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Energy + Information < Energy

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Panel Proposal AMCIS '09, San Francisco

Title: Energy + Information < Energy

Panel topic

There is sufficient scientific evidence to indicate that global warming is due to the rise of atmospheric CO_2 resulting from the burning of fossil fuels (Pacala & Socolow, 2004)?. This is one of several significant environmental issues facing every human. We also need to address the degradation of the oceans (The Economist, 2008)?, biodiversity loss (Díaz, Fargione, Chapin, & Tilman, 2006)? , and declining fresh water sources (United Nations, 2006)?. Asteroid strikes have previously resulted in high levels of species extension because of the abrupt climate change created by atmospheric dust (Crowley & North, 1988)?. We could potentially have the same impact as an asteroid if we don't develop sustainable practices at the individual, organizational, and societal level. We all need to adopt green practices.

Scientists and engineers are investigating several solutions to these immense problems (e.g., electric cars, solar panels). Information systems, the greatest force for productivity improvement in the last half century, must play its part in this global problem. We have changed human behavior greatly in the last few decades (e.g., consider the Web, personal computers, and cell phones), and we have the potential to support the shift to a sustainable society. As well as using information systems to improve the efficiency of energy distribution and consuming systems, we can also think of using information systems to change human behavior in a green direction. This panel examines the potential of IS to promote green practices. In particular, we want to introduce the notion that by adding information to energy distribution and consumption systems we can reduce the amount of energy that such systems need to operate. Some new initatives to improve IS management practices in this area will also be described.

The combined practitioner and academic perspectives will address the following topics during the panel.

- The difference between Green IS and Green IT
- The current state of Green IS practice
- Developing Energy Informatics as an IS subdiscipline
- The role of Green IS and Energy Informatics in the curriculum
- Research opportunities in Green IS
- Using IS to promote Green behavior

Crowley, T. J., & North, G. R. (1988). Abrupt Climate Change and Extinction Events in Earth History. Science, 240(4855), 996-1002. doi: 10.1126/science.240.4855.996.

Díaz, S., Fargione, J., Chapin, F. S., & Tilman, D. (2006). Biodiversity Loss Threatens Human Well-Being. PLoS Biology, 4(8), e277 EP -. doi: 10.1371/journal.pbio.0040277.

Pacala, S., & Socolow, R. (2004). Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies. Science , 305(5686), 968 972.

The Economist. (2008). Troubled waters: A special report on the sea. The Economist.

United Nations, W. W. A. P. (2006). Water: A Shared Responsibilty. Berghahn Books.

Panel audience

This panel should appeal to a wide audience as many IS faculty because of the heightened interest in creating a green economy resulting from the inauguration of the Obama administration. However, too few are aware of what role IS to play a role in solving environmental problems, so we should attract people willing to learn more about this important topic.

Panel format

Assuming chair and four panelists.

Introduction by the panel chair	5 min
Panelists (comments + Q&A)	50 min (10 min each)
General Discussion (Q&A)	30 min
Conclusion by chair	5 min
Total	90 min

Panelists

Richard T. Watson (panel chair)
Richard Watson is the J. Rex Fuqua Distinguished Chair for Internet Strategy and Interim Head of Management Information Systems in the Terry College of Business at the University of Georgia. He has published over 100 refereed journal articles, written books on electronic commerce and data management, and given invited presentations in more than 30 countries. He is a consulting editor for John Wiley & Sons, a former President of the Association for Information Systems, a visiting professor at the University of Agder in Norway, and co-leads the Global Text Project. His research focuses for the last two years has been on the role of IS in creating ecologically sustainable practices. With his colleagues, he has published a free electronic chapter on Green IS to encourage coverage of this topic in introductory IS classes. His

research in the Green IS area has been funded by the Advanced Practices Council of the Society of Information Management.

Jay E. Aronson
Jay E. Aronson is a professor of Management Information Systems in the Terry College of Business at The University of Georgia. He has published over 60 refereed journal articles, several professional encyclopedias, a leading book on business intelligence/decision support systems; speaks at international and national meetings; and teaches regularly in France, Colombia, and The Netherlands. His major consulting work in China consisted of developing accurate decision making models for sustainable economic growth through water resource management and development. His research incorporates knowledge management - its effectiveness for disseminating expertise in organizations.

Brian Donnellan
Brian Donnellan a member of faculty in the Cairnes Postgraduate School of Business and Public Policy in the National University of Ireland Galway. The subject of his doctoral thesis was on the topic of knowledge management systems in new product development". His teaching and research interests lie primarily in the area of innovation systems, which encompasses how information systems can be used to support innovation, new product development, and technology management. Prior to joining NUI Galway faculty he spent 20 years working in the ICT industry. While in industry he was responsible for the provision of information systems to support New Product Development. He is currently chairing an industry-based research consortium on the topic of Green IS.

Philip DesAuetls

Philip DesAutels, an Academic Evangelism Manager for Microsoft and pursuing PhD research at Bentley College. Philip holds MS and BS degrees in Industrial and Management Engineering from Rensselaer Polytechnic Institute. Philip was founder and CTO of Ereo an image retrieval search company; he has also worked as Chief Scientist for Excite@Home and was a team member of the W3C. In the Peace Corps, he served in Uzbekistan, where he lectured, establishing a micro-lending program, and installed part of the country's email infrastructure. His research interests lie in the areas of conscious capitalism and social entrepreneurship.

GreenBiz.com

We have approached San Francisco based GreenBiz.com asking for one of their analysts to join the panel. We have not had a response at this point.

Equipment needed

Overhead projector

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