

that are eager to get involved with the FMWC, their website can be found at <http://www.fmwc.ca>. On the website are details for joining the organization. To get involved with the local UBC student-run branch of the FMWC, contact Teresa Liang, president of the UBC branch of the FMWC, at afteresa@interchange.ubc.ca. The UBC FMWC is an ever-growing branch of the FMWC and is always looking for new enthusiastic members. 

REFERENCES

1. Federation of Medical Women of Canada: About Us – Mission [Internet]. 2011 [cited 2011 Jun 30]. Available from: <http://www.fmwc.ca/index.php?page=7>
2. Federation of Medical Women of Canada: AGM, Leadership and Advocacy Workshops 2011. 2011 [cited 2011 Jun 30]. Available from <http://www.fmwc.ca/index.php?page=475>

Why We Should All Edit Wikipedia

James Heilman, BSc, MD, CCFP(EM), BSc^{a,b,c}

^aDepartment of Emergency Medicine, East Kootenay Regional Hospital, Cranbrook, BC

^bClinical Instructor, University of British Columbia, Vancouver, BC

^cWikipedian

AN OVERVIEW

Wikipedia, as most are aware, is the free online encyclopedia that covers nearly everything. Almost anyone can edit it, and nearly everybody reads it. As of June 2011, it had over 3.6 million articles in the English language of which approximately 23,000 pertained to the practice of medicine, and 6,700 discussed aspects of pharmacology. The medical pages in a given month receive between 150 and 200 million page views¹ while the pharmacology content receives approximately 35 million.² For the entire encyclopedia, 40,000 people make more than five edits each month,³ though a much smaller number of editors are actively involved with medicine. However, users involved with WikiProject Medicine are a dedicated group of volunteer physicians, students, and non-professionals with the goal of providing people with free access to reliable, understandable, and current health information.⁴

WIKIPEDIA'S AUDIENCE

Wikipedia has become extensively used by medical professionals and the lay public alike. It was ranked the fifth most popular website on the Internet according to Google in 2011⁵ after becoming one of the 10 most popular sites in 2007.⁶

In Europe, a 2011 survey found that 60 % of physicians used Wikipedia for professional purposes,⁷ which is similar to estimates of physician usage in other developed countries.⁴ In 2009, 35 % to 72 % of United States pharmacists admitted to its use,^{8,9} and over half of e-patients consulted it.⁴

While Wikipedia provides information of significant quality, further efforts are needed. Of the top 100 most viewed

medical articles, only 24 % were deemed high quality and had passed a semi-formal review; for the medical project as a whole, this was less than 1 %.¹⁰ Still, in 2005, when Wikipedia was only four years of age, it compared favourably with the Encyclopaedia Britannica on a selection of scientific articles.¹¹

REASONS TO EDIT

So why get involved? There are many reasons and a few that have played a role for me are expanded on below.

As Wikipedia is written for a general audience, it has given me practice communicating complicated ideas in language that is easily accessible. In addition, it has forced me to explore the literature behind my clinical practice: I have frequently found what I was taught in medical school is more nuanced than I may have been led to believe. At the same time, Wikipedia has taught me critical reading, which has made me better equipped to deal with less reliable sources of information such as pharmaceutical representatives.

Also, I have had the opportunity to join people interested in medicine and to maintain an academic practice far from an academic centre. As Wikipedia is what many of my colleagues and patients are using, I feel an obligation to ensure the content is of high quality. What I write on Wikipedia matters as it is freely and easily accessible, due in part to its open source license and non-profit foundation.

As an added bonus to UBC health science students, Wikimedia Canada, the Canadian chapter of Wikimedia Inc, is offering a scholarship to whomever makes the most significant contribution to Wikipedia's medical content. Application for the first award will hopefully begin in the fall of 2011 and will be awarded in early 2012. Applications will be found at http://wikimedia.ca/wiki/Scholarship_application.

Correspondence

James Heilman, jmh649@gmail.com

HOW TO EDIT

Learning how to edit is relatively easy with few technical hurdles. Learning the community norms can take a little more time when one starts, but most are intuitive. A more in-depth look at how to edit has been published in the journal *Public Library of Science*, but I will provide a short overview here.¹²

Wikipedia's content creation is based on three core principles: verifiability, a neutral point of view, and no original research. The first, the principle of verifiability, means that every point that is added needs to be referenced. A neutral point of view implies that appropriate attention needs to be given to competing ideas, and the "no original research" rule reinforces the first point that attribution is required. As encyclopedia writers, we are here to reflect the current state of knowledge on a topic as presented by significant sources. For medicine, these sources are typically review articles published in peer reviewed journals within the previous five years or statements by major national or international organizations.¹³

Once you have found a suitable reference on PubMed or Google Scholar, summarize the content, and click the blue [edit] button for the section to which you wish to add. Simply enter the text, click on the "cite" arrow, pull down the "journal" tab, and add the PubMed ID (PMID). The tool will automatically format the reference based on the PMID. You can follow the same process with the ISBNs of books.

