

Journal of Strategic Information Systems
Special Issue on
“The Greening of IT: Paradox or Promise?”
Guest Editors

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The emergence of Green IT as an important strategic issue has been triggered by the recognition that environmental sustainability, which was once little more than a moral incentive for companies, has now become an imperative to doing business and hence an imperative for IT. There is, thus, an increased focus on energy productivity. The fax machine is an early example in which the use of small energy - using IT equipment replaced the need for big energy - using equipment. Instead of sending a document by courier people could fax (or email) a document across the country. This reduces energy consumption by several orders of magnitude.

There is also a growing realization that IT has a much bigger role to play in improving business sustainability and identifying cost savings by enabling different ways of doing business. In such scenarios the real promise of Green IT is actually outside the IT organization and asset base as an enabler for a much broader set of green business processes in supply chain, workforce management, collaboration, and facilities management.

Research by the American Council for an Energy Efficient Economy (ACEEE) argued that the ICT systems were subject to an "energy paradox" whereby "more attention tends to be paid to the energy consuming characteristics of ICT than to the broader, economy wide, energy saving capacity that emerges through their widespread and systematic application." The research looked at data for the past 37 years on the energy intensity of the US economy - ie. how much energy is required to generate a unit of GDP - and found that improvements in energy efficiency accelerated from 1996 as internet adoption soared. While US energy intensity declined 1.8 percent per year between 1970 and 1995, it declined at 2.4 per cent between 1996 and 2006, largely as a consequence of the widespread adoption of ICT innovations.

Much has written about the information technology paradox (cf. Thatcher and Pingry, 2007) - IT was meant to be the solution to inefficiency, yet in many industries it has failed to deliver the productivity gains promised. IT has done more to shift business practices than make industry more efficient; it has changed the game rather than making it a more efficient one. Now with the emerging climate and energy crisis, IT is once again being touted as a solution: can it deliver this time?

At the organizational level, the potential business benefits that can be derived by successful "Green IT" initiatives can be seen in terms of reduced energy costs, streamlined IT processes, increased collaboration and more efficient interaction with suppliers and customers, and a more mobile, agile workforce. Demonstrating a corporate commitment to environmental awareness can also enhance brand value significantly.

Specific IT initiatives are possible in end - user working practices, energy efficient office environments, reducing back office and data centre energy consumption. Efficiencies are also being derived from a holistic view of the procurement and supply chain management process that includes material choice, acquisition, packaging, delivery and disposal. CIO's are thus in a position to play a key role in enhancing brand value, meeting compliance requirements and enhancing competitiveness. Despite the fact that Green IT now holds a significant position on

the strategic agenda of many large corporations and government agencies, relatively little has been published about either the theoretical or practical aspects of this nascent phenomenon. This is the theme and challenge of this special issue of the Journal of Strategic Information Systems. Whilst the potential contribution of IT to further environmental responsibility and organizational - level effectiveness is manifest - just as IT's potential for productivity was manifest - we are interested in actuality. We challenge researchers and practitioners to think deeply - to go beyond the obvious - which all too often turns out to be wrong to offer conceptual and practical maps for the Greening of IT.

The areas for contribution may be conceptual, theoretical, and/or empirical. Conceptual contributions may focus on the philosophical foundations of Green IT theory and research and analyses of the theoretical implications of key Green IT concepts. Theoretical contributions may, for instance, include integrative, transdisciplinary theoretical frameworks for the study of Green IT. Papers with a strong grounding in prior empirical research and/or practice are also welcome.

To focus author's potential contributions we offer two frameworks for guidance. First in terms of technology emergence: Berthon et al (2005); and second in terms of contribution specificity - Berthon et al. (2002). In the former we strongly encourage authors to think beyond the linear, normative, to consider the systemic, emergent implications of their ideas and technologies. In the latter we urge contributors to think carefully about the domain of their research contribution - and make this explicit.

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Laitner, J., and Ehrhardt - Martinez K., "Information and Communication Technologies: The Power of Productivity - How ICT Sectors are Driving Gains in Energy Productivity", Report No. E081, American Council for An Energy Efficient Economy, February 2008.

Instructions for Submission

Full papers are due by November 30th 2009, for potential publication in 2010. Authors are instructed to follow the Guide for Authors and submission guidelines for the journal at the journal's website,
<http://www.elsevier.com/locate/jsis> - choosing "Special Issue: Greening of IT" as the paper type in the online submission system.