On the Cover

On behalf of the editorial staff, we are pleased to offer this special “Green” issue of the NCURA Magazine. Traditionally, the NCURA magazine has not been published in the summer. Given the fact, however, that research administration is a 24/7 job, 365 days a year, we wanted to experiment with expanding the services provided by the magazine to reflect the realities of the profession. But we also wanted to do this in a manner that minimized the cost of production and the impact on the environment.

Fittingly, we chose to make “green” practices the focus of this first Green issue. Practices in electronic research administration now go far beyond grants.gov. To highlight the expansion of electronic research administration at medical schools, Stephanie Pittman and her colleagues at Rush University Medical Center describe the implementation of their system to manage human subjects while Debbie Smith of the University of Tennessee Health Sciences Center discusses the role of electronic systems in managing their animal care compliance. From a somewhat broader perspective, Sheila Lischwe from St. Louis University and Dan Nordquist from Washington State University provide two great programs resulting in the implementation of comprehensive eRA systems on their campuses. Finally, Justin Miller from Ball State University describes how the expansion of funding in green areas is providing new opportunities and challenges for research administrators.

The broader adoption of eRA systems will continue to revolutionize the field of research administration for the foreseeable future. Along with these systems comes an increase in the need for flexibility, training—both for research administrators and those we serve—and, as always, better communication. We hope that these success stories will help all of us who continue to look for better ways to improve research administration at our institutions.

Jerry Pogatsehnik
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Change is never easy; even when it is something we want or need. The leadership of Rush University Medical Center understood that an electronic research management tool was needed, and many members of the research community wanted a research submission tool. Everyone was already working to capacity and could not imagine adding another significant workload to their responsibilities. Additionally, undertaking the extra work required to implement an electronic system, within a culture that prefers things to remain the same, seemed counterproductive. In spite of this, the Human Subject Protections Division staff took on this challenge in order to improve their ability to more efficiently manage their day-to-day workload and to remove some of the administrative burdens from the research community. It is now difficult to remember what life was like surrounded by paper fortresses in the pre-electronic days.

The paper application system required many copies of everything that is normally required for Institutional Review Board (IRB) review, such as protocols, investigator brochures, consents, and other pertinent documents. The research site was required to deliver enough of these paper bundles for each board attendee and staff, carry them from their various locations, log them in, and then pile them on a table. Once delivered, these piles of paper then had to be sorted, repackaged into individual bundles, and then delivered to the reviewers. The reviewers of course, had to haul the multiple project bundles back for the IRB meetings.

The risk of misplacing items or mixing portions of various submissions was ever present. Even when all went well, the individual study bundles then had to be filed and stored. To say we were all drowning in paper was an understatement.

The life preserver was to be the new electronic submission system. We were convinced, but what could be done to ensure the acceptance of this new system by the rest of the research community? Especially in a culture of “this is the way we have always done it.” Even though we had often heard people say such things as, “Well I killed another tree for you today,” would they really give up the known paper system for an unknown system that requires a computer? Addressing this question was the first stage in a long process of managing this change.

To begin, weekly sessions were held with a group of study coordinators. Study coordinators were targeted because this group was identified as the individuals who would be the predominant users of the electronic system and would thus have the greatest influence in the acceptance of the system. It was also necessary to fully appreciate the study coordinators, experiences with the paper submission process to build an electronic system that would not only meet their needs but also make their tasks easier. The information received from this group proved to be invaluable and set a precedent for all major changes within the electronic system going forward. This group was initially expected to be more resistant to change than others, but it was quickly identified that the study coordinators were very open to an electronic transition, provided that their needs and the needs of their sponsors (the companies providing financial support for research) could be met.
Next, we needed the IRB to buy into the transition. Since the IRB group carried the most burden with the paper submission process, it was considered that it would be relatively simple to “sell” them on an electronic system that would make their lives so much easier. We also assumed that the older members would have a more difficult time transitioning to review on computers than younger members. Suffice it to say, we could not have been more wrong with our assumptions. Stakeholder meetings with this particular group proved to be the most challenging. Many of the IRB members were more inclined to do their reviews on paper, as they had grown accustomed to holding what was being read and making edits by hand. Some members found maneuvering through the electronic system cumbersome even though everything that was needed in order to review was only a few “clicks” away. Although we were frustrated by the level of resistance by the IRB members, it was clear that a new approach was needed. Some staff members supported simply no longer providing paper applications to the IRB, thus forcing them to go paperless. However, a more non-confrontational approach was wisely chosen: IRB members who were not yet comfortable with using the electronic system were to continue to review using paper, while other members who had were comfortable with the system would do their reviews electronically. The expected outcome was that the members still using paper would see how easy the other members had adapted to the system and would soon want to do likewise. The approach was a success, and a significant reduction in the number of members relying upon paper was finally realized.

Similar meetings to collect information on identified needs and feedback on planned changes were also conducted with the research leadership, including the Scientific Leadership Council, and department chairs. Early information sessions were also held with all of the above listed stakeholders prior to the implementation.

