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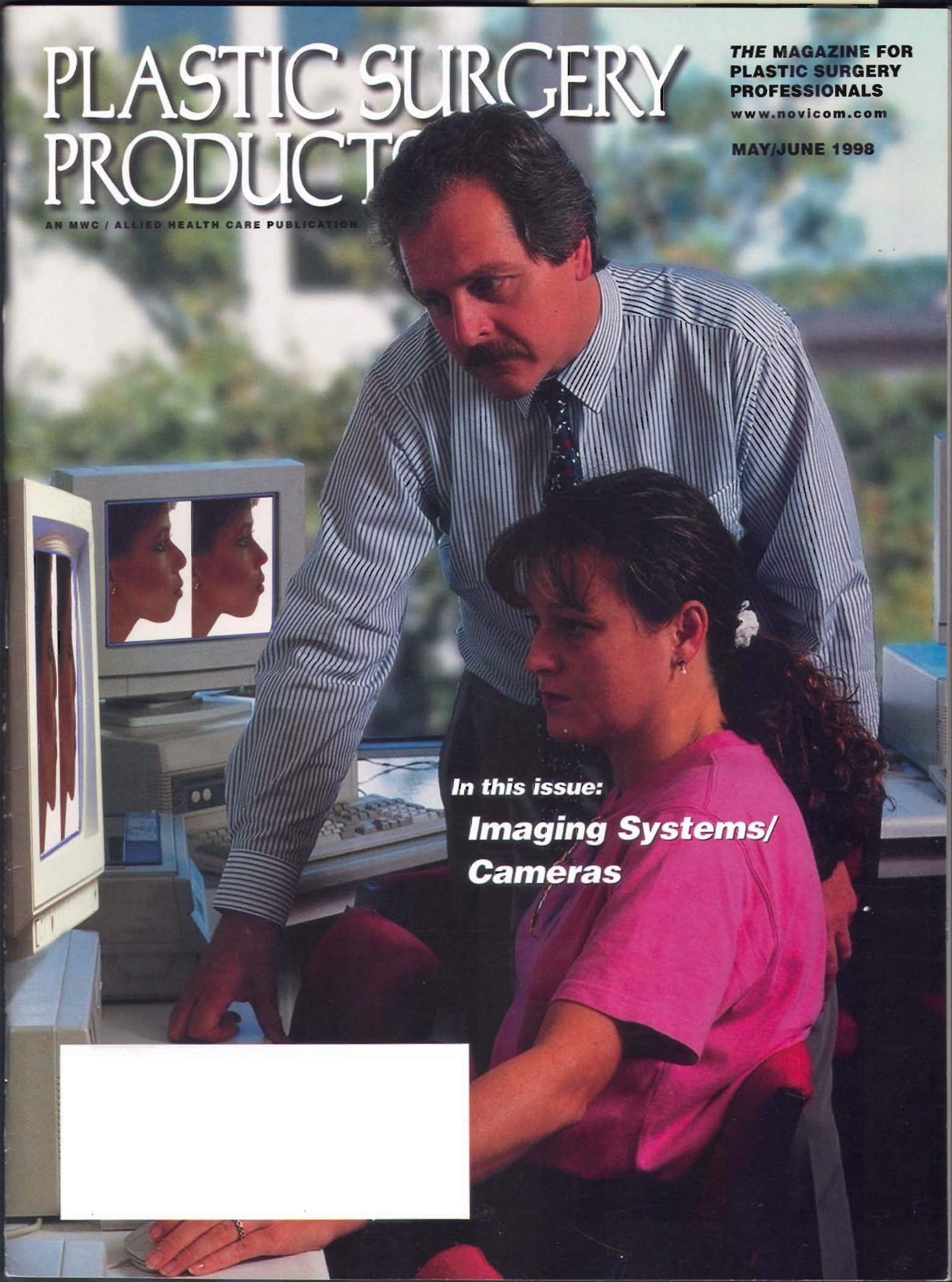

In this issue:

Imaging Systems/ Cameras

True Confessions of a Slide Addict

by Joseph Niamtu III, MD

A paradigm shift has occurred in the arena of clinical photography. The previous model consisted of a conventional 35-mm single lens reflex camera, slide or print film. Although in terms of clarity, accuracy and projection, this still remains the gold standard to beat. Any doctor who takes a large volume of pictures will attest to the encumberments of this previous system and is quick to welcome a more efficient method.

