


Kris Freeman, MS

Science and Technical Writer

<p style="text-align: center;">Science and Technical Writer Kris Freeman</p>  <p>Place of Employment: School of Forest Resources, University of Washington</p> <p>Type of Work: Science and technical writing</p> <p>I think we live in a time when people are overwhelmed by data, and the job of a good editor or writer is to help your reader deal with a particular set of complex data, to make it understandable. Not all scientists know how to convey their data, so your job is to help them convey this information.</p>	<p style="text-align: center;">Careers in the Spotlight: Science and Technical Writers</p> <p>What do they do? Science and Technical Writers edit and format complex scientific reports, in collaboration with other scientists. Some Science and Technical Writers also communicate complex research findings to the public and to the media using language and terms everyone can understand.</p> <p>What kind of training is involved? Many have a Bachelor's Degrees in English, Journalism, or Technical Writing and a minor in Biology or a related science.</p> <p>What is a typical salary for a Science and Technical Writer? Varies with experience, and ranges from \$30,000/year (\$14/hour) to \$90,000/year (\$43/hour).</p> <p style="text-align: right;"><small>Source: National Institutes of Health, Office of Science Education</small></p>
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1. Where did you grow up?

Mostly in Ballard, in Seattle. We moved here when I was 7, and aside from a year in Oregon, I've lived in the same zip code ever since! I'm a 4th generation Pacific Northwesterner.

2. What do you do (i.e. what career or field are you in, what is the title of your position)?

I have various jobs. I call myself a wordsmith. I have been a science writer most of the time. I've worked at the University of Washington for 17 years. Before that I was a writer and reporter for small magazines and newspapers. At the University of Washington, I've done a lot of science writing and website design, and currently I have a job as an editor.

3. How did you choose your career? When did you first know this is the career you wanted?

It pretty much chose me. It's the only thing I've ever made money at. I sold my first paper when I was 14, to a religious magazine. Then there was a long gap. I should have taken journalism in college – I don't know what I was thinking by not taking it! Then I got a job at a small regional weekly newspaper, the *Blue Mountain Eagle*, which was my first full-time writing job. So I basically knew nothing, because I hadn't taken journalism, but I learned as I went!

4. Did your family support your decision to pursue your career?

Yes.

5. What is the highest level of education you have?

I have an MS degree in Technical Communications from the University of Washington.

6. What is the highest level of education reached by other members of your family?

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My father had a PhD in geography; my mother had two Master's degrees – one in Home Economics and one in Counseling. They both wanted me to get a doctorate, but to get a doctorate you have to be very specialized, but I'm a generalist.

I didn't get my Master's degree until I was in my 40s. When you're a writer, what matters is your portfolio, what you can show that you have done, and often you have to work for cheap or free to get a portfolio. There are always nonprofit groups who need help with newsletters and such, which can help you develop your portfolio.

If you work for the state, like I do, having some kind of degree is helpful, but because I write in the sciences, researchers like you having a MS degree instead of an MA. I did take statistics and I did publish research as part of my Master's degree, which was very helpful. I got my Master's at the University of Washington. The state has a wonderful program called tuition exemption, so you can get your tuition exempt [free] if your boss agrees, and you can get the classes.

During my undergraduate degree, I took a lot of classes, a lot of history and biology. And they have all been helpful. What I didn't do but should have was take a language. I'd say it is really important to be fluent in another language.

7. What is the salary range for a person in your position?

It's all over the map, but it's not terribly high. I'm a member of the Northwest Science Writers Association, and I see very talented people there not making a lot of money. I've made in the \$40,000/year (\$19/hour), sometimes more than that, sometimes less. I was a freelancer for a long time, and I lived in an attic apartment, gluing my shores together. It all depends. You're going to make more money in the science and computer industries, if you have a specialty in bioinformatics, writing technical manuals, or writing about bioinformatics. The more technical the writing you can do, the more you can get paid. But I haven't regretted not making more money. I've done fine.

8. What do you like most about your job?

First, I love to write. I'm not doing that much writing at my current job, so I write on my own. Second, I love learning new things. At the University of Washington, I've written about marine science, toxicology, neurology, and genetics. Right now I'm editing reports about wildlife. You have to be a quick study. So you're always learning new things—it's painful initially as you start because you know nothing about that field, but then you have a learning curve.

9. What do you like least about your job?

It's a sedentary job. Currently I have a boss in an office situation that lets me walk around. I know people who hook their computer up to an exercise bike!

10. What's an abbreviated day in the life of your job?

It changes so much. When I've done science writing, you need to figure out what the stories will be (like in a newsletter), then make appointments with the researchers to interview them, because they are very busy. I want to make the best use of their time, so I do research before I interview them, and I read their papers. I get the papers and try to understand them. Initially you won't understand the papers, but you learn the questions to ask. I read the abstracts and have a dictionary to look up the words I don't understand. The longer you work

at something, the more you understand. What I'm good at is science translation, taking complex topics and making them understandable to people not in the field. Each field has its own vocabulary. People in the different disciplines often don't understand each other's technical words, so you're not alone! Wikipedia and Google are good for this kind of research, and of course you can always ask someone. For a 15 minute interview, I do 2-3 days of research. At a newspaper, you may not have the time for this much research.

It's also important to know some basic statistics, so when you're looking at papers, you can evaluate how significant the paper is, because studies with more people may have more significance than a study with fewer people. A researcher may not understand the importance of their paper. Most researchers don't want you to overstate the significance of their work, so you need to understand the scope of the research question, and how far the result can be extrapolated or generalized. After you write the summary, the researcher has to approve it. I need to find out what information is best to know for my readers, and give researchers the space to say interesting things, and get good quotes.

11. How would you describe how you use bioinformatics in your work? If you don't use bioinformatics directly in your work, how has bioinformatics impacted your career field?

Bioinformatics has impacted genetics and neurology so much, that you need to understand bioinformatics to be able to write about the research in these fields. If you are looking at a particular gene, unless you have a carefully screened group of patients, 300-500 people may not be enough to find an association between the gene and a disease, but if you have a number of people with a specific disorder, you may be able to find an association. However, we now know that many diseases and traits are caused by a combination of multiple different genes.

12. Do you have any recommendations for students who are interested in entering your field?

Read a lot! And write whenever you can. Learning how to write is like learning a sport or a musical instrument – you have to practice.

13. What are your favorite hobbies?

Writing is also a hobby, and I read a lot, I garden, and I sing. I started taking singing lesson in my 40s, but I've always sung in choir, and recently I've been doing solo singing.

I think we live in a time when people are overwhelmed by data, and the job of a good editor or writer is to help your reader deal with a particular set of complex data, to make it understandable. That could be making tables and charts work well, because they are important, but not all scientists know how to convey their data, so your job is to help them convey this information.

Resources:

- Kris Freeman's Homepage Homepage: <http://staff.washington.edu/kfreeman/>
- To learn about **job prospects** and **salary information for Authors, Writers and Editors** visit the US Bureau of Labor Statistics: <http://www.bls.gov/oco/ocos320.htm>
- Northwest Science Writers Association: <http://www.nwscience.org/>