

# The EyeWiki Experiment

In 2010, the Academy took a bold step in online ophthalmic publishing. Now its [eyewiki.org](http://eyewiki.org) is an essential reference.

By Mike Mott, Contributing Writer

**T**HIS MONTH MARKS THE TENTH ANNIVERSARY of EyeWiki, one of the Academy's most popular educational resources. To celebrate the event—and to trace the evolution of the site and look at the impact EyeWiki has made on the practice of ophthalmology—*EyeNet* talked with Marcus M. Marcet, MD, the current editor-in-chief; Aaron M. Miller, MD, MBA, the original editor-in-chief; and Brad H. Feldman, MD, the original deputy editor-in-chief and subsequent editor-in-chief.

## EyeWiki Basics

**EyeNet:** *What is EyeWiki and why is it so valuable?*

**Dr. Marcet:** EyeWiki is an online encyclopedia that's dedicated to producing the most up-to-date articles relating to the diagnosis and treatment of eye disease. Although it's accessible to the public around the world, authorship is limited to vetted ophthalmologists and ophthalmologists-in-training only. Submitted articles are assigned for review to one of 11 subspecialty areas, each of which is overseen by a section lead editor. These editors report to both the editor-in-chief and deputy editor-in-chief. Any writer can also modify content and report errors or misuse. This communal, self-regulating structure ensures the highest level of quality.

**Dr. Feldman:** EyeWiki's value lies in its ease of use and accessibility. Over the years, we've found that the general public—whether millennials or baby boomers—is increasingly drawn to details and specifics when it comes to medical knowledge. And we created EyeWiki to meet that need. Patients who want to dig a little deeper into a diagnosis or who simply want

a better understanding of eye diseases can use it just like they would Google—but with EyeWiki, they know they can expect a level of trustworthiness associated with only the Academy.

**Dr. Miller:** It's also invaluable for physicians themselves who want information on the fly. We've heard stories of ophthalmologists in the middle of clinic tapping into EyeWiki on their smartphones for a quick answer or the latest update on a procedure. Residents around the world are also using it as a study resource, helping them prepare for exams whenever they have a spare second to cram. EyeWiki excels in providing spur-of-the-moment results for those with busy days who need reputable clinical information on demand.

## Seeds for Exponential Growth

**EyeNet:** *How quickly has EyeWiki grown?*

**Dr. Marcet:** When the site went live on July 7, 2010, we started off with 94 articles to essentially seed the site so that users could better understand what we were trying to accomplish. Aaron [Miller] had nominated me as lead editor of oculoplastics and asked if I would mind writing a few articles to get things started. In the beginning, the lead editors themselves were the only writers—otherwise, we would have had no content. So we had the special privilege of jump-starting EyeWiki. And those initial articles were quite a bit different from what you see today—they were shorter, initial articles with less detail and left open the chance for user additions.

**Dr. Miller:** During that time, we were well aware of other medical wikis, most of which had failed.

We were determined to try something different. If we were to succeed, we knew EyeWiki needed quality content and the utmost in accessibility. As a result, EyeWiki was one of the first components of the Academy's online presence to be open access for anyone on the internet. Although the idea wasn't extremely popular at the time, it ultimately proved to be critical. The absence of a firewall really made EyeWiki click, and the inherent structure of EyeWiki allowed for the successful implementation of search engine optimization. Within a year, our articles were popping up on the first page of Google searches.

**Dr. Feldman:** There's been an almost exponential ripple effect since that launch. The more articles we publish, the more ophthalmologists see them, and the more everyone wants to write additional topics of their own choosing. EyeWiki is now one of the Academy's most popular web-based resources. We have close to 1,000 published articles, with more than 90 active volunteer editors and nearly 1,000 contributors. In 2019 alone, EyeWiki had 8 million total page views by more than 3 million visitors. And our most popular page, Nystagmus, has already had more than 24,000 views as of May 19 this year!

