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BEST FACE FORWARD

A Nature poll reveals how researchers guard, and sometimes burnish, their online image.

BY EUGENIE SAMUEL REICH

In March, a puzzling press release began circulating around the Internet. Titled “DR. Anil Potti Likes Spending Quality Time With His Wife And Three Daughters”, it listed a series of qualifications, honours and prizes won by Potti, a cancer geneticist formerly at Duke University in Durham, North Carolina. He resigned in 2010 after it was revealed that he had falsely claimed to be a Rhodes scholar and Duke began to investigate errors in his work.

Most scientists embroiled in scandal shrink from view, but Potti’s online presence began booming in unexpected ways. After he resigned, he, or someone using his name, created more than half a dozen websites about him and his research, including: www.pottianil.com; www.anilpotti.com; www.anilpotti.net; and www.dranilpotti.com. Twitter and Facebook accounts appeared in his name in January, followed by a stream of press releases notable for their breathless banality: aside from enjoying time with family, Potti believes that most lung cancers are caused by smoking; he is an advocate for personalized cancer therapy;

and he donates his time and money to the local school system and church. It is difficult to identify the source of the releases, websites and social-media accounts. Potti could not be reached for comment, and his lawyer, Jim Maxwell of Maxwell, Freeman & Bowman in Durham, declined to comment on them, explaining that there is a confidential research-misconduct investigation ongoing at Duke. “Until that is concluded and Dr Potti is cleared of any wrongdoing, he is not in a position to be making public comments,” Maxwell says.

The only clue to their origin lies in the registration information for www.anilpotti.com and www.anilpotticv.com, which list an e-mail address from Online Reputation Manager as an administrative contact.

Online Reputation Manager, headquartered near Rochester, New York, is a company that uses search-engine optimization strategies to repair the online image of clients who have been besieged with unfavourable press. These include flooding the Internet with positive messages to drown out the negative. A company representative confirmed ownership of

the e-mail address, but could not say whether Potti is a client.

Potti’s reputation may have needed serious work, but a *Nature* poll reveals that a significant number of scientists are concerned with maintaining their online image. The poll was e-mailed to 30,000 working scientists and was promoted on Facebook and Twitter. Of 840 respondents, 77% say that their personal online reputation is important to them and 88% say that the online reputation of their work is important (see ‘A name online’). Thirteen per cent say that they have used search-optimization strategies to improve the visibility of their research, and as many as 10% say they have considered using external services to manage their online reputations.

Several researchers have set up biographies on the online site Wikipedia — the online encyclopaedia that practically anyone can edit — or edited entries to include references to their own papers. And many simply use social-networking sites or blog regularly about science, which can help to shape a digital persona. The poll and subsequent interviews suggest a growing recognition in the scientific community: maintaining a prominent online presence can help researchers to network with colleagues, share resources, raise money and communicate their work. “It is incredibly valuable,” says Gia Milinovich, a web producer based in London who has studied scientists’ use of Twitter.

At a minimum, says Alex Bateman, a bio-informatician at the Wellcome Trust Sanger Institute near Cambridge, UK, scientists should ensure that they have an online profile that includes contact details. For his part, he routinely checks that his publications come up together in a list when his name is searched in databases such as Web of Science and Scopus. If he finds an error, he contacts the database company to complain. “They’re very quick to respond,” he says.

Others are looking at the face they present to the wider world, through sites such as Wikipedia. For many people looking for information on a scientific topic, Wikipedia is a first port of call — and our poll shows that scientists use it regularly. As many as 72% admit to checking Wikipedia at least once a week and about one-fifth do so for references to themselves or their group’s work. Nine per cent of our sample say that they have inserted references to their or their group’s work in the past 12 months, and nearly 3% have edited their biographies, something that is frowned on by Wikipedia editors, according to Bateman. “You shouldn’t be editing articles you are too close to because you have a conflict of interest,” he says.

That said, roughly one-tenth of the respondents to our poll say that their work has been misrepresented on the web, and some scientists in this situation feel the need to set the record straight. Walt de Heer, a physicist at the Georgia Institute of Technology in Atlanta, works

on graphene — two-dimensional carbon sheets that may have applications in electronics. In 2009, de Heer caught wind of rumours that his research had been inspired by work done at the University of Manchester, UK, by Andre Geim and Konstantin Novoselov (the pair won the Nobel prize for this research in 2010). De Heer saw that the Wikipedia article on graphene emphasized the Manchester work and suspected that it was fuelling the rumours. So de Heer created his own biography on Wikipedia. And although it was nominated for deletion by at least one Wikipedia editor, enough users of the site have agreed that it should remain.

Darren Logan, a geneticist at the Wellcome Trust Sanger Institute, is an administrator on Wikipedia — a position that gives him additional editing powers. He agrees that editing Wikipedia can be a very influential way of getting a point across, even within the scientific community. One article he has written, on major urinary proteins, included references to his scientific work and introduced terminology that others later used to describe his work. “The purpose of writing wasn’t to promote my own work but a consequence was that a lot more people read my research articles. It’s influencing them,” he speculates.