For those of us who require clinical photography as an integral part of our practice, there has been a shift in both the model and the rules. Since the evolution of photography, patient pictures have always been a requirement for the discerning doctor wishing to deliver state-of-the-art patient care.

Digital imaging systems have been around for some time and are improving yearly. A decade ago, it was a sight to show your friends if you had the ability to capture an image and perform some rudimentary morphing. Today, the options are limitless and image management is quickly becoming an integral part of the progressive medical practice.

Cosmetic surgeons have always relied heavily upon pictures for diagnosis, treatment, legal protection and marketing. Today's state-of-the-art imaging systems give the surgeon the ability to quickly and accurately capture a digital image and transfer it to a computer. Once on the computer, the image can be manipulated in a variety of ways. The image can be framed, made into a before-and-after picture, morphed, enhanced, cropped, cut and pasted, resized and resampled. In addition, it is simple to add text or drawings to the image, archive the image for immediate search and retrieval. Images may also be used in referral letters, office literature and desktop publishing. Finally, images may be incorporated into multimedia presentation packages for patient care, education and marketing.

We all have specific requirements for our clinical images. Cosmetic facial surgeons need documentation of accurate representations of their patients. These images may serve to assist diagnosis and treatment plans when the patient is in the office or after they have left. These same images may enable the doctor and the patient to appreciate the effects of cosmetic procedures. In some cases, these images may protect or incriminate the doctor in post-surgical litigation. Finally, these images, when positive, may greatly assist the doctor in marketing his/her skills and expertise by using the images as examples.

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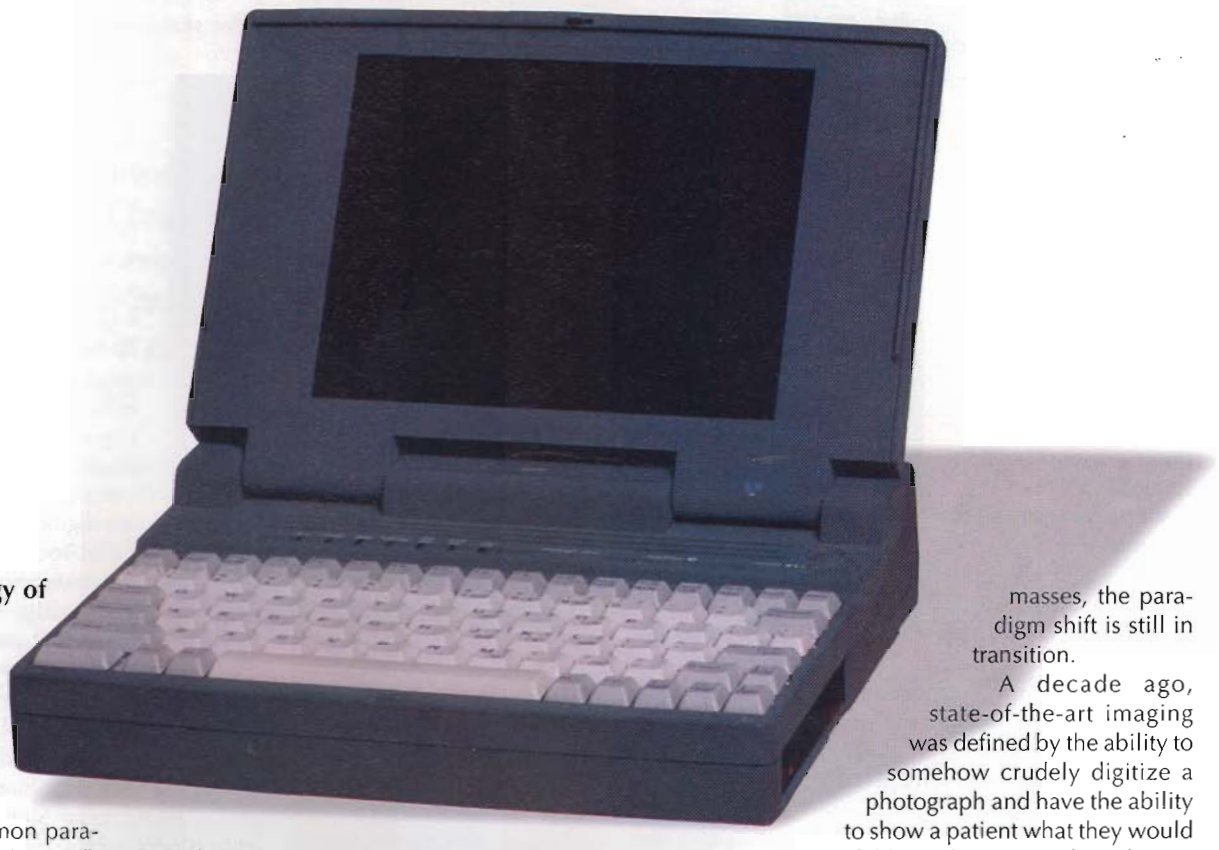
Dermatologists may wish to document the size and appearance of lesions and monitor their progress with serial images. Doctors of all disciplines may use their images for educational purposes such as lecturing or in scientific publications. Chances are, if you look at the best doctors in any branch of medicine, they take many pictures and make these images work for them.



