Opening up about the profession online—the rewards, the risks, and recommendations for success.

BY MATTHEW McLAUGHLIN
The Internet and social media especially have a reputation for enabling procrastination and wasting time, but deserved as this reputation may sometimes be, time spent on the Internet and even on social media can be time well spent. Communication is powerful, and many have discovered blogging to be an effective tool for harnessing that power.

“Blogging has been a great experience so far,” says Chris Gammell, E.I.T., an electrical engineer who started blogging in 2007. “It has introduced me to a lot of other people in the industry and has allowed me to carve out a small field in which I’m known.”

In addition to blogging at Chris Gammell’s Analog Life, Gammell now also cohosts a popular podcast called The Amp Hour that has a notable five-star rating on iTunes. The show aims to make electronics accessible and fun, while discussing everything from hobbyist electronics to the state of the electronics industry.

“[Blogging] allowed me to start a podcast, which has led to even more opportunities,” Gammell says. “From there, I decided to start my most recent project, Contextual Electronics. Now I teach people how to design and build electronics during a paid, eight-week online course. That is now my full-time job. I wouldn’t be doing that if I hadn’t started with a blog in 2007.”

Darlene Cavalier started blogging in 2006 while finishing her graduate school studies on the role of people without science degrees in science policy and research. She called her blog Science Cheerleader, a reference to her time as a Philadelphia 76ers cheerleader in the 1990s.

“What I was looking for were insights into examples, case studies, suggestions, [and] opinions about involving the public in science policy conversations,” she says. “It was really about the push to reopen the Office of Technology Assessment,” an office of Congress that was closed in 1995.

Today, Science Cheerleader is an organization that connects more than 200 current and former professional cheerleaders pursuing science and engineering careers. Its goal is to promote public participation in STEM research and policymaking and encourage young women to pursue STEM careers.

Not every blog about engineering, or any subject for that matter, is destined to be leveraged into a successful podcast listened to around the world or an organization that has reached thousands of America’s youth, but that does not mean less popular blogs have no value. Quite the opposite is true in fact.

A 2010 survey by marketing software platform HubSpot found 46% of companies with blogs generated a customer as a result of their blog and 90% of companies that posted to their blog daily generated a customer as a result of their blog. WordPress.com reports more than 400 million people visit their hosted blogs each month, and a 2012 survey by BlogHer, a community of women bloggers and other web content producers, found 81% of women in the US trust information they get from blogs, more than either Facebook with 67% or Twitter with 73%.

Since starting a company blog in 2011, design firm Dewberry has learned the validity of these statistics. The number of new visitors to the firm’s website is now greater than the number of returning visitors. “The proof is in the numbers,” says Dewberry Web Content Specialist Sam Miller. “Really focusing in on social media and blogging and creating good content and creating viral content…we’ve increased that new visitor mark to 54%.”

“We’ve had more than one follow-up contact from trade journals,” adds Dewberry Communications Director Molly Wagner. “It’s helped us get in more publications, which is part of the goal.”

“For me the greatest benefit has been…showing students and others that professors are more than just those machines that publish papers with complicated theorems,” says Aurélie Thiele, associate professor in Lehigh University’s industrial and systems engineering department. “We professors have multiple dimensions.”

“Now I teach people how to design and build electronics during a paid, eight-week online course. That is now my full-time job. I wouldn’t be doing that if I hadn’t started with a blog in 2007.”

— CHRIS GAMMELL, E.I.T

Another benefit to blogging as an engineering professor and the primary reason Thiele started her blog Engineered in 2007 is the ability to publish ideas without having to meet the requirements of academic papers. “I wanted to share my ideas and I didn’t know how else to do it because the main communication mechanism in higher education is papers, peer-reviewed papers,” she says. “I wanted to bypass the peer review of academic articles to just start a discussion.”

Other Rewards

Many engineers have also found blogging a valuable tool for serving the profession. Thomas Michael Wallace, a civil engineer in the UK, began his blog Being Brunel in 2012 to explain his work to people outside of civil engineering.

“The official reason is that I wanted to redress the blogging balance between cats and civil engineers,” he quips, before buckling down to discuss what he obviously considers a real problem for civil engineering. “Frankly, with our stuffy, exclusive institutions, hidden and hoarded off sites, and second-fiddling to architects, it’s hard to see how anyone without a degree in the subject can ever engage with, let alone become excited about, the profession. Being Brunel is my attempt to do something about it.”

One of Wallace’s first successes was a post in which he wrote up a code of practice for Santa Loading—“an abnormal load combination that occurs annually in the majority of Christian countries. It is thought to be caused by the arrival and departure of Father Christmas.”

“It obviously caught someone’s imagination as it began to do the rounds across a few forums,” he says. “Back then double-figure daily views were a noteworthy occa-
Blogging is important to Austin Lin, E.I.T., because it gives him and other young engineers the opportunity to draw from the experiences of veteran engineers. Lin blogs about issues relevant to young engineers alongside Musselman on the NSPE website, but he is also a blog reader.

“It’s easy to get technical resources,” Lin says. “That stuff you can look up or ask someone. It’s much more difficult to [ask], ‘How many times did you have to fail doing this thing before you were successful?’”

**Risks**

Not surprisingly, a communications tool that presents as many opportunities as blogging is not without risks or pitfalls. What might be somewhat surprising is very few engineering bloggers say extreme negative feedback or trolling is one of them.

Engineering blogs are by no means exempt from negative feedback, but for whatever reason, most engineering bloggers do not feel it is extreme enough to be worth noting as a negative aspect of their blogging.

