

How to get your writing found:

Why medical writers and academics need to use search engine optimisation

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Abstract

Search engine optimisation (SEO) is the process of optimising your writing so that it can be found easily on the internet. There are five key steps that you can take to increase the discoverability of your work, which will be discussed below. These are:

1. Choose your keywords carefully;
2. Optimise your title;
3. Optimise your abstract;
4. Use your keywords throughout your article; and
5. Build links to your work.

It is important to consider SEO when creating all types of medical writing that will be available on the internet. However, while SEO is important for the discoverability of your work it should never outweigh the importance of good scientific practice and publication.

Introduction

Search engine optimisation (SEO) is a term that few medical writers and academics are familiar with. While it was once the domain of our technology colleagues, it is now something that all medical writers should understand and be actively applying to your work. This is because SEO is a strategy that you undertake to make sure that your work can be easily found online.

Despite many large publishers now providing information on how to optimise your research article prior to publication, SEO is still a relatively new concept for most academics, researchers,

and medical writers.^{1,2} In this article, we summarise the current advice on optimising your work to maximise its discoverability through search engines.

Why is SEO important?

Online information is found by web crawlers, spiders, and bots that trawl the internet. The web pages and files they find are listed in search engines. Notably, Wiley Author Services has disclosed that over 50% of traffic to their online library comes from Google, Google Scholar, and other search engines.¹ Having such a large percentage of traffic coming from online search engines highlights the importance of SEO in the discoverability of research.

Quite simply, research outputs that can be easily found on the World Wide Web will be viewed, downloaded, and cited more frequently than a paper buried on page 10 of your Google search results. It influences the impact of your work and allows you to share your work with the broader community. In a landscape with a rapidly growing body of scholarly literature, SEO helps

people find your work.

How can I improve my SEO?

There are five key steps to optimising your medical writing outputs to help them be found and ranked highly by search engines (Figure 1).

Step 1: Choose your keywords carefully

The easiest place to start is by identifying your keywords. Most of us are guilty of leaving article keyword choice just prior to submitting an article. This is a mistake! Keyword selection and use is fundamental to good SEO and the concept extends beyond the requisite three to five words often required by journals.

Start by considering the target audience for your work; what search terms would they use to look for your paper? It is likely that a healthcare practitioner will use a different search term than a member of the public. This will help you to select your keywords. Once you have some terms in mind you can use Google to help determine other keywords. By simply typing in relevant terms, Google will show you which related

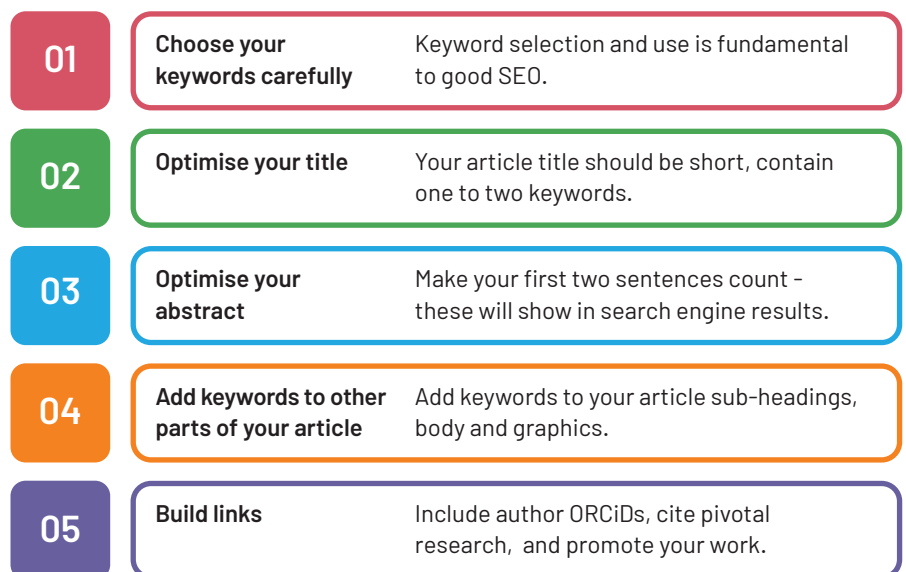


Figure 1: Five steps in search engine optimisation for medical writers

phrases are frequently searched for.

Your keywords should indicate the content of the article (not your results). While some journals still require article keywords to be Medical Subject Headings (MeSH) others will accept any relevant words or phrases. Another tip is to ensure that your keywords are singular and not plural.³ You should also consider spelling. While more people use US English spelling in search engines, your choice of language is often governed by the journal. Once you have decided on your keywords you should try to use them in your title, abstract, and main body of your work.

