



Alliance of Clinician-Educators in Radiology

Newsletter Volume 4, Issue 1

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ACER-SMRI Educational Symposium in Mexico City in January 2014

From left to right: Carlos Rodriguez, Guillermo Elizondo, Aine Kelly, Jannette Collins, Eric Stern (Course Director), Jose Luis Ramiez (Course Director), Petra Lewis, Mahesh Thapa. More details on pages 13-17.

Welcome!

This newsletter serves to highlight the current ACER goals and available resources and to keep members informed of ongoing projects.

Members and potential new members are encouraged to get involved in the stimulating and worthwhile activities of ACER. One way this can be achieved is through committee membership and organizational leadership, please contact Angelisa Paladin, incoming chair of the nominating committee: (apaladin@uw.edu).

Members are also invited to send their contributions to the upcoming ACER newsletters. These contributions may be sent to Puneet Bhargava (bhargp@uw.edu) or Matthew Heller (hellermt@upmc.edu).



ACER's Missions and Goals:

- Providing a formal organization and forum for clinician-educators to meet, exchange ideas, and learn new skills that promote and advance the careers of clinician-educators.
- Providing programming at the annual AUR meeting targeted towards the needs of clinician-educators.

ACER Benefits of Membership

- Access to information and networking database for the benefit, awareness, and nurturing of clinician-educators.
- Opportunities for involvement in educational research activities relevant to clinician-educators.

Membership Update

- The AUR gained 82 members in the month of January 2014, bringing the grand total to 1,493.
- ACER has 202 members, consisting of 150 active members and 52 junior members.
- ACER's membership is second only to AMSER's (222) among the AUR Affinity Groups; other Affinity Groups include RRA (95), RAHSR (89) and A3CR2 (61).

A Tryst With Productivity

by **Puneet Bhargava, MD**
and **Amanda Lackey, MD**

A universal struggle amongst radiologists at all levels of experience and type of practice is the ability to keep up with ever increasing clinical, academic and personal pressures. For most of us, the struggle to “keep up” is constant, from the early days of our academic careers. Arguably, most of us are clearly not the busiest (or the most productive)



people, but, our responsibilities only grow every year. Most of us could do so much better with effectively managing our limited time.

It helps to understand how non-medical professionals, especially CEOs of major companies, manage to get so much done effectively, and also find time for the people and things that truly matter. Implementing David Allen's Getting Things Done (GTD) methodology is a good first step. Adopted correctly, it has the potential to produce transformational change (by organizing and prioritizing action items). A productivity approach should be individualized to our personal needs and level of comfort with incorporating technology. A simple yet reliable productivity system has helped us keep up with times of short staffing at work, ever increasing editorial responsibilities, and mentoring needs for our numerous fellows and residents.

The key to remaining organized and productive is to continually collect and process various tasks that come our way or any interesting ideas that one might like to pursue. Small actionable tasks should be immediately performed if possible, and non-actionable items should either be deleted, delegated, archived or deferred. When planning to execute larger action items, those items with the highest level of priority and difficulty should be addressed first, and smaller action items should be batched to make effective use of our time. Serial monotasking works better than multitasking, and reviewing a updated list of upcoming deadlines is imperative.

To learn more about our experience, we recommend reading the resources listed below:

- Bhargava P, Lackey AE. The art of productivity: A radiologist’s primer for getting stuff done. *ARRS InPractice*, Fall 2013 Issue 7(4):6-8.
- Lackey AE, Moshiri M, Pandey T, Lall C, Lalwani N, Bhargava P. Productivity, Part 1: Getting Things Done, Dealing with Email, Going Paperless, Scanners, Reference Managers, Note Taking Applications, and Text Expanders. *Journal of The American College of Radiology* 2014. In press.

3 Tips for More Effective Scholarship in Medical Education

by **Priscilla J. Slanetz, MD, MPH**
and **Puneet Bhargava, MD**

Nearly every academic promotion pathway recognizes scholarship as a key measure of an individual's success and impact in his or her field. Most educators spend a majority of their time teaching, often creating didactic sessions for students, trainees, or practicing physicians, or interacting one-on-one at the workstation with other physicians. With the development of clinician-teacher pathways at most academic institutions over the past decade, scholarship has now gained greater importance. By following these three tips, we all can become more effective, and even more importantly, grow as educators, by embracing the innovations of others into our teaching practices.



Tip 1: Embrace new teaching tools in your didactic sessions

Millennial learners desire interaction and embrace new technologies as a means to become more engaged in their learning. Many of these tools, such as tablet teaching, audience response, and the flipped classroom just to name a few, have not yet been well studied as effective teaching tools in radiology. By incorporating these techniques into your teaching, you will have a great opportunity not only to be innovative but also to design an assessment which ultimately can result in a publication.