The IRB module was implemented and the roll-out to all departments occurred on January 15, 2007. It was anticipated that early adopters would use the portal and then help facilitate the acceptance of others. In June 2007, 19 new research projects were submitted for IRB review; 11 of these were submitted via the electronic system. Thus, 58 percent of new studies were submitted electronically within the first six months. Use of the system remained voluntary until September 15, 2007. Although many complaints and problems were anticipated, it was, in fact, a non-event. By November 2007, 141 new studies had been submitted and approved electronically. The acceptance of the electronic IRB system was so successful that it was decided to upload all of the old paper legacy studies in the new electronic system.

The stakeholder meetings were very important to the acceptance of the paperless system as they provided a general understanding of what the research community needed and wanted. It was also equally important to evaluate if the implemented system met their needs and desires. Several satisfaction surveys were conducted with the entire research community to assess how successful the system was in facilitating their research and included open-ended questions for future implementations.

The successful adaptation of the IRB module provided the foundation for the implementation of other electronic modules such as the billing coverage analysis, grants, contracts, and subject tracking. All of these research processes had previously relied on paper applications. These implementations have led to better communication between the research administration divisions and no longer involve passing paper from one section to another and then back forth to the submitting department. For example, contract specialists are now able to see when IRB approval is obtained in order to execute a contract, rather than waiting on a copy of the approval letter to be copied and delivered to their desks. Additionally, investigators no longer have to print and copy their entire study proposal for submission to the multiple review committees; electronic copies of the proposals are able to be uploaded and accessed as required.

We continue to enhance our system based on various feedback and regulatory changes in order to meet the ever-changing needs and requirements of the research environment, such as adapting the system to support the guidance on Unanticipated Problems (UP). Now that the system is paperless, we are electronically adaptable to efficiently streamline changes as needed.

In the interest of full disclosure, however, the primary motivation to convert our multiple research administration activities to electronic systems was neither to conserve paper, nor to be identified as a “green group.” However, our institution has committed to becoming a “green institution.” Whatever the intended reasons for converting to an electronic system (many of which we have previously identified), a pleasant, unintended consequence of the paperless research system is saving trees. We would never go back.

Stephanie Pittman, BS, CIP received her Bachelor’s of Science in Biochemistry from the University of Illinois at Urbana-Champaign. She has been at Rush University Medical Center for the past five years, prior to which she worked in the research department at Carle Foundation Hospital in Urbana, IL. She is currently the IRB Manager in the Research and Clinical Trials Administration Office.

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Electronic Research Administration: The New “Town Square”

Sheila Lischwe, Ph.D.
**Introduction**

n greening

_Restoration of vitality or freshness; rejuvenate._
 -Answers.com

Convenience and cost-savings: These are the benefits that electronic research administration (eRA) promised to deliver, in return for all the bumps and stresses we all suffered through in its adoption over the past decade. At Saint Louis University (SLU), our own internally–crafted electronic research administration system, known simply as “eRS” (Electronic Research Services) is proving true to these anticipated benefits, but more importantly, has given back considerably in unexpected ways that are positioning the institution to confidently embark upon the goal of doubling research revenue in the next five years. It has created a new centrality – a “Town Square,” if you will – around which all parties in the research community now gather on a daily basis, in order to transact grant and contract business. Chairs, deans, investigators, support personnel, compliance officers, and collaborators “meet” to work on grants–related tasks. Despite early fears and skepticism, eRS has become part of the SLU lexicon, with people asking, “Should that go up in eRS?” or “Can we have eRS handle this?”

eRS has also allowed more efficient organizational structures to form, fostered cross–departmental collaborations, and most surprisingly of all, transformed the on–campus image of the pre–award office from an isolated, placid administrative backwater to a fast–paced, front–and–center, in–the–know, cutting–edge department. It is in this spirit that eRA truly has restored vitality to research administration at SLU, which this article will attempt to describe.

**Electronic Research Administration at Saint Louis University**

In preparation for the transition to grants.gov in 2006, SLU determined that it needed a more efficient and dependable means of routing and transmitting the sizeable electronic grants.gov application packages than relying on the institution’s email and internet connection. SLU receives approximately $60 million through grant and contract transactions annually, more than 80 percent of which is generated by our biomedical campus. Additionally, ever–increasing compliance requirements demanded a more systematic way of identifying when IRB, COI, IACUC, or Export Controls are involved in a proposed project. As such, SLU built a web–based “tool–kit” that would store grant applications and provide for simultaneous internal routing, review, and approval from the investigator to his/her department chair, dean, compliance officials, and the pre–award Office of Research Services. Development and testing occurred throughout 2005 and 2006, and usage was required for proposal review and submission effective July 1, 2007, replacing the existing paper–based transmittal that required manual signatures obtained in a linear fashion.