## Evolution and Initiatives

**EyeNet:** How has EyeWiki evolved over the decade?

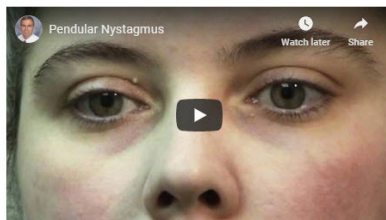
**Dr. Marcet:** The first thing that sticks out is how international our reach has become. More than 60% of our site traffic is now from outside the United States. That says a lot about our success. EyeWiki is helping *all* ophthalmologists and *all* people in every country around the world. As editor-in-chief, I've made a push for initiatives to bring in additional international editors and establish a more geographically diverse user base. But EyeWiki's global reach is also simply a product of recognition. We've gone from a niche—almost “geeky”—type of project that no one knew about to an established resource that generates a lot of excitement. One of our editors, for example, was interfacing with an insurance company regarding a specific ophthalmic procedure. To his surprise, the company was well aware of the topic because they had researched it on EyeWiki. The site is authoritative. People value what they read there.

### Clinical Types and Terminology

#### Nystagmus

comes from the Greek word "nystagmos" meaning drowsiness and "nustazein" meaning to nod off or be sleepy. It can be described as periodic, involuntary movements of one or both eyes in either a fast or slow oscillatory motion. By definition, nystagmus starts by a slow movement of the eye away from the visual target. The second movement brings the eye back to the visual target. If the second movement is slow, the nystagmus is said to be **pendular**. If this second movement is quick, the nystagmus is called **jerk nystagmus**. By convention, the direction of jerk nystagmus (eg., right-beating nystagmus) is named after the fast phase of nystagmus. In a right-beating nystagmus, the fast phase is to the patient's right.

Nystagmus waveforms are named for their slow phase velocity profile (See Figure 2). The pendular form has no fast phase and is best depicted by the first wave of Figure 2. The exponential increasing velocity type is associated with congenital nystagmus. The exponential decreasing velocity waveform is commonly seen in gaze-evoked nystagmus, which can be a physiologic finding. The linear waveform is typical of vestibular nystagmus. **Disconjugate** nystagmus refers to the two eyes having nystagmus with the same direction but with differing amplitudes. **Disconjugate** nystagmus occurs when the two eyes have different directions of oscillation, one example of which is sea-saw nystagmus. An interesting type of jerk nystagmus is the **Periodic Alternating Nystagmus (PAN)**, which is characterized by a cycle of unidirectional jerk nystagmus followed by a dampening or cessation of the abnormal eye movement, then jerk nystagmus occurring in the opposite direction. In order to observe PAN, the examiner should consider observing the patient for at least several minutes.



within the leicestephane study. The numbers beside the bars represent prevalence per 10,000 (±95% CI), calculated separately for the 18 years or younger and older than 18 years age groups.

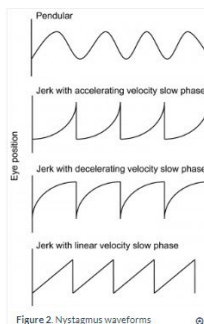


Figure 2. Nystagmus waveforms

### Classification

#### Physiologic

Physiologic nystagmus (nystagmus that is characteristic of normal oculomotor function) includes optokinetic nystagmus, vestibular ocular reflex, caloric nystagmus, and post-rotatory nystagmus. As they do not represent pathologic states, they will only be briefly discussed here.

**NYSTAGMUS.** This popular page is replete with valuable content, including numerous videos, diagrams, tables, and images.

**Dr. Feldman:** And as EyeWiki has matured, the purpose of our editorial board has changed accordingly. The initial lead editors were tasked with generating enthusiasm and finding individuals to publish articles. Now that EyeWiki is established, editors are more focused on overseeing production, making sure that stories are up to date, and safeguarding accuracy. For example, now there's a quality control process in the site's back end that automatically tracks the last time that an article was edited. If the article reaches a maturity date of six months, EyeWiki will ping an editor for review. We put that procedure in place to make sure the site's relevancy aligns with that of today's changing technologies and treatments.

**Dr. Miller:** This evolution would not have been possible without Academy CEO David Parke II, MD; Academy leadership; and the outstanding staff, all of whom have placed a high priority on this project—and it shows. The AAO Ophthalmic Education App, for example, provides a quick access point to EyeWiki. That type of exposure has been key.

Since 2011, EyeWiki has also sponsored contests for best new entries. As a result, we've sent more than 30 U.S. winners to the Mid-Year Forum all expenses paid and awarded a significant number of *Basic and Clinical Science Course* and *Focal Points* subscriptions to others around the globe. A select few have also had the opportunity to present their articles at a special

“EyeWiki Live!” Learning Lounge session during the Academy annual meeting. These efforts have helped us cultivate an especially strong following from young ophthalmologists—a group that has really elevated us over the years.

