

Happy New Year!

Editor's Note: Apologies for the delay in getting out this issue of ISIE News, but we "held the presses" for some exciting news from the Reid Lifset and the Journal of Industrial Ecology.

JIE Changes Publishers and Begins Bi-monthly Publication

Reid Lifset (reid.lifset@yale.edu)

As we open the new year, there are two important changes occurring at the Journal of Industrial Ecology, ISIE's official journal. The Journal will switch to a new publisher and increase the frequency of publication.

A New Publisher

As of January 2008, JIE has a new publisher—Wiley-Blackwell. Although the decision to move to a new publisher was a difficult one, as MIT Press had served the JIE well, the switch to Wiley-Blackwell provides significant opportunities for the journal and the IE community. The JIE will continue to be owned by Yale University and edited at the Yale School of Forestry & Environmental Studies.

Wiley-Blackwell is the 4th largest publisher of science, technology and medicine journals in the world, with more than 1250 peer-reviewed journals. The company reflects a recent merger between John Wiley & Sons and Blackwell Publishing. The JIE was attracted to Blackwell because it is known for its publication of society-based journals. The merger with Wiley provides additional clout in the marketplace for the JIE.

Wiley-Blackwell offers several advantages:


- Increased distribution to libraries. More than 2,000 libraries receive subscription "bundles" of Wiley-Blackwell journals. This will dramatically increase the JIE's reach.
- Lower costs for the ISIE. The price charged to ISIE for member subscriptions will go down ~~and remain fixed for the length of the contract.~~

- Enhanced marketing. Wiley-Blackwell has well established marketing, sales, and promotion operations making it easier for the journal and individual articles to be publicized and for subscriptions to be obtained.
- Carbon neutrality. Blackwell is, to our knowledge, the first major academic publisher in the world to be carbon neutral.
- Improved financial conditions for the editorial office. The editorial office is partly funded by Yale University, but must raise additional funds annually to maintain operations. The new publishing arrangement provides more support to the editorial office, reducing the amount needed from external sources.
- A dynamic publishing operation. Academic publishing is in an ongoing state of flux due in part to the rise of digital publishing, the growing role of citation indexing and calls for open access. Wiley-Blackwell is actively innovating in response to these changes, seeking ways to improve the quality and viability of its journals. The JIE will benefit from this innovative stance.


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Inside...

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Lifset announces special JIE issue on complexity
Wennersten and Jorge with IE in education
Student Chapter hosts 2nd successful conference



The most immediate and visible change will be a new website for the JIE as part of Blackwell's Synergy service. The new site will be live soon. The format of the journal will remain the same in short run; changes may occur over the longer run. Procedures for authors will also remain unchanged in the short run, but when the new web-based manuscript submission and peer review system begins to operate—it's currently in testing—authors and reviewers will notice significant changes in operational details, along with a faster review process. We will be keeping the ISIE members informed about these changes through ISIE News and email.



We are hoping that the transition to the new publisher will be relatively uncomplicated—Blackwell uses the same web hosting service (Atypion) and the same web-based review system (ScholarOne) and even the same typesetter as those currently used by the JIE.

More Issues

A second important change for the JIE will also occur in 2008—an increase the frequency of

publication from four times per year to six times per year (i.e., bimonthly). For the past few years, the JIE has published more pages of articles than specified under the Journal's contract with MIT Press. This meant that funds had to be raised from external sources to cover the cost of the excess pages. The growth in the number of high quality papers meant that this was not a sustainable strategy for the JIE. The change in the frequency of publication will provide a 50% increase in the number of pages that the JIE can publish. It will also speed up the time to publication.

The price of institutional subscriptions will increase to \$385 per year, keeping the JIE among the lowest cost per page among related environmental journals.

These changes are conspicuous indications of the growth of the field of industrial ecology and suggest a bright future for both the JIE and the field.