Over the last several years, as the basic system has been refined, additional components and functionality have been added:

- **effort reporting**
- **a keyword selection mechanism that polls the grants.gov FIND database and returns matching funding opportunities to an investigator’s dashboard**
- **a free–text “research interests” field that can be searched to identify other investigators on campus for collaborative purposes**
- **a clinical trial contract review mechanism**
- **functionality to administer the submission, review and management of internal grant programs**

The impact of eRS became crystal clear earlier this spring when the Medical Center location of the pre–award Office of Research Services prepared for a move to co–locate with its sister office on the main campus. As we archived all files that were current or had terminated in the last three years, only three shelves of a possible 36 shelves remained. With 1,913 proposals having been submitted since July 1, 2007, and 1,344 awards received during the same time, the substantial savings in paper, reproduction, energy and staff time to administer and maintain became very apparent. Magnify this by the fact that the same paper file was kept at the investigator, department, and compliance office level, and the impact is even more substantial. When you factor in the equipment and furniture used to house this paper file system, even greater savings are realized. These improvements were expected; what was more astounding, however, were the unanticipated operational/behavioral improvements that eRS made possible, well–positioning SLU to achieve its research goals.

**Enhanced Working Relationships**

_With the Research Community – _Electronic research administration was greeted with great skepticism at SLU, with fears that delegating grantsmanship tasks to computers would reduce us to a faceless office with only cursory interactions with investigators and administrative personnel. However, the exact opposite occurred! New systems required new training and new policies, particularly at the Medical School, traditionally an arena steeped in well–defined hierarchies that separated interactions between those who did research and those who administered it. eRA training sessions provided the opportunity to become a much more visible office on campus and in fact, increased the number of face–to–face contacts we had with our clientele. We delivered six (6) two–hour sessions, during the spring of 2005 at which we introduced the new grants.gov application packages for NIH, as well as the new internal eRS system. The Provost strongly endorsed attendance at the sessions, so we had a captive audience of both administrative personnel and investigators, with the spotlight on the Office of Research Services (ORS) as the resident experts. This dynamic played an important role in the shift to a more peer–to–peer relationship with investigators: we had gained an important advantage in this relationship – control of information - and the shift of responsibility for grant submission to ORS placed us in a position of authority that we had never before enjoyed. Since then, our office has risen in stature in terms of influence across campus. Thanks to the complexity of electronic research...
administration and the labyrinth of policies and additional compliance requirements that has seemed to accompany it, the ORS office is highly regarded as a warehouse of specialized expertise. We are continually asked to present at departmental meetings and to conduct refresher sessions on the use of eRS. Our public persona has grown in prestige and influence, both of which are key to successfully lobbying for additional resources.

Within the Central Research Office – eRS has enabled the spawning of new organizational arrangements that allow us to enjoy synergies that improve effectiveness and service to our clientele. The electronic approval routing system in eRS has eliminated the need for manual signature gathering, allowing the biomedical campus office to co-locate with our sister office on the main campus, as well as with the post-award staff. Co-locating has enabled an improved workflow, as departmental assignments were revised so that all six pre-award grant professionals have responsibility for portions of the high-volume medical school/public health areas, formerly only the responsibility of three staff members housed at the medical center, due to the physical location of hard-copy files on the biomedical campus. This has expanded the skillset of all employees, as our main campus staff expanded their knowledge of new sponsors and systems (NIH and the disease-related associations – AHA, ADA, etc.). While those biomedical sponsors were formerly assigned exclusively to medical school departments, all employees are now gaining skills in budget development and funding source identification with assignments to lesser volume arts and sciences departments that do not enjoy the same type of administrative support as well-funded School of Medicine departments. The peer-to-peer teaching within the ORS has been a positive byproduct for this young office, providing opportunities to develop presentation skills and team collaboration as never before available.

New Organizational Structures - Adding the contract review function for clinical trials allowed SLU to pursue a much-desired spin-off of the clinical trials contract review function from the pre-award office, to its rightful place in a centralized clinical trials office reporting to the School of Medicine. As a primary function of the medical campus, it made no sense to have moved it to the main campus. eRS made this relocation possible. Data entry was shifted to the department, and the auto-assigned eRS number facilitates communications with investigators and support personnel. Departments can readily login and view the status of their contract and see what issues are being negotiated. Simultaneous review by all parties eliminates delays and has significantly reduced the time to contract execution.

Challenges & Opportunities

As we continue to refine eRS, challenges do, indeed, remain, but we also foresee unlimited potential for ways that eRS, and electronic research administration can help facilitate the SLU goal of doubling research in 5 years.

Challenges That Remain

- People do not like to give up paper. While several staff members function nearly paperlessly, there is still a reliance on hard copy for the majority of staff members, so we continue to tolerate individual reliance on paper with the steady and regular directive to rely on eRS viewing of files as the "greener" solution.
- While the focus on eRS has initially been on the pre-award tasks with the exception of effort reporting, our post-award colleagues remain primarily paper-based. Now that we are co-located under one roof, and face-to-face eRS training is more readily available on an ad hoc and formal basis, we will work on moving that office to formal reliance on eRS, which will further enhance processing time for account creation and other post-award financial tasks.
- The greatest advantage of eRS and electronic research administration – its accessibility from anywhere, anytime – is perhaps the greatest curse for ORS: expectations that the staff is also readily available 24/7. Policies and work habits need to be made clear and managed to avoid burnout.

