

## Who Benefits From Science Blogging?

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**Several scientists and science communicators have turned to the Internet to discuss science through weblogs (blogs). An interview with five science bloggers suggests that scientists and non-scientists alike benefit in various ways from reading and writing science blogs.**

#### What is a blog?

According to blog-monitoring website *Technorati*, there are currently about 48 million blogs on the Internet (1). Blogs, short for weblogs, are websites that are frequently updated with short articles and often allow readers to respond by leaving a comment. Of the almost 50 million blogs out there, quite a lot serve as personal journals, and the ease with which they are updated is an invitation for some people to put their entire private life or work details online. As a result, there are cases in which people have been fired for blogging at work or about work (2,3). This is unfortunate, because when used right, blogs have the capacity to be a valuable part of a person's work. They are a perfect tool for informal interactive discussions by allowing the authors to post an article about any topic they want and having visitors interact through comments.

Many blogs are written exclusively about very specific topics related to the authors' hobbies or work. There are blogs about everything: cars, kids, art, food, politics, computers, public transport. Type anything plus the phrase "blog" in Google and you will find a blog about it.

Needless to say, there are also blogs about science. Roughly, there are two types of science bloggers: scientists and science writers (4). How do they relate blogging to their daily work? And who reads their blogs? To find out who benefits from science blogging, I asked five very different science bloggers about their blogs and their readers.

#### Blogging scientists

Tara Smith is an assistant professor of epidemiology at the University of Iowa, and regularly updates her biology related blog *Aetiology* (5). She writes about topics within her field, including bacteria, viruses, disease, and infections, but also uses her blog as an outlet to discuss evolution, science education and parenting (6). Even though she doesn't write directly about her own research, she does see her blog as an opportunity to meet other scientists: "Blogging has allowed me to 'meet' colleagues in fields that complement my own, and certainly has introduced me to people who have expertise that I may draw on for future projects" (6).

Paul Myers, associate professor of biology at the University of Minnesota, Morris, finds his blog, *Pharyngula* (**Figure 1**), to help his teaching: "Putting together blog content is a motivator to keep up with a wide range of current topics in biology, and eventually much of it finds its way into my lectures" (7,8). On the other hand, he does not talk about his own research: "There's the problem of getting scooped, of student confidentiality, and the fact that many journals will not accept anything that has been published previously." Rather, his blog is "more popularization than advancing actual research" (8). Popular he certainly is: according to *Technorati's* data, *Pharyngula* is currently by far the most read and most linked-to science blog on the Internet (1,9). His many readers include both scientists and non-scientists alike: "I've had authors of science papers I've reviewed show up, I know I've got a fair number of informed science readers, and of course, many, many people who don't have much of a science background" (8). *Aetiology* currently ranks number seven on the list of popular science blogs, and attracts a similar mixed audience (6,9).

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Smith's and Myers' blogs are two of over forty science blogs currently hosted by SEED Media Group on ScienceBlogs.com (10). SEED publishes SEED Magazine, which relates science to culture and society (11). Their ScienceBlogs site has a similar purpose, and describes their mission as follows: "Our mission is to build a community of like-minded individuals who are passionate about science and its place in our culture, and give them a place to meet" (10). Having several science blogs in one place is convenient for readers: the portal allows you to search for all posts about, for example, biology or physics in all blogs on the site, allowing a quick overview of different perspectives. There are advantages for the hosted bloggers as well. "I've been happy with the transition to scienceblogs," says Tara Smith (6). Both she and Paul Myers often interact with the other bloggers on ScienceBlogs. Myers reveals: "There's a super-secret backchannel forum for just the ScienceBlogs people to chat away in, and it is a very busy place" (8).

### Blogging science writers

Another blog found on ScienceBlogs is *The Loom*, by science writer Carl Zimmer (12). Zimmer is a regular contributor to *The New York Times*, and has published several books about science, mainly relating to evolution. "I blog about things that I find very cool but that I won't be able to turn into an article someone will pay me to write," Zimmer says (13). But he does use his blog to benefit his job: "Very often, I will mine these posts for my books, and I sometimes even manage to produce articles on topics I first visited on my blog." Just like his books, Zimmer's blog attracts a broad range of readers: "My audience seems to cover a very wide range, which is very satisfying. I get scientists commenting on the research I write about (and often catching my errors). Many other readers are non-scientists with a passion for biology. Creationists sometimes visit and leave their remarks. Unless comments are downright insulting or otherwise unacceptable, I am very liberal about moderating them" (13).

The screenshot shows a Mozilla Firefox browser window displaying a blog post on the Pharyngula website. The browser's address bar shows the URL [http://scienceblogs.com/pharyngula/2006/08/dinosaur\\_lungs.php](http://scienceblogs.com/pharyngula/2006/08/dinosaur_lungs.php). The page content includes a search bar, a profile for PZ Myers, a 'Random Quote' by Terry Pratchett, and a diagram illustrating the avian respiratory system with labels for air sacs and lungs. The diagram shows a bird-like figure with arrows indicating the flow of air during inhalation and exhalation. The text explains that during inhalation, the posterior air sacs inflate and air moves from the posterior sacs to the lungs. During exhalation, the anterior air sacs empty and air moves from the lungs to the anterior sacs.

Figure 1: A post on dinosaur lungs at *Pharyngula* (<http://scienceblogs.com/pharyngula/>). Screen capture taken on August 17, 2006.