Tip 2: Understand the steps of the scholarship process

Most physicians are never taught strategies for effective writing and the key steps in the publication process. Familiarity with the key steps of writing a manuscript – from conceiving an idea, performing the literature search, choosing the appropriate journal, defining the scope of the project, determining authorship, writing using the correct format and mechanics, submitting the manuscript and responding to the peer review process – is an essential part of becoming more academically productive. A useful step-by-step resource guide, *A Writer's Took Kit* by S. Pories et al.¹, was recently posted on MedEdPORTAL [hyperlink](#).

Tip 3: Keep your teaching portfolio up-to-date and go paperless

Many Institutions are now requiring faculty in the clinician-teacher promotion pathway to provide a teaching portfolio when being considered for academic promotion. A teaching portfolio consists of a collection of documents that summarize your teaching philosophy, teaching activities, educational accomplishments, teaching effectiveness and scholarly publications. Keeping this portfolio up-to-date allows you to be ready for promotion, organized and productive. If you are interested in learning more about this topic, consider attending the ACER session on The Teaching Portfolio on Tuesday April 1 from 10:30am-12pm. Hope to see you there!

The Key to Success for International Medical Graduates

by **Sherif Osman, MD** and **Mariam Moshiri, MD**

International medical graduates (IMGs) are a growing and diverse component of the trainee population in postgraduate medical education. According to the AMA and AAMC, 8% of ACGME-accredited radiology residency programs are filled by international medical graduates. Additionally, there are a large number of IMGs in various post-residency fellowships within the radiology subspecialties. IMGs have to overcome many hurdles after entering the postgraduate education system. These include issues



regarding the nature of the patient population, interactions with clinicians, the roles of the residents, fellows, and faculty, and the various types of reporting systems. Most radiology institutions have moved toward a filmless environment, performing nearly all imaging interpretations on PACS workstations. Images are interpreted with the use of voice-recognition computerized transcription.

Upon entry into a training program, IMGs are expected to be enthusiastic, motivated, and demonstrate a strong fundamental knowledge background. Despite the variable training backgrounds, IMGs are expected to be able to perform at the same level as a U.S. medical graduate.

Special comprehensive orientation programs offered for IMGs before beginning their training are very helpful. These programs include information about the American healthcare system, the organization and delivery of medical care within this system, the principles of Medicare, the federal and provincial healthcare systems, the various licensing requirements and policies, and the procedures specific to the training environment.

Several key elements offered by a training program can help IMGs to succeed. An inclusive orientation program with hands-on PACS training prior to the first day of work is very important for new trainees. This greatly improves the ability to use all available and essential tools for everyday work, which may not have been accessible to the IMGs in their country.

Mentoring is an important and essential factor in success for IMGs. This should include structured review of the trainee's performance at regular intervals with constructive feedback. The mentor should provide advice in several areas including adjustment to the daily work habits in U.S, interaction with patients and clinicians, medical ethics, performance of research, maintenance of scientific records, ethics in research, and oral and written presentations. The mentor can also foster socialization with peers, and assist in overcoming cultural and/or language barriers. In addition, the mentor can support the IMG in social networking within the academic radiology community.

In summary, IMGs should be motivated in self-learning and seek out various available digital, interactive, or written resources to their advantage.

Radiology Applicants' Views on Moonlighting

by **Vikas Agarwal, MD, Matthew Heller, MD** and **Phil Orons, DO** (picture not included)

Medical students consider many factors when evaluating a residency program. One factor that may be underappreciated is the availability of moonlighting. While the majority of radiology trainees do participate in moonlighting, little is known about its role in residency selection. In 2012, the Association of American Medical Colleges estimated that 86% of medical graduates had a median loan debt of \$170,000.¹ For radiology residents, additional incurred costs include licensing, course tuition, examinations and interviews. Previous surveys have confirmed that higher levels of debt are associated with increased likelihood of moonlighting.²



We surveyed our residency applicants to identify whether the availability of moonlighting would be a deciding factor in where applicants rank individual programs. While nearly all (98%) responders had heard about moonlighting opportunities during residency, only 6% did not plan on moonlighting. For those planning to moonlight, the majority (87%) indicated financial benefit was the primary motivating factor, rather than enhancement of their educational experience (13%). 30% of responders indicated that availability of moonlighting would be a deciding factor in their rank list.