Opportunities

Perhaps the greatest opportunity that electronic research administration has afforded Saint Louis University and the profession of research administration as a whole is the rise of research development as a sub-specialty, which is key, at least for SLU, in its plan to expand research funding. Electronic research administration has shifted the burden of data entry, compliance tracking, and file management from the central research office, freeing up time for staff to spend more time identifying funding opportunities suitable to the institution’s strategic initiatives and cultivating collaborative groups to respond to these opportunities, which is exactly what the true essence of a pre-award office is.

Conclusion

Contrary to early fears that eRA would dilute interactions within the research community, eRS at SLU has enabled the research administration office to provide higher-quality and more frequent face-to-face service than had ever been possible with the former paper-based grants management system. With no reason to be linked geographically to one campus or another, the pre-award staff is now all located in one location, facilitating communication that, comes with hallway conversations. Also, being co-located with our post-award colleagues, enabled a true “cradle to grave” service now possible, further enhancing our services to investigators and departmental personnel. The complexity of policies and regulations that spawned these new systems and procedures has ultimately positioned the pre-award office as a trusted, respected center of expertise on campus. Finally, with the workflow improvements that emerged as a result of eRS’s adoption, we can now pursue more proactive research development activities which will be key to growing research. eRS has allowed us to become an enabler for research, which should be the true essence of a pre-award office. Most town squares pay tribute to citizens whose contributions form the foundation of that locality – in the research “town square” at SLU, that monument would be eRS.

Sheila Lischwe, Ph.D., is the Director of the Office of Research Services at Saint Louis University, where she oversees a staff of seven grants professionals in the management of pre-award activities for SLU’s main and biomedical campuses. Dr. Lischwe received her Ph.D. in higher education administration and an M.A. in Urban Affairs from SLU, and an MBA from Southern Illinois University at Edwardsville. She has previously worked in research administration and development at Webster University in St. Louis, Missouri and Southern Illinois University at Edwardsville, in Edwardsville, Illinois.
As more and more campuses are placing a growing emphasis on "going green," the need to find additional resources to launch sustainability initiatives has never been greater. My home institution, Ball State University (BSU), has taken a very proactive stance on addressing and encouraging sustainability in higher education. BSU was a founding member of the American College and University Presidents Climate Commitment (ACUPCC) and is currently a charter school member of the Sustainability Tracking Assessment and Rating System (STARS). In addition, we offer clustered undergraduate minors in sustainability, have integrated the theme into unit-level sustainability plans and are currently installing a 45-building Geothermal District Heating and Cooling System, funded in part by the State of Indiana and American Recovery and Reinvestment Act funds from the U.S. Department of Energy.  

The University’s Council on the Environment (COTE), created in 2001, provides leadership for sustainability initiatives, both on and off-campus. COTE’s membership consists of representatives from each of BSU’s academic colleges and vice presidential areas, as well as members of the student body and the local community. In addition to these members, COTE is supported by a number of “Administrative Support” positions, including a web manager, “Resource Persons,” the Council Chair, and my position, “Green Funding Specialist.” 

The role of the Green Funding Specialist works two ways: finding specific funding opportunities to meet faculty and administrative needs as well as sharing relevant funding opportunities as they become available. In addition, as a Proposal Manager in the Sponsored Programs Office, I can then assist faculty and staff as they develop proposals, including budget creation, narrative review, and submission to the sponsor. As I began the appointment with COTE, I utilized the following tips and advice in working to develop a research agenda for the institution.

**Know Your Resources**

As a research administrator, you probably have a broad array of funding resources already at your fingertips, such as Community of Science, GrantSelect, or the Grants Resource Center. There are a number of keywords directly related to sustainability, including “Energy Education,” “Geothermal Energy,” “Renewable Energy Resources,” and “Wind Energy,” among others that can be used to match funding opportunities to campus initiatives. Many of these can be automated to send regular email alerts to campus stakeholders.

In addition to the databases and sources you regularly access, I recommend joining listservs and email lists of sponsors and organizations related to sustainability, including the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy (DOE) and the Association for the Advancement of Sustainability in Higher Education (AASHE). The latter is an association of colleges and universities that work, to advance sustainability in higher education and offers many resources, including a weekly newsletter that often includes funding opportunities and funded projects that might introduce to new sponsors or potential partners.

**Discover Your Strengths**

If you have been tasked with assisting the institution with creating a research agenda in sustainability, you definitely need to know the strengths of your institution. This is where working closely with campus sustainability leadership can be a benefit, whether it is through a volunteer council, like those at BSU, or a centralized Office of Sustainability. Getting to know the faculty associated with these organizations, and their needs, will greatly help in tailoring funding searches. There are a number of disciplines that could have faculty members with an interest and expertise in sustainability, such as architecture, engineering, political science, business, education, philosophy and technology, along with the traditional hard sciences.

Also take note of campus strengths, including efforts by the student body and facilities, as well as ongoing community partnerships and connections that faculty might have with other institutions and organizations focused on sustainability.

