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The Importance of Writing Skills in Tech-Related Fields

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Back when I was a grad student in anthropology at the University of California at Berkeley, I taught my own writing course. Its theme was medicine, so a lot of pre-med majors signed up. Since it was an intensive summer course, writing assignments were due at the end of each week. Perhaps unsurprisingly, students complained about that, sometimes vociferously.

"We're all science majors," one student lamented, "so we don't really need to know how to write."

As an assistant professor at a university famed for its engineering programs, I regularly encounter that same sort of resistance to writing assignments. Most of my students are engineering and science majors taking my course as their humanities requirement. In effect, they are biding their time, just trying to get a decent grade in what they often see as a "nonessential" course.

But why? How is it that students interested in careers in technology don't understand that writing skills are a crucial part of their future success? What's more, in my life as

a writing coach, I've noticed that this aversion sometimes extends well past the undergraduate years and into the master's and Ph.D. levels.

In an effort to underscore the importance of effective writing skills, I interviewed three professionals at the top of their tech games. I asked them each to reflect on their own writing, on the importance of writing well, and on the role of effective communication skills in their fields.

All three of them agreed: Writing skills not only matter in a tech career, they matter a lot. They are important both in routine day-to-day tasks at a tech company and in terms of the big picture – like the ability to sell an idea in order to get funding.

Emily Greer, co-founder and CEO of <u>Kongregate</u> (a popular gaming company), argues that writing skills are absolutely critical. Not only do tech projects require a lot of collaboration between multiple people in different locations – which itself requires formidable communication skills – but big projects also require clear writing. As Greer puts it: "Taking a big project and breaking it down into chunks for different parties to work on takes clear vision and documentation. It's quite similar to a good outline for a paper."

But writing skills in tech go a lot further than that. Effective writing goes hand in hand with effective coding. "A well-written bug report saves everyone hours of time," Greer explained, referring to a report that details all the bugs in a program or a game. "Clear annotations on code help new people jump in on large projects – and help the original engineers to remember why they made certain choices long after the fact."

Shay David, co-founder and chief revenue officer of <u>Kaltura</u> (a leading video platform provider), agrees. The ability to write well in a tech company, he said, takes a variety of different forms. "Sometimes the output will be more of a laundry list. Sometimes it's a PowerPoint, or even a Tweet, or a mood message on a shared message board," David said. "But the core of writing, regardless of medium, remains the same: the ability to communicate an idea, with force and clarity and with a voice that over time people recognize as yours."

Writing is thinking, after all, so it should come as no surprise to STEM majors looking to make it big in technology careers that they need to take their writing a lot more

seriously. Learning to write well – clearly, effectively, and quickly – should be an important component of every undergraduate education. STEM students should take more classes focused on thinking through writing, not less.

Lest graduate students and junior faculty in STEM think otherwise, writing well is also critical to their future success.

My colleague at the Stevens Institute of Technology, Samantha Kleinberg, is a prolific writer and an assistant professor of computer science. When I asked her to reflect on the importance of writing for academics in STEM fields, she had this to say (and it was terrific enough to quote in full):

"Computer scientists tend not to focus on writing, but I'd argue that writing is our main output. That includes not just research papers, but source code, and documentation for software and data. If you write a program that you want people to use, they need to be able to understand your comments in the code and the instructions on how to run it. ...While it turned out to be a nice surprise since I like to write, I had absolutely no idea how much writing was required in science when I was an undergrad, and I do think students could be better prepared for it."

On that point, Greer and David agree as well. Students in STEM fields are generally less prepared to write than their social-science and humanities counterparts. And that's a big drawback for employers. No matter how brilliant you are or how well you can code, if you can't communicate your ideas, you're not a good hire.

"I tell my students that it doesn't matter if they have the most brilliant idea ever if they can't express it well," Kleinberg said.

"I always like candidates who have combo background of STEM and humanities," Greer said. "Extensive reading (fiction or nonfiction) helps build the type of imaginative empathy that allows you to see things from different points of view, to understand how someone else might react to things. And that helps in everything from navigating political waters to product design."

The next time a student complains to me about the amount of writing they're doing in my courses, I'll direct them to this column. Writing well is for everyone. Engineers

included.

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