Step 2: Optimise your title

Ideally your article title should be short and contain one or two of your chosen keywords. It is also recommended that you have a keyword appear in the first 65 characters.^{4,5} This is because most search engines will shorten long titles in their result listings. For this same reason, catchy phrases or puns should only be used in the article sub-title.

It is suggested that you avoid using special characters such as &, *, / and diacritical marks in your title. This is because such papers are often incorrectly cited.³

Step 3: Optimise your abstract

Your next step is to look at optimising your abstract. The first two sentences of your abstract will be displayed in search engine findings, so make them count.^{4,5} Ideally you should try to use your keywords in these sentences and then reuse them between three to six times throughout your abstract.⁴ You may also consider the use of synonyms to increase your chance of your work being found. Again, consider the terms that people in your target audience might use when searching for information. More generally, your abstract should be written succinctly and focus on your essential findings.

Start by considering your target audience; what search terms would they use to look for your paper?

Step 4: Other places to use your keywords

There are other places in your article that can be optimised by judicious use of your keywords. These are:

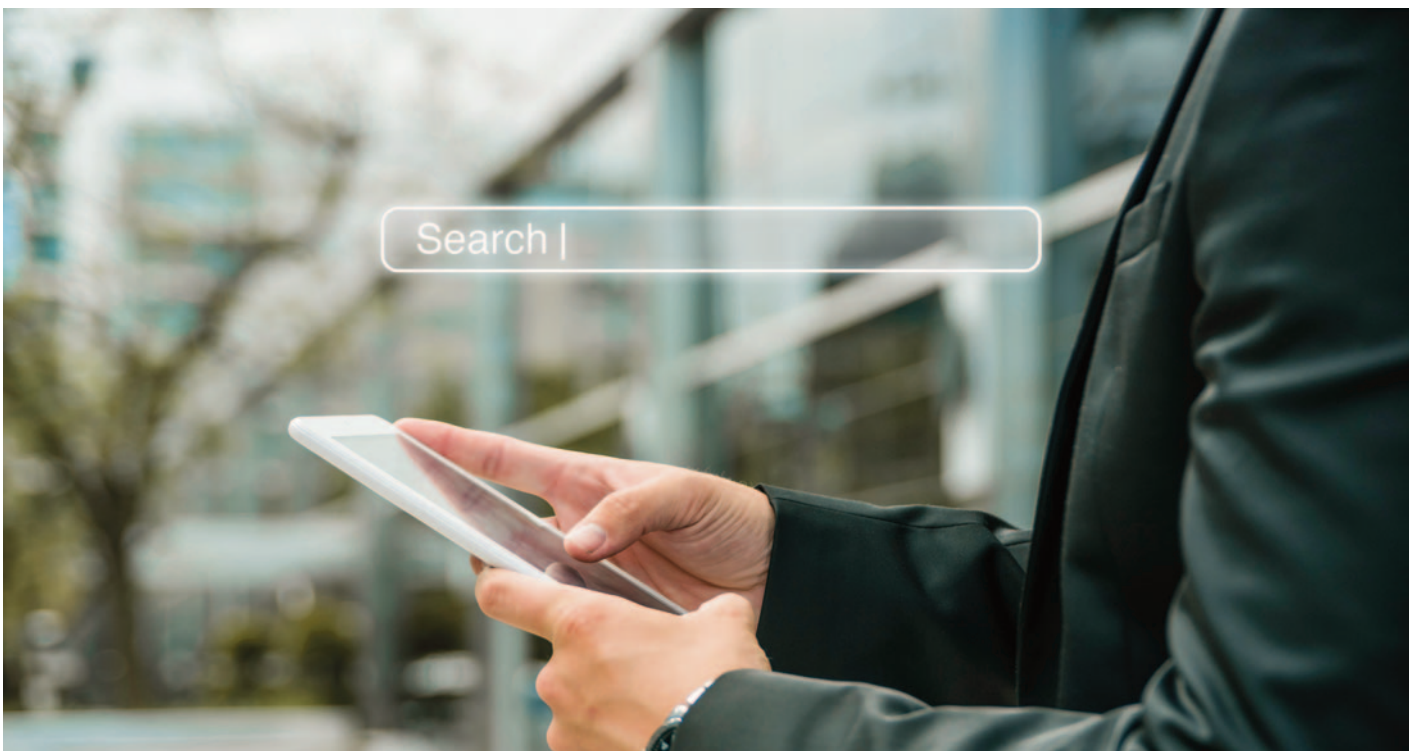
- Sub-headings^{2,4,5}
- Article content^{2,4,5}
- Tables²
- Figures²
- Captions²
- Image Alt text (alternative text)
- Graphics²
- Document file name²

The content of vector graphics (graphics that are made up of paths, as opposed to pixels), such as Encapsulated PostScript file (.eps), Adobe Illustrator (.ai), and Scalable Vector Graphics (.svg) files can be read and indexed by search engines.² Creating vector graphics does not need to involve specialised software and can be achieved in Microsoft PowerPoint. The content of other image types is not indexed but you can save information in the file name.³ As such, if your article has an accompanying graphical abstract, it is important to consider both the file format and the content of the graphic; if you are able to use a vector graphic what keywords will you include?

