PRESS RELEASE

Wikipedia can promote health worldwide, say doctors

CITATION

Heilman JM, Kemmann E, Bonert M, Chatterjee A, Ragar B, Beards GM, Iberri DJ, Harvey M, Thomas B, Stomp W, Martone MF, Lodge DJ, Vondracek A, de Wolff JF, Liber C, Grover SC, Vickers TJ, Meskó B, Laurent MR. "Wikipedia as a key tool for global public health promotion". *Journal of Medical Internet Research*. <u>http://www.jmir.org/2011/1/e14/</u>

CONTENT

Sept, 2010 - A group of doctors, scientists and medical students who write Wikipedia's medical articles call on their peers to join them in their efforts to provide the sum of all medical knowledge free to the world at large.

In a viewpoint paper published in the peer-reviewed *Journal of Medical Internet Research* (JMIR, the leading journal on medical informatics), they argue that the possibilities to use Wikipedia as a tool for worldwide health promotion are underestimated, citing its unique global reach and examples of how the Internet encyclopedia is used in humanitarian projects.

The authors are all members of Wikipedia's project that manages the health-related content. They note that both doctors and patients commonly seek health information online. Patients usually turn to search engines like Google for health-related queries, and previous research by these authors has shown that Wikipedia appears among those results in around 75% of cases [1].

Wikipedia's medical content broad and fairly accurate

Based on a review of existing studies of Wikipedia's medical content, the paper concludes that Wikipedia has articles on an incredibly wide range of medical topics with few factual errors, although most of Wikipedia's articles are only in the earliest stages of development and the readability needs to be improved.

"With more than 20,000 articles on health and more than 6,000 drug-related articles, there has never been more freely accessible health information on the Internet thanks to Wikipedia. But now we need more experts to expand these articles and to make them more accessible to the general public at the same time," says Dr. Michaël Laurent, the article's corresponding author.

Although critics have questioned Wikipedia's open editorial policy and examples of errors have been widely published, the authors point out that the encyclopedia has developed multiple strategies to prevent damage to its articles (including the use of vandalism fighting software, automated correction scripts, page protection, edit filters, blocking and banning).

Calling all doctors to contribute

Since WikiProject Medicine was founded by one of the authors (Dr. Jacob F. de Wolff) in April 2004, more than 200 editors (ranging from laypeople and students to doctors, nurses and professors) have registered at the virtual 'doctor's mess', where Wikipedia's medical content is discussed and coordinated. Over the years, the project has developed guidelines about writing good medical articles and finding reliable medical references. "Wikipedia lends itself very well to evidence-based medicine," the article notes.

The group proposes that physicians may contribute to Wikipedia for several reasons, including the intellectual challenge to summarize a medical topic for the general public and the satisfaction that comes from editing an important source of medical information, watching the articles grow and rise among Google results, often outperforming review articles in leading medical journals.

"Wikipedia has an incredible audience. While one may not get accolades for what they contribute here, what one writes matters," comments lead author James Heilman, MD.

"I've written several articles which became the number one Google result for that topic after only a few days, surpassing reviews in core journals or information from universities and professional societies. Writing for Wikipedia means that you get to write what people will be reading," Dr. Laurent explains.

Direct financial or scholarly incentives to promote editing of Wikipedia are still lacking, but the authors suggest several options, like giving doctors CME credits for editing Wikipedia.

Some areas of Wikipedia's medical content are controversial, and the authors sometimes have had to deal with fringe theories and quackery. But they say this should not deter interested medical contributors because plenty of non-controversial work needs to be done. Furthermore, Wikipedia has strict policies against personal threats to editors, and examples of real-life consequences are rare (Dr. Heilman has in the past been investigated -and acquitted- for adding all inkblots to the Wikipedia article on the Rorschach test; see <u>New York Times, Aug 23, 2009</u>).

Wikipedia as a global platform for health knowledge

The paper explains how the encyclopedia could be used as a global platform for disseminating medical knowledge. Wikipedia's format has proven to foster mass collaboration, the encyclopedia exists in over 250 languages and its content is available under a copyleft license.

The article also cautions against the waste of human resources caused by the spread of experts across medical wikis (over 70 of which exist), none of which have attracted a similar 'long tail' of editors or a similar global audience (for a previous discussion on this topic, see the <u>News feature in Nature Medicine, 2007</u>).

