



Certification and credentials for scientific editors

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Most professionals want to further their careers over the course of their working life. Scientific editors as a whole do not have well-defined paths for establishing their careers, unlike professionals such as lawyers and doctors, for whom the educational and credentialing processes are well established. Where can scientific editors get their training? Where can they get experience? This article will explore certification and credentials, as well as training and degrees, specific to scientific editing that can help further the careers of scientific editors.

Introduction

Unlike professionals such as lawyers and doctors (who go to specific schools to learn their craft, intern to get on-the-job training, and then pass various examinations before being allowed to call themselves "lawyer" or "doctor"), the educational and career paths of scientific editors are often not well defined. Lawyers start by going to law school. Doctors start by going to medical school. Where, however, does a scientific editor start? Although many start by having an educational background in the sciences, this is not always the case.

The career paths and experiences of scientific editors are extremely varied. Some majored in science in college and many even have doctorates. There are those scientific editors, however, who have that title merely because they edit manuscripts of a scientific nature, even though they don't understand any of the content. Many

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fall into a continuum between these two extremes of education and understanding.

What can scientific editors do to further their careers? How can they distinguish themselves career-wise? In this article, we'll discuss various ways scientific editors can get ahead in their field through certification and education.

Certification

For many years, STC has talked about developing a certification program for technical communicators. Because so many different disciplines are involved, so many different types of technical communicators exist, and so many problems are inherent in formal certification programs, STC certification has remained an elusive goal. How

then, can scientific editors easily show their managers, prospective clients, and prospective employers that they have attained certain levels of expertise and can prove this beyond just doing their jobs effectively? How can scientific editors distinguish themselves from peers who have similar education and years of experience?

One way editors can show they know what they are doing and have reached a demonstrable level of expertise is through passing a recognized certification program. The Board of Editors in the Life Sciences (BELS) was founded in 1991 to evaluate the expertise of and to certify manuscript editors in the life sciences. It was envisioned that these certifications would be similar to those available in other professions. In the early 1980s, 10 editors who had been active for many years

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Editorial: What's in a name?

by Geoff Hart
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"That which we call a rose / By any other name would smell as sweet."—William Shakespeare, *Romeo and Juliet*



Amateur astronomers and other fans of heavenly bodies received something of a shock this past year when the International Astronomical Union (IAU) suddenly announced that Pluto was no longer a planet. The planetary status of Pluto, whose existence was first confirmed by Clyde Tombaugh in 1930, died a premature death at the relatively young age of only 76 years.

I was one of those who mourned—and still mourn—its passing. But being of a philosophical bent (some might say only “being somewhat bent”), I always try to make lemonade when life hands me lemons, and as editor of this newsletter, it seemed appropriate to see what fruit juice might be made from my disappointment. Since there's plenty of empty space to be filled in each issue (*hint, hint*), an editorial on the meaning and use of names seemed appropriate.

For a detailed and enlightening discussion of the factors that went into the IAU's decision to deplanetify Pluto, I recommend Steven Soter's article, *What is a planet?*, in the January 2007 issue of *Scientific American*. For those with less patience, a brief summary: The traditional definition of “planet” and the one most familiar to non-astronomers focused on the concept of an arbitrarily large celestial object with a stable orbit around its primary (in our case, the Sun); although some planets might have moons, others did not, so the possession of a moon was thus not a criterion for planethood. So far, so good. Unfortunately, the relentless increase of astronomical knowledge had gradually made such a definition untenable. How could Pluto be considered a planet when several moons in our solar system (e.g., Jupiter's Io, Ganymede, and Callisto) were larger? If Pluto remained a planet, then what should we say of Eris (briefly and charmingly named Xena, after Lucy Lawless' beloved warrior princess) and the

hypothesized dozens of similarly large planets lurking in the darkness beyond Pluto? The solution was either to start forcing schoolchildren to memorize an ever-increasing list of planets, or to come up with a more effective definition of planet. Soter describes the new criteria proposed by IAU, and the flaws in these criteria, thoroughly and convincingly, so if this topic interests you, I encourage you to read his article.