### How Was EyeWiki Conceived?

**EyeNet:** *What is the origin of EyeWiki?*

**Dr. Miller:** Back in 2009, the Academy’s Young Ophthalmologist Committee debated the concept of a Wikipedia-like tool run by a community of ophthalmologists to develop free online content. The idea was that if ophthalmologists were controlling this content, it would be of a much higher quality than the medical websites that the public typically visits. And if it were a wiki, it could adapt more quickly to new clinical developments than could the paper publishing process.

When this idea was discussed more broadly across the Academy, however, there was some early resistance. How could we guarantee that content would align with the rigorous and vetted editorial review of the Academy? How would we make sure that users wouldn’t post articles for industry or for personal gains? Who would run the operation? These were legitimate questions.

EyeWiki would never have made it over this hurdle without the support of Academy leadership—especially Dr. David Parke, the late Richard Zorab, who was Vice President of Clinical Education at the time, current Vice President Dale Fajardo, and Director of Ophthalmic Society Relations Gail Schmidt. They tasked Brad [Feldman] and me with a significant responsibility. He was just out of residency, and I was in my first few years of practice. They trusted us and gave us free rein from the very beginning.

**Dr. Feldman:** As we started out, Aaron and I did receive some blowback from a few senior members of the ophthalmic community. Why were two young, unproven ophthalmologists leading a giant venture that could pose a risk to the Academy’s brand? But we used inclusivity to get everyone’s buy-in. We embraced the knowledge and experience that older physicians brought to the table, and we encouraged the excitement of junior colleagues who better understood the wiki concept. All we cared about was recruiting editors who were truly motivated. It didn’t matter what age they were. There would be no hand-picking. This wasn’t going to be a traditional journal. If you had the desire and the wherewithal, you were free to join in. We ended up with a great mix from all walks of ophthalmology.

## The Contributor Experience

**EyeNet:** *What is it like to contribute to EyeWiki?*

**Dr. Marcet:** It’s very simple to become a contributor. EyeWiki runs on the same software—MediaWiki—as Wikipedia. First, the ophthalmologist needs to register and provide pertinent user information, including first and last name, email address, subspecialty, degree type, affiliations, and financial disclosures. This isn’t meant as a roadblock; it’s a quality assurance step. Afterward, new contributors may view the Getting Started page to learn about editing content, adding images and videos, properly citing their contributions, etc. Alternatively, they can receive a walk-through from Academy staff. From there, you are all set! Our latest user interface is extremely easy to use, similar to any word processing software.

**Dr. Miller:** The beauty of EyeWiki is that you don’t have to know somebody to contribute. You don’t have to be on a committee. You don’t have to submit to a journal for approval. You can be the creator of your own content, and you can become a guru in whatever area you like. But EyeWiki is more than a way to promote yourself; it’s also an opportunity to really make a difference and help residents and other physicians who may not be familiar with your area of expertise. Each contributor is part of the engine, and it’s this grassroots effort that makes EyeWiki something particularly unique and special.

**Want to write for EyeWiki?** Start by visiting the “Getting Started” page at <https://eyewiki.org>.

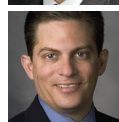
I take a lot of pride in what we accomplished—and I emphasize “we” because so many people were involved in making this happen. Now EyeWiki is recognized around the world. And its history really demonstrates the reach of the Academy and what we as ophthalmologists can accomplish from an educational standpoint.



**Brad H. Feldman, MD**, is a partner at Philadelphia Eye Associates and an attending at Wills Eye Hospital, in Philadelphia. *Financial disclosures: None.*



**Marcus M. Marcet, MD**, is in private practice in Hong Kong and honorary ophthalmology faculty at HKU and CUHK in Hong Kong. *Financial disclosures: None.*



**Aaron M. Miller, MD, MBA**, is a partner at Houston Eye Associates and the Blanton Eye Institute in Houston. *Financial disclosures: Credential Protection: O; Houston Eye International: O.*

See disclosure key, page 8.

**MORE AT THE MEETING.** Attend **EyeWiki at 10 Years**. The symposium takes place Monday, Nov. 16, 2:00-3:30 p.m. (Check the online program for the latest information.)