Although our survey re-emphasized the belief that the primary reason for moonlighting is for financial gain, some applicants felt that they would gain educational experience by protocoling imaging examinations, tending to contrast reactions, and providing preliminary interpretations of the examinations that they supervise. Moonlighting can also bolster autonomy and decision making. Our survey indicates that most residents desire and embrace moonlighting opportunities, most likely related to the high cost of medical education and resulting personal debt. It is therefore not surprising that a third our survey respondents indicated that the presence of moonlighting would be a significant contributing factor in their radiology residency rank list preparation. We believe that it is reasonable to extrapolate our data to applicants applying to other specialties, where applicants may look more favorably upon residency programs that offer moonlighting opportunities. In an era of decreasing health care reimbursement, it is not unreasonable for applicants to try to decrease medical school debt as soon as possible since medical economics and physician reimbursement are in flux.

In conclusion, our survey indicates that moonlighting plays a central, deciding factor during applicants' evaluations of residency programs. Therefore, it is beneficial for radiology residency programs to offer moonlighting opportunities as a component of the training process. Residency programs that openly discuss moonlighting opportunities during the interview process increase their chances of attracting applicants to their programs.

1. AAMC Medical Student Education: Debt, Costs, and Loan Repayment Fact Card. Available at: <https://www.aamc.org/download/152968/data/>. November 8, 2013.

2. Hunt KR, Hillman BJ, Witzke DB. Moonlighting during the radiology residency. *Invest Radiol.* 1992;27:978-83.

Clinician Educator Track: Top 5 Lessons I Learned

by **Tess Chapman, MD**

Many schools of medicine have recognized the unique role of excellent clinicians whose academic focus is on education, rather than scientific investigation. Many of those schools have adopted distinct promotion tracks that define the expectations of their physicians on each track, and the physicians are evaluated accordingly. The promotion of a department's faculty depends on these definitions. Having a defined Clinician Educator promotion track can guide not only the radiologists who belong within the track, but a specified track can also guide both internal and external academicians who evaluate an individual faculty member for promotion.



As a radiologist on the Clinician Educator track, I have undoubtedly learned an immense amount, and it is a struggle to share enough concisely. When asked what the Top 5 Things I have learned would be, my first impulse is to simply shout out how fortunate we educators in academics are! And to have a title that recognizes our role is simply marvelous. It is a celebration that schools of medicine recognize the unique roles of teachers. The literature has an increasing number of papers demonstrating that mental well-being and subjective feelings of self-worth increase among those in academic medicine who are recognized for their roles as educators. It has long been observed that teaching is a noble thing. It has also been easily demonstrated that learning generates happiness. And, it is, in effect, our job to simply keep learning...

Within this fortunate job of ours, we are moving forward down a path, and not solely for ourselves. It is our job to contribute meaningfully to medical education and to our society. There are innumerable potential pathways for us to follow. The Top 2 lesson I have learned is that we waste our time and others' time if we do not follow our own instincts, and take care in developing our own path. Spend time thinking about it. Consider your own personal strengths and your own goals. In the beginning of your career, volunteer where you can, meaningfully, and shape the experiences as they fit within your own view of yourself.

As a budding Clinician Educator in radiology moving forward, your ideas and teaching subjects should be shared. Broadening the audience that your teaching materials reach will help a lot of learners out there, and in publishing these materials, your accomplishments will be easily recognized by the professors who will be considering you for repeat appointments and promotions. Ideas for scholarly publication include the use of MedPortal and publication within the journal of Academic Radiology.

To continue reading this article please click on the [hyperlink](#)

University of Washington Annual Radiology Review Course Reinvented

by **Jack Porrino, MD**
and **Puneet Bhargava, MD**

Didactic lectures and “hot seat” formats have been effective in the past in preparing the resident in-training for educational milestones, as well as providing a refresher for the practicing radiologist in need. However, as the nature in which the radiologists’ competencies are tested evolves, the format in which this knowledge is presented may need to change in accordance.



A comprehensive case-based review course has the ability to provide exposure to a wide variety of radiology in a condensed period of time. As technologic advancements continue to progress, specifically in the form of the audience-based response, the ability to engage the listener and test his or her individual knowledge, without compromising the quality or quantity of content, is now more of a reality than ever.

The reinvigorated University of Washington 2015 Radiology Review Course combines the expertise of a vast sub-specialized and internationally recognized faculty with the interactive nature of audience-based response, culminating in a comprehensive case-based review course. The course is both advantageous to the radiologist in training, as well as the radiologist in practice. Over the course of five days, the attendee will be an active participant during a total of sixty lectures, encompassing each specialty within the field. Each focused lecture will include twelve cases. Each individual case will be accompanied by a series of interactive questions, the salient imaging and clinical features associated with the disease process, as well as a relevant and concise differential diagnosis, providing the attendee with exposure to a wide array of the most common radiologic conundrums facing the radiologist in 2015.