Special issue on Complexity and Industrial Ecology

The Journal invites submissions to its special issue on complexity. Researchers are encouraged to submit their work on:

Transitions to Sustainability in a Complex World

Governance of change in complex man-made systems
Complexity and Transition Management

Complex Systems Theory

Foundations of and Scope for Complexity in Industrial Ecology
Complexity, Systems Thinking, Socio-Technical Systems, Systems-of-systems
Artificial Intelligence, Multi-Agent Systems, Problem Formulation, Design of Experiments

Modeling and Simulation of Complex Systems in Industrial Ecology

Proof of Concept Models (Agent Based Models, Evolutionary Models, Hybrid Models)
Applications and Case studies

The deadline for submission is 1 February 2008

For more information, contact co-editors:

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IE in Education



The 2007 PSIE Value Chain Modelling class in the UK

PSIE Value Chain Modeling Course

Raquel Santos Jorge <raquel.s.jorge@ntnu.no>

Editor's Note: This is a student report from the Postgraduate School of Industrial Ecology (PSIE). This reviews the third of seven courses in the series. The PSIE is organized through a dozen European universities to offer postgraduates the opportunity to learn research skills and knowledge about industrial ecology. For more information, go to: <http://www.ntnu.no/indecol/studies/psie>

A week after the end of the PSIE LCA course in Prague, the Value Chain Modeling course started at the University of Surrey, in Guilford, UK. A group of 26 students worked under the supervision of the course coordinators, Lauren Basson and Roland Clift.

The course had two main parts: Part I focused on value chain analysis, including environmental systems analysis and economic value chain analysis, and Part II focused on computational social science.

The most intriguing question at the beginning of the course was how Parts I and II would be linked, so the introductory lectures by Lauren Basson provided the opportunity to understand how everything would fit together. We were introduced

to several methodologies: LCA, MFA, environmental and social analysis of value chains/industrial networks, and computational social science.

Roland Clift presented environmental system analysis and MFA further, using the UK supply chain of iron and steel, as well as aluminum, as his basis of analysis. The concept of stock was introduced. Roland also introduced the group to econometrics and the economic concept of value added. Examples included water consumption in the UK.

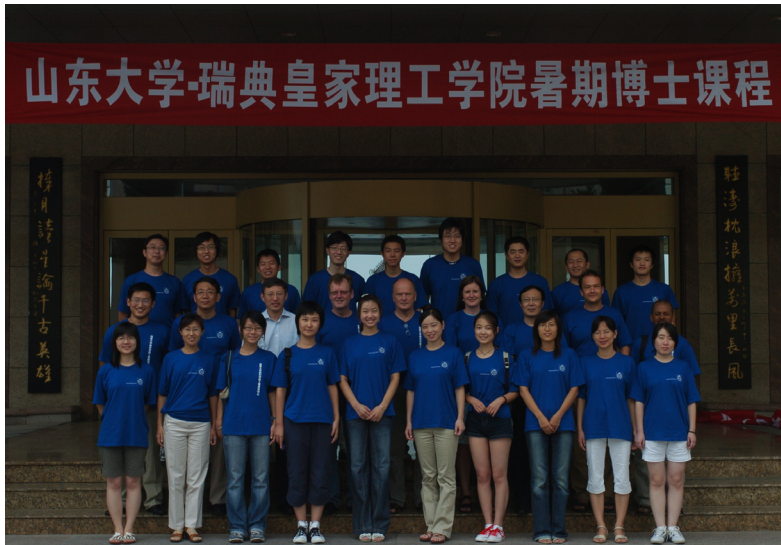
Julia Tomei, from London's Policy Studies Institute, showed how the analysis of material flows can be used to highlight their economic dimensions and identify trade-offs between environmental impacts. The analysis was based on the material flows of iron, steel and aluminum in the UK.

The concepts of value chain for company and product level analysis were presented by Sarah Sim. The several types of value chains (governance) were illustrated.

