absolutely essential elements, the details that should be universally given, need to be expanded in the digital era so as to cover:

- *The shortened URL for the university e-depository version of the text.* All commercial publishers and many journals still hate including URLs in reference lists because in the past academics and researchers would just copy long URL addresses off the open web, or ordinary Google, with many defects. Often the links were strictly temporary (and so often became broken links). The URLs cited also included all kinds of ‘rubbish text’ elements, and so they were overly long and looked ugly, out of place and disruptive in reference lists. These problems are behind us now. No one needs to include long URLs anymore—simply go to bitly.com (or another alternative site) and type in a long URL, to get a compact and neat looking version that fits easily into any reference list. All university e-depositories should now issue permanent URLs for any item that they store, links which are guaranteed not to break or change in future. The best depositories now have their own very short but well-branded permanent URLs—for instance the LSE’s Research Online service gives URLs that look like this: <http://eprints.lse.ac.uk/56492/> In the remote contingency that anything goes wrong with the reproduction of such a link (e.g. because of misprints), the URL includes LSE’s web address and the staff will also be able to help readers to find the right source, and can issue corrections or arrange re-directs. I hope that all depositories are geared up now to work in this way?
- *The DOI permanent URL for the source* (which covers both journal articles and also books). DOI here stands for ‘digital object identifier’, which is a unique code number issued by commercial publishers for each individual journal article or book that they publish. This identification number will never change. And if you add the prefix <http://dx.doi.org/> to the front of it then you get a permanent URL. So take my paper on ‘Analysing party competition in plurality rule elections’ which has: doi: 10.1177/1354068811411026. Combining the prefix and the number gives an invariant URL <http://dx.doi.org/10.1177/1354068811411026> that takes you reliably to the commercial publisher’s site for the article. In this case it is a paywall site, so it is not much good beyond a legacy source link unless a reader has access to that journal. But if the article is in an open access journal or is an open access piece in a paywall journal, then the DOI gives readers a second permanent URL. However, it should be clear that the publishers’ DOI is a lot less attractive and is more easily messed up or mis-recorded (because it has so many numbers) than a shortened permanent URL from a good university online depository. This is an inevitable product of a DOI system that now includes some 85 million separate items.

We need to junk page references in favor of short source quotes that readers can search and find

Academic references should wherever possible be precise, and so a hallmark of past good practice has been that citations tell readers exactly where to look in otherwise long and baffling texts for the provenance of what is being said. But if digital and open access texts are now our primary sources, the ones that we know the vast majority of readers will use, then pagination becomes irrelevant. The page numbers on an e-depository OA text, on the ‘early online’ version of an article, and in the ‘final’ article included in a journal issue and volume, will all be different anyway. This way only confusion lies. And if we want to URL-link readers directly to text passages, then incorporating pagination is simply not viable for ordinary academics and authors. At present, we can only URL link to a whole source, taking readers to the top of the source but not to a specific point inside it.

But if a URL link accompanies even a very short quotation of the source sentence then the problem disappears. Readers follow the URL link in one click to the top of the sources, copy a few words of the quoted passage into the Control+F search box, and go directly to the passage cited. (If the source is a book with preview, then readers could also try their luck with the facility to search inside a book on Google Books). So the solution for modern scholars must be to expand our use of very short ‘source quotes’ in what we write. Previously I might write in this style: “Bastow et al 2014, p. 21) argue that social scientists study mainly systems where humans are dominant”. Now I

need to write in a slightly different way so as to get rid of the need for obtrusive reference, thus: “Simon Bastow and colleagues argue that the social sciences focus most on ‘[the study of human-dominated systems](#)’”. Source quotes replacing page references do not have to be memorable, nor must they be especially salient bits of text, nor very long. They can be very short so long as they are unique. The six words that form this particular link are enough to identify without ambiguity a single sentence in a book of 300+ pages. [If in any doubt here, check that the quote words you want to use are unique in the source.]

Achieving modernization

Nobody can change citation systems on their own. We are just at the start of what will inevitably be a long process of driving out legacy citation systems from scholarship and science and replacing them bit by bit with a modernized approach that treats digital and open access sources as always the primary sources, and commercially published versions behind paywalls as radically inferior secondary sources. No doubt there are also things missing from my lists above that should be there, but I am too dumb to spot, or that matter to different disciplines in ways I can't see yet. So this is just a starting proposal, something to get the process of discussion started.

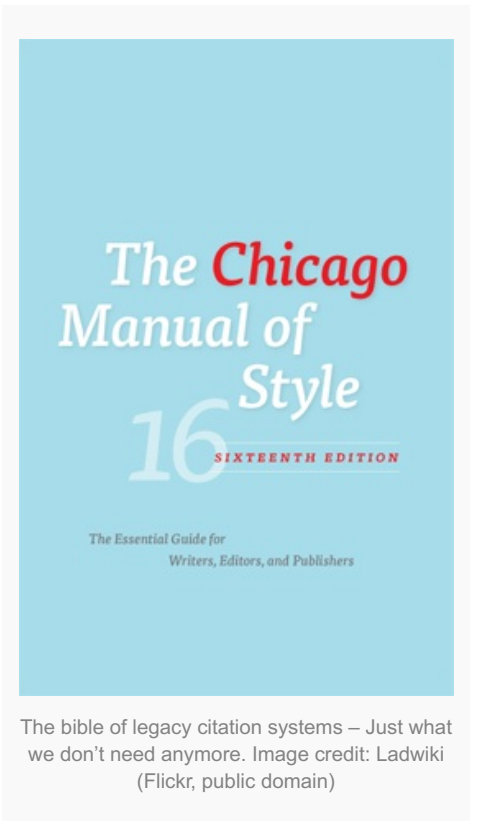
But if you are an academic, researcher or PhDer there is a very real payoff to immediately beginning to record all of the elements that I have set out above. For a start your own access to full text sources will radically improve by starting down this route. And you will be future-proofing your accumulated references against having to meet future demands for these new digital and open access details that otherwise you may neglect. Also librarians and information scientists and PhD supervisors across the world need to radically update the advice that they give PhD students and early career researchers on how to do referencing. If your advice does not currently cover the suggestions made here, then you need to at least alert those you advise to this menu of ideas.

Finally, let me plead directly with any readers who exercise power in the scholarly publication process—because you edit a journal or a book series, you work for a publisher or undertake editing for authors, or you are a powerful person in your professional academic association. Look hard at the rules, conventions and styles that you are currently applying. Can you honestly say that your legacy requirements meet contemporary needs and have adapted to the digital dissemination of scholarship? Are your citation rules designed in a ‘born digital’ way? Do they foster open access and the replicability of research by getting the full texts of source materials in front of readers in the most direct and simple way possible? If not, why not think about changing? You might discuss the issues with colleagues, circulate this post to the rest of your team or firm, and try to build a critical mass for change? We need to accomplish a very difficult, collective modernization, but your contribution in edging things along and building the critical mass of support needed can begin to make a real difference.

For the full suggested guidelines on how authors should cite books, journal articles and grey literature, please see the [longer version of this article](#) originally posted on Patrick Dunleavy's Write4Research blog at <https://medium.com/@Write4Research>

Note: This article gives the views of the authors, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our [Comments Policy](#) if you have any concerns on posting a comment below.

About the Author



Patrick Dunleavy is Professor of Political Science at the LSE and is Chair of the LSE Public Policy Group. He is well known for his book [*Authoring a PhD: How to plan, draft, write and finish a doctoral dissertation or thesis*](#) (Palgrave Macmillan, 2003).

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