**Know Your Needs**

It is also important to inquire about the needs of the institution – what type of projects need funding? I tend to categorize these into three groups: Campus Sustainability includes facilities, curriculum, and transportation projects; Community-Campus Partnerships are those projects that bring together the shared needs of the campus and local community to address sustainability for economic development or educational needs; and Research Projects are those that are more traditional proposals focusing on areas such as environmental science, natural resources, and energy. Conducting a thorough needs assessment is critical, but challenging.

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1 See www.bsu.edu/sustainability and www.bsu.edu/geothermal for additional information on campus-wide activities at BSU.
particularly for those types of projects that I have classified as Campus Sustainability or Community-Campus Partnerships. These types of projects often encompass a range of on-campus and, in the cases of Community-Campus Partnerships, off-campus constituencies, most of whom will be unfamiliar with externally funded projects. The Green Funding Specialist plays an invaluable role in coordinating the needs assessment and facilitating communication between the various constituencies.

Get to Know the Sponsors

As mentioned earlier, there are a number of sponsors that are involved in sustainability; there is no central federal organization but many agencies have specific goals that address sustainability initiatives. Getting to know how each agency has chosen to solicit funding opportunities in sustainability and each opportunity’s goals will help further focus the development of a research agenda. Examples include the EPA (Environmental Education), National Science Foundation (Climate Change Education), NASA (Global Climate Change Education), and even this year’s FIPSE (Fund for the Improvement of Post-Secondary Education) from the U.S. Department of Education, which addressed sustainability initiatives as detailed in the Higher Education Act. These examples are not at all exhaustive and only provide a glimpse of available opportunities for colleges and universities.

At the state level, there are more than likely opportunities with Departments of Energy and Natural Resources. For example, Indiana’s Office of Energy Development holds an annual “Alternative Energy Program” that provides funding (with match) for projects focused on energy efficiency. Other sponsors include private businesses (BSU has assisted companies with testing on products designed to increase energy efficiency, for example.) and foundations, such as the Ford Foundation and the Energy Foundation.

Proposal Development Tips

Proposals that focus on sustainability are really no different than those geared toward any other discipline, like biology, sociology, or education. There is often, however a stronger emphasis on dissemination. “Sponsors often want to be sure that their funding not only has a lasting impact for the institution, but also develops models or materials that can be utilized and adapted by other schools and sectors. As such, in addition to a strong evaluation plan, applicants should be prepared to discuss how the outcomes (and outputs) of their proposal can be of benefit to others and how that information will be disseminated.

Conclusion:

The recent trend of sustainability initiatives in higher education is likely to continue and increase over the coming years as institutions are held to greater accountability for their impacts on the environment. As such, we can expect continued external funding in this area to develop new technologies and educate students and communities in how to live in a more environmentally friendly manner.

Justin M. Miller current services as a Proposal Manager in the Sponsored Programs Office at Ball State University. He holds an undergraduate degree in religious studies from Ball State University (2005) and a Masters of Public Administration from Arizona State University (2007). In addition to his professional position with BSU, he is currently completing coursework leading to a Doctorate of Education in Higher Education through BSU’s Teachers College, with an emphasis in sustainability in higher education and in research methodology.
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Going Green: The Agony and the Ecstasy
We are hearing more and more about the benefits of “going green,” and this issue of the Magazine is devoted to the “greening of research administration.” Many people are going paperless to save trees and ink (and time searching for paper documents). Some people are telecommuting or carpooling. Others are buying products made of recycled materials, using “green” light bulbs and reusable shopping bags, doing on-line banking and bill-paying, and “repurposing” various items. I’ve been involved with a local University of Tennessee Agriculture Extension Master Gardener program that is teaching people how to make bags—shopping bags, beach bags, even beaded handbags, etc.—from used plastic bags (Wal-mart bags, newspaper bags, Kroger bags)!

So, the trend is catching on. When we think about “going green” in research administration, the first thing that may come to mind is electronic research administration (ERA) or going “paperless.” This has been discussed on my campus for ten or fifteen years, and we’re still not there. We are working on transitioning to a new database that will serve as a routing tool for several research areas: research administration, the Institutional Animal Care and Use Committee (IACUC), the lab animal care unit (LACU), conflict of interest and intellectual property. However, this transition has not come without cost.

Our LACU was very close to purchasing some cage management software back in 2007. Their implementation has been delayed going on three years and looks to be delayed at least another six months since it is now part of the larger system-deployed tool. As with most tools that are not “plug and play,” specific requirements for our campus have necessitated changes to software that had to be coordinated at the department, campus, and system levels. Indeed, since the LACU is closely aligned with our IACUC, both of those specific tools have to be deployed nearly simultaneously; additional challenges were involved in converting the IACUC, which had been using an in-house program, and the LACU, which had had limited electronic capability apart from the accounting system.

Our research administration eRA team has been coordinating the transition with the other UT campuses, since we report research metrics system-wide and need to be able to roll up the figures into a unified report. Someone said, “If you’ve seen one research administration office, you’ve seen one research administration office.” They are not all alike, even within the same University system.