Part 2 of the course started with Nigel Gilbert's introduction to Computational Social Science. Computational methodologies were presented as well as the outcome of several simulation algorithms developed for social science analysis. Distinction between system dynamics and agent based models was made.

During the two weeks of the course, students actively participated in group work/class presentations. A final project included creating a database to be used by group members in their individual work. The aim was to identify as many relevant data sources and materials as possible.

The course ended with formal reviews and many thanks to the organizers who kept the program running smoothly!



The 2007 industrial ecology class of the Joint Research Center for Industrial Ecology.

Another Successful IE Course

Ronald Wennersten (rw@kth.se)

The Department of Industrial Ecology at the Royal Institute of Technology in Stockholm (KTH) has completed its second Ph.D. course in Weihai, China. The course was organized through the Joint Research Center for Industrial Ecology (<http://www.jrcie.org>). This center, located at Shandong University (SDU) in Jinan, China, is established as a collaborative initiative between KTH and SDU.

Like the first course, students represented different universities and they were introduced to the concepts of industrial ecology as a platform for research in sustainable development. Last year the focal topic was sustainability of the 2008 Beijing Olympic Games. This year, students had to write a report reflecting on sustainability aspects of water management in China. This exercise was used as a basis for initial discussions and feedback. The course lectures covered global perspective on sustainable development; introduction to industrial ecology; global perspective on energy; global perspective on water; water management and climate change; and sustainability assessment.

Participants then had to work in groups focusing on sustainability perspectives of water and energy supply and management in Shandong Province followed by presentations and critical discussions. The Provincial Plan for developing Shandong Province into an "Ecological Province" was used as a primary reference.

The course will be held again in August 2008. For this event we are planning to extend the course and also to introduce some computer software for industrial ecology.

Quotable

Our global future depends upon sustainable development. It depends upon our willingness and ability to dedicate our intelligence, ingenuity, and adaptability—and our energy—to our common future. This is a choice we can make.

World Commission on Environment and Development
Our Common Future, 1987

Website Reviews

Global Development Research Center— <http://www.gdrc.org/uem>

Sherri Kasten (smk@dal.ca)

The Global Development Research Center is self-identified as a "virtual NGO". The webpage investigates "urban areas as the intersection of natural, built, and socio-economic environments, creating sustainable ecosystems" and is a clearinghouse that provides an extensive overview of solutions that may be used to address urban problems. The easily accessed information is provided in fact sheets, case studies, assessment tools, reports, links to numerous organizations, and suggestions for future action. A few of the topics addressed include Multilateral Environment Agreements, Environmental Management Systems, Ecological Footprints, Disaster Mitigation, Energy Management, Environmental Education, Green Construction, Impact Assessment, and Sustainable Tourism. The webpage includes a search function and "help desk" for the Center's 15 programs. Some of the sub-pages are outdated; however, the remaining information is still useful and the main webpage was last updated in January 2007.

Life Cycle Engineering, Stuttgart University —http://www.lbgabi.uni-stuttgart.de/english/index_e.html

Sherri Kasten (smk@dal.ca)

This website provides a good background to industrial ecology. The "Solutions" link accesses fact sheets explaining many eco-industrial concepts, including Life Cycle Assessment/Engineering, Design for Environment, Environmental Management Systems, Material Flow Analysis, Sustainability Benchmarking, and Greenhouse Gas Accounting. Some of the articles are available only in HTML, as the PDF links are broken. This Department, which offers consulting services, has completed more than 150 international projects since its inception

<http://www.is4ie.org>

in 1989 in industries ranging from automotive to construction. Information about some of these projects is provided under the "Projects" and "Industries" links. A weakness of the website is that no search engine is provided. The website is available in both English and German and Department publications may be ordered, although many are available only in German. At the time of this review the link for "additional information and contact" was broken but a "flyer" is available that includes this information. The webpage was last updated in January 2007.