The field of radiology, medicine, technology, and how the physician learns and practices continues to evolve at a rapid pace. The University of Washington 2015 Radiology Review Course has been revised and reformatted to account for these changes. With an amazing group of faculty speakers and a high-yield case-based format, we are confident the attendee will receive an exceptional and comprehensive radiology review, beneficial for the radiologist at every level. We hope you will plan to attend our course and encourage the residents in your program to do so as well. The next course will be held from March 29-April 2, 2015 at Hotel Deca in Seattle.

Introducing Evening call into Medical Student Radiology Clerkships

by **Judith Amorosa MD** and
Prapti Shingala MD

Many practicing physicians have not seen radiologists or radiology residents working, making decisions, or performing procedures, especially after hours. They have only seen the reports and recommendations, or have occasionally interacted via telephone. Medical schools have had traditional on-call experience for students in internal medicine, surgery, obstetrics/gynecology, pediatrics, and the various subspecialties as part of their curriculum. The learning value of the on-call experience has been debated in these fields. Call has not been reported as part of radiology clerkships, whether elective or part of core curriculum.



We introduced radiology call, as part of a 4-week elective designed according to the AMSER curriculum, and within another 4-week elective designed for 4th year students while on residency interviews. This is called “Radiology on the Interview Trail,” similar in content, but with a flexible hybrid schedule of in class and on-line scheduled activities. We wanted to determine the educational value of on-call experiences for medical students, as well as to assess the effects medical students have on the on-call residents.

Each student was required to be on call two weekday evenings from 5-10 pm during the clerkship. The on-call resident evaluated each student, according to the six core competencies. The students evaluated the experience of being on call in radiology. The evaluations indicated that the on-call experience was well received by the students, who felt that it was useful to increase their understanding of disease management, and of the role of imaging in medicine. Students evaluated the residents very favorably in regard to the on-call experience. Residents also evaluated the experience as useful, in the way of the assistance offered by the students, and the opportunities to teach them through the ongoing cases.

Imaging has become the most important management tool in patient care over the last three decades, to the extent that very few patients go for surgery or have major changes in medical management or treatment without imaging. Even so, most physicians know very little about how radiologists and radiology residents and their work, especially on call. It is in the “after-hours” period that physicians in the ED, inpatient house staff, and hospitalists encounter many acute, unexpected, and challenging patient scenarios that require management decisions. As future clinicians, medical students have an opportunity to get a glimpse of the critical role of the radiologist in this challenging time of the day, through the on-call experience in our radiology clerkships.

Ultrasound Curriculum for Medical Students

by **Ted Dubinsky, MD**

It is becoming increasingly recognized, across all medical specialties, that diagnostic ultrasound is an extremely useful tool for diagnosing and treating patients with a wide spectrum of medical problems. Advantages of ultrasound have been well chronicled. The capabilities of ultrasound are being incorporated so frequently throughout medical practice that it is now commonly referred to as the “stethoscope of modern medical practice.” Unlike other imaging modalities, the utility of ultrasound is completely dependent on the knowledge and skill of the operator.



More medical school educators have begun to recognize the usefulness of ultrasound as an aid to teaching anatomy, physiology, pathology, and physical diagnosis. Incorporation of ultrasound into medical school curricula has begun on a national level, although implementation is highly individualized to each institution. Radiologists are especially interested in teaching ultrasound to medical students since we are the ones who use it the most, have the best training in ultrasound physics, and have written the most about the appropriate use of ultrasound, its pitfalls and limitations, and its use for guidance during procedures.

The fundamental issue is defining the appropriate amount of training for a medical student to receive regarding ultrasound. Toward this goal, the Society of Radiologists in Ultrasound (SRU) and the Alliance of Medical School Educators in Radiology (AMSER) have collaborated on an ultrasound curriculum for medical students which will be published in the March issue of *Ultrasound Quarterly*, the Journal of the Society of Radiologists in Ultrasound.

The goal of the SRU and AMSER was to put forth a reasonable curriculum that most students could achieve and that most medical schools could institute. Obviously, medical students cannot be expected to obtain the degree of expertise in ultrasound gained through a formal residency or fellowship that incorporates ultrasound. It is important to ensure that students are trained to understand the limitations of their own use of ultrasound to ensure that patient safety remains paramount.

To those of us who have dedicated our careers to the performance of and training in ultrasound, it is most gratifying to see ultrasound receive its proper place in the armamentarium of medical practice. Yet, all of us have great concern that it is utilized properly by physicians with the proper training to ensure that patients receive the maximum benefit while minimizing the risk to patients from improper use.

Radiology Medical Student Teaching - the Lead-Serve-Inspire Curriculum at The Ohio State University College of Medicine, Wexner Medical Center

by **Claudia F.E. Kirsch, MD**

Can you remember the seminal moment when you decided on radiology? Thinking back to medical school, when did you first encounter a radiologist? Or have a radiology lecture? When were you inspired to choose radiology for your profession? For many students, first encounters are late in training, sometimes after entering match choices, wishing they had experienced radiology earlier.

