PRODUCTIVE THINKING ABOUT SUSTAINABILITY

Most people would agree that having an organization that thinks and acts with sustainability in mind is a good thing. Yet the practice of environmental sustainability has been uneven, at best, in businesses and other organizations.

We need productive leadership thinking on the subject, which makes the new book by Steve Schein, *A New Psychology for Sustainability Leadership*, so important. It draws on his interviews with seventy-five leaders in more than forty multinational organizations and NGOs. People who are searching for new ways of approaching this not-always-easy subject should benefit from the research of Schein, who is highly well versed and a veteran in the field. He was on the faculty at the School of Business at Southern Oregon University from 2005 to 2015, and he founded one of the first sustainability leadership programs in an undergraduate business school in the United States. He has also been a CEO and cofounder of a NYSE company and a senior executive with Nabisco and Ernst & Young.

"There are three major sets of findings from the research," Schein says, that can "benefit leaders in all types of organizations and in any type of role. First, that individuals involved in sustainability have developed several highly collaborative approaches to leadership." These approaches include "leading from the middle," "influencing without control," and "moving from fear to trust." One of the executives Schein interviewed for the book, Hewlett-Packard's Chris Librie, calls this the "Collaborator and Chief."

"Secondly," Schein says, "the sustainability leaders are motivated by their ecological worldviews, which include an enhanced capacity for systems thinking, understanding and communicating to diverse stakeholders, and thinking over longer time frames." The third finding is that the leaders "have a highly developed capacity for understanding the long-term implications for the environmental and social impacts of their global companies including their supply chains, their customers, and their employees."

Notwithstanding the views of these enlightened leaders, it is worth considering whether or not most corporations view sustainability skeptically and not take it seriously enough. Schein says that "more and more corporations every day are taking sustainability seriously and integrating it into the strategy and culture of their companies. Depending on the industry they are in and the size of their company, they are in various stages of integration."

With heightened awareness and interest from millennials, the next generation of leaders is bound to take sustainability even more seriously. Schein sits on the national board of Net Impact, a nonprofit with more than sixty thousand student members in more than three hundred university-based chapters, mostly in MBA and undergraduate business programs. "We're finding the new generation of business graduates," he says, "has a much stronger desire to align personal values with the broader social and environmental mission of companies they want to work for. This can be a crucial differentiator for companies looking to hire talented business graduates in the coming years and a big reason to take sustainability seriously."

There are further reasons to wake up to sustainability's importance. Schein says that "given the increased regulatory incentives at both the state and federal levels to reduce carbon emissions based on the new Clean Power Plan, it will be a strategic imperative for companies of all sizes to make sustainability a crucial part of their daily operations."

And he points to "new advancements in battery storage that will continue to bring down the costs for renewal energy in the very near future. This will make it less expensive and increasingly attractive to companies to accelerate their transition to renewable energy. Companies can also find new opportunities to reduce costs that range from waste reduction, alternative transportation, and new product designs that can be of interest to companies of all sizes in all industries."

It's constructive to consider how sustainability can be taught more effectively both at the graduate and undergraduate levels and in corporate learning programs. He outlines three areas as a guide to the future.

1. Environmental and social science curriculum needs to be interwoven with the business curriculum at both the undergraduate and graduate levels in all universities. In his book he gives "eight perspectives on ecological worldviews" that can provide an initial roadmap. These perspectives or worldviews are deep ecology, eco-psychology, social psychology, developmental psychology, environmental sociology, ecological economics, indigenous cultures, and integral ecology. Schein also points to the 2012 Jossey-Bass book *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence*, a collaboration between *Emotional Intelligence* author Daniel Goleman and the Center for Ecoliteracy.

2. Applied projects bring together business students, environmental students, and students from other social sciences and the humanities. The environmental and social impacts of each program should be systematically measured.

3. Schein has the intriguing idea that "wherever possible, classes and corporate training programs should be taught outdoors." He believes that if students spend more time outdoors, they will increase their understanding of and appreciation for nature. At the same time, they will find new sources of creativity and innovation, reduced stress, and increased productivity.

Finally, managers and leaders must consider sustainability not merely a buzzword that has to be managed, but an integral part of an organization. Schein says there are a "wide range of case studies about employee engagement that clearly demonstrate how integrating sustainability into the culture of a company greatly enhances its recruitment, retention, and performance of their employees. This is a competitive advantage for all companies that can add millions of dollars to their bottom line."

THE PROMISE AND POTENTIAL OF BIG DATA

The concept of Big Data is relatively new, and the term itself has been in use since only around 2010. But many executives are aware that they must understand its meaning and implication for their organizations, especially in the near future as new developments continue to unfold. It has engendered a number of books, including the recent best-sellers *Big Data: A Revolution That Will Transform How We Live, Work, and Think,* by Viktor Mayer-Schonberger and Kenneth Cukier; and *Data-ism: The Revolution Transforming Decision Making, Consumer Behavior, and Almost Everything Else*, by Steve Lohr.

The recent article "Emerging Trends and Technologies in Big Data Processing," by Rubén Casado, of the department of research and innovation, Treelogic, Asturias, Spain; and Muhammad Younas, of the department of computing and communication technologies, Oxford Brookes University, United Kingdom; in *Concurrency and Computation: Practice and Experience* (2014), provides a solid starting point and overview of the subject, through brief descriptions of the most important Big Data technology tools. An introduction such as this, which is technical yet not too technical, should be welcomed by readers who want to understand what Big Data is, why it's important, and what they need to do about it for organizational effectiveness.

Most organizations probably feel that they are already spending a considerable amount of money on all aspects of information technology. Big Data would seem to add a new layer of spending for resources and personnel, not to mention greater time expenditures. In order to have more productive discussions with their own technology people, as well as vendors, leaders should wake up to this concept's importance, according to Casado. He says that leaders should recognize this as a "new opportunity for their business. From customer