

Epic Failures

In Rochester, New York, just down the road from a giant in ophthalmic industry, one of the epic failures in business unfolded. Steve Sasson, an engineer at Kodak, invented the digital camera in 1974. His prototype weighed more than 8 pounds, took pictures with a resolution of 0.1 megapixels, and stored its images on a cassette tape. Calling up the data for each image took over 30 seconds, and the images were of very poor quality. Founded in 1888, Kodak was the world leader in film photography by 1976, with 90% of film sales and 85% of camera sales in the United States.¹ With its substantial technological prowess and stable of talented researchers, the company was uniquely poised to dominate digital imaging for years to come. Unfortunately, according to Sasson, Kodak was unable to cannibalize its core film business in pursuit of the digital frontier.² This stunning failure to take advantage of its market lead and to anticipate a technological revolution led Kodak to bankruptcy in 2012.

In Dallas, a short hop from another giant in ophthalmic industry, Blockbuster succumbed to a similar case of corporate myopia. In the early 2000s, Netflix CEO Reed Hastings offered to sell his company to Blockbuster for about \$50 million. Hastings recalls that his proposal was greeted with laughter.³ Blockbuster's management regarded Netflix's DVD-by-mail business as a tiny niche competitor, certainly not a significant threat to Blockbuster's core business of video rentals. In 2005, Blockbuster dominated the video rental market, with more than 9,000 stores in the United States. The company was bankrupt by 2010, whereas Netflix's current market value is \$26 billion. Hastings is the one laughing now.



Kodak's and Blockbuster's stories illustrate challenges that both large and small companies face. Hindsight is 20/20, but these two large, public companies were at the mercy of their shareholders and latest quarterly reports. Making dramatic moves in such an environment without severely affecting short-term earnings is difficult, even if doing so is a winning long-term strategy. A clear takeaway message from these stories, however, is that ignoring the future in a technology-driven field is perilous.

Ophthalmology is one of the most technology-driven specialties in medicine. Whereas physicians can adjust their practice patterns relatively quickly as technology changes, their corporate partners cannot. At present, ophthalmologists and ophthalmic companies are enjoying a nationwide increase in cataract surgery volumes owing to demographics. This trend will continue for many years, and a strong argument could be made to retreat into this sector of ophthalmology. On the other hand, technological advances in glaucoma, dry eye disease, retinal disease, and even refractive surgery represent compelling opportunities for improving patients' care. As physicians, we are obligated to offer these new treatment modalities or to send our patients to someone who will. We need corporate partners who will drive development in all areas of ophthalmology, not just binge on the easy calories of the healthy cataract market. I am particularly concerned when I hear of reduced research spending in the refractive surgery sector. A technological change in refractive surgery will occur, and those that fail to invest in the sector will be left behind. ■

A handwritten signature in black ink, appearing to read "Steven J. Dell, MD". The signature is fluid and stylized, with a large initial "S" and "D".

Steven J. Dell, MD
Chief Medical Editor

1. Sloane P. Innovation lessons from the fall of giants. Innovation Excellence website. <http://www.innovationexcellence.com/blog/2014/03/09/innovation-lessons-from-the-fall-of-giants>. Posted March 9, 2014. Accessed March 26, 2014.
2. Digital camera inventor explains how technology took down Kodak. *The Huffington Post*. May 21, 2013. http://www.huffingtonpost.com/2013/05/21/digital-camera-inventor-kodak-bankruptcy_n_3315622.html. Updated May 22, 2013. Accessed March 26, 2014.
3. Graser M. Epic fail: how Blockbuster could have owned Netflix. *Variety*. November 12, 2013. <http://variety.com/2013/biz/news/epic-fail-how-blockbuster-could-have-owned-netflix-1200823443>. Accessed March 26, 2014.