

FEATURE

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Wikipedia: what it is and why it matters for healthcare

Lane Rasberry explains how Wikipedia is built and what the growing implications are for patients and doctors who use it

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Imagine a world in which every single person on the planet is given free access to the sum of all medical knowledge. This is what Wikipedians are aiming for.

While the Wikipedia community has continually worked to improve the quality of its health content since the project's founding in 2001, few of the encyclopedia articles meet the quality standards that healthcare providers would expect before recommending that patients consult it. All the content is written, edited, and maintained by volunteers, and anyone visiting the website can click the "edit" button at the top of any article and instantly change any aspect of the presented content without seeking permission, getting moderator approval, or even registering an account.

Regardless of the dubious quality of Wikipedia, it persists as a popular source of health information, even for doctors. As of January 2014 there were 26 000 articles in Wikipedia covering health topics including medical conditions, drugs, procedures, and diseases. These collectively were requested and accessed 178 000 000 times that month, representing an audience comparable in size to that of any other health publication. Wikipedia's reach, irrespective of its quality, means that those who care about the body of health information influencing public thought should consider the impact Wikipedia has as a health publication. For those who do wish to engage with Wikipedia, it is an open, volunteer, community project, and there are precedents for health partnerships.

Engaging with Wikipedia

Outside of Wikipedia's own volunteer community initiatives, the first attempt to conduct a health educational campaign by guiding the improvement of some Wikipedia articles began in 2012 when the ABIM Foundation, a non-profit organization established by the American Board of Internal Medicine, launched the Choosing Wisely campaign. Choosing Wisely asked most major medical professional societies in the United States to share their concerns about problems caused by unnecessary healthcare and to back them with citations from the medical literature. Participants in the campaign proposed to disseminate both the concerns themselves and the supporting

citations, and the campaign was to target both healthcare providers and recipients.

Consumer Reports, a non-profit consumer rights advocacy organization, joined the campaign as a consumer communications partner. They recognized that Wikipedia was a candidate platform for both sharing healthcare information backed by the best possible medical sourcing, and getting community feedback. As a Wikipedia contributor to health articles, I was approached by Consumer Reports to explore possibilities for integrating Choosing Wisely content and their citations into existing Wikipedia articles. I suggested nothing that was not already standard practice on Wikipedia—just that it would be good to summarize and cite medical journals within Wikipedia health articles, and that the volunteer community on Wikipedia desires collaboration with health organizations and experts, and always has.

An example intervention in this project is the addition of information on indications for medical imaging of the back into the Wikipedia article on low back pain, on the presumption that this would be useful both to patients and healthcare providers.¹ Such interventions were applied to 60 popular health articles that were already collectively getting 10 million visitors every three months. The same audience is still going to these articles but finding the campaign's health information there.

Another attempt to leverage the reach of Wikipedia is the Cochrane Collaboration's granting of free subscriptions to the Cochrane Library to Wikipedians (the name given to those editing the site) upon request. Their rationale was that since Wikipedians editing health content prefer to cite review articles, and since Wikipedia's health content is having some public health impact as an educational resource, then it aligned with their mission to give Wikipedians access to their publications. Cochrane Library publications are made available to the public who want to read them in summary and to Wikipedia's volunteer medical researchers who would enjoy adapting them for this audience. As with Choosing Wisely, the goal here is that health information on Wikipedia be improved with summaries and citations to academic literature in order to reach the large audience using Wikipedia to inform their health concerns.

Governance and regulation

As a crowdsourced project that accepts all volunteers and has no appointed roles or designated leadership, Wikipedia operates based on its guidelines. Volunteer contributors abide by those guidelines and teach them to newcomers.

Whenever a new user comes to Wikipedia, they typically try to make a change to an article. If they do this correctly then they are thanked; if they do this incorrectly then they are thanked, corrected, and presented with a guideline to help them conform next time. Upon learning a guideline users encourage each other to monitor its correct application wherever in Wikipedia they may go, and to instruct anyone who fails to meet it. Every Wikipedian patrols articles, trains others, and collectively governs the encyclopedia.

An example of a Wikipedia guideline is Wikipedia:Verifiability.² This guideline dictates that any content added to Wikipedia has to come from a published source that anyone else can check, and that anyone adding a statement should also provide a citation referring to the source. By placing the burden of accuracy upon the sources cited, Wikipedia circumvents the need to have experts write the entirety of the encyclopedia and grants access to the original sources with unprecedented exhaustiveness. Wikipedia's quality control strategy is to get enough volunteers to verify that for every statement on Wikipedia, the content added to Wikipedia is an accurate reflection of the source from which it is derived and that the source itself is reliable and worthy of citing. This policy is implemented in various ways, including by systems for recruiting volunteers to monitor its enforcement. Everything done on Wikipedia is checked by other people. There is a protocol available for whatever anyone may do, and contributions to the encyclopedia not conforming to those protocols are queued for processing to conform.

There are also subject matter guidelines and communities that oversee contributions in any topical area. The forum with the most influence on health content is WikiProject Medicine,³ and the most relevant guidelines are MEDMOS,⁴ the medical manual of style, and MEDRS,⁵ the medical guide to identifying reliable sources. MEDMOS describes how source documents should be summarized on Wikipedia following medical writing conventions. For determining what sources ought to be cited, MEDRS dictates that contributors sharing health information should cite secondary sources and especially review articles in preference to anything else. The community of editors contributing to health content trains all newcomers to the project how to differentiate primary research from a literature review, and to start with a source and summarize it rather than starting with an agenda and bolstering it. Especially in medicine, Wikipedia prefers academic publishing to all else for sourcing. Whenever there is consensus in the literature Wikipedia has bias to present as incorrect any position in opposition to that consensus. All of Wikipedia seeks to summarize and cite "the sum of all human knowledge" but health editors are especially committed to accurately representing the sources because they feel that the information they publish has a public health impact.

Reach and impact

Clearly, Wikipedia's health content matters more if it influences large numbers of people in making healthcare decisions, but there is little existing research on how Wikipedia's health content might affect people's decisions. However, Wikipedia may be having an analogous effect if one imagines that readers using health information taken from Wikipedia in a comparable way to health information from other sources online. Much more certain than the actual impact of Wikipedia's health information are monthly reports of the number of visitors to Wikipedia health content.

At some point prior to 2007 (when it secured its top 10 Alexa Internet website ranking for traffic) Wikipedia became wide enough in scope and popular enough such that search engines including Google began to respond to queries with a recommendation among the top returned results that the user should visit Wikipedia. This has persisted since—and now those who use search engines to seek health information find and visit Wikipedia as a default recommendation. If Wikipedia's popularity persists, and if the public's consultation of Wikipedia is influencing health choices they make, and if these choices are having an impact on public health, then stakeholders in public health are stakeholders in the quality of Wikipedia health content to the extent that Wikipedia affects their demographic of interest.

Implications

Health content on Wikipedia is more requested and accessed than comparable information from most other sources. As a community managed platform, anyone who criticizes the quality of content on Wikipedia is welcome to improve any of it. Anyone who already wishes to improve health education to the public may find Wikipedia to be a worthy media partner that even a single individual could leverage to get a large audience.

Anyone wishing to learn more about health content on Wikipedia can read the guides at WikiProject Medicine³ or join discussions on the forum there. Volunteer coordinated free training is available online and off. As always, anyone who wishes to edit any Wikipedia article is welcome to do so at any time by clicking "edit" at the top of the article and making changes as they like.

Competing interests: I have read and understood the BMJ Group policy on declaration of interests and declare I am employed only by Consumer Reports.

Provenance and peer review: Commissioned; not externally peer reviewed.

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