The Pathology of a Slide Addiction

All of us who have used images in our practices probably followed the most common paradigm of single lens reflex clinical cameras and 2-by-2 slides. Anyone who takes many clinical photos and does any amount of lecturing can attest the disease of "slideitis." Slideitis is defined as the beleaguered, inefficient, costly and time-consuming process of using "slides" to document their patients. (Those of you who have been using prints instead of slides also have a similar affliction.)

There are multiple levels of slideitis. Latent slide depression occurs when you take an important career picture in the operating room and one week later, you get a call that the lab lost the roll of film. A lesser form of latent slide depression occurs when you take important pictures of a patient and when the film comes back from the processor, the patient's eyes are closed or the flash was too dark. Slide panic is the intense anxiety and rage that occurs when you have an important lecture or presentation and you search your entire home and office for that "one slide that you know you have."

I have recently moved into a new home and needless to say, packing up all of one's possessions is a task of awesome proportions. Although I have been a slave to my slide collection, it wasn't until I moved that I realized how many thousands of slides I had accumulated and how so many of them were uncatalogued. I would probably never have the time or energy to deal with them. When the slides, projectors, carrousels, screens and other sundried accoutrements were considered, I needed an entire room in my house just to house my addiction (slide dependence). Those of you that lecture frequently have experienced slide phobia exotica, which is trying to travel with bulky and noisy carrousels. I guess I have made my point.

Enter the Paradigm Shift

A cure has arisen for the above malady and that is digital photography and image software. For the most progressive, this article is old hat but for the masses, the paradigm shift is still in transition.

A decade ago, state-of-the-art imaging was defined by the ability to somehow crudely digitize a photograph and have the ability to show a patient what they would look like with some crude and minimal morphing. The rules have changed, the paradigm has shifted.

Digital photography has seen exponential changes in the past five years. It is now possible, as well as affordable, to make high quality clinical images and use them for all of the conventional tasks as before. This is the good news. The great news is that a new panacea of uses has developed for endless and imaginative uses for your images. Imaging systems are filtering into the mainstream of everyday practice in all specialties.

