EM IT Insight

by Jill Barson Gilbert

Bridging the Gap *Between* EH&S and Technology

"IT Insight" is a new bimonthly column that will look at the wide world of information technology, with a focus on emerging tools and technologies for managing environmental, health, and safety data.

Today's environmental professional is faced with the challenge of sustaining an efficient and cost-effective environmental, health, and safety (EH&S) management process in an economy dominated by emerging technological advancements and ever-changing regulatory requirements. Not only do environmental managers have to stay abreast of the latest regulatory developments, but they must also be aware of technology innovations that may improve their company's EH&S performance and, subsequently, improve the bottom line. New technology has put the environmental professional back in the learning seat. Information technology (IT) is new to many EH&S professionals. Ten years ago, industry professionals communicated by phone, or worse, *paper* memo! "High-tech" EH&S folks may have sent an occasional fax, but that was as far as the information highway extended. Only five years ago, most of us did not use e-mail and some rarely used computers in their day-to-day business. Today, most of us communicate via e-mail and make use of one or more computer-driven devices daily.

WHEN TWO WORLDS COLLIDE

My first experience with the new and rocky marriage between information technology and EH&S occurred five years ago, when I was contemplating making the transition from an EH&S management consulting firm to a large software company. My prospective boss had a computer science degree and an MBA, and needed help determining whether I was the EH&S expert that he wanted. He asked an environmental engineer from outside the company to interview me.

My résumé boasted a breadth and depth of multimedia experience. I knew that in the EH&S world, *multimedia* refers to air, waste, and water. However, my potential boss did not know this, because in the software world, *multimedia* applies to text, audio, and video. Needless to say, my prospective boss was impressed with my communications skills, but did not fully understand the extent of my EH&S credentials. Fortunately, the outside engineer was able to translate on my behalf.

The confusion did not stop there. To my surprise, my prospective boss questioned my *technical* capabilities. With nearly 20 years of technical experience, what could he mean? I quickly learned that in the software world, *technical* refers to *information technology*, not *engineering* and *science*, as I had applied it. My EH&S technical capabilities were considered valuable despite my relative inexperience with IT, and I was offered a position on the software development team. One of my key responsibilities was to be a liaison among software developers, users, and sales and marketing staff. That's when the real challenge began.

Software developers and EH&S professionals see things differently. This became clear during the first months in my new position. Fortunately, our differences facilitated the development of new ideas. By applying new software technologies, the software developers helped the domain experts manage day-to-day EH&S data. The domain experts helped the software developers produce software that better served the needs of the user. Together, we were changing the way people do business. The ongoing dialogue bridged the gap between technology and EH&S, helping to develop a common language so the two worlds could begin to understand one another.

How will new technologies help us manage EH&S data in the future? This column will try to answer that question by exploring the IT aspects of EH&S management. I also hope to share my experiences and create an open forum for discussion among my EH&S peers.

ABOUT THIS COLUMN

Most organizations have environmental management systems (EMS) of some sort, whether on paper or automated. Many now use or are considering an environmental management information system (EMIS) to support their EMS. Several factors determine the information management needs of a particular organization. One is size. The small business owner does not need, and probably cannot afford, the same technology as the manufacturing giants. Business and regulatory drivers are another factor. What drives you to bridge the digital divide that exists in your environmental management processes? Whatever drives an organization to automate its EH&S management process will indeed affect the technology solution chosen.

New technologies are rapidly emerging for managing EH&S data. Coupled with ever-changing regulatory and market requirements, keeping up with technology changes can be daunting. *IT Insight* will focus on the IT aspects of managing an EH&S practice, such as

- emerging technologies and their applicability to the EH&S market;
- how EH&S vendors use emerging technologies in their products and services;

- how end users leverage new technology and EH&S applications;
- the benefits of data integration between and among systems; and
- the benefits of technology to the end user's business.

FUTURE TOPICS

The application of technology in the EH&S industry is a hot topic, and I suspect this column will invoke hearty response from *EM*'s readers. To remain on the cutting edge of technology, professionals must be willing to share ideas with their peers. I encourage feedback and ask readers to comment on what they read in *IT Insight*, and I also welcome topic suggestions. This column will be more interesting and beneficial to you and other EH&S professionals if it addresses your needs and answers your questions.

I hope to introduce the readers to innovative ways to meet their EH&S management needs. Here are some of the topics I am considering for upcoming articles:

- online EMIS applications;
- Web-based operator EMIS input screens;
- integration of dispersion modeling with EMIS;
- turning profits with an EMIS;
- integrated Material Safety Data Sheets (MSDS) and EMIS systems; and
- wireless/Web/e-mail scheduling systems for EMIS applications.

Today's EH&S professional cannot afford *not* to take advantage of cutting-edge technology. We all want to reduce the true cost of EH&S management and improve our company's EH&S performance. I hope to do my part in bridging the gap between EH&S and technology by introducing you to that foreign language called *IT*. In April, *IT Insight* will explore the world of wireless technology, in particular, personal digital assistants, or PDAs.

About the Author

Jill Barson Gilbert, QEP, is a senior project manager with T3, LLC, where she teams with clients to design and implement EH&S data management solutions. Before joining T3, she was director of product management for EH&S applications at Oracle Corp. She has more than 20 years of EH&S experience in industry, consulting, and software development. In addition, Gilbert chairs A&WMA's Information Solutions Committee and is a past Vice President and International Director of the Association. She can be reached by phone: (713) 552-0254; or e-mail: *itinsight@tthree.com*.