At The Ohio State University College of Medicine, Wexner Medical Center, (OSUWMC) medical student teaching is being transformed with the Lead/Serve/Inspire (LSI) Curriculum, that integrates foundational and clinical sciences early in medical school. For more details on the LSI Curriculum, please click the hyperlink, http://medicine.osu.edu/students/lsi_curriculum, for OSUMC LSI medical student teaching of radiology, read on!

Unlike traditional curricula, where medical students do not encounter radiology until their later years, in the LSI curriculum students start clinical learning with classroom knowledge applied to patient situations early on. This includes learning the basics of radiology. In these curricula – radiologists give lectures in the first months to first year medical students, on imaging utilization and radiation risks! These lectures often prompt first year students to become involved in summer radiology research projects.

There are career introduction blocks, in the first two years with radiologists lecturing to the entire medical student class. Additional radiographic/pathologic correlative lectures include radiologists and pathologists, such as demonstrating pathology of a subdural hematoma on autopsy, and its CT appearance. In addition, e-learning radiology modules, allow students to review imaging features via directed self-learning. There is a career block, offered midway in the first year, allowing first year students interested in radiology, receive lectures from radiology subspecialists. Radiology lectures continue in the second year, and in the third and fourth years with a dedicated four-week clinical rotation, as well as opportunities for elective 4 week interventional, pediatric and research rotations.

There is separate mentoring from the OSUMC Learning Communities, where groups of 15 students are assigned a mentor, with many radiology faculty participating. The students meet with mentors every few months for dinner, throughout medical school. An OSUMC Medical Student Radiology Interest Group also meets, discussing various topics, like preparing for the match. In short with the LSI curricula and mentoring options in radiology, there is ample opportunity for radiologists to play a leadership role, early on, to help serve and inspire our future colleagues.



leadserveinspire
● ● ● Curriculum for Tomorrow's Medicine

ACER-SMRI Educational Symposium in Mexico City

by **Eric Stern, MD**

In our efforts to continue to stimulate interest and demonstrate support for radiology education in Mexico, the Alliance for Clinician Education in Radiology (ACER) and the Sociedad Mexicana de Radiología e Imagen (SMRI) are working together to develop a core group of radiology educators within the Mexican radiological education system.

In January 2014, ACER together with SMRI co-organized a second annual, one day radiology educational symposium in the Crowne Plaza Hotel in Mexico City dedicated to the training of advanced educational skills to a select and invited group of Mexican academic radiologists.

This educational symposium was again organized by ACER founding president, Dr. Eric Stern, and Dr Jose Luis Ramirez -Arias, past President of the Mexican Society of Radiology and Imaging, and coordinator of Radiology Postgraduate Education program in the National Autonomous University of Mexico.

The invited symposium speakers were all members of the ACER leadership, and included Dr. Petra Lewis, ACER Past-President; Dr. Aine Kelly, ACER Treasurer; Dr Jannette Collins, ACER Past President; Dr Mahesh Thapa ACER President-Elect; and Dr. Eric Stern. The SMRI President, Dr. Carlos Rodriguez-Treviño welcomed all the ACER professors and participants to the meeting. The lectures and workshops were all presented in English, with translation services available for all faculty and attendees.

The symposium registrants included over 50 invited academic radiologists involved in postgraduate radiology education programs from across Mexico. The main themes of this year's ACER-SMRI Educator symposium focused on promoting the concepts of life-long learning, appreciating adult learning theories, improving presentation skills, and effectively using new active learning techniques such as classroom flipping, through both didactic sessions and hands-on workshops.

Feedback from registrants was very positive, with 98% rating the program, organization, presentations and professors as excellent. The faculty was described as all very approachable, caring, and friendly. The electronic tools provided were very useful for their educational practices. Given the enthusiastic reviews of the program by both the participants and professors, it is likely that a third annual course will be organized by both institutions next year.

In an effort to build upon the relationships being developed through these symposia, ACER plans to sponsor one or more SMRI leaders to attend and experience the 2014 AUR annual meeting, this year in Baltimore, Maryland.



ACER-SMRI Educational Symposium in Mexico City



ACER-SMRI Educational Symposium in Mexico City in January 20, 2014
From left to right: Carlos Rodriguez, Guillermo Elizondo, Aine Kelly, Jannette Collins, Eric Stern (Course Director), Jose Luis Ramiez (Course Director), Petra Lewis, Mahesh Thapa

Course Directors: Eric Stern and Jose Luis Ramirez

Faculty: Jannette Collins, Aine Kelly, Petra Lewis, Mahesh Thapa

Objectives:

Upon completion of the course, nominees will be able to:

1. Apply adult learning theory to the development of curriculum that meets their needs, is tailored to their learning style and is relevant to their practice;
2. Utilize interactive techniques and exercises including case based and problem based teaching in the training of their learners.