“Some of the comments that were made on some articles several years ago were rather strident I thought, but I just let them go,” says Musselman. “I’ve had no one comment to me that ‘I saw your article on thus and such and I think you’re an idiot.’ There’s been none of that. I’ve had a fair number of people say, ‘I saw your article on thus and such, and I agree with that.’"

“I think to any writer the most negative response is silence: nobody likes it, nobody hates it,” Lin says. “I haven’t gotten any angry, vitriolic responses due to anything that I’ve ever written.”

While there is a notable lack of horror stories involving the comment sections of blogs or angry e-mails, there is an equally notable surplus of bloggers sharing stories about positive feedback.

“I think the interaction with the readers is great,” Lin says. “It serves the audience well, but it also helps you stay grounded as far as what it is you’re writing about.”

“I’ll get something from Russia at two in the morning saying, ‘This is great,’” adds Sanders. “You never would have experienced that in the old days of passing around stuff.”

Even getting personal in a recent post, Wallace only notes positive feed-

---

**“To be a blogger and be not just taken seriously but have value there’s a lot of blogging that needs to happen. It’s a commitment.”**

— DARLENE CAVALIER

---

Not interested in blogging? How about participating as a reader?

Here’s a list of links to the bloggers and blogs mentioned in this story.

- Chris Gammell, E.I.T.  
  *Chris Gammell’s Analog Life*  
  www.chrisgammell.com

- Darlene Cavalier  
  *Science Cheerleader*  
  www.sciencecheerleader.com

- Dewberry  
  *Dewberry Blog*  
  www.dewberry.com/news/blog

- Aurélie Thiele  
  *Engineered*  
  engineered.typepad.com

- Thomas Michael Wallace  
  *Being Brunel*  
  www.beingbrunel.com

- Craig Musselman, P.E., F.NSPE  
  *PE Licensing*  
  www.nspe.org/blogs

- Steven Sanders, P.E.  
  *Wit and Wisdom of an Engineer*  
  witandwisdomofanengineer.blogspot.com

- Karl Stephan, P.E.  
  *Engineering Ethics Blog*  
  engineeringethicsblog.blogspot.com

- Austin Lin, E.I.T  
  *Young Engineers*  
  www.nspe.org/blogs
themselves and promoting the great work that they do, especially the great work that they do for our communities, is okay and it’s okay to celebrate it.”

“We’re trying hard to put ourselves out there, but we make sure we get client approval beforehand,” Miller adds. “When in doubt just make sure you ask.”

“If you’re with a company there’s obviously going to be restrictions,” Stephan says. “They don’t want you posting your little private blog of their latest secret development.”

Recommendations
With some of the rewards and the risks of an engineering blog laid out for them, a few engineers may think blogging is something they might be interested in. To them, their colleagues who have already taken the leap say go for it.

“Let me know,” Wallace says enthusiastically. “I’ll be happy give you some support.”

“Engineers have this odd habit of wandering around lamenting that half of the population wouldn’t know what a civil engineer was if they laid-out a bridge in front of them,” he continues. “They say stupid things like, ‘We really need to educate the public as to what engineers do,’ and then somehow miss the logical step of actually doing anything to advertise the profession. It’s almost as if we’re just hoping that one day everyone is going to wake up with a driving need to appreciate the built environment. If we want to be discovered, then we need to become discoverable. And that means sharing, building communities, and allowing people to engage. Blogs are an easy way to do this.”

“There’s some really great blogs out there,” Sanders says. “There’s a lot of great blogs that economists have, there’s a lot of great blogs that sports people have, there’s a lot of great blogs that business people have, but there’s not a whole lot of engineering blogs and that’s kind of unfortunate.”

Having decades of combined experience, current bloggers also have some advice for anyone thinking about starting an engineering blog. Firstly, make sure you are doing it for the right reasons and are being true to your own passions and interests.

“I started blogging for all the wrong reasons,” Gammell says. “I read The 4-Hour Workweek and thought I would be able to eventually make money writing about stuff, stuff not even related to my field [of] analog electronics. Once I figured out how dumb I was being, I took a step back and thought about what I’d really want to write about over the long term. It seemed to make a lot more sense to write about my work, so I started doing that instead.”

“At the end of the day you’re serving some audience,” Lin says. “It can be a kind of a self-set trap if you write specifically to get comments and feedback on writing. It’s not meant for ego boosting or self-esteem reinforcement.”

Related to ego and self-esteem, it’s important to know going into an engineering blog that large readerships don’t happen overnight.

“It’s going to take a while before people notice a blog or are aware of a blog,” Thiele says. “Initially it might be a little disheartening.”

“It took time to understand what people would be interested in reading about and to dovetail that with what information would be timely and topical,” Musselman adds.

There are a number of ways to help build readership of a blog, but as the aforementioned statistics on company blogs from HubSpot indicate, frequency and consistency in posting is probably number one.

“One of the most important things I found out is regularity,” Stephan says. “Several years ago I got on the first page of Google [search results] when you type ‘engineering ethics blog.’ I think the one reason I am still there is because I have been putting in one blog a week for the past eight years.”

“To be a blogger and be not just taken seriously but have value there’s a lot of blogging that needs to happen,” Cavalier says. “It’s a commitment.”

For an engineering firm or company engineering blog consistency is perhaps even more important. “Like anything with social media, once you start you cannot stop,” Wagner says. “You have to be committed for the long haul.”

Like engineering work, Musselman notes, a final important attribute of an engineering blog is being accurate and factual.

“You have to get it right,” he says. “The moment you have something in there that is off the wall and the reader who knows the topic sees it and knows that it is off the wall, you’ve lost all credibility.”

© Published by the National Society of Professional Engineers, May 2014