Preprint Manager® Case Study

American Roentgen Ray Society

Deploying a System for Web-Based Journal Production Tracking

The American Roentgen Ray Society (ARRS), founded in 1900, is the first and oldest radiology society in the United States and has been at the forefront of developments in radiology since shortly after the discovery of the X ray. (The Society takes its name from German physicist, Wilhelm Conrad Röntgen, who on November 8, 1895, produced and detected electromagnetic radiation in a wavelength range today known as X rays or Röntgen rays, an achievement that earned him the first Nobel Prize in Physics in 1901.)

In fact, the Society, which is dedicated to the goal of the advancement of medicine through the science of radiology and its allied sciences, has been publishing the monthly *American Journal of Roentgenology* (*AJR*) since 1906 making it one of the oldest and most widely respected specialty journals in the world.

Access to the journal (and *AJR Online*, which includes additional pages of Web-exclusive content each month) is one of the principal benefits of membership of the Society whose membership mostly comprises clinical practitioners.

Time for Something New
Today *AJR* has a worldwide circulation of more than 25,000 and publishes approximately 700 manuscripts per year in 12 monthly issues. Processing that number of manuscripts is a Herculean task for the 13-person *AJR* editorial and production team led by Becky Haines, Director of Publications for ARRS—a task that demands the most efficient use of limited resources, particularly since ARRS faces "competition" from two other radiological organizations in the United States (both larger).

Recognizing this, Haines spearheaded *AJR's* switch to Aries Systems Corporation's Editorial Manager and stand-alone, Web-based content management system, Preprint Manager (PM), at the beginning of February 2007.

Preprint Manager, launched in 2006 as a companion product for the Editorial Manager online manuscript submission and peer review system, enables scheduling and management of tasks such as copyediting, author proofing, composition, and issue management, and was just what *AJR* needed.

Using Preprint Manager has aided the team's in-house production process for the *AJR*, which typically runs about 360 pages per issue, and has cut turnaround times.

"We have gained a lot of efficiency," says Haines. "This is particularly true in the delivery of PDFs (Portable Document Format) to our authors and editors via PM rather than in e-mail. This part of our process has been dramatically improved."

The Search Begins
AJR, which originally began accepting online submissions of manuscripts in 2003, started looking for a new online production management and tracking system in the summer of 2006.

Haines explains, "We wanted to gain greater control over the whole process and to be able to make decisions more quickly."

The *AJR* team reviewed several alternatives. But ultimately, Haines says, the choice was simple. "The prices were similar, but Preprint Manager was just a better fit for us." In particular, she says, none of the rival systems were as flexible as Preprint Manager.

As part of the selection process the *AJR* team visited other publications using the systems and attended an Editorial Manager user group meeting in Washington, D.C.—a valuable experience that Haines recommends to any peer review journal considering adopting either online manuscript submissions or a content management system.

The Decision and Transition Process

Once they picked Editorial Manager and Preprint Manager, the next step was implementation and, as the *AJR* team recognized, planning is always important. As a first step, Haines says, they told their existing online manuscript submission system vendor about their plans. To their credit, the vendor was "very understanding."

Haines, who took charge of the *AJR* editorial process in 2004, a year after the journal had introduced the Cadmus Rapid Review online peer review system, initially picked a day in January to switch over to Editorial Manager. "We missed it," she says, "but the system was up and running on February 1st."

The impact of the switch depended on where a manuscript was in the production process, explains Haines. Manuscripts that were already in the office were processed in the old way while any new submissions after February 1st were processed using Editorial Manager. "It was less painful than going from paper to online peer review," she notes.

In particular, manuscript authors adjusted quickly and liked the new system, which had other key advantages. Among these, the Editorial Manager–Preprint Manager combination guarantees that the peer review system is truly "double blind"—there is no way for authors and reviewers to discover each others' identities.

How It All Works

The peer review process at the ARRS is typically rigorous. Online submissions are sent to the journal's editor who reviews them and, if appropriate, selects qualified reviewers—between 10% and 12% of the 2,000-odd manuscripts submitted each year are rejected at this first hurdle.

Manuscripts accepted by the editor are assigned to two reviewers selected from a panel. Reviewers can then download manuscripts and submit their opinions to the editor online, usually within two weeks. Since the entire process is online, reviewers can be physically almost anywhere in the world—of the 1,500 reviewers on the Society's books, 300 are based outside the United States.

Editorial Manager enables authors to track their manuscript's progress through the system, from submission to publication, while editors can manage

the whole submission–review–revise–publish process, and publishers, using Preprint Manager, can see what manuscripts are in the pipeline awaiting publication.

Throughout the whole process, e-mail is sent automatically to the appropriate parties when significant events occur.

After the Switch

Haines says the system has helped the *AJR* team cut the manuscript "time to decision" to just 30 to 36 days on average, an important consideration for authors who might otherwise choose a rival publication.

Equally importantly, she says, Preprint Manager has provided her editorial production team, which includes two copy editors who work "remotely" outside the journal's office, with the ability to see into the process at any stage.

"It provides us with a snapshot of how things are going with a particular issue at anytime," she says. "We haven't quite got away from (paper) files," she adds, "but I think that will come."

Reporting tools built into Preprint Manager enable the production team to identify users with pending or late production tasks, and trigger reminder e-mails. A production status "grid" displays the status of each production task for all the manuscripts, which means that managers are able to assess the production status of an individual issue and take corrective action as needed.

According to Haines, using Preprint Manager has enabled her team to send the last few issues to the printer a few days early.

Overall, Haines says, the switch to Preprint Manager went remarkably smoothly, something she attributes in large part to the active support and hand-holding provided by Aries Systems Corporation and to the ability to easily customize and tweak the system.

Like other scholarly publications, publishing the journal is a complex, often idiosyncratic process that changes over time. "We are always pushing the limits of the system, something our Aries support staff encourages," explains

Haines. That would be difficult if not impossible with a bespoke, hard-coded system.

Preprint Manager includes Web-based configuration tools that enable real-time modifications to configuration options, for example, user roles and permissions or content workflow.

That means the system administrator can define an unlimited number of user roles, each with its own profile that determines what system features and functions are accessible to the user. For example, one role can be defined with the power to assign production tasks, while another may not have this privilege.

Administrators can also define production tasks each with its own parameters such as name, assignment e-mail letters, target completion time frame, and designated assignee. Production tasks are assigned and tracked by authorized users, and are marked as completed when assignees have submitted their work and uploaded the appropriately modified files.

Each manuscript is accompanied by an unlimited number of companion files that constitute "work in progress," and administrators can set up "schedule groups," which are typically used to aggregate manuscripts into publication groups such as print issues.

As a final check, a historical audit trail provides one-click access to all transactions, letters, and status changes

associated with each manuscript. Metadata associated with the manuscript (e.g., production notes and author information) are accessible by a "details" link.

Advice for Making the Transition

Haines' advice to other organizations seeking to implement Web-based production tracking? "Make sure you do all the research and go and see other journals using the system if possible....that gave us a massive amount of confidence," she says. "Go and see how people are using Editorial Manager and Preprint Manager." In addition, she says, "If you are planning to switch or starting from scratch, let everyone know what you are trying to accomplish, and have it documented as much as possible." A good starting point, she suggests, is analyzing each of the steps in the process.

During the setup phase, the journal's staff was able to customize close to 25 production tasks to reflect their particular workflow needs.

She also emphasizes that it is important to select a vendor that will provide consistent customer support, both during the implementation phase and afterward.

"The (Aries) customer service representatives are great," she says. "Aries has been very responsive to our needs in all respects. I can't say enough good things about them."