Someone said, “If you’ve seen one research administration office, you’ve seen one research administration office.” They are not all alike, even within the same University system. For this implementation to be successful, we are having to rethink some of our processes for the “greater good.” We also have to work with our financial folks to ensure that our information, data dictionaries, etc. are consistent with theirs. Hopefully, we will also be able to eliminate duplicate data entry, so that will be a plus!

There’s also the issue of personnel. Will an electronic system displace existing personnel, or can they be retrained? Obviously, the same skill set is not required for electronic submission and processing as for completing and routing paper documents, many of which required transport around campus for signatures. On the flip side, this may open up some of these positions for persons with disabilities who may not have qualified for positions that required accessing files, transporting documents, etc.

Estimating the actual cost of the transition is also challenging. There’s the obvious cost of the software, plus any necessary servers, additional or upgraded computers . . . and the cost of personnel time for coding, preparation, testing, and training. And, if the current research administration personnel are not capable of performing the tasks required with the electronic system, there is the added cost of more highly trained personnel. Are there “hidden costs” that we may not even know about, yet? Probably.

But there may also be hidden savings . . . as in the space now occupied by all of this paper, both in departmental offices and central administration. Of course, as we phase out our old voluminous paper files, that leaves us vulnerable to being moved. . . In the past, we were pretty much guaranteed that we would not have to move too often since moving all of these filing cabinets was a MAJOR undertaking!

So, as with any change, we hope for the best but realize that there will continue to be challenges along the way. We are cautiously optimistic that the savings in faculty and staff time with the electronic system will outweigh the expense of its implementation.

Maybe someday soon we can all just work from home in our jammies!!

Deborah L. Smith, Assistant Vice Chancellor for Research, The University of Tennessee Health Science Center

Deborah L. Smith, Ed.D., Assistant Vice Chancellor for Research at The University of Tennessee Health Science Center in Memphis, began her research administration career at UTCHSC in 1985. Her background includes teaching, business administration, and career counseling. She is a graduate of NCURA’s Leadership Development Institute and The University of Tennessee Leadership Institute. She has presented at regional and national professional meetings and published in professional journals. She is a member of the NCURA Peer Review Team and has served on various NCURA committees. She is a founding member of the Mid-South Area Research Administrators.
NCURA Magazine asked some of its members and staff what books were in their beach bags.

**Summer Reading List**

Christa Johnson, Southern Illinois University at Edwardsville: *The Count of Monte Cristo* by Alexandre Dumas, fiction

Stephanie McJury, NCURA: *The Girl with the Dragon Tattoo*, Stieg Larsson, fiction

Jim Casey, University of Texas at San Antonio: *City Planning for Civil Engineers, Environmental Engineers, and Surveyors* by Kurt W. Bauer, non-fiction

Dave Richardson, Pennsylvania State University: *Freakonomics* by Steven D. Levitt and Stephen J. Dubner, non-fiction

Tom Wilson, Rush University Medical Center: *Mr. Peanut* by Adam Ross, fiction

Sarah Aldemeyer, NCURA: *Let the Great World Spin* by Colum McCann, fiction

Barbara Cole, Stanford University: *The Art of Racing in the Rain* by Garth Stein, fiction

Denise Wallen, University of New Mexico: *Fishes Come Home to Roost: an American Misfit in India* by Rachel Manija Brown, non-fiction

Kathleen Larmett, NCURA: *City of Thieves* by David Benioff, fiction

Debbie Smith, University of Tennessee Health Science Center: *The Memory of Water* by Karen White, fiction

Vivian Holmes, Broad Institute of MIT and Harvard: *The Immortal Life of Henrietta Lacks* by Rebecca Skloot, non-fiction

Christa Johnson, Southern Illinois University at Edwardsville: *The Count of Monte Cristo* by Alexandre Dumas, fiction

Stephanie McJury, NCURA: *The Girl with the Dragon Tattoo*, Stieg Larsson, fiction

Jim Casey, University of Texas at San Antonio: *City Planning for Civil Engineers, Environmental Engineers, and Surveyors* by Kurt W. Bauer, non-fiction

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Tom Wilson, Rush University Medical Center: *Mr. Peanut* by Adam Ross, fiction

Sarah Aldemeyer, NCURA: *Let the Great World Spin* by Colum McCann, fiction
Upon Acceptance of the NCURA Implementation Grant

Tom Wilson

Rush University is very pleased to have been awarded an Implementation Grant for a Master’s Degree in University Research Administration. This graduate level, distance learning program will provide students across the United States the opportunity to expand their knowledge about our profession while acquiring critical research and analytical skills. The curriculum for the Masters of Science in Research Administration at Rush University will go beyond the basic body of knowledge in university research administration, producing future leaders able to help advance the Profession of Research Administration.

