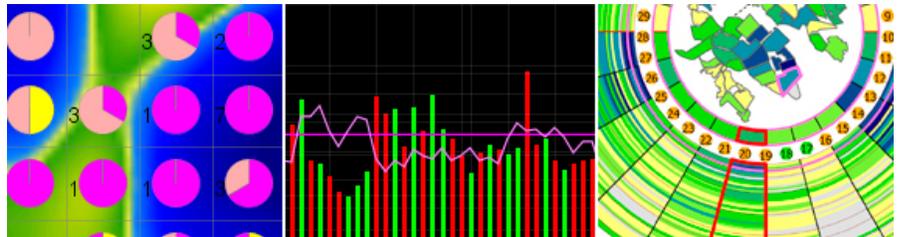


Information Visualization in Commercial Buildings: Design, Technology, and Human Behavior

New web-enabled technologies coupled with powerful information visualization methods can provide valuable insight to building occupants, managers, and designers. These tools are being widely adopted in response to aggressive new energy goals, and a broadened interest in occupant engagement. At this symposium, designers, software developers, researchers, and usability specialists will present theoretical approaches for influencing behavior change, discuss the challenges inherent in such efforts, and provide a wide range of examples and case studies.

This event was sponsored by the Center for the Built Environment (CBE), at the University of California, Berkeley, and PG&E, and took place on April 13, 2011, at the Pacific Energy Center in San Francisco.



Speaker bios

Steve Bishop, Global Sustainability Lead, IDEO

As Global Lead of sustainability at IDEO, Steve brings design thinking to the challenges and opportunities of sustainability. He helps companies build brands, generate new offerings, and shape innovation processes with positive environmental impact. His experience ranges across industries: He's helped design award-winning office furniture, instrument panels for hybrid electric vehicles, product packaging, and medical injection devices (for which he holds patents).

In 2007, Steve launched a course at Stanford University about sustainable design, and he's developing a sustainable design program for the Hasso Plattner Institute of Design at Stanford, a.k.a. the d.school. He also teaches a course on design engineering at Stanford. Steve holds a bachelor's degree in film and media from the University of Texas at Austin and a master's degree in product design from Stanford.

Barbara Ciesla, Vice President, HOK

Active in sustainable initiatives throughout her career, Barbara Ciesla leads HOK's Sustainable Consulting practice in Canada. Barbara helps clients assess and manage their environmental impacts, and in turn provides solutions that support and add value to their business goals and performance. Her work includes providing strategic direction on sustainable practices and identifying green operating solutions, which is highlighted by Barbara's leadership of the team that secured the first multi-tenant LEED® for Existing Buildings certification in Canada. Along with continuing to address the impacts of existing building stock, her current work is focused on the ongoing development and deployment of HOK's Occupant Engagement Program™. A LEED Accredited Professional,

Barbara received an Interior Design Diploma from Humber College in Toronto and is a Member of the Association of Registered Interior Designers of Ontario and the National Council for Interior Design Qualification.

Jessica Granderson, Research Scientist, Lawrence Berkeley National Laboratory

Dr. Jessica Granderson is a Post-doctoral Research Fellow in the Environmental Energy Technologies Division at the Lawrence Berkeley National Laboratory, and is a member of the Commercial Buildings and Lighting research groups. Dr. Granderson holds an AB in Mechanical Engineering from Harvard University, and a PhD in Mechanical Engineering from UC Berkeley. She has a background in intelligent lighting controls, and whole-building energy performance monitoring and diagnostics.

David Helliwell, Co-founder, Pulse Energy

David's career has spanned 3 continents and has been focused on the energy sector since 1994. Before starting Pulse Energy in 2006, David was a professional windsurfer, an exploration geophysicist, a Paris-based management consultant to large multinational organizations and spent three years as the director of policy for a cabinet minister in the Canadian federal government. While with the Canadian government, David was responsible for reducing costs and improving environmental performance of 700 million square feet of office space across the country. David is a director of the Vancouver Board of Trade, an Action Canada Fellow, a member of the BC Cleantech CEO Alliance, and is on the Imagine BC advisory board.

Speaker bios, continued

Paul Mathew, Staff Scientist, Lawrence Berkeley National Laboratory

Paul Mathew is a Staff Scientist and Deputy Leader of the Commercial Building Systems group at Lawrence Berkeley National Laboratory (LBNL), where he conducts applied research and market transformation activities on energy use in buildings. His current work is focused on energy efficiency and green design for laboratories and data centers, as well as energy benchmarking tools and techniques for commercial buildings. In addition to technical research and consulting, Paul also teaches courses on energy efficient design. Prior to joining LBNL, he worked at Enron Energy Services and the Center for Building Performance at Carnegie Mellon University. Paul has a Bachelor's degree in Architecture, and a PhD in Building Performance and Diagnostics.

Michael Murray, Founder and CEO, Lucid Design Group

Michael is Lucid's CEO and co-founder. Lucid's mission is to bring real-time environmental performance data to building occupants to engage, educate, motivate and empower resource conservation. Building Dashboard is recognized as one of the leading "dashboard" product, winning California's Flex Your Power and Adobe's MAX Award. Michael is a frequent speaker on metering and behavior-based conservation programs. His experience began at Oberlin College, installing meters and dataloggers as a student. After graduating from Oberlin in 2004, Michael served as project manager for Global Footprint Network, a nonprofit think-tank focused on the Ecological Footprint, a measure of ecosystem services and environmental impact. As an analyst, Michael expanded a comprehensive Ecological Footprint database for 150 countries. His work was widely published in reports such as WWF International's "Living Planet Report."

Kath Straub, Director, Usability.org

Kath Straub is the principal of Usability.Org, a consumer research and user-centered design organization with a focused interest in understanding human decision-making and design for behavioral change. As a behavioral psychologist, she and her colleagues work together to understand how the changing consumer communication ecosystem can be used to inform and influence the way we live, learn and make decisions. Her group is also actively involved in understanding why social games (e.g., Farmville) work, and how elements that make the games fun can be applied in serious contexts to evoke commitment and drive persistent behavioral change. Her current work is focused on adherence and compliance in the domains responsible energy use and health/wellness. She holds a PhD in Brain and Cognitive Sciences.

Saul Zambrano, Director, Integrated Demand-side Management Core Products, PG&E

Saul Zambrano is Director of Pacific PG&E's Integrated Demand-side Management Core Products team. Saul's team is responsible for developing new products within existing energy efficiency product categories such as lighting and appliances, electronics, HVAC, and energy management. In addition, Saul's team is responsible for PG&E's customer offerings in the emerging area of electric vehicles. Prior to joining PG&E, Mr. Zambrano was Director of the Global Finance Transformation Initiative for Carlson Wagonlit Travel and Director of WiMAX Solutions Commercial Marketing for Intel Corporation. Mr. Zambrano began his career as IT consultant and business development and finance professional with Nortel Networks, IBM Consulting, and JP Morgan. Mr. Zambrano received an MBA from Southern Methodist University and a BA in Economics from the University of Texas, El Paso.



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