

beautiful graphics. The bottom line is still the biology, chemistry, physics, engineering, ecology, geology, environment, resource allocation, and economical impact.

E-technology and E-companies

An indication that a new field has taken off—for example, from E-science to E-technology to E-commerce—is when lawyers (attorneys), accountants, recruiters, publicists, and others such as investors are beginning to show up at pertinent scientific meetings. There are already signs of such presence and mingling in energy technology (ET).

In the Internet boom, the mantra was to change the world and get rich quick; this time, given the size and scope of the energy market, the idea is to change the world and get even richer—but somewhat more slowly. But starting a clean technology firm is not like starting a low entry-barrier Internet company, or an online do-it-yourself (DIY) company; scientific credibility is the primary currency in ET. One of the credentials will be Einformatics certifications to certify green-collar technicians and professionals. How the new technology will be adopted is a discourse in itself.

Green-Collar Einformaticists

The Y2K problem was the "millennium bug." Just prior to the new millennium, the only country that had enough software programmers to adjust all these computers so they would not go haywire, and do it at a reasonable price, was India and a few Southeast Asian countries (such as the Philippines). In retrospect, it was this huge operation that launched today's Indian supremacy in outsourcing industry. Wipro Technologies and Infosys Technologies come to mind immediately.

With a carbon tax or cap-and-trade legislation looming, more and more companies are expected to become carbon-neutral, or even carbon-negative. This is going to create the next big global business transformation, which is going to require tons of software, programming and back-room management to measure each company's carbon footprint—monitor the various emissions-reduction and offsetting measures—on an ongoing basis.

Now some experts are predicting that this will create an opportunity bigger than Y2K. Analogous to Y2K, we shall call this

the problem of E2n4E. "E2n4E" stands for "efficiency to and for the environment." This includes all the energy programming and monitoring that thousands of global companies are going to be undertaking in the early 21st century to either become carbon neutral or far more energy efficient than they are today.

In this globalized world, a low-cost brainpower will be the beneficiary of this new wave. But a notable distinction is that Y2K was a deadline imposed by the calendar, and therefore it had a huge ability to concentrate the mind. It became a drop-dead date for everyone. Making a company carbon neutral or negative is not a date; rather, it is an inevitability.

Asia, given its track records with Y2K, is poised to get a lot of this work. To tackle E2n4E requires Einformatics.

E2n4E Winning Strategy—From IT to ET

When Y2K came along, some companies responded tactically, doing only the minimum reprogramming to keep their computers operational when the millennium rolled over. Others approached it more strategically. These latter companies went from seeing