When I first heard of the IAU's decision, my immediate reaction was that astronomers were engaging in that reflexive form of binary thinking (attempting to classify everything in the world into neat, non-overlapping categories) that I criticized in my editorial in the September 2005 issue of *the Exchange* (www.geoff-hart.com/resources/2005/binary.htm). However, in my attempt to be concise and emphasize the central point of that editorial, I neglected to point out that the process of binary
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in scientific editing and publishing began working to develop a certification program. There are many caveats and pitfalls inherent in developing a certification program, and as such, they obtained the advice of testing consultants and people who administer certification programs in other professions. The first official certification examinations were offered in January 1991. BELS now has almost 700 members in the United States, Canada, Europe, and elsewhere. BELS offers three credentials:

1. Editor in the Life Sciences, ELS
2. Diplomate Editor in the Life Sciences, ELS(D)
3. Honored Editor in the Life Sciences, ELS(H) (an honorary title)

ELS certification includes a rigorous, 3-hour, multiple-choice pass-fail test of scientific editing in English. It is similar to tests used in other professions to certify their members, such as the CPA exam for accountants, and editors who pass the certification test may use the initials ELS after their name. Although this certification was originally designed for life science editors, it is not necessary to have a background in the life sciences to pass the exam.

ELS(D) certification is the highest level of certification that BELS grants. The Diplomate process evaluates the abilities of more experienced Board-certified editors who have already earned the ELS certification. The Diplomate program was revised in mid-2002, and now consists of a formal review of a portfolio submitted by the candidate. The portfolio consists of manuscripts edited by the candidate and two essays written by the candidate on topics related to editing in general or scientific editing. A list of topics chosen by BELS is sent to the candidate, who then chooses two of these to write about. Editors who successfully complete the Diplomate process may use the designation ELS(D) after their names.

The question of whether ELS certification will help one's career is often asked. It depends. If an editor works for someone else and their employer recognizes the value of certification, then becoming an ELS or ELS(D) may lead to an increase in salary, greater responsibility, and increased promotion potential. If the employer does not

recognize the certification, then the editor can do any number of things:

1. Grin and bear it.
2. Educate the employer as to the value of certification.
3. Find another job where competence is recognized.
4. Bask in the self-satisfaction of having attained this level of expertise.
5. Try freelancing.

The stature of an ELS-accredited editor who works as a freelancer is automatically elevated above that of someone with similar years of experience and education. This level of expertise can be an excellent marketing tool when courting new clients or talking to existing clients. Often, it is also justification for a rate increase.

More information about BELS, including the levels of certification and the certification processes can be found at the BELS Web site (www.bels.org).

Nonscientific degrees

How well does an advanced degree in a non-scientific field provide credentials for a scientific editor? The answer often depends on who is answering the question. Opinions and responses gleaned from a large sample of editorial colleagues seem to differ from those of the clients.

Editors who lack a college degree, and even some who hold a bachelor's degree, give little additional credit to colleagues with advanced

degrees—unless the advanced degree is in a relevant field, especially one that is technical or scientific. These peers regard the degree holder as a potential information resource, but only in their specific area of expertise. Colleagues who hold an advanced degree more readily attribute professional credibility to others with a comparable degree. This group often regards the colleague as a professional resource in a more general capacity.

Clients, however, place a high value on editors with an advanced degree, and particularly a doctorate. Many believe that the degree indicates a high level of achievement and someone who is capable of research and project management, regardless of the field. Some clients, how-

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ever, express concern that services from such editors might cost more, or that the editor might be overqualified. Clients who themselves have an advanced degree assign a higher value to the credentials. Clients, with or without an advanced degree, often regard the editor as someone who can be expected to do a better job.

Editors with an advanced degree in science

There are two relevant aspects of holding an advanced degree: First, the editor would have sufficient knowledge to edit scientific work. Second, some writers and most readers assume that advanced degrees are applicable to all fields.

Editors who work for peer-reviewed scientific journals require expertise in the journal's field and the ability to draw on that knowledge to work with authors from a variety of related fields. Many editorial assignments involve determining whether submitted manuscripts are appropriate in quality and subject for the journal. Journal editors with science degrees may not understand all details of the research being described, but may know where to find reviewers able to evaluate those details. These editors can use their academic training in a few ways:

1. To evaluate whether the investigative framework is robust;
2. To gather additional information from reviewers and determine the quality of the work; and
3. To maintain enough familiarity with the current literature so they can recommend acceptance or rejection of manuscripts.

Without academic training, editors can work on the language of the reports, but not from the context of a researcher reporting on their work. This context includes how the manuscript would benefit other researchers in the field, how the public and funders of research would benefit from publication of the work, and whether the work is new and innovative, or represents a fundamental and significant addition to the literature.

