



Careers in Neuroscience / Career Paths: Science Publishing

In a nutshell: A career in scientific publishing offers multiple options for scientific communicators. Working for a peer-reviewed journal, a more general publication, or becoming part of an online venture requires flexibility, good people skills, and a passion for science and communications, as well as knowledge of the subject. Multitasking is the name of the game, and there is always something new to work on.

Multifaceted Career Option

Science publishing is an umbrella term that involves serving as an editor at peer-reviewed scientific journals, review journals, and for books. Acquisitions editors typically work for publishing companies and are responsible for building up the company's book list in a particular area. Editorial jobs have many facets, resulting in a need to juggle projects.

With the rise of online publishing, there are numerous opportunities to edit material designed for the Web. At higher levels, science editors may be responsible for designing interactive online books or another kind of innovative product. "As the line between the print and online world becomes blurred, there's an even greater need for people with a science background who can develop unique products for the scientific community," notes one editorial professional.

Work Description

The work of a neuroscientist in scientific publishing can take many different forms. For example, an *editor at a peer-reviewed journal* is largely responsible for reading papers, selecting those most suited for publication, and overseeing the peer review process. The editor is also responsible for staying in touch with the author and updating them on the status of the paper. Revisions are usually required, and the editor must ensure that they are completed on schedule. After the paper has been approved, a *copyeditor* will edit the article for accuracy, grammar, and consistency.

An *acquisitions editor* for a book publishing company has a very different kind of job. That individual is responsible for developing the company's list of book titles each year and finding appropriate authors. The job may involve travel to meet with prospective authors. After a book is acquired, a different kind of editor, called a *developmental editor*, may be asked to work closely with the author. The developmental editor helps the author shape his or her thoughts into a coherent whole. This editor may read the initial outline and chapters as they are written to make sure the book is coming together. After the writing is completed, a *substantive editor* may take over and give the manuscript a hard look to make sure it is clear and scientifically



sound. When the editorial team is satisfied with the content, a copyeditor usually edits the book for grammar, style, and consistency.

Working in an online environment involves a slightly different skill set. An editor must be able to envision how a product would work online and consider how to take advantage of the medium. For example, an editor at a large scientific publishing house developed a series of online brain maps that had a high degree of interactivity. To make this product work, he had to work with Web designers and programmers to ensure that his vision was being realized.

At higher levels in publishing, the duties become managerial. *Executive editors* manage a team of editors, as well as help plan the direction of the overall editorial program. Most executive editors, however, continue to keep their hands in the editorial process.

Place(s) of Employment

Many different settings use editors. Large publishing companies, often conglomerates made up of smaller companies that have been purchased and consolidated, offer numerous editorial positions. They usually have book departments, as well as divisions that focus on journals. An editor can move from department to department, gaining a range of experience. Such a company might have positions in multiple cities in the U.S., as well as in cities around the world. Companies with a large presence in the United States, Europe, and Asia continue to look for opportunities to expand into new markets in other countries, such as Latin America. Many companies also work with printers and other vendors in Asia, where production costs are lower.

Nonprofit organizations and foundations are located nationwide, with a high concentration in large cities, such as Washington, DC, San Francisco, New York, and Boston. The work at nonprofits differs from that at publishing companies in that a neuroscientist may be asked to write marketing materials, online stories, and press releases instead of just focusing on books or journals.

Personal Characteristics

Neuroscientists working in science publishing tend to value communication and be committed to sharing their interest in science with others. They must be organized and be willing to spend much of the day reading, often on the computer. They also must be adept at communicating in person, by email, and over the phone. When working with external clients, such as authors, reviewers, and scientists, editors must also be diplomatic and know how to finesse potentially challenging relationships.



Editorial managers must enjoy working with people and have the ability to build a cohesive team. Editors also tend to be masterful multitaskers, with the ability to move seamlessly from one project to another. In management positions, they must be able to conceptualize new product lines, often with a visual component. New products are often targeted to a specific audience, either the general public or the scientific community, so editors must be aware of where the interests of these two groups lie. Because they often review the design and overall look and feel of a product, they must be knowledgeable about design principles. Finally, senior editors and managers love the interactions with scientists. "That is one of the best parts of my job," says one editor. "After all, science is very much a human endeavor."

