# NOT TRUE, NOT GOOD, NOT NEW

In this issue, we discuss new technologies with the potential to disrupt our field and cause paradigm shifts in care. As we consider these innovations, a concept comes to mind that affects nearly all disruptive technologies as they develop and become adopted by a professional community. Most new technologies go through a challenging cycle of labels that often impede progress: *not true*, *not good*, and *not new*.

## A CYCLE OF LABELS

▶ **Not true.** In the early 1980s, there were rumors that a Russian doctor placed incisions in the cornea to rid people of their glasses. "Not true" was the response of the ophthalmic community. No way could someone change the shape of the eye to treat a refractive error predictably and effectively—that was simply Russian propaganda falsely touting scientific discovery.

▶ **Not good.** A few years later, after some acknowledgment and advancement of this technique took hold, ophthalmologists began saying, "Well, maybe it's true that surgeons can change the shape of the eye, but it is certainly not good. There are risks involved, and we don't know the long-term effects."

▶ **Not new.** Fast forward 10 years to when radial keratotomy became a relatively common procedure in the mid-1990s, and the ophthalmic community's response was, "Sure, radial keratotomy can correct myopia, and, yes, it is generally a good procedure. Everyone knows that. It is not new."

## A FAMILIAR PATHWAY

Phacoemulsification and LASIK successfully passed through this cycle of adoption, and SMILE is currently progressing through it as well, hovering somewhere between *not good* and *not new*. Many technologies have passed the *not true* stage. Careful analysis by honest investigators and the FDA will probably allow these technologies to clear the *not good* hurdle.

Many ideas and technologies falter early on and never make it to the marketplace or never become mainstream. Others make it through the cycle but falter later, as they are surpassed by newer and better technologies, such as radial keratotomy to LASIK. Furthermore, technologies that were surpassed often had an important role in paving the way for future innovation. Technologies such as intrastromal corneal ring segments and conductive keratoplasty can reenter the cycle after being left behind (both have become important tools in managing keratectasia).

I place many of the disruptive technologies discussed in this issue somewhere late in the *not true* stage of this cycle. As we work with these innovations, we will discover whether they deserve a place in our field, and they will pass the *not good* phase when proven to be safe and effective.

We have a responsibility to our patients and to the future of our field to take an honest look at the technologies sitting in the *not true* phase and to be open-minded enough to allow them to move forward. We must analyze, understand, study, and develop that technology and do all we can to make it good. Then we must work hard to allow it to have a place in the market and become *not new*.

These hurdles can be hard to surpass given that the common response to an emerging technology is to usher it through the cycle of *not true*, *not good*, and *not new*. These labels will be ascribed in some form or another to all new technologies as they evolve and eventually become obsolete, a foundation for subsequent technology, or mainstream. ■

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