MANIPULATING VISIBILITY

A handful of researchers are using more sophisticated tools to increase the visibility of a website. Software engineer Brian Turner has been trying to promote software developed at a lab at the Hospital for Sick Children in Toronto, Canada, where he works. He uses Google’s webmaster and analytics tools to figure out how Google ‘sees’ the lab’s website and how much traffic the website gets through

Google. The analysis prompted him to change the titles of several pages from obscure identifiers to ones that include the names of proteins that people might search for. “That made a big difference to our search rankings,” he says.

Social-networking tools can also boost a person’s visibility on the web. Among the 549 people who responded to the e-mail invitation to take part in our survey, 59% had used Facebook and 23% had used Twitter. About 17% of them had written at least one blog. Although blogging is usually deemed extra-curricular, some say it has definite career benefits. Paul

Nearly 3% of respondents had edited their own Wikipedia biographies.

‘P. Z.’ Myers, a biologist at the University of Minnesota Morris, runs the popular blog Pharyngula, which he says gets about a million visits a month. He says that he has never mentioned the blog on his CV or applications for tenure, but his tenure referees raised the blog as an example of something positive he was doing.

Unsurprisingly, younger researchers tend to be more preoccupied with online reputations than older ones. Although more than half of researchers under 35 say that they strongly agreed that the online reputation of their work was important, that number dropped to 42% for those aged 35–54 and to 32% for those aged 55 and over. Peter Ruben, a biophysicist at Simon Fraser University in Burnaby, Canada,

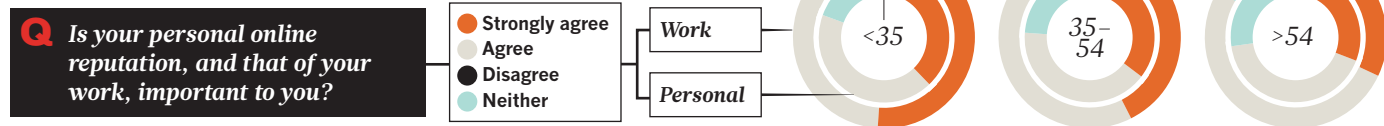
falls in that latter demographic and says he doesn’t care about his online reputation. In 2005, Ruben published a paper (S. L. Geffeney *et al. Nature* 434, 759–763; 2005) that reported on evolution of resistance to a toxin in garter snakes. Although his work was misrepresented on creationist websites, Ruben didn’t try to set the record straight, and doesn’t really think that it has tarnished his reputation.

The positive messages being posted on Potti’s behalf have had some effect. In a Google search for ‘Anil Potti’ on 9 May, five of the top ten links were to positive material placed in the past several months. But a detractor has surfaced, setting up a satirical Twitter account, @anil_potti, which posts links to articles about the ongoing investigation at Duke. An article in the independent student newspaper, *The Chronicle*, also questioned the ethics of the online management activity, pointing out that it discusses Potti’s research without saying that it has been questioned. Ronald Smith, manager of business development at Online Reputation Manager, stresses that the kind of work it does is ethical, legal and accepted in the search-optimization industry. But Bateman says that whoever is doing the work on Potti’s reputation has their work cut out for them. “In the Internet world it is impossible to remove the evidence. In this case Anil Potti is in danger of bringing more attention to his alleged scientific misconduct.” Potti’s is an extreme case, but it holds a lesson for anyone who sets out to court attention online: the web can be unpredictable. ■ [SEE EDITORIAL P.124](#)

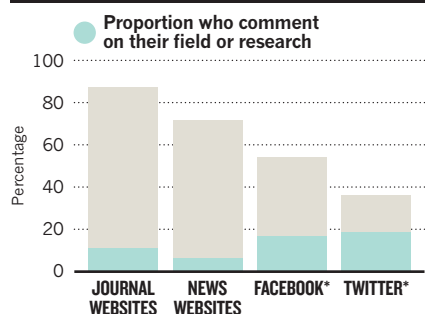
Eugenie Samuel Reich is a reporter for *Nature in Cambridge, Massachusetts*. Survey work was aided by *Laura Harper*.

A NAME ONLINE

A poll of 840 researchers recruited by e-mail and through social-networking sites reveals how scientists manage their online reputations.

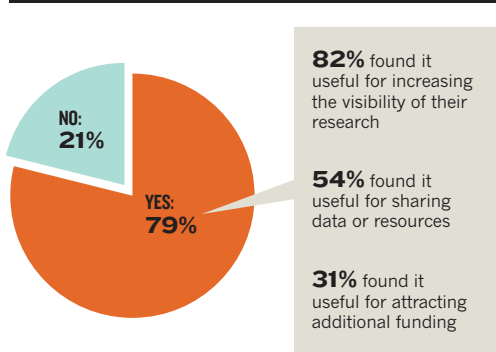


Q What web resources do you use at least once per week?



*Roughly 40% of respondents were recruited through Facebook and Twitter; use of these sites is overrepresented in this sample.

Q Do you have a personal or institutional website that discusses your work?



Q Do you check for references to yourself or your work on the following websites once per week or more?