Zero Waste Alliance—<http://www.zerowaste.org/index.htm>

Ben Postance (BN902792@dal.ca)

Zero Waste Alliance (ZWA) is a non-profit partnership of universities, governments, and businesses working to develop, promote, and apply strategies to reduce and eliminate waste and toxics. The ZWA staff is composed of a diverse team of professionals including civil and environmental engineers and organizational administrators, and is supported by influential partner organizations such as the US Natural Step Organization. The site is well organized allowing for simple navigation and effortless comprehension. The content includes a breakdown of ZWA, the organization's structure, services, capabilities, resources, benefits, staff and members. The site also provides an overview of the zero-waste concept, an annotated bibliography and links to a variety of websites, including ZWA member's pages. Although the links are all active, the currency of the site is otherwise unclear as no dates are provided to indicate the site's origination or latest revisions. Nevertheless, the site is valuable to businesses and organizations interested in "improving profitability, competitiveness and environmental performance".

Student Chapter

IE Student Researchers Make Their Own Meeting Place

Hilary Grimes-Casey (grimeshg@umich.edu)

Sustainability, industrial ecology, and interdisciplinary research are merging themes not only in academic programs, but in business and industry. The participants in the second, student-run Potawatomi Sustainability and Industrial Ecology Conference, March 23-25 in Angola IN, explored the interconnections of these themes within their own research and education programs and future careers. A variety of conference events kept the focus on strengthening ties among the growing community of up and coming, interdisciplinary researchers invited from Carnegie Mellon University, Purdue University, The Ohio State University, Clemson University, the University of New Hampshire, and the University of Illinois-Chicago.

Participants were encouraged to share research ideas at all stages of development in the presentation sessions; the resulting peer critique and brainstorming dialogue benefited students who often feel more isolated from a research community than students pursuing traditional disciplines. The conference explored tools, methods, challenges and successes in themes such as: community knowledge-building to improve decision analysis tools applied to problems of watershed management and industrial symbiosis; life cycle tools for analyzing environmental and social tradeoffs of technologies such as bioenergy and bio-based products, vehicles, nanomaterials, and coal-based



Attendees at the 2nd Potawatomi meeting.

electricity; applications of thermodynamic analysis for gauging sustainability of electricity, renewability of resources, and environmental performance of emerging technologies; and the role of policy, industry and consumers in managing persistent pollutants in the environment.

While the audience acknowledged the benefits of hearing from their peers in an informal setting, they also gained from the 'real world' experience and business approach of the keynote speaker, Raj Reddy, Director of Global Market Development for Alcoa Wheel Products, based in Ohio. Mr. Reddy presented a history of environmental and sustainability initiatives at Alcoa, emphasizing both the efforts to address sustainability with their products in the commercial market and efforts to address sustainability within their facilities and the communities in which they are located. Mr. Reddy provided a sense of how environmental performance of manufactured products is becoming imperative for business success, even within an industry providing an intermediate component to a consumer product.

Networking at Potawatomi.



Mr. Reddy also contributed his industry experience to a panel discussion on interdisciplinary research and career development, joined by representatives in 'transition' in the academic process:

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Student Chapter continued

an interdisciplinary undergraduate considering a doctoral program, a doctoral student en route to a job interview, a post-doctoral researcher, and a first year faculty member. The academic panelists provided perspective on 'fitting in' to university departments and education models, while participants heard about the advantages an interdisciplinary model of thinking and learning can provide to industrial job applicants.

The student traditions and networks established at the Potawatomi Conference also contributed to a successful student development event at the 2007 Global Symposium on Sustainable Product Development and Life Cycling Engineering, an NSF-funded international meeting hosted by the Rochester Institute of Technology. Students

organized an 'expert panel' of industry and professional institution representatives. Students made brief research presentations that identified opportunities and barriers to industry-academia collaborations. Several Potawatomi participants attended this event, largely due to the connections fostered through Potawatomi.