Education/Training

Typically, individuals in this career attend school through the PhD level. As an undergraduate, they may have majored in a related area, such as math, computer science, biology, physics, chemistry, or psychology, but will then go to graduate school in neuroscience or related area. If the young scientist wants a career in publishing, postdoctoral training may not be necessary. There are, however, programs in science writing and editing that can fill in gaps in knowledge about scientific publishing. Volunteering for a committee with a professional organization, such as the Society for Neuroscience, is another way to learn more about the field. But for many, on-the-job training is sufficient.

Career Trajectories

A career in scientific publishing often begins with a job in the field. Most scientists start out as an editor, where they review articles and oversee the peer review process. Once an individual gains some experience, he or she can move up the ranks at the same organization, or leverage their experience by looking elsewhere. As editors make career decisions, it is crucial that they build their professional network. This is the first place they can look for new opportunities.

Over the years, publishing companies have merged and become large, multinational entities with many different departments. Therefore, it is not unusual for a person to spend most of his or her career at the same company, moving from position to position both laterally and up the employment ladder. It is possible, too, to find jobs within the same company in different countries.

In addition to traditional publishing houses, nonprofit organizations, professional organizations, academic institutions, and foundations all have a need for competent editors. For bilingual editors, working for a language editing company, which translates books and journals into



different languages, is another possible career path. These companies employ both staff and freelance editors.

Employment Outlook

Although the field has become more competitive as more researchers are leaving academia, there are still numerous opportunities. This is partly because many different kinds of organizations have editorial positions.

Salary Information

The salaries in publishing vary considerably depending on the sector. According to the Bureau of Labor Statistics, the pay for entry-level positions in the private sector is estimated at \$50,000, but compensation can increase considerably with seniority, topping off at about \$150,000. Salaries at nonprofit environments, including academia, societies, and others, are lower but can offer alternative value if you are interested in mission-driven organizations.

What You Can Do Now

Undergraduate Student: An interest in editorial work can emerge as early as the undergraduate years. Becoming involved in student publications is a good way to learn more about editing and find out if this is a viable career option. Looking for an internship that involves editing, perhaps at a professional organization such as SfN, helps build a student's resume and offers initial training in the field.

Graduate Student: There are even more opportunities to become involved in graduate school. Volunteering to write or edit for undergraduate or graduate publications will hone your skills. Seeking volunteer or work-study positions in the institution's public affairs office or find a summer editorial position will also help you learn about publishing. Attending the SfN Annual Meeting every year is another way to meet people who can help you move onto this career path.

Early Career: After completing graduate school, the best way to find out about this profession is by getting a job in the field. If an individual needs more training, there are continuing education courses as well as full-blown writing and editing programs. Any work in this area requires a strong foundation of clear and concise writing and communications skills, either for scientific audiences and/or for non-scientific audiences. With those skills, the specifics of the daily activities can be learned over time through on-the-job training, with the opportunity for growth given strong performance.



Mid-Career: At this stage, an editor has probably moved up the ranks to *senior editor*, *executive editor*, or possibly *editor-in-chief*. In these positions, there are more managerial responsibilities, and an editor may be called upon to work with a team to develop the editorial program. At this stage, some editors may also decide to pursue an alternative career path, such as academic administration, science philanthropy, or science policy. With the scientific expertise gained in publishing, along with communication/diplomacy skills, networking skills, and ability to multitask, it is easier to move in these other directions. Similarly, mid-career is also a good time for those in academia with an interest and ability in editorial work to switch career paths. Most publishing companies or nonprofits welcome seasoned scientists, who bring both science and editorial skills to the position. This is also a time when experienced professionals can think about giving back by joining different committees within SfN and helping to support rising editors.

Retirees: The advantage of a career in publishing is that it can continue throughout life. Even after retiring, it is always possible to pick up freelance jobs or volunteer to work with young editors, perhaps at your former place of work. Editing is a skill that is always needed, so it is possible to keep a hand in it indefinitely.

For More Information

The following websites have valuable information:

Society for Neuroscience: www.sfn.org

Bureau of Labor Statistics: <http://www.bls.gov/ooh/media-and-communication/technical-writers.htm#tab-4>