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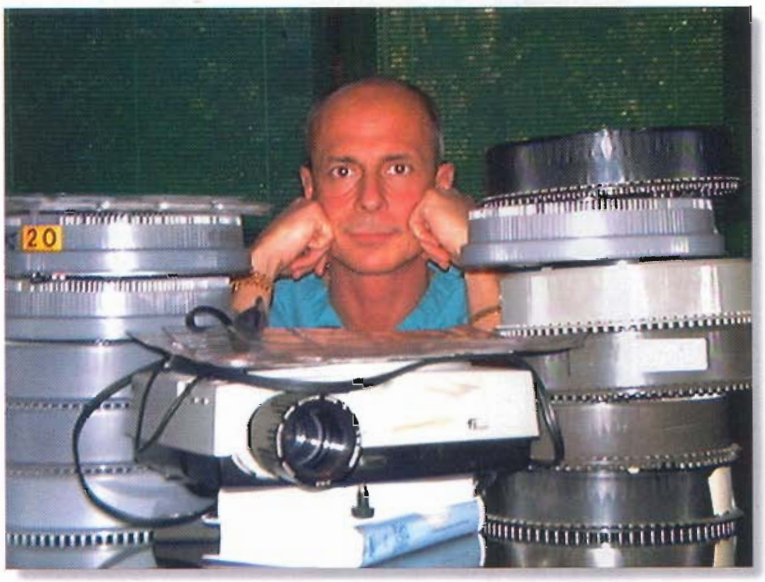
I have already stated that I lecture frequently on a national basis. In addition to this, cosmetic facial surgery and computers are concomitant passions. I

probably take a minimum of 30 pictures a day and maintain a first class documentation of my patient care. I use these images to evaluate and document my cases. I post before-and-after images throughout my office and provide the patient and referring doctor with the images. I have made simple but sophisticated case presentations that with the click of a mouse have enabled me to walk my patients through their surgical experience from diagnosis to dressing. I use these computerized presentations for patient education, informed consent, marketing and lecturing. I can be sure that I am not leaving anything out, and I can modify these presentations in seconds. It is not rare that I perform a case in the morning and use the images in a lecture or presentation in that same evening. I now frequently include patient images in my correspondence to referring doctors. It is very impressive for a referring doctor to receive a letter with the patient's before-and-after pictures, lesion or other related images directly in the body of my office stationary.



In addition, I can send these images by e-mail to insurance companies, colleagues, other patients, the local printing company and professional journals. But best of all, I am throwing away hundreds of slides a month. Yes, it is true that I have to laboriously scan my most favorite slides to digitize them, but it has been well worth it. Instead of scanning so many old slides, I find my self simply retaking them on current patients. This way, I can be sure of consistent size and distance, backgrounds and exposure. Each time I take a new grouping of slides to document a given clinical procedure, I find myself immersed in a jubilant mini-celebration/ritual of sacrificing my old slides from that procedure. It seems sort of aboriginal, but I truly feel a load off my back each time I trash a pile of old slides.

Then there was the "big lecture and I forgot my slides incident." It has been two years since I have truly gone "digital." During this time, I have made the slow and sometimes grueling transition from film to data. Although, many facets of my life and practice were automated, I still did not feel confident to give the really important lectures solely from a laptop computer. My metamorphosis went like this. I began making my own lecture slides on Microsoft™ PowerPoint® and sending them to a local lab for processing into slides for lectures. Although I was semi-automated, my slides were much higher quality but were costing $5 each. A multiple carrousel lecture started to get expensive. Even at this rudimentary point, however, I realized that once the lecture was "in the can" on my laptop, I had the ability to store the entire lecture on a couple of floppy discs. That was revelation numero uno.

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Even more important was the fact that I could "borrow" slides from this lecture with the click of a mouse. If I needed a liposuction slide (I still call these slides, even though they are really digital images) for my TMJ lecture, I simply dragged and dropped the slide into the new presentation. For the first time in my life, I didn't have to rummage through 10 carrousels to find a single slide. That, in itself, was revelation number two. If I wished to duplicate the image or slide as I still call them, all I had to do was select the image and duplicate commands and wham, a new slide.