ACER-SMRI Session outlines

by **Petra Lewis, MBBS**

Plenary: Brain Friendly Learning

This lecture will present data from cognitive neuroscience which illustrates how the brain learns, and how easy it is to 'overload' the brain by either how much information is presented to the learners, or how it is presented. Novices learn differently from experts, and these differences must be taken into account when teaching. The lecture will demonstrate how teaching styles can be modified to take advantage of the brain's learning mechanisms and reduce 'cognitive overload'.

Workshop: Using tablets as educational tools

This workshop will focus on how iPads and other tablets can be used as effective educational tools to provide a brain friendly, interactive teaching environment for students, residents and other learners. The workshop will focus on the use of two Apps that can be downloaded from the Apple Store. Attendees will have the opportunity to practice with these Apps on their own or shared iPads. (Neither Dr. Lewis or Dr. Palidan has any commercial connection with these products).



2Screens (\$5) will be used to demonstrate how iPads can be 'mirrored' wirelessly onto a LCD projector, allowing both educator and learners to actively demonstrate, identify and annotate findings in a small or large group setting.



Explain Everything (\$3) will be used to demonstrate how iPads can easily record lectures or teaching tutorials including live annotations, images and speech. These recordings can be posted online or downloaded and can be used as lecture notes for learners, or standalone teaching, for example in a 'classroom flipping' setting.

To get the most out of this workshop, we recommend that attendees who have iPads download these Apps in advance, and we will send out a short example presentation that can be preloaded into these Apps to work through during the session, or they may load their own presentations. If time allows, we will demonstrate the use of other Apps that the presenters have used in their teaching.

For complete program details please click on the [hyperlink](#)

Guidelines for the Scholarly Use of Images

by **Petra Lewis, MBBS**

As radiology clinician educators, we all use images in our educational 'products' every day. These images might be radiological images or not, and come from a variety of different sources – our own institution, other institutions, colleagues, books, journals, the internet or other electronic media. We use them in a variety of ways including lectures and workshops, handouts, papers, books, websites and other free or commercially distributed digital teaching resources. Our lectures might be given locally or nationally, might be recorded and posted/distributed and might be 'free' or at a paid for CME course. It is crucial that we are aware of the scope and application of intellectual property rights (aka copyright issues) to prevent inadvertent legal issues.



Intellectual property rights are a complex and confusing subject, and I am not a lawyer (although I consulted several while researching this issue), and the following should not be taken as legal advice. I have however tried to distill this into a few key Q&A points.

What is copyright?

“The exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (as a literary, musical, or artistic work)”.

What is the difference between copyright infringement and plagiarism?

Plagiarism is the practice of taking someone else's work or ideas and passing them off as one's own – avoided by appropriate citation, attribution and/or in-text quotation marks. Copyright infringement occurs when a copyrighted work is reproduced, distributed, performed, publicly displayed, or made into a derivative work without the permission of the copyright owner.

How do you get copyright protection on an image?

You don't have to! Copyright is automatic and belongs to the originator of the work as soon as it is converted into 'lasting media' (i.e. no longer an idea). This includes in a digital format.

Who owns the copyright on medical images?

To continue reading this article please click on the [hyperlink](#)

Innovative Uses of Technology in Teaching: Academic Superpowers

by **Michael Richardson, MD**

This talk was centered around the question: “How would you like to have superpowers?” I contend that there are several



useful technological skills that might as well be superpowers, so few academic radiologists seem to attain them. Any one of these will make you stand a head taller than your peers. Any combination of them will make you irreversibly super. If you

are waiting for a radioactive spider to bite you [\[1\]](#), you will be waiting for a long time. However, if you are willing to do the work, you can start earning some of these god-like powers right away.



Create web pages

The web is the ultimate enabling technology. You are a teacher, and the web is the perfect place to disseminate your teaching materials. It is certainly great to eventually get this stuff peer-reviewed in some way, but in the meantime, get it up on the web, where your students can find it! The bar is really low for creating a useful website — you only need these three ingredients:

1. pages of text
2. lots of cool images (dude — you’re a radiologist — what else were you planning to put on your site?)
3. links to other pages and other swell places on the web

I’m not sure there is an easier path to building a website than via a Wiki website [\[2\]](#). Voodoo Pad [\[3\]](#) and Trunk Notes [\[4\]](#) will let you create a Wiki website on an iPad. When you’re ready, you can then export it to a webserver at any time. Wikispaces [\[5\]](#) provides an easy, platform-independent service to build a Wiki website directly on the web itself.

