

# Virtual Mentor

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## MEDICAL EDUCATION

### The EyeWiki Initiative

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Over the past two decades, resources in ophthalmology, as in other medical fields, have steadily moved from the printed page to the web page. Access to these resources has varied; copyrighted materials such as journal articles and textbooks are generally available only to paying customers, whereas online databases like WebMD's e-Medicine offer free and unlimited access. As the public and the medical community have become more accustomed to free and instantaneous access to information, the demand for encyclopedic, high quality, up-to-date, online medical libraries has led to the advent of medical wikis, web sites that allow users to edit pages from their browsers.

The first successful wiki, Wikipedia, was launched in January of 2001 and revolutionized the concept and format of encyclopedias. This online encyclopedia, which now boasts more than 15 million articles in 200 languages, was initially conceived of as a feeder project to Nupedia. The story of how Wikipedia quickly overtook Nupedia provides a lesson in the enormous potential for collaboration online.

Briefly, Nupedia was an online encyclopedia project that followed a traditional route of content creation. Carefully vetted, highly qualified volunteers contributed content, which was then reviewed by the editors prior to being posted online. Within a year, however, only 12 articles were completed for the Nupedia site. In contrast, the Wikipedia feeder project allowed any user—literally, anyone with Internet access—to post content online instantly, and let other users edit these materials in real time. Within one month, this new wiki encyclopedia format resulted in the publication of 1,000 articles, and within a year it had surpassed 20,000 articles.

Articles on medical topics were by then numerous on Wikipedia. The availability of medical information on Wikipedia has sparked debate within the medical community. The advantages of the wiki format are clear: rapid content creation, ongoing editing to update articles as medicine evolves, and a simple platform that allows users from across the world to contribute.

But questions arose almost immediately about how to ensure quality and accuracy on a web site where no one is held accountable for contributions. Those who defend Wikipedia argue that, over time, the network of users removes and replaces incorrect information, and notices that information is incomplete or needs revision are now placed in the articles. But what about the damage that could be done by allowing

false or misleading information regarding medical conditions or pharmaceuticals to remain online—even for a brief period?

Successful medical wikis such as Medpedia, AskDrWiki, and Ganfyd have worked around this likely problem by requiring that all contributors register, declare their affiliations, and certify that they are medical professionals. Any registered user who contributes false information can then be easily monitored and, if necessary, have his or her editorial privileges revoked. While these requirements limit the editorial base of these wikis, the benefits in terms of quality are clear.

When, in late 2009, the American Academy of Ophthalmology (AAO) recognized the demand for a free online database of eye disease, it determined that the best way to meet this need was with an ophthalmologist-controlled wiki, and it created EyeWiki [1]. EyeWiki uses the same MediaWiki software that powers Wikipedia to create an easy-to-use editing platform.

To ensure high-quality articles, only ophthalmologists are permitted to register as users. Each user is required to provide his or her real name, affiliations, financial disclosures, and contact information. Every article is assigned to one of ten subspecialty areas within ophthalmology, and each subspecialty area is overseen by an editorial board. The editorial boards are maintained and overseen by an editor in chief and a deputy editor in chief. This structure ensures that every article on EyeWiki is monitored by qualified editors, in addition to the communal monitoring by users. Any user or editor can edit any error or report it to the editorial board. If incorrect information is repeatedly posted by a single user, that user will be blocked from editing the site by members of the editorial boards.

The intended audiences for EyeWiki are ophthalmologists, medical professionals, and medical trainees, and the site content is written at a level consistent with the needs of these groups. The web site is also an excellent resource for those patients and nonmedical professionals who seek a deeper understanding of eye diseases. As with any encyclopedic resource, EyeWiki is not meant to be a substitute for professional advice or expert medical opinions, and it may best serve as a starting point for research and information gathering rather than as an end point.

EyeWiki was launched on July 7, 2010 after being seeded with 94 articles by the editorial staff. In the 3 months since its launch, the site has been viewed over 165,000 times, with 240 registered users making more than 6,500 contributions and edits to articles. The project has received sponsorship from the most prominent organizations within ophthalmology, as well as from state ophthalmologic societies, and appears well positioned to grow considerably over the coming years. So far, the quality and self-regulation of the site has been very satisfactory. The test will be to see how AAO manages the site as the amount of content and number of users grows.

## References

1. EyeWiki web site. <http://eyewiki.aao.org>. Accessed October 26, 2010.

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