The authors point to recent collaborations with the National Institutes of Health, Google.org (the philanthropic arm of Google) and the Rfam RNA database, which they believe shows the enthusiasm for Wikipedia as a key source for online biomedical information.

References

[1] Laurent MR, Vickers TJ. <u>Seeking health information online: does Wikipedia matter?</u> J Am Med Inform Assoc. 2009 Jul-Aug;16(4):471-9.

ABOUT THE AUTHORS

- James M. Heilman, MD, CCFP(EM) is an emergency physician at the Department of Emergency Medicine at Moose Jaw Union Hospital, Moose Jaw, Canada. He is also associated with the University of Saskatchewan College of Medicine in Saskatoon, Canada.
- Eckhard Kemmann, MD, FACOG is a retired faculty member at the Department of Obstetrics, Gynecology and Reproductive Sciences, UMDNJ-Robert Wood, Johnson Medical School, New Brunswick, New Jersey, United States.
- Michael Bonert, MD, MASc is an anatomical pathology resident at the Department of

Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Canada.

- Anwesh Chatterjee, MRCP is a respiratory medicine specialty registrar at the Department of Respiratory Medicine, Poole General Hospital, Poole, United Kingdom.
- Brent Ragar, MD is an attending physician at the Departments of Internal Medicine and Pediatrics, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, United States.
- Graham M. Beards, DSc is a specialist biomedical and clinical scientist in microbiology at Walsall Manor Hospital, Walsall, United Kingdom.
- David J. Iberri is a medical student at the University of Vermont College of Medicine, Burlington, Vermont, United States.
- Matthew Harvey, BMed is an anatomical pathology registrar at the Anatomical Pathology Department, Pathology Queensland, Royal Brisbane and Women's Hospital, Brisbane, Australia. He is also an associate lecturer at the Division of Cellular and Molecular Pathology, School of Medicine, University of Queensland, Brisbane, Australia.
- Brendan Thomas, MD is a dermatology resident at the department of Dermatology, University of Illinois, Chicago, Illinois, United States.
- Wouter Stomp, MD is a PhD candidate at the Department of Radiology, Leiden University Medical Center, Leiden, the Netherlands.
- Michael F. Martone is a medical student at Rush University Medical College, Chicago, Illinois, United States.
- Daniel J. Lodge, MD is a resident at the Department of Cardiac Surgery, University of Toronto, Toronto, Canada.
- Andrea Vondracek, PhD is a post-doctoral researcher at the department of Immunology, University of Colorado Denver School of Medicine and National Jewish Health, Denver, Colorado, United States.
- Jacob F. de Wolff, MRCP is an emergency physician at the Department of Acute Medicine, West Middlesex University Hospital, London, United Kingdom.
- Casimir Liber, MBBS, FRANZCP is a psychiatrist at the Department of Psychiatry, Bankstown Health Service, Sydney, Australia, and a conjoint lecturer at the School of Psychiatry, College of Medicine, University of New South Wales, Sydney, Australia.
- Samir C. Grover, MD, FRCPC is an assistant professor of medicine at the Division of Gastroenterology, St. Michael's Hospital, University of Toronto, Toronto, Canada.
- Tim J. Vickers, MSc, PhD is a staff scientist at the Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, Missouri, United States.
- Bertalan Meskó, MD is a PhD candidate at the Medical School and Health Science Center, University of Debrecen, Debrecen, Hungary.
- Dr. Michaël R. Laurent is a specialty registrar in internal medicine at the Department of Internal Medicine, University Hospitals Leuven, Leuven, Belgium.

Contact information

Interested members of the press may contact the authors via e-mail: <u>michael.laurent@gmail.com</u> or <u>jmh649@gmail.com</u>.

About the Journal

The *Journal of Medical Internet Research* is the leading peer-reviewed scientific journal in the field of medical Informatics, with an impact factor of 3.9 in 2009.

About Wikipedia

Wikipedia (<u>http://www.wikipedia.org</u>) is a multilingual, free-content online encyclopedia to which anyone can contribute. Wikipedia and its sister projects are operated by the non-profit Wikimedia Foundation, a registered charity.

Since its creation in 2001, Wikipedia has grown rapidly into one of the largest reference web sites, attracting 398 million visitors monthly as of September 2010. There are more than 82,000 active contributors working on more than 35 million articles and files in more than 270 languages. The English Wikipedia currently contains more than 3.5 million articles. According to Internet marketing research companies like comScore and Alexa, Wikipedia is among the ten most visited websites worldwide, and it is the only non-profit organization in the top ten.