For other medical writing outputs that are being saved to the web, remember to optimise your file names by including appropriate keywords, e.g. File-Name-SEO.pdf. Further, for files that are saved as portable document files (PDFs), make sure that you add relevant metadata (information saved to the file that is not visible in the document) to the file properties and save it as an archivable PDF/A.

Step 5: Build links to and from your article

SEO can further be improved both by linking to and from your article.



Linking to previous research

By both referencing seminal articles and citing relevant research by the authors, you build links and increase the discoverability of your writing.^{2,4} Similarly, by including all authors' Open Researcher and Contributor ID (ORCID) you help to link your current publication to every author's past work.

Promoting your article after publication

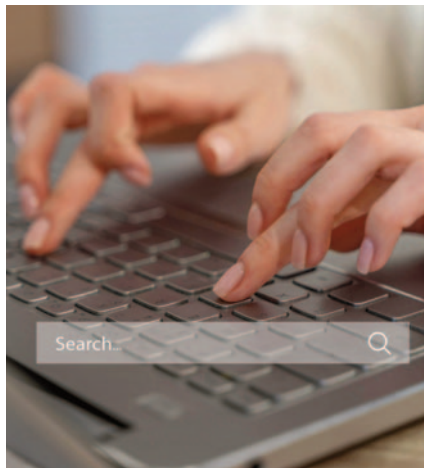
Once your article is written and published, there are still a few strategies you can adopt to ensure that your article is easily found. The volume of inbound links also plays a factor in search engine rankings. One way to increase this is to market your work. Start by telling everyone in your academic and social networks about your new article and sharing its URL. Places to consider sharing include:

- X (formerly called Twitter)
- LinkedIn
- Facebook
- Instagram
- Your website or blog (personal and company)
- Academia (<https://www.academia.edu/>)
- Mendeley (<https://www.mendeley.com/>)
- ResearchGate (<https://www.researchgate.net/>)^{2,6}

Black hat search engine optimisation

Before jumping into the world of SEO you should be aware that there are a set of poor practices, called black hat SEO. These practices have been identified as being used to increase a site's ranking despite breaking the rules and policies specified by search engines. Such practices can result in larger search engines penalising your work by showing it much lower in search results.⁷

The black hat SEO practice that is most relevant to medical writing is keyword stuffing. Keyword stuffing is when the author overuses the



keywords, to the point where they are being used out of context.

Conclusion

It is important to consider SEO for all forms of medical writing including journal articles and reports that will be available on the internet. Good SEO can increase the discoverability and impact of your work. While SEO is important it should never outweigh the importance of good scientific practice and publication.

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The opinions expressed in this article are the authors' own and not necessarily shared by WriteSource Medical Pty Ltd or EMWA.

Disclosures and conflicts of interest

The authors declare no conflicts of interest.

References

1. Wiley Author Services. Search Engine Optimization (SEO) for your article [cited 2023 Oct 18]. Available from: <https://authorservices.wiley.com/author-resources/Journal-Authors/Prepare/writing-for-seo.html>.
2. Elsevier Biggerbrains. Get found – optimize your research articles for search engines [cited 2023 18 Oct]. Available from: <https://www.elsevier.com/connect/get-found-optimize-your-research-articles-for-search-engines>.
3. Schilhan L, Kaier C, Lackner K. Increasing visibility and discoverability of scholarly publications with academic search engine optimization. *Insights the UKSG journal*. 2021;34. doi:10.1629/uksg.534
4. Brouwer WP, Hollenbach M. Search engine optimization for scientific publications: How one can find your needle in the haystack. *United European Gastroenterol J*. 2022;10(8):906–8. doi:10.1002/ueg2.12311
5. Cushman M. Search engine optimization: What is it and why should we care? *Res Pract Thromb Haemost*. 2018;2(2):180–1. doi:10.1002/rth2.12098
6. Wiley. Search Engine Optimization: for authors [cited 2023 Oct 18]. Available from: https://onlinelibrary.wiley.com/pb-assets/assets/17476593/SEO_Guidelines_for_Authors_July_13-1509465663000.pdf.
7. Redish JG. *Letting go of the words; writing web content that works*. Second ed. Morgan Kaufmann; 2012.

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