ADDRESSING CRITICISM

Wikipedia has been criticized as much of its content originates from anonymous authors. Anonymity has both positive and negative aspects. On the positive side, it forces one's sources to stand on their own. On the negative side, readers remain unaware of potential editor biases; for example, there were issues with pharmaceutical companies removing "negative" material pertaining to medications they produced.⁴ Anonymous editing, however, is optional: some, including myself, edit under their own name. Wikipedia is currently encouraging greater transparency in the editing community.

Wikipedia has received criticisms for its non-peer reviewed process.¹⁴ However, this is not entirely true. Wikipedia has an article grading scale, and for an article to be included in the two highest grades (good article and featured article), it must pass review standards. The good article status requires an independent review by a single other editor to verify that it is has no obvious problems. For featured article status, a review by multiple editors is required to verify that the article reaches a professional standard. Out of all medical articles as of June 2011, only 62 were featured articles, and 106 were good articles.¹⁰ These can be determined by a gold star or green plus in the right upper corner of the article respectively.

Some have questioned Wikipedia's reliability as a source of medical information, including a 2009 paper which concluded that it was unsuitable for use by medical students.¹⁵ On the other hand, a 2011 analysis found that Wikipedia was appropriate for nursing students since many articles were well referenced to the peer reviewed literature.¹⁶ Regardless,

Wikipedia is what people are using, for better or for worse. Rather than complain about reliability, we can take this opportunity to improve its quality.

CONCLUSION

Wikipedia is a frequented source for medical information, a fact often under-appreciated by academia, and has yet to reach its full potential. Greater involvement of the broader medical community is required to make sure our colleagues and patients get the quality content they deserve. The volunteers at Wikipedia Medicine would love to see our healthcare professionals join us. Come write with us: the next printed article your patient comes in with may be yours. 

REFERENCES

1. "Wikipedia:WikiProject Medicine/Popular pages". Wikipedia. Retrieved 28 June 2011.
2. "Wikipedia:WikiProject Pharmacology/Popular pages". Wikipedia. Retrieved 28 June 2011.
3. Gardner, Sue. "March 2011 Update". Wikimedia. Retrieved 28 June 2011.
4. Heilman, JM; Kemmann, E, Bonert, M, Chatterjee, A, Ragar, B, Beards, GM, et al "Wikipedia: a key tool for global public health promotion.". *Journal of medical Internet research* (2011 Jan 31). 13 (1): e14. PMID 21282098.
5. "The 1000 most-visited sites on the web". Google. Google. Retrieved 28 June 2011.
6. Perez, Juan Carlos (Feb 17, 2007). "Wikipedia Breaks Into U.S. Top 10 Sites". IDG News. Retrieved 28 June 2011.
7. Woodward, Sam. "New Report Shows 60 % of European Doctors are Using Wikipedia Professionally". Insight Research Group.
8. Alkhateeb, FM; Clauson, KA, Latif, DA "Pharmacist use of social media.". *The International journal of pharmacy practice* (2011 Apr). 19 (2): 140–2. PMID 21385246.
9. Brokowski, L; Sheehan, AH "Evaluation of pharmacist use and perception of Wikipedia as a drug information resource.". *The Annals of pharmacotherapy* (2009 Nov) 43 (11): 1912–3. PMID 19843833.
10. "Wikipedia:WikiProject Medicine/Assessment". Wikipedia. Retrieved 28 June 2011.
11. Giles, J "Internet encyclopaedias go head to head.". *Nature* (2005 Dec 15). 438 (7070): 900–1. PMID 16355180.
12. Logan, DW; Sandal, M, Gardner, PP, Manske, M, Bateman, A "Ten simple rules for editing Wikipedia.". *PLoS computational biology* (2010 Sep 30). 6 (9). PMID 20941386.
13. "Wikipedia:Identifying reliable sources (medicine)". Wikipedia. Retrieved 28 June 2011.
14. Leithner, A; Maurer-Ertl, W, Glehr, M, Friesenbichler, J, Leithner, K, Windhager, R. "Wikipedia and osteosarcoma: a trustworthy patients' information?". *Journal of the American Medical Informatics Association JAMIA* (2010 Jul-Aug) 17 (4): 373–4. PMID 20595302.
15. Pender, MP; Lasserre, KE, Del Mar, C, Kruesi, L, Anuradha, S "Is Wikipedia unsuitable as a clinical information resource for medical students?". *Medical teacher* (2009 Dec). 31 (12): 1095–6. PMID 20050104.
16. Haigh, CA "Wikipedia as an evidence source for nursing and healthcare students.". *Nurse education today* (2011 Feb). 31 (2): 135–9. PMID 20646799.