Editors are often requested to review or edit papers that are outside their fields of expertise. Many decline these requests because they lack sufficient knowledge of the field, but can identify

someone more qualified. Even so, editors will occasionally make editorial comments or decisions about a manuscript based on their experience presenting scientific material to various audiences. Good editors understand the limits of their expertise and work within those limits.

Relevance of academic credentials

Although individual courses in technical and scientific communication have been around for almost a century, scientific and technical communication is, nevertheless, a young academic discipline. The first technical writing course was offered at the University of Cincinnati in 1910. Soon after that, in 1911, Samuel Chandler Earle, a professor of English at Tufts, proposed a prototype technical writing course for his engineering students that would be distinct from their English literature or composition courses. During the first six decades, the focus of such academic courses was primarily on clarity, efficiency, and technical accuracy. Even a cursory survey of the academic and self-help technical writing textbooks published before the late 1970s reveals the community's focus on these issues.

Two major developments brought about a paradigm shift in how scientific and technical information is communicated. The first was the introduction of personal computers and the subsequent need for easy-to-follow manuals. The second is the proliferation of academic degree programs in scientific and technical communication in recent years. The notions of audience awareness, user-centered product design, and usability testing have become commonly accepted. In addition, integrated product development has also become commonplace, with communicators working side by side with product or information developers instead of working alone, after completion of the project.

Researchers in the field are now questioning the long-established concepts and conventions of clarity, efficiency, information-centered design, and objectivity, as well as the traditional use of passive voice. This critical scrutiny of the theory and practice of scientific communication is where academic programs offer more than just commu-

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nication training or certification. Practicing or aspiring scientific communicators can benefit from these programs, particularly in six areas:

- Instruction in the rhetoric, theory, and practice of various genres of scientific communication, supplemented by real workplace experience through internship and cooperative work programs;
- Acquisition of the crucial skills of scientific editing, page layout and design, design of graphics and other visuals, and online and multimedia design;
- Theoretically sound training in scientific research methods (essential for communicators in project management and other leadership positions);
- Critical understanding of scientific theory through coursework in the philosophy of science and technology;
- A substantive background in language theory to understand how words function as signs, symbols, and emblems; and
- Discipline-specific methods ranging from usability testing to project management.

Well-established and well-funded academic programs provide ample opportunities for students to work with faculty on a one-on-one basis to achieve professional independence before entering the workplace. These programs teach the realities of scientific communication in the workplace, but also what it “ought to be”. These programs also ask students to analyze their real workplace internship experiences through internship portfolios and public critiquing sessions.

Summary

Many scientific editors fall into their profession without previous training, academic work, or experience, whereas others have had formal academic training. In both cases, a number of avenues are available to editors who want to further their careers. With modern academic programs specifically geared toward scientific and technical communication, editors can choose to get basic and advanced degrees in this discipline. However, many editors are already established in their profession and are very knowledgeable in their field through years of experience, but want credentials that testify to this fact. The Board of Editors in the Life Sciences makes this an attainable goal through their certification programs. The growth paths taken by scientific editors are varied, but there are flexible options that let each of us choose our own path. Ω

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“The modesty of the true scholar is neither a gesture nor a joke. To him it is quite literally the case that a science of anything presupposes a vast ignorance concerning it: an ignorance, indeed, so vast that even its very nature may never be understood. He as a scientist, in other words, may never become clear as to what it is of which he is ignorant, or ought to consider himself ignorant; he may never learn what it is that he should seek to know. Meanwhile, however, he has his method; he does know how to proceed within the field of ignorance he has managed to define.”

—Mark van Doren, *The Kinds of Knowledge*

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“For every expert, there is an equal and opposite expert, but for every fact there is not necessarily an equal and opposite fact.”—Thomas Sowell

“The first principle is that you must not fool yourself—and you are the easiest person to fool.”—Richard Feynman

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“Historians... have not been adequately trained to see the influence of the biophysical world. But to ignore the power and complexity of nature and place is to write history with one eye closed. We may see much with the open eye, but we will not see the past in its true breadth and depth.”

—Donald Worster, *A Long Cold View of History*

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“The fact that astronomies change while the stars abide is a true analogy of every realm of human life and thought, religion not least of all. No existent theology can be a final formulation of spiritual truth.”

