

Tea Leaves at a Trade Show

A Glimpse into a World of Possibilities

The business of looking into the future is often compared with the ancient practice of reading tea leaves. Futurists look for patterns symbolizing the likely state of affairs when things have settled down. A health futurist's work is never done because technological advances and political shifts are always putting the system back in motion. Nevertheless, an experienced observer can make useful observations on how the next—albeit temporary—state of affairs might be foretold by the swirl of current trends.

Fearing that some readers will come to the wrong conclusion, I swear that I do not read tea leaves to make my forecasts. Rather, I read professional literature from many scientific and technological sources, and I talk regularly to healthcare executives, clinicians, technology experts, policy-makers and purchasers. I also attend trade shows to get another glimpse of the future.

My favorite source of trade show “tea leaves” is the annual meeting of the Radiological Society of North American (RSNA), a world-class event that announces the arrival of winter in Chicago as predictably as cold winds blowing across Lake Michigan. The 2007 show did not disappoint in revealing key trends in healthcare in general and information technology in particular.

‘TEA LEAF’ TRENDS

Dazzling technological advances are the expected highlight of RSNA. Each show introduces more CT slices, stronger MRI magnets, larger PACS and at least one new imaging application. The latest RSNA contributed its share of rising numbers and additional letters to describe the state-of-the-art in imaging platforms, but the loudest buzz seemed to shift from traditional talk of technology to an intense conversation about the clinical and economic value that technology should provide.

The educational programs and vendor exhibits prominently encompassed work flow, productivity, safety, cost reductions, performance improvement, consumerism, competition and other aspects of clinical transformation and health reform. For the first time in my experience, the world's largest medical meeting was infused with an explicit focus on reducing costs and improving the quality of healthcare, not just imaging. Clinical advances in imaging technologies were not overlooked—indeed, they were impressive—but technology for the sake of technology was not the take-home from this bellwether show.

For example, PACS systems were more impressive than ever before, but integration with radiology information systems and management information systems was touted as prominently as storage capacity and image resolution. PACS' contributions to work flow and overall productivity were emphasized, adding new meaning to the concept of a value proposition. The measure of return on investment was being expanded beyond profitability. Many CFOs and CIOs visited the exhibitors' booths, a new phenomenon.

Efficiency and effectiveness were new stars at RSNA.¹ Cost and quality benefits were highlighted in displays and promotional literature. Appropriate utilization of imaging devices was also addressed, particularly in the educational sessions. Cancers linked to overuse of CT scanning got as much press as the modality's ever-expanding diagnostic powers. Compliance with American College of Radiology criteria for medically appropriate use of imaging was openly discussed, in contrast to the singular focus on diagnostic applications that would have been observed in previous years.

The last (and definitely not least) notable change in the swirl of tea leaves at this trendsetting show was the scope of consulting services offered by compa-

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nies that have been known historically as developers and manufacturers of imaging devices. Some major technology companies were offering expertise to optimize the total value of imaging services—a new capability that has been acquired through acquisitions and partnerships. Consulting services were expanding well beyond system selection and implementation management. Many vendors were now including support for efficiency and effectiveness as part of their initial offerings, not as an unwanted (and unmentioned) post-installation service to be purchased from an independent con-

sulting firm when the equipment did not meet expectations.

A WORLD MEETING

RSNA 2007 was not just the world's largest medical meeting. It was also an international meeting, as evidenced by a high number of attendees from countries outside North America. Many of the new value-add partnerships were multinational, as were vendor teams in the exhibit areas. English may be the prevailing language of healthcare IT, but many sales and support teams were multinational and polyglot. RSNA 2007 clearly illustrated *New York Times* columnist Thomas Friedman's powerful image of a world that is flat.

From an American health futurist's perspective, the most exciting trend is the international convergence of attention to the cost and quality of healthcare. All nations' health systems need to achieve efficient and effective outcomes, regardless of the payment system or social standing of healthcare. Politicians have led Americans to believe that other countries of the world have solved the problems of providing healthcare. This year's pervasive focus on cost reduction and quality improvement at RSNA showed that providers everywhere—even in countries with universal access—must acquire technologies in consideration of the bottom line. Cost and quality imperatives are international.

WHAT THE TEA LEAVES TELL ME

As a long-time observer of imaging technology and its impact on the future, I am amazed to remember that the revolutionary shift from analog to digital imaging was the big story only a year or two ago. Digital transformation is still the major force in radiology, but the cutting edge has shifted from how the image is acquired and stored to how information in the image can be used to produce better, less-expensive healthcare. The tea leaves at the latest RSNA suggest some exciting possibilities.

My image of the future, like diagnostic images themselves, is clearly becoming multi-dimensional. I see less focus on

technology, per se, and more attention paid to the clinical and managerial solutions that technology can enable. Healthcare IT professionals are correspondingly challenged to expand the scope of their expertise. Knowing how an IT tool can solve non-clinical problems is becoming as important as understanding how it

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works. Having the skills to integrate this knowledge at the interface between vendors, delivery systems, purchasers and patients will make a world of difference in healthcare. **JHIM**

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NOTE

1. For an extensive, practical analysis of efficiency and effectiveness in healthcare and related implications for financial viability, see *Paradox and Imperatives in Health Care: How Efficiency, Effectiveness, and E-Transformation Can Conquer Waste and Optimize Quality* by Jeffrey C. Bauer and Mark Hagland (New York: Productivity Press, 2008).

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