Threaded Delivery Web Page Launched

Ever wonder what happens to the multitude of past conference presentations, magazine and journal articles, monographs, neighborhood chat, transcripts, and previous webinars that are housed in the NCURA archives? The Professional Development Committee (PDC) is using those archives to provide a new service to NCURA members. The concept of "threaded delivery" allows NCURA to coordinate its wealth of information and media diversity around various themes, currently based on NCURATV broadcasts. Threaded delivery will provide additional resources for a richer and more flexible professional development experience.

The new Threaded Delivery Programming Guide appears in the “What’s New” section on the NCURA homepage. The guide lists additional information available on subjects covered in “Critical Issues for the Departmental Administrator,” broadcast on NCURATV in March 2010, the June broadcast “Non-Financial Research Compliance,” and will provide related information for the upcoming September program, “Negotiating Federal Contracts and Pass-Through Awards.” Threaded delivery options are all available online and can be used to supplement TV broadcasts or as stand-alone training and professional development materials.

Toni Shaklee, Assistant Vice President for Research
Oklahoma State University

Dan Nordquist, Director, Office of Grant & Research Development
Washington State University

Both Toni and Dan are members of NCURA’s Professional Development Committee

To find out more check out the website -

http://www.ncura.edu/content/educational_programs/threaded_index.php
“I haven’t seen the FedEx guy for a week!” Ten years ago, my heart would have sunk at those words from our Grants & Contract Specialist, Derek Brown. It could only mean a devastating drop in proposal submissions. Today, those words are a celebration of budget savings, reduced personnel effort, saved trees, and a reduced carbon footprint. They demonstrate the “greening” of Washington State University’s (WSU) Office of Grants & Research Development (OGRD) and the success of our electronic proposal and awards system.

In the 1990’s, paper was our life – make that reams of paper. When I started at WSU’s central pre-award office in 1995, our routing and approval form was a two-page, six-part NCR paper form, rainbow colored with white-out, goldenrod out, green-out, and every-other-out you can think of—all necessary to correct the subsequent copies typed with our arsenal of Selectric II’s. Our walls were lined with filing cabinets; in fact, we had enough, according to Nancy Shrope, OGRD Assistant Director (and resident historian) that we used filing cabinets to create additional office cubicles.

In those days, our Grant & Contract Specialists, responsible for processing all proposal paperwork, spent their days manually processing routing and approval forms. This involved receipt of the proposal from researchers (the FedEx guy brought proposals from our regional campuses); processing the “Request for Extramural Support” (REX) form, our routing and approval form; and then sending copies of all forms to PIs, Co-Is, Chairs/Directors, Deans, Chancellors, Research Compliance, etc., along with a hard copy of the transmittal letter. Next, twenty hard copies of the full package were packed for FedEx; two copies were kept for our office: one for our records and the other, if awarded, was sent to our post-award office. Can you hear the trees falling? The remainder of the day was filled with creating file folders and labels, filing and dealing with the endless question, “Where is the file for …?” Dur-
In Phase 2, Monte and his growing IT team, awards electronically. the ability to store and track proposals and (ASP) with web interface, the database provided grown database. Built in Active Server Pages purchasing a high-speed scanner, OGRD began Implementation of Phase 1 began in 2000. After a calming breath, I insisted on one step at a time. After a calming breath, I insisted on one step at a time.

Prior to my appointment with OGRD, I worked in a research institute and then with our College of Pharmacy. Creating technology to make my life easier is part of my DNA as a research administrator (RA). My first glimmer of hope came with our first NSF FastLane proposal in the 1990’s, but real change was just around the corner; it came in the form of Monte Sutton.

I hired Monte, a superstar-hardware-software-website-webdatabase-waterwalker, in August, 2000. Monte’s vision was an all-in-one automatic proposal drop-in scanning unit. PI’s entering our office would deposit all hard-copy documents into this imaginary contraption’s document hopper, which would automatically scan, code and import them into a proposal tracking database. After verification, hard copies would be shredded on the way out of the machine and the PI would leave with a bag of confetti. Although I am technologically inclined, this suggestion caused immediate heart palpitations. After a calming breath, I insisted on one step at a time.

Implementation of Phase 1 began in 2000. After purchasing a high-speed scanner, OGRD began scanning its first proposals into Monte’s homegrown database. Built in Active Server Pages (ASP) with web interface, the database provided the ability to store and track proposals and awards electronically.

In Phase 2, Monte and his growing IT team, Dean Webster and T.C. Sutton, began the development of an electronic routing and approval form to interface with the database. Adobe was used as the development platform to maintain consistency with the Grants.gov interface. Building the Adobe form was quite a task; we now have the nation’s experts on building Adobe forms. They went through iteration after iteration because of the tremendous amount of coding and programming required for the form itself. There was a huge learning curve to overcome. We used many of the same hacks—I mean techniques—used by the Grants.gov form builders. Following the pattern set by the federal government gave us the technology direction necessary to simplify document retention.

Another difficulty to overcome was creating a versatile and user-friendly form. The form needed to provide the detail required for research proposals (pesticide permits, hazardous materials, or carcinogens/mutagens/teratogens) and yet not overwhelm our project grant applicants who don’t care what a teratogen is. The solution is a form that grows or shrinks in response to the users, answers. We received a BIG THANK YOU from the Associate Dean of Liberal Arts for this feature.