—Harry Emerson Fosdick (1878–1969)

An abuse of engineeringese was observed

by Jean-luc Doumont (www.principiae.be)

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Most of us working in the technical or scientific fields, whether as professional communicators or as people in other professions who must communicate as part of their job, come across *engineeringese* (or perhaps *scientese*): ineffective wording so widespread in the profession that it looks like a foreign language of its own. Engineeringese may be no more than jargon, but it may also consist of ineffective constructions.

At first sight, such endemic idiosyncrasies may seem to stem from no more than a copycat attitude. After all, most engineers and scientists have learned their genres by example; new hires typically read many more documents than they write. Is it any wonder, then, that specific writing habits self-replicate through novice writers like viruses through their host cell (or their host CPU)?

Still, to survive the many mutations brought about by generations of writers, a particular style of phrasing must be fit enough for the perceived purpose. Engineeringese is no mere accident: it must be the result of some evolutionary process. Explanations, if not excuses, have thus been proposed for the omnipresent passive voice, so typical of scientific writing. Science, some will argue, must be objective. It is only logical, then, that scientists use the object of their investigation as the subject of their clauses, preferring thus a passive voice—a good intention, but one that sometimes leads to a poor outcome, as I have discussed previously (*Scientists and engineers never do anything* in the February 2006 issue of *the Exchange*).

Another form of scientese, equally frequent but perhaps less frequently reported, is a shift in emphasis from a given phenomenon to its observation. As such, it is thus in line with most authors' focus on reporting their work instead of addressing the needs of their audience. This focus leads to two ineffective habits: expressing

the true action with nouns instead of verbs, and locating the main information in a subordinate clause.

So-called *nominalizations* have many causes. Writing "exhibit a tendency to" to mean "tend to" may simply reflect an unconscious desire to impress. Writing "As a result, an increase in temperature was observed," however, denotes a focus on the scientist's essential act—observation—instead of on the phenomenon observed. Readers are more likely to care about what happened than about the fact it has been observed, and would thus be better served by the shorter, more direct statement "As a result, the temperature increased", expressing the phenomenon (*increase*) as a verb.

A similar recommendation applies to complex sentences. "Figure 4 shows that the temperature increases" emphasizes not the fact that the temperature increases, but the fact that this is shown in Figure 4. Turning the subordinate clause into a main clause and vice versa brings the focus back on the phenomenon: "As shown in Figure 4, the temperature increases" or perhaps simply "the temperature increases (Fig. 4)."

The participants in my training programs usually have no difficulty identifying instances of main information in a subordinate clause (that is, once they have been reminded of what a subordinate clause is), but they are often at a loss to find alternatives. The tactic, however, is simple: suppress the main clause, so the subordinate clause becomes an independent one, then put back somehow what you have lost, if

anything. Impersonal main clauses of the form "it is obvious that" or "it is a surprise to us that" can mostly be replaced by a single adverb, such as "obviously" or "surprisingly". Main clauses such as "it is important to note that" can usually be suppressed altogether: perhaps paradoxically, the resulting conciseness emphasizes the statement better than the extra words did.

To focus on phenomena, not on observations, one must of course assume that what is observed is also what happens. This assumption is usually valid for positive observations, except perhaps for hard-to-measure variables, but never applies to negative observations. Stating that "no adverse

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"Still, to survive the many mutations brought about by generations of writers, a particular style of phrasing must be fit enough for the perceived purpose."

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effect has been reported” is not equivalent to stating that there is none: the absence of proof is no proof of the absence. Ω

Dr. Jean-luc Doumont (www.principiae.be) teaches and provides advice on professional speaking, writing, and graphing. For some 20 years, he has helped audiences of all ages, backgrounds, and nationalities structure their thoughts and construct their communication.