The 2007 student organizing committee--Anil Baral, The Ohio State University; Brianna Dorie, Purdue University; Hatice Sengul, University of Illinois at Chicago; Shannon Rogers, University of New Hampshire; and Yi Zhang, The Ohio State University—encourage students of industrial ecology around the world to steal this concept and create their own regional academic community. A 'how-to' guide will be coming in the next issue!

Message from the President, ISIE Student Chapter

Ming Xu (Ming.Xu.3@asu.edu)

Last October, my presidency for the Student Chapter got support from eight new officers:

Junghan Bae, Communication Chair
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Abhishek Agarwal, PR Co-Chair
abhi_mgmt@hotmail.co.uk

Robert Gordon University, UK

Ramzy Kahhat, PR Co-Chair
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Arizona State University, USA

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Oregon State University, USA

Wenjie Liao, Conference Chair
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Leiden University, The Netherlands

Hatice Sengul, Fundraising Chair
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University of Illinois at Chicago, USA

Kristin Rogers, Conference Social Events Chair
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Purdue University, USA

Weiqiang Chen, Poster Competition Chair,
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Tsinghua University, China

These officers and I are going to continue the tradition of the Student Chapter, including student poster competition, social events, and a development panel in the 2008 Gordon Research Conference on Industrial Ecology. We are also working to seek and create more opportunities for student members. An online survey is ongoing to help us learn more about the Student Chapter. Moreover, the President Emeritus of the Student Chapter, Vered Doctori Blass, and Hatice Sengul are working on fundraising to support more activities for the chapter (send any suggestions to Vered at vdoctori@bren.ucsb.edu). There are also opportunities for student members to showcase your research in the quarterly ISIE newsletter. Please send any questions or submissions to Abhishek or Ramzy.

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Jobs

Research Associate, Environmental Sustainability, Civil Society and Corporate Citizenship in the Russian Federation, Aston Business School

Assistant Director, Energy Initiatives, Princeton Environmental Institute

Assistant/Associate Professor, Ecological Design and Engineering, University of Maryland

Assistant or Associate Professor, Sustainability Engineering, University of Pittsburgh

Professor, Energy and Resource Productivity, University of California Santa Barbara, Donald Bren School of Environmental Science & Management

Assistant or Associate Professor, University of Georgia

Sustainability Analyst, Concurrent Technologies Corporation

Energy/Env. Policy Research or Staff Scientist, Lawrence Berkeley National Laboratory

Postdoc in Ecodesign and Materials Technology, Norwegian University of Science and Technology

Head Department of Economics, Rensselaer Polytechnic Institute

Director of Financial Services, Director of Forests Services and Administration, and several Senior Scientist positions Center for International Forestry Research

Assistant or Associate Professor, Arizona State University

Conference/Exhibition Listings

International Symposium of the International Council on Systems Engineering
6th Biennial European Systems Engineering Conferences
19 March 2008

2008 IEEE International Symposium on Electronics and the Environment
19-21 May 2008, San Francisco, USA

Gordon Research Conference on Industrial Ecology
17-22 August, New London, USA

Interested?

Eco-Innovation Opportunity

Editor's Note: This information was drawn from the LondonAware poster

Students are invited to enter their environmentally friendly innovations into the 'Eco-Innovation Award'. This award is hosted by UK AWARE, in association with People & Planet and aims to highlight and support new talent in the field of eco-innovation and more broadly aspires to develop student's enthusiasm for greener living. There is a cash prize of 750 (British Pounds).

For more information: http://www.ukaware.com/Eco-Innovation_Poster.pdf



Are your dues due?

Check your status on the ISIE website.

Stay active!

International Society for Industrial Ecology

The International Society of Industrial Ecology (ISIE) promotes industrial ecology as a way of finding innovative solutions to complicated environmental problems and facilitates communication among scientists, engineers, policy makers, managers and others who are interested in how environmental concerns and economic activities can be better integrated.

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ISIE News Schedule

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Sep 2008 v8n3	15 Aug 2008
Dec 208 v8n4	14 Nov 2008

Send submissions to the appropriate editor.

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