edited by Ken Heideman

A Question of Tracking

In this column, our professional colleagues will offer information and advice based on their own experiences in dealing with a question or problem that is relevant to scientific editors. As the new editor of the *Solution Corner*, I am not trying to assemble responses from people who are in complete agreement; in my opinion, that would remove the raison d'être of the column. Rather, it is for readers to glean what they feel they can effectively use from the contrasting views expressed and leave the rest. This is *your* column, and you are invited to submit your own questions to be considered in this space by sending them to *solutioncorner@ametsoc.org*. Follow-up on previously published questions is also encouraged. Your participation is most welcome and indeed essential to ensure that *Solution Corner* is a valuable resource to our readers.

Most of us are now in an established electronic workflow or transitioning to it. This makes an efficient manuscript-tracking system essential. Societies now recognizing the need for this capability sometimes wrestle with the question of whether to build a tracking system in house or to purchase one "off the shelf". Moreover, there is a question of whether a single tracking system should follow manuscripts and all related correspondence and reviews only from submission through peer review or all the way through production to publication (at added cost, of course). On the basis of experience, how can we help a managing editor make decisions like those regarding manuscript-tracking systems?

Solutions

When the American Meteorological Society decided to transition from an all-paper operation to an all-electronic workflow beginning in fall 2004, we knew that a manuscript-tracking system (MTS) was going to be an essential element of that effort. Some consideration was given at that time to purchasing an off-the-shelf solution, but we decided that it would be more cost effective for our IT department to build it from the ground up. Over time, a number of problems with that approach became clear. First, because we were building the system, our end-users (field editors and editorial assistants) felt that they ought to be able to have whatever features they thought were necessary, even if some of them were at cross-purposes. As a result, our IT department had to build, take apart, and rebuild the MTS a number of times, and this resulted in large losses of time and money. Second, resource limitations restricted the first several years of the effort to building the system to track papers only from submission through peer review. Having dealt with and experienced these problems, I have the following recommendations:

- A number of proprietary MTSs available today are incredibly robust, and 24/7 support is part of the package. My advice would be to use one of these pre-existing systems, especially because extensive customization is available.
- Any MTS worth its salt will track a paper from submission to peer review and *through production*, all the way to publication. Our MTS finally does that (and the best of the off-the-shelf systems do as well). The hard lesson to learn is that the full benefits of an electronic workflow cannot be brought to bear until the *entire* workflow is electronic, in much the same way that the US Transcontinental Railroad could not fulfill its potential until the golden spike connecting the tracks from the East and West was pounded into the ground in Kansas. Although the end-to-end connection is necessary, it is not sufficient. If the maximal benefit is to be derived from a tracking system, everyone associated with the peer review and production of your journal must use it and must use it properly. Proper training is essential, whether your MTS is "home grown" or purchased off the shelf.

Ken Heideman
Director of Publications
American Meteorological Society

The first question to ask is whether the system (either developed in house or off the shelf) is affordable for the society, which effectively means making a return-on-investment calculation. The inhouse solution can be expensive in terms of IT person-hours, testing, and dissatisfied customers if there are glitches.

The Materials Research Society decided to go with an off-the-shelf solution because, in this day and age, author satisfaction is a major consideration. There is too much competition out there to lose any authors at the early stages of manuscript submission and review. An off-the-shelf solution also takes advantage of improvements that come about from the collective experience of the other societies using the system. This experience is embedded in upgrades.

We use the system to collect and review manuscripts. We also use its production features for issue management and the automated export of manuscripts to an out-

side vendor for composition. Production is done through this outside vendor, but digital workflow for the manuscripts is in place with the vendor. We recommend any system that allows digital management of the manuscripts and authors as far as possible through the production cycle. If one is working with multiple vendors and exporting files and data directly from one system to another, it is essential to check for compatibility before making a transition.

In short, we are very much in favor of off-the-shelf solutions and preferably ones that have been around for some time, so that most of the bugs have been worked out. We have had a lot of experience with new systems of various kinds (financial and content management), where we have "helped" the vendor develop the product, and it is not always painless.

Michael C Driver
Director, Information Services
Eileen Kiley Novak
Manager of Archival Publications
Materials Research Society

In 2006, our seven peer-reviewed journals were moved to a centralized manuscript-submission process that was created in house. With a centralized system for tracking journal papers during the peer-review process in place, record keeping is easier, and we can gather statistics as needed. Our system is fairly generic across journals and tracks the most basic steps in the process, and it has performed relatively well for the last 2 years. However, with so many editorial boards, each working differently, there have been several requests for "enhancements" to individualize the system for each journal. As a result, we have decided to purchase a commercial, customizable peer-review system that was created in collaboration with journal editors in the mathematics field. Our journal editors will be migrating to that system within the next few months.

Having experienced both "home-grown" and purchased peer-review systems, we offer the following advice:

- Understand how your editorial board works before purchasing or creating a tracking system. Are there area editors as well as a managing editor? Does the managing editor handle all submissions and pass them out to individual editors? Do all members of the board have a "vote", or can one editor determine acceptance or rejection?
- Train, question, follow up, repeat. Many editors are familiar with peer-review systems and will be comfortable in learning your system. However, some editors are not as technologically savvy and need more training. Make sure you include the editor's administrative assistants as well.
- Have support systems in place. Assign a point person to answer questions and address problems.

Vickie Ancona
Managing Editor
Book and Journal Production
American Mathematical Society

There is no single or simple answer to these questions. So much will depend on the specific situation being faced by the managing editor. Are multiple journals or magazines involved? How many submissions are received each year, and do they all require reviewing? Are the publications linked directly to the society's membership, and how large is this membership? Are the publications print only or online only or some combination?

The point I am making is that although some basic publication functions are common to all societies, every society will have its own individual requirements that usually will not be satisfied by an off-the-shelf tracking system. The costs and benefits of such a system must then be balanced against the undoubted advantages of a tailor-made operation. An important factor here will be the level of in-house technical support that could be available.

The essential first step is to define the critical present and future requirements for a system, with heavy input from all the users, and then make an extensive survey of other societies to see how their solutions most closely match your needs. If there aren't any, then be a pioneer.

Peter D Adams
Editor, *Physical Review B*
American Physical Society