Phase 3 began in January of 2009, when our hard-copy REX form was retired, and we introduced the newly christened eREX. The eREX allows PIs to upload all the necessary proposal documents directly into the form (remember file folders with sticky notes, half-sized and quarter-sized papers that get stuck to the wrong paper clip and pencil notes in the margins?). The form also establishes a list of required college and departmental approvals for electronic approvals. Approval routing is tracked by our office, the RA, and the PI. Virtually all of our documents are now processed and stored electronically. With the implementation of eREX, we took the step to waive the requirement for a hard-copy proposal for our files.

Derek’s observation about our missing FedEx man inspired me to explore quantifiable indicators of the technology’s impact on our office. I started with photocopies. While we have seen over 30% increase in the total dollar value of proposal submissions over the last year, the actual number of proposals submitted has remained steady. At the same time, we have reduced the total number of photocopies produced by our office from 193,624 in FY 2006 to 92,754 in FY 2010. That is an astounding 52% (see graph).

Each phase in our implementation demonstrated a substantial drop in photocopies (that’s just our office). Hard-copy submittals also plummeted along the way, and it really is true that sightings of the FedEx man are scarce. Deliveries have dropped by almost 70% in the last four years. Imagine the carbon emissions saved from the FedEx truck. All of these figures represent budget savings (paper, copies, FedEx charges, etc.), as well as reduced employee effort (copying, filing, shuffling etc.). More importantly, they represent a more responsible approach to managing our environment.

The difficulty in tracking the tangible impact of change is the domino effect. Each change impacts something else. The reduction in paper has increased space in our office. We are down to 4 filing cabinets in 2010 from 26 cabinets in 2000. The dark maze of filing cabinet cubicles has been replaced with open work space and natural lighting.

The eREX has saved endless hours of traipsing across campus collecting signatures on multi-departmental, multi-college and multi-campus proposals (carbon emissions again). I wish I’d had the foresight to attach pedometers to all of the departmental RAs to track mileage prior to the implementation of eREX in 2009. Our RAs love the eREX. With the 50% increase in interdisciplinary proposals WSU has seen since 2002,

Before the eREX, it was very time consuming getting all of the signatures and hard copies, not to mention the wasted paper. Also, it has saved me from having a line at my door waiting for my signature. This has allowed me more time to review proposals in depth.”

– Mary Lou Bricker
WSU Agricultural Research Center

June 2010
the amount of time involved collecting signatures was significant. Suffice it to say that our RAs have cut back on the office donuts to make up for this loss of calorie-burning activity.

Paper files, being subject to loss, misfiling and submersion on certain desks, made reporting horrendous and time consuming. Now electronic, our files and reports are easily accessible across campus. In fact, they can be accessed from Cancun to the Alps – ask our PI who recently submitted his proposal from a village in Bavaria. The ability to log and scan documents into the database is great for tracking paperwork and has allowed departments to eliminate their need for hard copy files (I hear those trees again). Whether it is an for an outgoing proposal, incoming award, no-cost extension approval or custom report, our database has become the source-of-choice for all involved in research administration.

We have also implemented an electronic “whiteboard” process to keep track of email confirmations from Grants.gov and/or the sponsor. Our 46” LED LCD “whiteboard” was converted to display a web-driven database so the status of each proposal in the submission queue is continuously displayed. I am doing my best to ensure March Madness and Fantasy Football won’t be played (too much) on our cool slim-line, 1080p, HDTV that came with the system. Go Cougs!! Our electronic white board allows us to better organize, sort and report on active proposals in the queue.

It is no surprise that our IT Group, in 2008, was awarded WSU’s Pioneer award for the improvements made through the use of technology. At WSU, we are reaping the benefits of having created a paperless system that is efficient, convenient, and eco-friendly. Although we miss our friendly FedEx delivery guy, we are busy saving time, money, and forests! So what does the FedEx guy do with all his spare time? ■

Dan Nordquist is the Assistant Vice President and Director of Washington State University’s Office of Grant and Research Development. He started as a departmental administrator in 1990, became a college administrator in 1992, and then in 1995 moved to the pre-award office where he became the Director in 2000. Dan has been a member of NCURA since 1996 and has served in many areas at the regional and national level.

Esther Pratt is the Research Development Specialist at Washington State University’s Office of Grants and Research Development (OGRD). In this capacity, she works with OGRD’s Director to facilitate the research goals of the university. Prior to joining WSU, Esther worked for 14 years in private industry, specializing in business marketing, graphic design, and proposal writing for private business contracts.
RESEARCH ADMINISTRATION

The Master in Research Administration (MRA) Program at the Medical University of South Carolina is designed for professionals working in the research administration field who wish to advance their career. Using internet-based instruction, the program enables students to complete the 36-semester hour curriculum in four or six semesters, while continuing to work and live in their home communities. Students may attend full-time or part-time, taking nine credit hours (full-time) or six credit hours (part-time) each semester.

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