Markdown [\[6\]](#) (an alternative markup language) makes it easy for those with some web experience to generate valid HTML pages. It is hard to find a better introduction to this web tool than David Sparks’ excellent Markdown book [\[7\]](#).

To continue reading this article please click on the [hyperlink](#)

ACER Achievement Award 2014 – Petra Lewis, MBBS

by Angelisa Paladin, MD

Dr. Petra Lewis is an accomplished leader, a creative thinker and a gifted educator. She currently serves as a professor and the Vice Chair of Education in the Department of Radiology at Dartmouth-Hitchcock Medical Center and as an adjunct professor in the Department of Obstetrics and Gynecology at the Geisel School of Medicine, Dartmouth.

Dr. Lewis pursued her medical degree at Guy's Hospital, London, England. After a Nuclear Medicine Fellowship at Johns Hopkins University, she returned home and led a clinical PET center in London. She subsequently returned to the East Coast and began a Radiology residency at Dartmouth-Hitchcock Medical Center (DHMC). In recognition of her leadership talents, she was elected chief resident and became assistant professor at DHMC in 1998. She has won several teaching awards at her institution. Dr. Lewis lives in Dartmouth with her husband Lionel, and their two teenage daughters.



Dr. Lewis is a national leader in the use of technology in education. She has developed a number of national resources that are used extensively in medical student education, including the AMSER Resource Database, Radiology ExamWeb (as a recipient of a RSNA Educational Grant) and CORE (Case-based Online Radiology Education).

Petra has a long history of serving the radiology community. She is the prior president of both AMSER and ACER and has been involved with the ABR and NBME for many years as an item writer and editor. She has written numerous articles and book chapters and is the coeditor of Oxford American Handbook of Radiology.

It is an honor and privilege to bestow on my friend and mentor, Petra Lewis, MB.BS, the Achievement Award of the Alliance of Clinician-Educators in Radiology. As an innovative leader whose work has had a national impact on radiology education, she is most deserving of this honor.

AUR Gold Medal 2014 – Jannette Collins, MD, MEd, FCCP, FACR

by **Eric Stern, MD**

At the AUR 2014 meeting in Baltimore, the AUR awarded its highest honor, the Gold Medal, this year to STR past-president Jannette Collins, MD, MEd, FCCP, FACR.

Leadership and education have defined the professional life of Dr. Collins.

In bringing her formal advanced education training to radiology, over the past two decades, Dr. Collins has been an indefatigable driving force and nationally recognized leader in radiology education. She has published numerous landmark educational reference materials including: a cardiopulmonary curriculum for radiology residents, adopted by and published on the websites of the Society of Thoracic Radiology (STR) and the APDR, and published in *Academic Radiology*; a cardiothoracic curriculum for medical students, adopted by and published on the websites of the STR and AMSER, and published in *Academic Radiology*; an evaluation tool to evaluate resident competencies published on the APDR website, and in *Academic Radiology*, that has been modified for use by most radiology residency programs; a faculty evaluation form used by the STR for the past 10 years; and a 122-page Radiology Residency Program Directors' Manual published in *Academic Radiology*, that has served as a primary resource for radiology program directors for the past 10 years.



In addition to serving as the 53rd president of the AUR, Dr Collins has also served as president of the APDR, ACER (*as one of the founding officers*), AUR R& E Foundation, and the STR. In recognition of her work, Dr. Collins is the recipient of numerous awards including the 2004 APDR Achievement Award, AUR Joseph E. and Nancy O. Whitley Award (1996, 1997, 2001), the 2005 RSNA Outstanding Educator Award, and the 2013 ACER Achievement Award. In 2012, she received the ABR Distinguished Service Award. She was a member of the Radiology Residency Review Committee for six years, an ABR oral examiner nine times, and currently chairs the ABR Thoracic MOC/Certifying Exam Committee.

On behalf of the leadership and members of the ACER, congratulations on your many achievements!