So, at this point, I was making computer slides with digital images but still relying on slides, projectors, etc. Then I got brave. I decided to do my first "solo" totally digital presentation. I made the computer presentation, borrowed a digital projector and prepared for the daylong lecture. Knowing that 80 doctors had taken a day off of work to hopefully extract some wisdom from my presentation, I began having recurring nightmares about some digital disaster. What if my computer locks up? What if my digital projector blows a bulb? Too much fretting for my lowly and sparsely covered scalp. Solution: give the digital presentation but have slides made for back-up and a carrousel projector there "'just in case." So went the duplicate drudgery for several lectures. Finally, technology rose to the top, and I have since graduated to totally digital. Slides gone forever! I will, in all honesty, admit that I still take two laptops and a spare digital projector bulb to the most important lectures. Some where in the above paragraph lies revelation number four.

Your Worst Nightmare

Finally, the most important technological revelation, revelation number five occurred early this year.

I had been selected by my association to present a lecture in January at our midwinter conference on chemical peel, botox and gortex in Phoenix. Not a bad place to be in January!

I had been getting pretty cocky by now and started adding all types of bells and whistles to my presentations. Animated slides, special effects, music and full motion video were merely a sampling of the tricks up my sleeve. I was going to knock em' dead. A veritable Stephen Speilberg of the lecture circuit. I worked several months on this lecture, knowing that I would be able to use it frequently in the future for other courses. I practiced, polished, rehearsed and was very proud of what I had created. While on the way

to Phoenix, I was able to refine some slides (revelation 4 1/2) and add a few more images that I had taken that morning. Somewhere over Kansas, my lecture was completed.

Now, this revelation takes a bizarre turn! While relaxing the day before the lecture, my girlfriend and I were window shopping in Old Town Phoenix when I noticed a display of sunscreen products. All of a sudden, an immense decompensating wave of panic traveled through my body from head-to-toe. The kind of feeling one has when accidentally transacting a large artery that wasn't supposed to be in the operative field. My girlfriend looked at me and was aghast with inquiry and fear that some extreme cardiovascular event was impinging on our trip. The worst nightmare of a lecturer was materializing before me. I had forgotten to bring the portion of my lecture that dealt with actinic damage and skin pathology! Oh no, now what? It was Friday night, no one was able to overnight this to me. I had let my association down.

As a well seasoned lecturer/warrior, I was not to be undaunted. After several minutes of clear thinking (precipitated by a cold Corona with a lime), I figured out the solution. Hence, the birth of the most important revelation in my life, the holy grail of all revelations – revelation number five. I remembered that I had loaded the software program PC ANYWHERE® to my computer at work. I also had this software on my laptop. In a matter of minutes, I was able to plug my laptop modem into the bedside telephone at the hotel and tap into my computer at work. It was the night before the lecture, midnight Phoenix time, 3:00 AM Richmond, VA time. Luckily, I had been a good egghead, I had backed up the entire lecture on my work computer. I simply selected the presentation that I had forgotten and pressed the download button. Well, it took about 30 minutes of time and a $20 dollar long distance bill to complete the download, but I had done it. Over the airwaves, I was able to retrieve the lost slides of sun damage.

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When the download was completed and I clicked on the file and saw my lost slides, I had goosebumps. I was truly impressed with the electronic and technological advances that have occurred over the past decade and for the first time ever, I witnessed their power in a truly productive way. I went to sleep that night very proud of what I was able to do and energized by the power of computers. When I awoke at sunrise, the morning of my lecture, to put on my running clothes, I first went immediately to my computer to see if my lost slides were really there or if I had merely experienced some Sci Fi nightmare. The slides were in fact there. As I broke a sweat to the bright orange Arizona sunrise appearing over the mountains, I really felt good about myself, my lecture and the future of computers, education and surgery. ■

ABOUT *the author*

Joseph Niamtu III, MD is a board certified Oral and Maxillofacial Surgeon with longtime interests in clinical photography and facial cosmetic surgery. Dr. Niamtu is the developer and president of Niamtu Imaging Systems in Richmond, VA and markets a digital imaging system specifically for medical image management. Dr. Niamtu may be contacted at 804-320-2256 or niamtu@niamtu.com