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Science journalists Anna Gosline, Katie Law, and Anne Casselman created the quirky blog *Inky Circus* (**Figure 2**) to help them find out what kind of topics to include in the magazine they are setting up (14). They are working on the production of a science magazine aimed at women, and launched their blog as a playing field and as a medium to document their endeavours. However, *Inky Circus* soon became a project of its own. “The web is great for laughs, links, and sharing stubby bits of text. Print is great to curl up to on a sofa and carry you through 3,000 words exploring one topic. We want to have as much fun as we can with the different media,” says Anne (15). Even though they write for a general audience, a lot of their readers have a science background: “Some of the most verbose readers are those that comment a lot and they tend to be quite comfy flinging science around. So, I'd say a fair number are scientists or once were. Interestingly, I think a fair number are science communicators as well, or scientists who are keen on communicating.”

### Blogging at Nature

Clearly, scientists and science writers alike have each found ways to make blogging a part of their

life and work. Their audiences are made up of scientists and laymen, and readers have a chance to communicate and contribute to the discussion by leaving comments. Still, there are many scientists who have never seen a blog at all and are not taking part in this online discussion. Surfing the Internet as a hobby and reading blogs on a regular basis is just not something everyone wants to participate in. But science blogs may be getting closer to the lab bench now that *Nature* is using them as a tool for reader discussion. *Nature* has previously published news features in favour of science blogging (16). Now the publishing group has several blogs of their own to complement either their journals or their special features (17). One of their blogs is the *Nature Newsblog*, which encourages readers to leave comments about articles published on [news@nature.com](mailto:news@nature.com) (18). “What we wanted was to find a way to assess the appetite for commenting on our stories, and blogging software offered us a way to hack together a comment function much more easily than we could by building it into the site itself,” explains Oliver Morton, Chief News and Features editor for [news@nature.com](mailto:news@nature.com) (19). The editors found that people were more likely to leave a quick blog comment than to send an e-



**Figure 2:** A post on drug trial liabilities on *Inky Circus* (<http://www.inkycircus.com>). Screen capture taken on August 17, 2006.

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mail to the editor, and are pleased with the success of *Nature Newsblog* as a communication tool. Besides maintaining their own blog, the *Nature* news team also actively reads blogs. “We read a lot of blogs, and occasionally get story ideas from them. We actually have a hot blogs list on our site at the moment, and someone in the office probably reads most of those” (9, 19).

### Benefits of science blogs

So who benefits from science blogging? As the above would suggest...everyone!

Blogging researchers have a chance to expand their casual science-related conversations worldwide, possibly meet other scientists and enhance their teaching skills, while blog reading scientists can informally communicate with their peers through comments. Blog reading non-scientists have access to science stories they might otherwise have missed. Blogging science writers and journalists can use their blogs as a playpen for new ideas, meanwhile giving the rest of the world a well-written piece on an interesting topic. Finally, blogging journal editors can get reader feedback on articles, and read other science blogs for ideas.

So if you're looking to expand your horizons, read some science blogs! The blogs discussed in here, as well as some of the interviewees' personal favourites are listed in **Box 1**.

### References:

1. Retrieved from <http://www.technorati.com> on July 12, 2006
2. Anna Bahney, “Interns? No bloggers need apply”, *New York Times*, May 25, 2006 Retrieved from <http://www.nytimes.com> on July 12, 2006
3. Todd Wallack, “Beware if your blog is related to work”, *San Francisco Chronicle*, January 24, 2005. Retrieved from <http://www.sfgate.com> on July 12, 2006
4. This distinction is also used in a recent profile of science blogs on [news@nature.com](mailto:news@nature.com) Retrieved from <http://www.nature.com/news/2006/060703/full/442009a.html> on July 12, 2006
5. <http://scienceblogs.com/aetiology/>
6. Personal communication: e-mail interview with Tara Smith, July 6, 2006
7. <http://scienceblogs.com/pharyngula/>
8. Personal communication: e-mail interview with Paul Myers, July 6, 2006
9. Retrieved from [http://www.nature.com/news/2006/060703/multimedia/50\\_science\\_blogs.html](http://www.nature.com/news/2006/060703/multimedia/50_science_blogs.html)
10. Retrieved from <http://www.scienceblogs.com> on July 12, 2006
11. Retrieved from <http://www.seedmagazine.com> on July 12, 2006
12. <http://scienceblogs.com/loom/>
13. Personal communication: e-mail interview with Carl Zimmer, July 7, 2006
14. <http://www.inkycircus.com>

### Box 1: Selection of science blogs written and/or recommended by interviewees.

- Aetiology - <http://scienceblogs.com/aetiology/>
- Pharyngula - <http://scienceblogs.com/pharyngula/>
- The Loom - <http://scienceblogs.com/loom/>
- Inky Circus – <http://www.inkycircus.com>
- Nature Newsblog - <http://blogs.nature.com/news/blog/>
- The World's Fair - <http://scienceblogs.com/worldsfair/>
- The Panda's Thumb - <http://www.pandasthumb.org/>
- Complex Medium - <http://complexmedium.blogspot.com/>
- Declan Butler - <http://declanbutler.info/blog/>
- In the Pipeline - <http://www.corante.com/pipeline/>
- A Blog Around the Clock - <http://scienceblogs.com/clock/>
- Effect Measure - <http://www.scienceblogs.com/effectmeasure>

(All sites were located at these URLs at time of writing. However, due to the dynamics of the World Wide Web, sites may not exist at the listed locations in the future.)

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15. Personal communication: e-mail interview with Inky Circus, answered by Anne Casselman, June 29, 2006
16. D. Butler, *Nature* **438**, 548 (2005).
17. Retrieved from <http://www.nature.com/blogs/index.html> on July 13, 2006
18. <http://blogs.nature.com/news/blog/>
19. Personal communication: e-mail interview with Oliver Morton, July 7, 2006

## DID YOU KNOW??

*Hypothesis* has a blog to allow readers to comment on and discuss articles. It can be found at:  
<http://hypothesisjournal.blogspot.com>.



Photo by Nick Shah