“Modern astronomy is a hot competition between the quick and the dead—who soon become the untenured.”
—Greg Benford, *Anomalies*

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“In science it often happens that scientists say, ‘You know that’s a really good argument; my position is mistaken,’ and then they would actually change their minds and you never hear that old view from them again. They really do it. It doesn’t happen as often as it should, because scientists are human and change is sometimes painful. But it happens every day. I cannot recall the last time something like that happened in politics or religion.”
—Carl Sagan, astronomer and writer (1934–1996)

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“The factual correction of error may be the most sublime event in intellectual life, the ultimate sign of our necessary obedience to a larger reality and our inability to construct the world according to our desires. For science, in particular, factual correction, holds a specially revered place for two reasons: first, because we define the enterprise as learning more and more about an external reality; second, because we know in our hearts that we can be as stubborn and resistant to change as petty bureaucrats and fundamentalist preachers—and undeniable factual correction therefore becomes a kind of salvation from our own emotional transgressions against a shared ideal.”
—Stephen Jay Gould, *A foot soldier for evolution*

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“There are 10^{11} stars in the galaxy. That used to be a huge number. But it’s only a hundred billion. It’s less than the national deficit! We used to call them astronomical numbers. Now we should call them economical numbers.”
—Richard Feynman, physicist, Nobel laureate (1918–1988)

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“Everything you’ve learned in school as ‘obvious’ becomes less and less obvious as you begin to study the universe. For example, there are no solids in the universe. There’s not even a suggestion of a solid. There are no absolute continuums. There are no surfaces. There are no straight lines.”
—R. Buckminster Fuller, engineer, designer, and architect (1895–1983)

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“The nice thing about research is that you can prove yourself wrong.”—Ian Baldwin

Science serialized: representations of the sciences in nineteenth-century periodicals

Book review: Cantor, G.; Shuttleworth, S. Eds. 2004. Cambridge, MA: The MIT Press. 358 p., including index. [ISBN 0-262-03318-6. \$40.00 (Hardcover).] Previously published in the August 2005 issue of Technical Communication.

by David Forel (dforel@mtu.edu)

In 1858, Charles Darwin and Alfred Wallace jointly submitted a paper on evolution by natural selection to the Linnean Society of London. The next year, Darwin published *The Origin of Species*. For the rest of the century, evolution was the leading subject of scientific discussion. However, evolution was already being discussed at the beginning of the century thanks to earlier evolutionary thinkers (for example, Jean Lamarck and Charles’ grandfather Erasmus Darwin) and the growing awareness that the earth is billions of years old.

Science Serialized is a publication of the Dibner Institute for the History of Science and Technology on the MIT campus. The fourteen chapters (by different authors) proceed chronologically through the 1800s. They examine monthly and quarterly journal articles and book reviews to discern how science was presented. The undertone of this progression is natural selection and the debate surrounding it.

Articles and reviews of the 1800s did not just report; they also shaped perspectives. For example, the second chapter looks at flower articles from 1800 to 1830. Men’s magazines talked science without apology. Women’s magazines apologized for Latin terms, tried to avoid them, and tried to avoid naming the sexual parts of flowers.

The third chapter covers religious journals and how they viewed science in the mid-1830s. At that time, religion was not in opposition to science; rather, it was thought that science could shed more light on the divine in our world.

Contrary to my assumption, “psychology” did not start with Freud (who first began publishing around 1900). The fifth chapter covers psychology from 1855 to 1875, when it was grow-

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ing apart from philosophy. One huge discussion was whether the new discoveries in physiology (how the brain works) and psychology (notions of free will) were moving humans from divine (made in the image of God) to animal. However, most writers concluded vaguely, which allowed readers to maintain a connection between the self and the divine.

The seventh chapter, about the magazine *North American Review* (NAR) from 1865 to 1880, is the only chapter with focus outside Britain. The chapter discusses NAR under the editorship of Henry Brooks Adams (grandson of John Quincy Adams). Adams' editorial purpose was to give room for independent, rational, and independent inquiry. One way he did this was to publish articles that defended Darwinism.

The ninth chapter discusses reports of Tyndall's Belfast Address (1874). Tyndall, President of the British Association for the Advancement of Science in 1874, gave the Presidential Address at the annual meeting in Belfast that year. Tyndall took the aggressive position that science and theology are separate realms. This speech marked the watershed for whether science or religion would rule English culture. The church refused to abdicate its place in interpreting science (including the new sciences of psychology and evolution), and the debate pitted scientists against scientists.

Most of the latter third of *Science Serialized* focuses on personalities who presented or debated natural selection (Charles Darwin, John Tyndall, W.K. Clifford, Grant Allen, John Ruskin, and Samuel Butler) with mention of the journals that carried the debate.

I recommend this book to those interested in an 1800s historical perspective on the evolution debate and a curiosity about the names and types of journals of that century. Ω

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thinking is of crucial importance in science. Our ability to separate information into discrete or semi-discrete categories is a powerful tool for determining how well we understand something. It also reveals much about how we think about that information.