ACER Sessions at the Upcoming AUR Annual Meeting

Tuesday, April 1, 2014		
Time	Session Name	Room
10:30	<p>Teaching Portfolio (Course 109) SAM <i>Moderator: Mahesh M. Thapa, MD</i></p> <p>Components of a Teaching Portfolio <i>Faculty: Angelisa M. Paladin, MD</i></p> <p>How to Create and Maintain an Electronic Teaching Portfolio <i>Faculty: Puneet Bhargava, MD</i></p> <p>How to Write a Teaching Philosophy <i>Faculty: Priscilla J. Slanetz, MD, MPH</i></p>	Grand Ballroom VII – VIII
2:00 – 3:30	<p>Residency Education: Teaching and Professionalism from the RSNA and ACR (Course 117) <i>Moderator: Katherine A. Klein, MD</i></p> <p>Collaborative Multi-institutional Approach to Meeting the Teaching Requirements of the Liaison Committee on Medical Education <i>Faculty: James V. Rawson, MD</i></p> <p>Why You Should Use the MIRC® Teaching File in Your Residency Program <i>Faculty: William J. Weadock, MD</i> <i>Tessa S. Cook, MD, PhD</i> <i>Krishna Juluru, MD</i></p> <p>Promoting Patient-centered Radiology in Residency Programs <i>Faculty: Susan D. John, MD</i></p>	Grand Ballroom VI
4:00 – 5:30	<p>Leadership 202: Leadership Styles and Traits (Course 120) <i>Moderator: Jonathan O. Swanson, MD</i></p> <p>How to Manage Up Effectively as a Leader <i>Faculty: Jocelyn D. Chertoff, MD, MS</i></p> <p>How to Negotiate Effectively as a Leader <i>Faculty: Jannette Collins, MD, MEd, FCCP</i></p> <p>Effective Use of Delegation <i>Faculty: Jason J. Naidich, MD, MBA</i></p>	Grand Ballroom VII – VIII

ACER Sessions at the Upcoming AUR Annual Meeting

Wednesday, April 2, 2014		
Time	Session Name	Room
8:30 – 10:00	AMSER Lucy Squire and APDR/ACR Keynote Lecture: The Potential of Team-based Learning (Course 207) <i>Moderator: Sravanthi Reddy, MD</i> <i>Faculty: Paul M. Haidet, MD</i>	Grand Ballroom VI
10:30	Survey Research in Radiology Education (Course 212) SAM <i>Moderators: Aine M. Kelly, MD, MS</i> <i>Danny Hughes, PhD</i> Principles of Survey Research <i>Faculty: Brian W. Bresnahan, PhD</i> Interpreting Survey Findings F <i>Faculty: Pari Pandharipande, MD, MPH</i> Using Survey Research in Resident Education <i>Faculty: Corrie M. Yablon, MD</i>	Kent
2:00 – 3:30	Hot Topics (Course 219) <i>Moderator: Donna Magid, MD, MEd</i> Diagnostic Radiology/Interventional Radiology Update: What to Tell Students <i>Faculty: Kimi L. Kondo, DO</i> US: Collaboration with Other Departments; Point-of-Care US <i>Faculty: Donald N. Di Salvo, MD</i> The Future of Radiology: What to Say to Medical Students and House Staff <i>Faculty: Jason J. Naidich, MD, MBA</i> ACR White Paper: State of Radiology Education <i>Faculty: Christopher M. Straus, MD</i>	Essex
4:00 – 5:30	Brogdon Panel: Innovation in Leadership (Course 223) <i>Moderators: Jennifer Chang, MD</i> <i>Michael E. Cody, MD</i> <i>Faculty: Paul H. Ellenbogen, MD</i> <i>Vijay M. Rao, MD</i>	Grand Ballroom VI

ACER Sessions at the Upcoming AUR Annual Meeting

Thursday, April 3, 2014		
Time	Session Name	Room
7:00 – 8:15	Educational Issues Faced by Our Department That I Helped Solve (Course 302) <i>Moderator: Mark E. Mullins, MD, PhD</i> <i>Faculty: Theresa C. McLoud, MD</i> <i>Janet A. Munroe, MD</i> <i>Bruno A. Policeni, MD</i>	Grand Ballroom VI
8:30 – 10:00	Effective Teaching (Course 307) SAM <i>Moderator: Erin E. O'Connor, MD</i> Flipped Classroom <i>Faculty: Joseph V. Philip, MD</i> Total Recall: Pre- and Postlecture Assessment and the Reality in Between <i>Faculty: C. Alexander Grieco, MD</i> Avoiding Cognitive Overload <i>Faculty: Petra J. Lewis, MD</i> Optimizing Your PowerPoint Lecture Slides for Effective Delivery <i>Faculty: Eric J. Stern, MD</i>	Grand Ballroom I – III
4:00 – 5:30	Creating Line Art in Photoshop Workshop (advance registration required) (Course 313) <i>Moderators: Mahesh M. Thapa, MD</i> <i>Joel A. Gross, MD, MS</i> <i>Jeffrey P. Otjen, MD</i>	Waterview Ballroom A – B
5:30 – 5:45	ACER Business Meeting	Waterview Ballroom C – D
5:45 – 7:00	AMSER/ACER Reception and Open House	Waterview Ballroom C – D
Friday, April 4, 2014		
Time	Session Name	Room
10:30	Brain-Friendly Teaching Workshop (advance registration required) (Course 411) Moderator: Petra J. Lewis, MD Faculty: Nancy J. McNulty, MD Mahesh M. Thapa, MD Sravanthi Reddy, MD Eric J. Stern, MD Stefan Tigges, MD	Waterview Ballroom A – B



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