Possibly more important still is the fact that as scientific communicators, we cannot explain something to anyone else until we understand it ourselves. Which leads us to the subject alluded to in the title of this essay: What's in a name? Like any other word, a name allows us to attach a label to a concept and the collection of related information. Once understood, that name then becomes the only useful kind of jargon—a word that lets us communicate concisely because everyone understands its meaning and because it communicates more efficiently than having to repeat the full description underlying the name every time we want to express that concept. Unfortunately, it's the "full description underlying that name" that causes problems. Sometimes our understanding of that description drifts out of synch with the expanding body of knowledge. When that happens, we have a problem.

The problem with the label *planet* was that it no longer adequately reflected our understanding of the complexity of how the solar system developed and no longer accommodated our understanding of the many structures (such as the Kuiper belt) that had not been imagined when the original definition first became common. When a name no longer accomplishes the purpose it originally served (efficient, concise encapsulation of a larger body of knowledge), then it's time to change that name. As Soter notes in the conclusion of his article, "To be useful, a scientific definition should be derived from, and draw attention to, the structure of the natural world." That is, the name must have more than mere historical importance: it must also have a practical purpose, and must serve that purpose well. (A great many names chosen by scientists fail this test. Perhaps that's a topic for a future editorial.)

This is an interesting and important conclusion, both because it reveals something of how scientists think and because it shows us how scientists can become lost in their own discourse and ignore the larger context in which that dis-

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course occurs. Many of those who objected to the deplanetification of Pluto, myself included, were responding from a purely pragmatic, and not particularly scientific, perspective: everyone knew, and had known for more than 70 years, that Pluto was a planet, so why change this established fact? Others, including a surprisingly large number of astronomers (who presumably knew better but who responded from the heart anyways) objected to the seemingly arbitrary nature of the new classifications. But the “why” behind the IAU’s decision was explained clearly and elegantly by Soter: “We can revise our definitions when necessary to reflect the better understanding that arises from new discoveries. The debate on the definition of a planet will provide educators with a textbook example to show how scientific concepts are not graven in stone but continue to evolve.”

The issue of naming has clear relevance to scientific communicators. To the extent that our communication is restricted to the discourse community of science, Soter’s explanation of the new criteria fits well with my assertion that a name must communicate clearly and efficiently to those who will be dealing with that name as part of their professional work. But the strong negative reactions to Pluto’s new status that have been expressed both by astronomers and the general public reveals a more important point for those of us who must also communicate outside the scientific community: a radical revision of any name used by the public requires equally radical efforts to explain and justify the change. Where the IAU failed was not in its decision—which was indeed arbitrary, albeit in a logical and useful way—but rather in how vague their initial definitions were and how poorly they communicated the reason for the new definitions to both their fellow astronomers and the general public.

This kind of confusion might have been eliminated, or at least mitigated, if more skillful communicators had been involved in the process of setting and communicating the new definition: those who framed the definition clearly understood what they were trying to achieve and the technical details that had led to the new classification, but like many an author (not just scientist authors), they failed to bridge the gap between

their personal understanding and a new comprehension and acceptance by the audience they were attempting to persuade. Bridging that gap is where we come in, and it’s the role I urge you to consider taking on in your own work as a scientific communicator. Ω

Discussion groups

Scientific Communication community

STC and our community run an e-mail discussion group that provides a quiet, friendly place to turn for help if you’ve got any questions concerning scientific communication. To join, point your Web browser to:
<http://lists.stc.org/cgi-bin/lyris.pl?enter=stcscsig-L>

There’s no cost to join, and you can expect a very low volume of mail. Of course, the more people who join, the more traffic there’ll be, so please join. It’s a great way to make the community work for you.

Editing

If your work involves lots of editing, consider joining the **Copyediting-L** e-mail discussion group, which focuses on editing in all its various forms. The group is not affiliated with STC, but you’ll find many STC members there. To join, point your Web browser to:
www.copyediting-L.info/

Technical writing

If you do a lot of technical writing, join us on **Techwr-L** to discuss the tools and travails of the technical writer. The group is not affiliated with STC, but you’ll find many STC members there. To join, point your Web browser to:
<http://lists.techwr-L.com/mailman/listinfo/techwr-l>